DETECTION OF FINANCIAL MANIPULATIONS IN FINANCIAL STATEMENTS OF LISTED COMPANIES OF PAKISTAN, USING M-SCORE MODEL

Dissertation Manuscript

Submitted to Unicaf University in Zambia
in partial fulfillment of the requirements
for the degree of

Doctor of Philosophy (PhD)

By Muhammad Zahid Mahmood

May 2026

Approval of the Thesis

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Doctor of Philosophy (PhD)

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Abstract

DETECTION OF FINANCIAL MANIPULATIONS IN FINANCIAL STATEMENTS OF LISTED COMPANIES OF PAKISTAN, USING M-SCORE MODEL

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Financial manipulation is one of the most important issues related to financial statements, which has been well-documented in accounting theories as well as in practice for long periods. Therefore, the primary objective of this thesis is to identify the probability of financial manipulations in the financial statements of the textile companies, listed on Pakistan Stock Exchange (PSE), with the help of Beneish M-Score Model. The application of this model is new in Pakistan, which has given the motivation to use it and identify the probability of financial manipulations in Pakistani textile listed companies. The thesis has made efficient use of Earnings Management, Prudence and Matching Principles theories. The results extracted, with the use of M-score, are in line with the research objectives and reflect efficient identification of probability of financial manipulations in the textile companies, listed on Pakistan Stock Exchange (PSE). The results show a successful split between the companies having high or low probability of financial manipulation. The thesis is limited to textile listed companies only, whereas private textile companies have not been considered. Nevertheless, practical contribution of M-score can play a significant role in stock markets to boost investors' confidence on financial information, in credit institutions for credit risk assessment, in corporate sectors for solidifying internal controls and in audit firms to strengthen financial and forensic audits. Last but not the least, it is recommended that future researchers do the in-depth analysis of listed companies of Pakistan by taking financial information of last three to five years to see pattern.

Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgment, the work presented is entirely my own.

AI Acknowledgment

I acknowledge that I have not used any AI tools to create, proofread or produce any text or ideas related to any draft or final versions of the thesis.

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Dedication

I am dedicating this thesis to my beloved parents who not only provided me with moral and financial care but also stood next to me in every thick and thin part of my life. Whoever and whatever I am today is merely because of their untiring efforts.

Acknowledgments

There is no research funding, grants, or permission to reprint copyrighted materials that must be acknowledged here.

Nevertheless, I deeply pay high tribute to my mentor and supervisor who guided me throughout the thesis and helped me with every issue I faced while writing my thesis. It is because of his exceptional cooperation that I can manage to write my thesis on time.

Table of Contents

LIST OF ABBREVIATIONS

ACFE	Association of Certified Fraud Examiners
AQI	Asset Quality Ratio
CEO	Chief Executive Officer
DEPI	Depreciation Ratio
DSRI	Days Sales Receivables Ratio
FIA	Federal Investigation Authority
GAAP	Generally Accepted Accounting Principles
GMI	Gross Margin Ratio
IFRS	International Financial Reporting Standard
ISA	International Standards of Auditing
LVGI	Leverage Ratio
PWC	Price Water and Coopers
SBU	State Bank of Pakistan
SECP	Securities and Exchange Commission of Pakistan
SGAI	Sales, Growth & Administrative Ratio
SGI	Sales Growth Ratio
SOP	Standard Operating Procedures
TATA	Total Accruals to Total Assets Ratio

LIST OF TABLES

LIST OF GRAPHS / FIGURES

1. CHAPTER 1: INTRODUCTION

1.1. Introduction and Background

Financial manipulation means “when a person, having interest in the company, purposely misstates the financial figures, then it is said that the person has committed the financial manipulation in the books of accounts of that company (Faisal et al., 2024). Kranacher and Riley (2019) further explained that the accumulation of these financial manipulations, if not detected and corrected, will result into the financial fraud”. It will be because material misappropriations are part of the financial statements.

Albrecht et al. (2008, p.5) came out with the statement that it is the subject of financial manipulations that has got the hype and at the same time the attention of several “professional bodies over a decade. ACFE (2014), an association of certified fraud examiners, concluded out of its research that there were different categories of financial fraud. Among these various categories, financial manipulations, assets misappropriation and corruption are the three most dominant categories. Going further, the ACFE also gave ratings to these three dominant types of financial frauds. These rankings were based on how frequently these financial frauds are incurred and magnitude of these frauds on the smooth running of the relevant businesses. While rating, financial manipulations got the 1st, assets misappropriation 2nd and the corruption 3rd position. The association elaborated that almost 75% financial frauds are directly proportional to 1st category”, financial manipulations.

Popa and Popa (2025) stated that “there are several occasions where financial manipulations have ended up in a financial fraud. The history of the financial scams clearly depicts how the skyrocketing and the market leading companies of their times ruined and could not even able to run the business when the financial manipulations went undetected. It is the intensity and the magnitude if financial manipulation that could not let these companies stand up again and compete with the world. Kranacher and Riley (2019) said that history is full of such cases. The most significant and known to the entire world include the financial scam of Enron cooperation and WorldCom. These both were American companies where the financial manipulations were not detected and companies went bust. Due to the intensity of the financial manipulations, these companies had to shut down their business operations". As a result, the companies had to declare compulsory winding up.

History of International Financial Frauds and Their Impact

The famous scandal of Enron caught the attention of media channels in early 90s, when it was found out that the books of accounts of Enron included financial misstatement. "The entire world was taken a back because the company had been the profit earner and its shareholders were getting hefty amount of rewards in the form of dividends and capital appreciation, increase in the market value of the shares. The company was a market leader in energy sector and ranked seventh in the top ten companies of USA, before financial scam came into light and it declared the bankruptcy" (MacCarthy, 2017).

Dibra (2016) "disclosed the facts that at time of Enron fraud detection, the company had to shut its operations immediately because financial manipulations were material and the stakeholders had to absorb the loss of this abrupt shut down which cost them almost $74 billion at that time. The aftereffects of this closure deprived hundreds of employees of their jobs and their pension money which worthed millions. Enron corporation scandal is remembered as the biggest scandal of all times" because in the financial world it was considered as the first financial scandal that shook the entire world.

Vinten et al. (2005) brought to light the scandal of another famous US company which was named Waste Management Limited. It was another American scandal. “The company was identified materially manipulating its books of accounts and the financial statements for almost half of a decade, between the years 1992 to 1997. The CEO was the whistle blower in 1997 who identified financial manipulations. The identified financial manipulations, in 1997, were almost $1.7 billion. This news had a bad impact on the goodwill of the company, and the investors lost their trust. As a result, the investors pulled their money out and the company declared bankruptcy” because the company had to face cash constraints and resultantly went for the inevitable winding up.

The financial scandal of ZZZ Best Cleaners Ltd, explained by Waddell et al. (2017), proved to be another shocker for the world. It was again an American company. “Due to mounting pressure of the stockholders, the company created a bubble in the listed stock market by inflating the value of its issued shares to $200 million, whereas, the actual market value of all the issued shares, as per the net assets of the company, was barely $100,000. When the scam raised on the surface, the financial investors withdrew all the investment in that company”. As a result of the cashflow shortages and difficulty maintaining the running capital, the company went into liquidation.

It seems like financial scandals have never ending list. Sadka (2006) came out and highlighted few further financial scams that could not be ignored. One of them is related to “The Great Insider Trading Scam of 1996. The study of this financial scam shows that a few investors earned a huge amount of profit overnight for an amount of almost $200 million due to insider trading. The internal management of some blue-chip companies leaked secret information about mergers and acquisitions to these investors, and they took advantage of this undisclosed information. There are some more financial scandals including Madoff Pyramid

Scandal of 2008 and The Savings and Loan Scandal of 1989 which had a bad impact on the overall stock market, economy”, including the attractive investors and concerned non-banking financial institutions (Ashraf, 2011).

1.2. Statement of the Problem

The involvement of the risk related to the financial manipulations, which may lead to financial fraud, in the accounts, also termed as financial statements, of the companies that are quoted on stock exchanges of Pakistan is the primary problem of this research study, which is further extended to “its impact on the true and fair presentation of the financial figures of these listed companies’ financial statements, if financial manipulations go undetected. The un-identification of the financial manipulations can accumulate into financial fraud and misrepresentation of financial figures can be one of the significant factors to ruin the investment of the potential investors, losing their trust for future investments and damaging the smooth running of the economy of Pakistan, in a broader picture. The detection of these financial manipulations, in any listed company, is directly related to the amount of investors’ investment and their interest in that particular company because investors are the shareholders of a publicly owned company”, and it is not those charged with governance which are involved in the running of the company (Al-Hashedi & Magalingam, 2021).

Textile Contribution in Pakistan’s Economy and Recent Financial Frauds

Pakistan is an agricultural country and “main source of its income comes from Agricultural Sector, which is also the biggest sector. This sector has further been categories into sub-sectors which include Crops, Livestock, Textile, Fishing and Forestry. According to recent analysis in 2024, textile is backbone of Pakistan’s agricultural economy among these sub-sectors. In agriculture, it is the biggest sector, playing a significant role in the economic cycle of Pakistan by contributing almost 42% of the total agricultural income. The textile industry plays a significant role in overall Pakistan's economy as well, contributing over 60% to the country's exports and 8.5% to its GDP. Business Recorder (2025), which is one of the leading newspapers of Pakistan, published an article about the big financial frauds in textile sector of Pakistan. According to the article huge financial frauds have been identified in textile sector of Pakistan, including tax evasion of Rs. 5.4 billion (US $19.21m) in the year 2025 and revenue manipulation of Rs. 54.57m (US $190K) in the year 2024. These have impacted Pakistan’s economy severely. “If financial fraud keeps on happening without any proper controls to detect them before they are committed, Pakistan’s agricultural sector (main source of income) can suffer significant deterioration, which can ultimately result into factors like nation’s inflation, unemployment, more imports”.

Maqsood et al., (2020, p.436) dragged the attention towards the financial sector and market related to Pakistan. As per him, the market of Pakistan was “quite volatile and there were sudden ups and downs. Under such conditions, it was beneficial to use the M-score and its eight powerful accounting ratios on the Pakistani listed companies to identify and detect the extent of financial manipulations which could lead to a big financial fraud. The above provides an encouragement to apply the M-score on the Pakistani listed companies and detect whether these companies are free from financial manipulations or not”. This has also been the basic purpose of this research study to apply the M-Score on the listed companies of Pakistan to identify the probability of financial manipulations.

1.3. Purpose of Study

Quinlan et al. (2019, p.184) illustrated that for any research “the purpose of research depicts what a researcher exactly supposes to accomplish out of the research study. Edwards et al. (2014, p.54) simplified the word purpose of research by making it more concise and concrete” and said that “it is a single line aim of the investigator”.

The purpose of this research study is the identification of the likelihood of financial manipulations in the financial statements of the textile listed companies of Pakistan Stock Exchange, with the application of M-score model. The purpose includes application of the eight accounting ratios of M-score on the financial information of these textile companies to determine whether these companies can be considered as financial manipulators or not. The purpose is further extended to split the textile listed companies based on their high or low probability of committing financial manipulations in their financial statements which can lead to financial fraud.

Since stock markets and listed companies play an important role in the smooth running of any economy, therefore the focus of this research study will be on detecting the early indication whether these listed companies have either the high or low likelihood of manipulating the financial information in their financial statements. Since, the basic purpose of this research study is to determine the number of companies which are on the verge of committing financial manipulations, therefore, the nature of this research study will be quantitative, rather than qualitative. One of the most important aspects of this research study is the collection of financial information and its source. To be sure that financial information of these listed companies is authentic, data will be taken from the audited financial statements of these listed companies. The method of data collection is secondary.

1.4. Research Objectives

Wang et al. (2009) said that objectives of a research need to be attainable and concrete. Ogbeiwi (2017, p.327) further illustrated that measurability, result orientation and specification are the core characteristics of the objectives.

Followings are the objectives of this research thesis, explained below:

i. “To identify the extent up to which financial manipulations, in the listed companies of Pakistan, can detected with the help of M-score”.

The issue of financial manipulations “has become a serious issue, not only across the world but also in Pakistan. The fluctuating economy of Pakistan, in the past few years, has been impacting the smooth running of the business operations of the listed companies. Moreover, the demands of the stakeholders are also a big issue for the internal management of these listed companies to deliver them the maximum profit in the form of dividend”.

ii. “To identify efficiency of eight accounting ratios of M-score in evaluating the probability of financial manipulations in the listed companies of Pakistan”.

The goal is to get the reasonable assurance that “the financial statements of these listed companies are free from the material misstatements. In general, every company does the classification and posting errors which are adjusted at the time of audit and due diligence. So, the objective is to ensure that these errors have been adjusted to present the true and fair view of the financial information in the financial statements”. The sub-objective also includes the insurance that unadjusted rectifications are below performance materiality level.

iii. “To differentiate financial manipulator companies from the those which have not manipulated their financial information”.

This objective will simply split the financially manipulated companies from those who are not manipulators and have been keeping their books of accounts as per the requirements of the international financial reporting standards without any window dressing.

iv. “To identify whether the likelihood of financial manipulations is high or low in the companies, listed on Pakistan stock exchange”.

This objective of identifying the probability is termed as the “key factor because it will enlighten whether the companies have committed high financial manipulations or not. If the result of a company, after using the M-score, is quite negative, it will give an indication that there is a high probability that the relevant company has materially misstated its financial statements. Therefore, the objective is to highlight these companies with the high probability of committing financial manipulations”.

1.5. Nature of Study

It includes methodology of this research, contributors, different sources where data has been collected and procedures applied for the analysis of data.

Research Methodology

Cunningham (2014) came out with a statement and elaborated that “methodology of the research provides practical shape to its objectives. Bryman (2016), Jamshed (2014) and Wallima (2010) elaborated that the research has either qualitative or quantitative methodology. They further mentioned that exploration, interpretivism and constructive ontologism are the basic constituents of a qualitative approach. Duggan (2015, p.37) and Kharbach (2020, p.85) explained the characteristics of quantitative approach. According to them quantitative methodology is all about numbers and does not include observations. In such types of research, the researcher focuses on ontological paradigms rather than constructionism. Quantitative research does not try to find the answer to why questions as it explains a phenomenon. Therefore, the findings of quantitative research are often used by qualitative researchers to use them as a foundation stone. The methodology of this research study will be quantitative because of the following facts. One, it will explain a phenomenon whether the financial statements are free from financial manipulation or not. Second, as per Bryman (2016), the characteristic of quantitative research is to examine a model, theory or a philosophy. In addition to that, interpretation of the findings is measurable", as the findings provide the results which are not qualitative, but quantitative.

Contributors / Participants

Based on the nature and objective of this research study, there is no involvement of any physical person in this research study. As a result, "listed companies of Pakistan are the contributors of this quantitative research study because financial statements will be required of these listed companies".

Data Collection Sources

Thomas and Hodges (2010) explained the meaning of data collection sources and "said that the initial data for any research is collected through the research methods. Therefore, selection of correct research methods becomes highly important because if the wrong methods are selected, the collected data will not lead the researcher to the required output and ultimately, researcher will fail to achieve its research aims and objectives. According to them, the next step is the identification of the accurate data analytical tool so that sampled data can be interpreted in a meaningful way", The benefit of this is reflected in a way that it becomes demonstrative to the involved population.

The first and foremost goal of this research study is the "the collection of the reliable financial data of the listed companies of Pakistan. The most authentic source of collection of financial information of these listed companies is the audited financial statements, signed by the statutory auditors". The collection of these signed and audited financial statements will be made with the use of following, explained below, authentic sources:

Stock Exchanges of Pakistan

Based on the two laws and regulations, currently enforced in Pakistan, "the Companies Ordinance, 1984 (revised 2010) of Pakistan and listing of companies and securities regulations 1988 (last updated 2021), all the listed companies of Pakistan are required to make the audited financial statements available to all the stock exchanges of Pakistan for use of public. Moreover, the ordinance states that there is no restriction on the public to access these audited financial statements, but everyone can obtain one copy at a time". The public access to the financial statements has made this research study possible. Although it is not an easy task to collect the financial statements, but to ensure the authenticity, this source becomes mandatory.

Official Websites of Listed Companies

The current world is called digital world because everything is becoming paperless and "as the entire business world is in the transitional form of converting from the manual way of doing business into digital way, the companies and business laws have also changed accordingly to cope with the new ways of doing digital businesses. Similarly, listing regulations of the Pakistani companies 1988, also took a big step in 2014 and made an additional requirement for these listed companies. As per the regulations, all the listed companies were, in addition to make the audited financial statements available on all stock exchanges of Pakistan, required to upload the audited financial statements for 2014 and onward on their official websites for free and unrestrictive access of public". The government of Pakistan has taken this remarkable step for ease of potential investors and other readers of the financial statements, including shareholders.

Data Analysis

It has been clearly indicated earlier that "this research study is quantitative. So, data in bulk will be gathered from the audited financial statements. This collected data will then need accurate and right interpretation. This error free translation will be performed by the M-score and its eight powerful accounting ratios which have specifically been designed by the professor at Indiana university, Messod Beneish in 1999". The mathematical equation, related to M-score and its fraud indicating accounting ratios, produced by him, is explained below

<u>M-score Formula</u>

M-Score = Intercept + Sum (Weights * Variables)

M-score = -4.840 + (0.920 x DSRI + 0.528 x GMI + 0.404 x AQ + 0.892 x SGI + 0.115 x DEPI - 0.172 x SGAI - 0.327 x LVGI + 4.697 x TATA

Where:

Intercept = -4.840. It is constant and does not change.

Weight = Each weight of every accounting ratio is also consistent and does not change at the time of interpretation of financial information of the companies.

Variables = Variables stand as:

DSRI = Days Sales Receivables Ratio

GMI = Gross Profit Margin Ratio

AQI = Asset Quality Ratio

SGI = Sales Growth Ratio

DEPI = Depreciation Ratio

SGAI = Sales, General and Administrative Expenses Ratio

LVGI = Leverage Ratio

TATA = Total Accruals to Total Assets Ratio

<u>Benchmarking and Final Result</u>

Professor Beneish set a benchmark. As per him, it was -2.22. He further said that "the setting of benchmark of -2.22 is for the comparison and interpretation purposes. This benchmark works for all the listed companies, irrespective of the sector and industry of a listed company. The results extracted from the M-score formula are compared with this benchmark and conclusion is made whether a company has the high probability of committing financial manipulations in the financial statements and vice versa”. This has been applied by several researchers in their research and they have identified that this benchmark is acceptable and can identify the probability of financial manipulations.

1.6. Significance of Study

False presentation in books of accounts and development of controls and procedures for its prevention has now become a worldwide matter as it directly impacts a nation’s highly respected and valued asset, which is investor. For instance, valuable stakeholders have the capacity to disrupt any economic society by taking off their hefty portion of investments, if they no longer rely on the financial market of such economy. Such types of unexpected withdrawals always result in drastic fluctuations in the share prices, significant moves in the indices at the stock exchanges, high concerns for the management of large organizations and vision about the dissemination of profits of the listed companies which are given to the stakeholders in the form of dividend. Consequently, the economic cycle of any country gets disturbed and may lose its balance.

The past has evident that manipulation of financial information was never immaterial as the losses were recorded in millions or even in billions. Enron case is one of the examples. Such losses directly affect the external stakeholders, for example banks, leasing companies and other non-banking financial institutions (NBFCs), as these institutions are in direct contact with the large organizations because these business tycoons obtain substantial amounts of long-term loans and short-term running finances from these financial sectors to meet their running expenses and for capital investment. As a result, large organizations owe hefty amounts to these institutions, and the institutions expect a decent amount of profit (interest) in return.

Conversely, sometimes the organizations manipulate the financial data to show losses so that they can defer the burden of payment interest and repayment of principal amount of loans to the banks.

Such financial manipulations not only disrupt the financial institutions but also the stakeholders associated with the companies. Examples include workforce (employees), vendors and customers. Moreover, the losses also impact the goodwill of an organization, and such companies face problems of raising loans from the banks because the banks levy strict conditions and high interest rates for the loans as they have the fear of losing their money.

In any economy, the incumbent government is also connected directly with all the companies. These organizations, large or small, have the obligation to pay taxes to the prevailing government in the form of custom duties, excise duties, sales tax and income tax. One of the fundamental objectives of earnings management and false representation of financial information is to avoid these taxes by reflecting the loss in the financial statements.

Concealment of taxes, avoidance to repay the loan and pay the interest on such loans have a straight impact on any society because the government feels hesitant to spend freely for the welfare and goodwill of the society because of the lack of money. This deprives society of its basic needs and necessities as the government’s treasury becomes an empty box.

1.7. Research Questions

Grove et al. (2012) elaborated that research question should be clear and easily understandable. The clarity of research questions enables a researcher to carry on its research smoothly. The researchers further stated that the research question is always important in any research because it guides the researcher how to conduct it and what are ways to objectively finish research.

The research questions are derived from the research objectives, and they are in line with the research objectives, which are:

i. “What is the extent up to which financial manipulations, in the listed companies of Pakistan, can be detected with the help of M-score?”.

ii. “What is the efficiency of eight accounting ratios of M-score in identifying the probability of financial manipulations in the listed companies of Pakistan?”.

iii. “Will M-score differentiate financial manipulator companies from the those which have not manipulated their financial information?”.

iv. “Will M-Score identify whether the likelihood of financial manipulations is high or low in the companies, listed on Pakistan stock exchange?”.

1.8. Hypothesis Development

Asif et al. (2020, p.65) elaborated that the development of research hypothesis is the basic and primary necessity of any research study. It is the possible answer to the research questions and the reflection of the research objectives. Astle and Fletcher (2020, p.433) supported Asif et al. and explained further that null & alternative, directional & non-directional and inductive & deductive are few categories of the research hypothesis and researchers choose any one of them depending on the nature, objective and methodology of their research study. Alam (2020) stated that when researchers develop null and alternative hypothesis, the objective is always to reject the null hypothesis and accept the alternative one so that the researcher can further carry on its research study.

Tenaw and Beyene (2021, p. 143) came with their own statement of hypothesis and said that hypothesis centers the research objective of the researcher and acts as a predictor of what research is intending to achieve. Hypothesis is the possible answer to identified research questions in any research study. Rahim et al., (2021) explained that although development of research hypothesis is a tentative solution, yet it cannot be considered as a speculation because hypothesis always has some background for its development which has not been tested. So, it must have both possibilities of acceptance or rejection by applying different scientific methods of research like observations, experiments or arithmetical data analysis.

Ahmad et al., (2021, p. 285) described the variables of hypothesis. As per them, the process of development of hypothesis involves the association of independent and dependent variables. Dependent variable always depends on the movement of independent variable. Nevertheless, the independent variables can be changed and modified to see their impact on the dependent variable and results can be extracted accordingly. Dependent variable cannot be amended. It just can be measured or observed.

By this research, an observation will be made to evaluate that the financial information extracted, by using eights variables of M-Score, provides an early indication about the possibility of financial manipulations in the financial statements of the listed companies of Pakistan, which may lead to financial fraud.

Following are the possible hypotheses of this research study:

H1: “M-score has the strong probability of detecting financial manipulations in financial statements of listed companies of Pakistan”.

H2: “Eight fraud indicators of M-score have excellent strength of evaluating financial manipulations in the listed companies of Pakistan”.

H3: “M-score and its eight accounting ratios will successfully differentiate between financially manipulated and non-manipulated companies, listed on Pakistan stock exchange”.

H4: “M-score will detect companies with high likelihood of committing financial fraud and separate them from the companies which have low possibility”.

The hypotheses have been developed in such a way to keep them in line with the research questions and objectives, which seek to identify the intensity of the financial manipulations in the financial statements of the listed companies of Pakistan.

By looking at the above hypothesis, it can be considered that “the above hypotheses state that there is ultimately an association between M-score and financial manipulations. So, considering these hypotheses stand true, it means that M-score will be able to determine the financial manipulations in the listed companies of Pakistan and these financial manipulations will be detected and highlighted in this research study. The eight accounting ratios, which are independent variables in this research study, will produce effective results and when these results will be input in the M-score formula, to identify whether a company has the high probability of committing financial manipulations which can ultimately lead to financial fraud, the final M-score value will be comparable with the benchmark of M-score and resultantly efficient results will be produced”.

2. CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

Undoubtedly, research problem and literature are interconnected because “literature review holds a crucial position in the overall development of the research problem and its objectives. Broadly speaking, literature review can greatly influence the depth of comprehension and the formulation of research inquiries. Moreover, it contributes to achieving the most accurate and robust research outcomes. Primarily, the literature review aids in connecting the research issue with the specific body of knowledge within the field of interest (Doka & Dhamo, 2025). As a result, one can gain a clearer perspective on the research questions and objectives; and provide a theoretical basis for the studies. Additionally, the empirical review establishes a connection between past methodologies and research in relation to the current study (Kayikci et al., 2022). In simpler terms, this makes it easier to choose the most suitable methods, ultimately leading to the attainment of valid and current research outcomes. Moreover, the empirical literature review enhances understanding of the research subject within the field and acquaints researchers with the latest work by other scholars and academics (Al-Hashedi & Magalingam, 2021)”. To make things simple and easy, it can be said that in any research process, significance of empirical literature review is always paramount.

Financial Manipulation and Fraud

The studies and the past results show that “deliberate acts are always involved in cases of financial manipulations, earnings management, and financial fraud when they are carried out by individuals such as the chief financial officer, finance manager, or any other employee with substantial influence over financial decisions within a company (Doka & Dhamo, 2025). Furthermore, Asilaza (2026) came out with the statement and argued that the Association of Certified Fraud Examiners stated that individuals responsible for governance are typically the ones engaging in financial manipulations, and these actions are intentional since these key decision-makers consistently possess the access and authority to adjust financial data to meet stakeholders' expectations”. The risk of management bias is therefore high and can result in financial manipulation, which may ultimately lead to financial fraud.

The statement of financial performance, along with the statement of financial position “of a company serve as indicators of its financial growth and advancement (Syukri et al., 2024). Furthermore, there are various accounting ratios, such as the interest earned ratio, dividend yield ratio, earnings per share ratio, gross margin ratio, and others, which also serve as reflections of a company's financial performance (Suherlan, 2024). In any stock exchange, companies with a track record of paying substantial dividends while maintaining or increasing the market value of their shares are particularly appealing to potential investors”. Maximization of profits and wealth growth through market price strategies is the first and foremost priority of these stakeholders (Serpeninova et al., 2024).

It is important to scrutinize the financial performance of a company. Therefore, “to oversee a company's financial performance and ensure the consistent presentation of accurate and truthful financial information, international accounting bodies, working in collaboration, have formulated the International Financial Reporting Standards (IFRSs) and International Standards of Auditing (Serpeninova et al., 2024). Despite their rigorous controls over financial data presentation, these financial reporting standards have inherent limitations, given that they are created by humans and allow accountants to exercise their professional judgment and make estimations in certain situations (Rykaczewski et al., 2022). Consequently, these limitations and the latitude to use professional judgment and estimations create opportunities for accountants and financial statement preparers to exploit these gaps and manipulate financial information to present a distorted image of financial statements in accordance with stakeholder expectations (Weygandt et al. 2025)”. The stakeholders get the maximum rewards due to this management bias which has been proved to be one of the biggest risks in the financial manipulations.

The researcher, Miharsi et al., (2024) was also unable to deny these “these inherent limitations and the potential for financial manipulation. Taking a step further, he conducted an examination of industry norms in both privately owned and state-owned companies. He contended that companies of these two categories, private and public, always had the opportunity to manipulate their financial records to present financial statements that would appease their stakeholders (Miharsi et al., 2024). Historical evidence demonstrated that publicly owned manufacturing companies had a greater history of financial fraud and were more deeply involved in practices like earnings management and financial misrepresentations, in comparison to publicly owned service companies (Ramadhani et al., 2025). These inherent limitations and the probability of financial manipulation were also identified by other researchers as well. One of the researchers went one step ahead and studied the industry norms of private as well as state-owned companies. He argued that these two types of companies, private and public, always had the chance to alter the books of accounts to present the financial statements in such a way to keep the stakeholders happy (Miharsi et al., 2024). The history showed that the public sector manufacturing companies had made more financial frauds and were deeply involved in earnings management and financial misstatements, as compared to the private sector service companies (Ramadhani et al., 2025)”, since private companies are run by the people who are the shareholders of these companies.

Why Do Companies Manipulate Their Financial Statements?

Ozkale and Ozdemir (2022, p.1984) came out with a statement and elaborated “the possible causes for financial manipulations and said that well-compensated corporate executives overseeing large companies might be enticed to engage in financial manipulation for a variety of possible motives”. These motives and reasons are explained below:

i. Experiencing Significant Pressure to Portray a Favorable Image.

The listed companies are publicly owned companies, therefore, "executives of publicly traded companies might succumb to the immense pressure they face; driven by substantial compensation packages and the expectation that they will guide their companies toward continuous growth and profitability in an increasingly competitive business environment (Ramadhani et al., 2025)". This is one of the biggest factors that may give rise to financial manipulation.

ii. Managing or Moderating Investors' Anticipations

Money is needed by every company to manage its running capital. "Manipulation could manifest as something as relatively harmless as preventing investors from forming impractical expectations. Consider a scenario where the company experiences an unusually successful year due to various fortunate factors (Miharsi et al., 2024). In such a situation, an executive might be concerned that investors will anticipate consistently outstanding performance in the future. Consequently, the executive might adjust accounting records to make that exceptional year appear less remarkable". Investors' opinion impacts the company and therefore financial manipulation is expected by the management to keep the investors happy.

iii. Initiating Executive Incentives.

Most of the financial statements are window-dressed to reflect a better picture of profit. "A prevalent reason for financial statement manipulation is to achieve sales or revenue targets that activate substantial bonuses for top-level management. The design of these incentive-based bonuses has frequently faced criticism, as it essentially encourages executives to engage in unethical practices (Ozkale & Ozdemir, 2022)". As a result, financial statements are manipulated by the executives.

Financial Manipulation Types
These are types, explained below:

i. Earnings Management

As the name illustrates, the earnings management "refers to the alteration of financial outcomes through managerial actions or transactions within the financial reporting process, with the intention of deceiving certain parties about the company's economic performance or influencing specific contractual outcomes related to publicly declared profits (Doka & Dhamo, 2025). In simpler terms, it involves intentionally providing inaccurate or incomplete accounting information or significant circumstances that could impact or influence the decisions and perceptions of investors or relevant stakeholders (Suherlan, 2024)". Earning managements are one of the sources of financial manipulation and are conducted by those charged with governance as they have power to do so.

ii. Smoothing Income

It is another through financial statements are manipulated. Smoothing income "involves altering the profit through different accounting methods and choices related to company operations to give the appearance of a consistent and low-risk profit trend. As a result, individuals or entities relying on financial information about a company's financial performance can be deceived (Al-Hashedi & Magalingam, 2021). Profit stabilization practices aim to maintain a steady profit level, which could be in terms of net profit, net operating profit, pre-tax profit, earnings per share, or dividend per share (Serpeninova et al., 2024)". In this the executives of the company try to keep the stakeholders happy.

iii. Innovative Accounting Techniques

This technique is complex and requires expert knowledge because "it encompasses all methods of manipulating financial information, including profit manipulation, profit stabilization, aggressive accounting practices, and deceptive financial reporting (Ramadhani et al., 2025). In essence, there is no universally agreed-upon definition or specific content for creative accounting practices; instead, it represents a combination of various approaches to manipulate financial statements. Nevertheless, creative accounting practices typically revolve around the classification of items within financial statements such as the balance sheet, income statement, and cash flow statement (Miharsi et al., 2024). Some examples of procedures and practices often cited as instances of creative accounting practices include generating fabricated revenue or recording income without proper accruals, utilizing an assertive approach to capitalize interest costs or prolong the depreciation period, misleading presentation of assets and liabilities and altering the categorization of items in the income statement through actions such as portraying extraordinary income as regular operating income and representing regular operating expenses as extraordinary expenditures. To depict cash generated from investments or other sources as cash generated from operational activities in the cash flow statement, to convey impression of company having strong cash generation capability". These accounting practices are also seen in the listed financial statements.

2.2. Theoretical/Conceptual Framework

It includes these theories:

2.2.1. Earnings Management Theory

The rationale of the earning management theory is not different from "financial manipulations as states that window dressing in the financial statements is an art to manipulate the financial earnings figures in such a way to keep the shareholders happy and market price of shares of the company attractive for the potential investors. Analysts, investors, senior executives, and boards of director regard earnings as the primary focal point within the financial reports of publicly traded companies (Akra et al., 2020). Over medium to long timeframes spanning from 1 to 10 years, the substantial determinant of equity returns seems to be the cumulative earnings generated by the company during that period. Other potential factors like dividends, cash flows, or capital investments show minimal correlations, nearly approaching zero (Doka & Dhamo, 2025)". Earnings management plays a vital character for long as well as short-term profits, irrespective of the size of the returns.

The earnings management theory further illustrates that "the decisions and compensation benefits for a firm's senior executives are contingent on the earnings achieved during their tenure (Weygandt et al., 2025). However, these executives possess significant discretion in determining the earnings figures reported for a specific period in the financial statements. Within the framework of generally accepted accounting principles (GAAP), executives enjoy substantial flexibility in choosing inventory methods, accounting for bad debts, expensing research and development, recognizing sales not yet shipped, estimating pension obligations, capitalizing leases and marketing expenses, deferring expenses, and even manipulating revenues through actions like price reductions to financially manipulate the figures in the financial statements of the companies (Al-khateeb et al., 2022). Consequently, executives are both motivated and capable of actively managing earnings. Therefore, it is unsurprising that the mainstream media often characterizes companies as involved in earnings management, sometimes referred to as manipulation". Executives of public companies try to keep the stakeholders happy, and it results in earnings management.

The further detailed study of the theory reveals that "the theory examines the practice of earnings management in response to both implicit and explicit incentives associated with achieving earnings levels, such as positive earnings, improvements over the previous year, or meeting the market's consensus forecast (Ramadhani et al., 2025). The theory defines "earnings management" (EM) as the strategic use of managerial discretion to influence the reported earnings figure that is presented to external audiences. This is primarily achieved by strategically timing the reporting or occurrence of economic events to shift income between different accounting periods (Suherlan, 2024)". The accruals concept of accounting has provided accountants with a leverage to manipulate the earnings and other accounting nominals to reflect a better picture of financial statements.

The same accruals concept of accounting also provides leverage to executives and "they strategically manipulate the earnings figures that their companies disclose to external audiences (Doka & Dhamo, 2025). Behavioral tendencies and a simplified representation of the dynamics among executives, investors, directors, and earnings analysts are key elements to consider in earning management and use of discretion in preparing financial statements (Akra et al., 2020). These factors help to identify patterns of earnings management that result in distinct irregularities". These also become the source of misrepresentations in the declared earnings.

One of the researchers explained the thresholds of the earnings management and said that "there are three critical thresholds that play a role in driving earnings management. The first threshold pertains to reporting profits, such as reaching a minimum of one cent per share. This threshold is rooted in the psychologically significant distinction between positive numbers and negative numbers or zero (Serpeninova et al., 2024)". The concept is complex and not easy to understand.

The continuation of the threshold concept states that "the second and third benchmarks are linked to the firm's performance relative to widely publicized firm-specific values. If the firm's performance matches or surpasses these benchmarks, it is considered successful; otherwise, it is deemed a failure (Syukri et al., 2024). These two benchmarks are determined by the firm's performance compared to the prior corresponding period and in relation to analysts' earnings projections. The evaluation of performance against each benchmark is carried out by examining the distribution of quarterly earnings reports in its vicinity (Ozkale & Ozdemir, 2022). A notable increase in concentration of earnings reports around a benchmark demonstrates its significance".

The achievement of first two thresholds is done by these earnings manipulations, "explained earlier, but it doesn't specifically consider analysts' estimates (Ozkale & Ozdemir, 2022). Their analysis delves deeper into accounting related issues and identifies mechanisms for misreporting, such as manipulating cash flows from operations or making changes in working capital. These actions allow earnings to be shifted from negative to positive ranges (Weygandt et al., 2025). More attention is needed to identify the motivation behind earnings management. Direct earnings management strategies, like lowering prices to boost sales, in addition to indirect earning management strategy, like misreporting, should be examined (Al-Hashedi & Magalingam, 2021). Earnings management are a response by executives (agents) to substantial incentives, such as earning a bonus or retaining their job, which depend on meeting a specific threshold". The meeting of these thresholds forces the executives to commit the earnings managements.

The concept of the earning management is slightly difficult to understand as "it is a result of the complex interplay of information disclosure in which both executives and external stakeholders are involved (Doka & Dhamo, 2025). Investors rely on the information they receive, often indirectly through analysts or brokers, as well as through publicly released earnings announcements. Executives engage in earnings management to enhance investor interest, even though this may involve making real sacrifices in terms of actual earnings (Miharsi et al., 2024). Other parties, such as boards of directors, analysts, and accountants, also participate in this information disclosure game. However, their choices and actions are external to the scope of the analysis (Safta et al., 2021). For instance, boards of directors' contingent compensation practices are known to executives, and it is presumed that these compensation packages are structured to consider potential distortions and may have been adjusted to counteract earnings management. If such adjustments have been made, finding evidence of earnings management becomes even more significant (Agustina et al., 2026). Executives might also manipulate earnings reports in a way that serves their own interests, potentially causing an agency loss that decreases the firm's value if their incentives are not fully aligned with those of shareholders (Safta et al. 2021). Achieving full alignment is improbable. First, while the value of the company's stock is determined by the present value of dividends extending into the indefinite future, executives typically have a relatively short time horizon. Because it's challenging for boards, shareholders, or the stock market to accurately assess prospects, executives have a motivation to boost current earnings at the expense of the less visible long-term outlook beyond their tenure (Suherlan, 2024)". As a result, time horizon is extended, regarding the stock options, for the executives, which is considered as one of the paramount advantages for them.

Conclusion

The theory is directly related to this research thesis as it coincides with the primary objective of identifying the financial manipulations, which can be conducted by window dressing the earnings of a listed company to keep the shareholders happy in the form of either paying high dividends to them or capital appreciation by raising the market share price. The M-score and its eight accounting ratios include G.P, sales growth and admin expenses ratios which are correlated with earnings management theory as these ratios identify whether there has been any significant manipulation in the earnings or not.

2.2.2. Prudence Theory

The practice of prudence involves exercising caution when making judgments in situations characterized by uncertainty. Prudence ensures that assets and income are not portrayed in an exaggerated manner and that liabilities and expenses are not downplayed (Kranacher & Riley, 2019). It also prevents the understatement of assets or income, as well as the exaggeration of liabilities or expenses.

In many cases, there is uncertainty surrounding the eventual outcome of various events and transactions, necessitating the use of estimates when preparing financial statements (Agustina et al., 2026). Prudence dictates that when such uncertainty exists, those responsible for financial statement preparation should adopt a meticulous approach to the figures and information included in these statements, rather than taking advantage in the form of making deliberately wrong judgement, where uncertainty exists (Faisal et al., 2024). One of the primary concerns here is the risk of businesses being overly optimistic about their results, which could lead to the inflation of assets and income or the deflation of liabilities and expenses. Financial incentives might tempt business owners to engage in such practices.

Financial statements that are excessively cautious, potentially provide a conservative view of the company's financial well-being. This caution can result in the underestimation of profits and the overestimation of liabilities, which in turn may have adverse effects on the company's reputation and the confidence of its shareholders (Agustina et al., 2026). Companies can lead to a lack of consistency in their financial statements. Consequently, this inconsistency can create challenges for investors when trying to compare companies and make well-informed investment choices.

Companies exaggerate their profits, which leads to manipulating financial statements in another manner. On the other side, companies may acknowledge potential losses or liabilities that might not actually materialize, thereby creating a misleading perception of their financial condition (Faisal et al., 2024).

Conclusion

The theory is directly related to this research thesis as it coincides with the primary objective of identifying the financial manipulations, which can be conducted by either overstating the assets and income or understating the liabilities and expenses of a company. The M-score and its eight accounting ratios include days' sales receivable and asset quality ratios which are correlated with prudence theory as these ratios identify whether there has been any significant overstatement of assets / income or understatement of liabilities / expenses.

2.2.3. Matching Principles Theory

Matching principles registers revenue when it's earned and expenses when they are incurred, regardless of when actual cash transactions occur. It's referred to as "accrual" because each debit or credit is recorded as it accrues, not necessarily when cash is exchanged (Popa & Popa, 2025). The objective is to merge two fundamental principles, namely the matching principle and the revenue recognition principle, to establish a transparent connection between a business's earnings and expenditures. This is why the method involves documenting costs and revenues at the time they initially arise (Weygandt et al., 2025).

Financial analysts use matching principles, rather than cash framework, as it is complex compared to the cash method (Serpeninova et al., 2024). In cash methods, transactions are recorded when money is either received or disbursed from the company's accounts, leaving no uncertainty about when to document these transactions, and it provides a real-time view of the company's account balance (Miharsi et al., 2024). Conversely, under the accrual method, executives of companies find the freedom to financially manipulate the figures, like understatement of expenses, exaggeration of revenue, to present the financial statements in a manner desired by the investors, stakeholders and other potential investors (Ramadhani et al., 2025). As a result, this accounting approach tends to be more intricate and frequently presents greater challenges for those who are new to it and allows the expert executives to easily manipulate the figures to secure their incentives (Wahid, 2019).

Companies are more susceptibility to fraudulent activities. The reason behind this is that the accrual method can potentially offer more opportunities for internal fraud by employees (Akra et al., 2020). It becomes crucial, especially for individuals without a strong background in accounting, to establish robust control systems that involve regular reviews by independent professionals to ensure the accuracy and integrity of financial records (Faisal et al., 2024).

Companies document transactions immediately upon their occurrence, often before the company engages in monetary transactions with other parties (Safta et al. 2021). There is a financial risk because it involves recognizing income for which the company may not actually receive payment, especially if the client or customer decides not to pay or experiences significant delays in making payments (Popa & Popa, 2025). If the invoices generated by companies using this approach do not align with future earnings, it has the potential to lead to significant financial manipulation in the financial statements due to cash flow challenges for the company (Syukri et al., 2024).

Companies recognize revenue when a sale is made, regardless of when they receive the payment for that sale. This practice can result in disparities between the tax liability a company faces, and the actual cash received (Al-Hashedi & Magalingam, 2021). Due to this principle, businesses may find themselves paying taxes on income they haven't received yet, potentially causing cash flow challenges, particularly for smaller businesses with limited financial stability, which forces executives and senior management to manipulate the financial figures to keep the company attractive for the audience (Rykaczewski et al., 2022).

<u>Conclusion</u>

The theory is directly related to this research thesis as it coincides with the primary objective of identifying the financial manipulations, which can be conducted by either recording the income and receivables or expenses and payables which are not related to a particular year for the company. Such financial manipulation normally incurs at the end of the year when the books are closing. The M-score and its eight accounting ratios include total assets to total accruals and leverage / debt ratios which are correlated with matching principles theory as these ratios identify whether there has been any significant overstatement of income and receivables or expenses and liabilities.

2.2.4. Agency Theory

In the framework of agency theory, the manager, serving as the agent, is expected to act according to the principal's (shareholder) directions, if the principal issues instructions in their own best interest. If the company's objectives include profit-making, achieving this goal indirectly enhances shareholders' wealth (Matinheikki et al., 2022).

In the company context, shareholders instruct the manager to fulfill the firm's objectives. In this process, management is obligated to furnish reliable financial statements to shareholders to mitigate agency risk, the risk that the agent fails to fulfill their instructed duties, exercises less diligence in advancing the principal's stated interests, or adopts a different risk attitude than the principal would personally embrace (Tewari & Ramanlal, 2022).

As the owners of the company, shareholders contribute capital and bear the risk of losing their invested capital or assume all financial risks, depending on whether it's a limited or unlimited company (Agustina et al., 2026). These risks are beyond their control if they are not actively involved in business operations. The responsibility to mitigate all risks lies with the company's management.

According to agency theory, it's the responsibility of directors and managers to ensure the issuance of accurate and transparent financial statements for existing shareholders. This serves to inform shareholders about the quality of their management of the company (Matinheikki et al., 2022, p.299). The oversight role of directors in financial accounting and the associated risk of unethical behavior result in agency costs for shareholders.

In the context of the agency relationship between shareholders and directors, fraudulent financial statements may be employed to hide the directors' failure in fulfilling their duties to shareholders (Weygandt et al., 2025). This involves manipulating financial figures and withholding the true activities of the company from shareholders, as well as other parties like grant-awarding bodies, bondholders, and regulators.

Financial statement fraud can serve as a retrospective tactic in cases where agents seek to conceal prior poor, negligent, or dishonest performance through intentional misstatements (Suherlan, 2024). Conversely, it can also function as a preparatory measure for an impending fraud, strategically concealing assets earmarked for future theft. The specific nature of the misstatement in financial accounts hinges on the underlying pressure or motive (Matinheikki et al., 2022, p.300).

When the motive is asset misappropriation, the misstatement involves understating income and assets while overstating expenses and liabilities, aiming to hide the actual equity available to owners or the amount of unused grants repayable to funding bodies (Serpeninova et al., 2024). On the other hand, if the motive is to mask subpar or negligent performance, the misstatement entails overstating income and assets and understating expenses and liabilities, creating a false and overly optimistic portrayal of performance (Rykaczewski et al., 2022).

Conclusion

A crucial measure to thwart financial statement fraud involves the supervision of accounting systems by independent non-executive directors. These directors, while not directly involved in the day-to-day operations of the firm, bear the responsibility of overseeing its systems and governance. Nevertheless, there exists a significant risk that non-executive directors may be unduly influenced by their executive counterparts. This is particularly true given that non-executives also play a role in making critical strategic decisions and providing general oversight of company management, extending beyond their specific responsibility for the accounting system.

2.2.5. Stakeholder Theory

Apart from examining the agent-principal relationship in Agency theory and the responsibilities of company management in the theory of the firm, this research delves into stakeholder theories within the realms of fraud in financial statements, business ethics and system of internal control (Akra et al., 2020). Stakeholder theory in an organizational management perspective underscores the moral and ethical aspects of business organizations. It emphasizes the responsibility of company management to balance the financial interests of shareholders with the broader interests of stakeholders (Kayikci et al., 2022).

In alignment with this, stakeholder theory is concerned what companies are expected to deliver in the best interest of their duties to stakeholders. Stakeholders encompass individual agencies, shareholders, employees, creditors, banks, government, and communities (Safta et al., 2021). The company management has a duty to ensure ethical conduct in business and to "balance the legitimate interests of the stakeholders when making decisions". Achieving normatively correct behavior in company management involves altering management attitudes toward fiduciary relationships with stakeholders (Kranacher & Riley, 2019). This shift can be realized by cultivating an awareness of the moral foundations of the firm's role.

As a result, within the context of stakeholder theory, financial statements are perceived as outcomes influenced by a broader array of pressures compared to a straightforward agency relationship (Kayikci et al., 2022). In this framework, the inclination towards financial statement fraud arises when the accountant responsible for preparing accounts is influenced by a specific stakeholder group with a motive to present misleading information to another stakeholder group (Faisal et al., 2024).

The stakeholder group most likely to influence the accounting function is typically the employee group, particularly senior managers who hold authority over accountants' employment and rewards (Kayikci et al., 2022). While shareholders and other funding stakeholders are still potential victims in this stakeholder context, the stakeholder theory of the firm introduces additional potential victims, notably customers and suppliers (Wahid, 2019).

This shift in perspective alters the likelihood between intentional profit overstatement and deliberate understatement (Kayikci et al., 2022). Customers, driven by their interest in demanding more and better goods and services at lower prices, create a dynamic where employees may find it advantageous to manipulate accounts.

Conclusion

Employees seeking higher wages for less work, have an incentive to falsify accounts, presenting the impression that value added is already minimized, making price reductions, volume increases, and quality improvements seemingly unattainable. Similar pressures exist for suppliers, who, like employees, are striving for higher rewards with less effort. This dynamic put pressure on employees to understate the value added, concealing any excess net income available for redistribution along the supply chain.

2.2.6. *Public Interest Theory*

Gallo and Serluca (2024) explained the concept of corporate responsibility within the framework of the theory of the firm. He posits that the management of a company has an obligation not only to its shareholders but also to society at large. According to Gallo and Serluca, a firm is considered an "economic institution which has social service" and is inherently involved in public, rather than purely private, affairs (Al-Hashedi & Magalingam, 2021). In this context, instances of financial statement manipulation and fraud within companies can impact public interest. This impact goes beyond affecting the level of taxes paid to the public treasury; it extends to concealing the misuse of company resources that are meant for public use (Syukri et al., 2024).

Specifically, in regulated industries, financial statement manipulation and fraud can be employed to mask excess profits or rents gained by exploiting the company's position in the supply chain to manipulate inputs' value or sell outputs at an inflated price (Suherlan, 2024). Under-reporting profits may serve to avoid regulatory actions that could reduce profits and diminish the appeal of industry-specific taxes (Serpeninova et al., 2024). This motive for financial statement fraud differs from the motive driven by directors' roles as agents of shareholders. Nevertheless, both types of financial statement fraud constitute a violation of reporting duties within a trust-based relationship (Rykaczewski et al., 2022). In both scenarios, managers seek to conceal the misuse of assets that do not belong to them or to hide assets with the intention of future misappropriation.

While Gallo and Serluca perspective on the firm leans toward a decidedly socialist view, where the firm is considered public property and the concept of private property is delegitimized, it's important to note that this does not introduce entirely new concepts of financial crime absent in capitalist systems (Weygandt et al., 2025). The public interest perspective still relies on the manager as an agent or trustee providing accurate and honest information to those to whom they are accountable. The fundamental difference between capitalist and socialist systems lies not in the inherent nature of economic activity but in the possession of power over and ownership of the means of production and trade (Miharsi et al., 2024).

Therefore, individuals responsible for these functions are expected to have similar motives to misrepresent the quality and integrity of their stewardship, regardless of the economic system in place.

2.2.7. Going Concern Theory

The repercussions of a company's collapse are far-reaching, impacting various stakeholders, including employees and investors, and undermining public trust in financial markets over time. There is often a correlation between financial manipulation, fraud and going concern issues. Fraudulent activities can pose a threat to a company's viability and its ability to sustain itself as a going concern (Ramadhani et al., 2025).

The responsibility of auditors has never been diminished, therefore, “it is crucial to highlight that the challenge of identifying significant financial manipulations in financial statements arising from financial fraud, as opposed to errors, do not diminish the auditor's responsibility (Xu et al., 2018). Likewise, the complexity involved in evaluating management's application of the going concern assumption and determining whether there is a material uncertainty related to future events or conditions that might lead an entity to cease operations does not lessen the auditor's responsibility (Ramadhani et al., 2025). In certain instances, involving significant financial manipulations leading to financial fraud, there have been cases where auditors, even in situations where the auditor's report did not raise concerns about an entity's condition (going concern), collapse shortly after issuance (Ozkale & Ozdemir, 2022).

Auditors have invoked the concept of the expectation gap to explain that no material financial manipulations or uncertainties were identified during the audit (Safta et al., 2021). However, it is important to note that merely relying on the expectation gap is not an adequate justification when auditors have failed to comply with the requirements of the International Standards on Auditing (ISAs), including ISA 240 (on fraud) and ISA 570 (on going concern)". The auditors are always responsible for applying the element of professional judgement as well and see things with professional skepticism.

As explained earlier, the list of financial scams is long, therefore, "conducting a root cause analysis on recent corporate failures or scandals would be highly beneficial to comprehend the roles of different parties and, in cases involving audit failure, the reasons behind such failures (Akra et al., 2020). This analysis should be conducted as a prerequisite before discussing changes to various aspects of the audit engagement within auditing standards. Considering these recent corporate failures and scandals, the CEAOB urges the IAASB to delve deeper into the auditor's role concerning fraud and going concern in financial statement audits (Kranacher and Riley, 2019)". The basic aim of researching these recent corporate failures is to make sure that public interest is considered and not ignored; and properly addressed.

2.2.8. Use of Theories, Their Contribution and Connection with Objectives

All the seven theories are directly related to the primary objective of this research thesis of identifying the financial manipulations in the financial statements of the companies. Nevertheless, out of these seven theories, this research thesis has made efficient use of three theories, namely earnings management, prudence and matching principles theories. It does not mean here that other four theories are less important. These have not been considered in this research thesis because these require inclusion of other accounting ratios and substantive audit procedures which are beyond the scope of this research thesis as this research thesis has only used M-score and its eight accounting ratios. Justification regarding each theory has been explained below in detail:

Earnings management theory is directly related to this research thesis as it coincides with the primary objective of identifying the financial manipulations, which can be conducted by window dressing the earnings of a listed company to keep the shareholders happy in the form of either paying high dividends to them or capital appreciation by raising the market share price. The M-score and its eight accounting ratios include G.P, sales growth and admin expenses ratios which are correlated with earnings management theory as these ratios identify whether there has been any significant manipulation in the earnings or not.

Prudence theory is directly related to this research thesis as it coincides with the primary objective of identifying the financial manipulations, which can be conducted by either overstating the assets and income or understating the liabilities and expenses of a company. The M-score and its eight accounting ratios include days' sales receivable and asset quality ratios which are correlated with prudence theory as these ratios identify whether there has been any significant overstatement of assets / income or understatement of liabilities / expenses.

Matching principles theory is directly related to this research thesis as it coincides with the primary objective of identifying the financial manipulations, which can be conducted by either recording the income and receivables or expenses and payables which are not related to a particular year for the company. Such financial manipulation normally incurs at the end of the year when the books are closing. The M-score and its eight accounting ratios include total assets to total accruals and leverage / debt ratios which are correlated with matching principles theory as these ratios identify whether there has been any significant overstatement of income and receivables or expenses and liabilities.

2.3. Empirical Review

2.3.1. Introduction of M-Score Model

Beneish, a renowned accounting professor at Indiana University in the USA, developed a robust fraud detection model known as the M-Score Model in 1999. Drawing from the history of financial fraud, various types of financial scams, and existing fraud detection models, Beneish recognized that a powerful fraud detection tool could be created by combining liquidity, profitability, turnover, leverage, and market value accounting ratios (Sharaf et al. 2025). He successfully isolated eight key accounting ratios from various categories and established a relationship among them. When these specific accounting ratios were applied to the financial data of any company, they yielded valuable insights, offering essential information to users of financial statements regarding the likelihood of significant or minor financial manipulations, earnings management, and financial fraud (Irwandi et al. 2019).

Following the development of the M-Score Model, Beneish personally conducted a validation study to assess its accuracy and dependability (Triani, 2019). In 1999, Beneish selected a sample of 73 companies listed on various stock exchanges in the USA and applied the M-Score model to these firms. The primary objective of this application was to identify companies with a heightened likelihood of engaging in financial manipulations and earnings management, and conversely, those with lower probabilities (Madah et al., 2025). The findings revealed that more than 50% of the sampled companies exhibited a significant likelihood of manipulating their financial information and potentially committing financial fraud. Conversely, the test suggested a lower likelihood of earnings management (Madah et al., 2025).

Beneish found the results to be reassuring. However, to establish the model's true validity and reliability, it was crucial for other researchers and financial analysts worldwide to also embrace it (Capras et al., 2025). In pursuit of this goal, Beneish published a comprehensive article in 1999, providing a detailed explanation of the M-Score and its eight independent variables (Beneish, 1999). The article elucidated the M-Score formula for calculating its value and offered an in-depth exploration of the composition of these eight independent variables (Capras et al., 2025).

Furthermore, the article also featured a roster of the 73 companies that Beneish had used to apply his model, along with their corresponding outcomes (Lotfi & Aghaei, 2018). Through this publication, Beneish extended an open invitation to researchers and financial analysts worldwide, encouraging them to test and scrutinize his model and question his assertion that the "M-Score was one of the most potent tools for detecting financial manipulations and earnings management" (Capras et al., 2025).

2.3.2. M-Score and Research Objectives

The objectives of this research study are directly proportional to M-score. “The base of the research objectives of this research study is M-score and its fraud indicators, also termed as independent variables. It is important here to identify whether M-score has addressed these research objectives in past to ensure that when it is applied on the companies, listed on Pakistan stock exchange, the result is in line with the research objectives and fulfils the research aims”. It provides the confidence on M-score for its application in Pakistani listed companies.

2.3.2.1.Financial Manipulations of Listed Companies in Pakistan

The research objective is to identify the extent up to which financial manipulations, in the listed companies of Pakistan, can be detected with the help of M-score.

The past studies clearly indicate that financial manipulations in the financial statements "have become a serious issue, not only across the world but also in Pakistan. The fluctuating economy of Pakistan, in the past few years, has been impacting the smooth running of the business operations of the listed companies (Matinheikki et al., 2022). Moreover, the demands of the stakeholders are also a big issue for the internal management of these listed companies to deliver them the maximum profit in the form of dividend (Tewari & Ramanlal, 2022) The researchers, in past, have worked on this research objective to determine whether M-score has the capacity to fulfill this objective. The list of researchers is long, nevertheless, the work and results of some of the researchers have been reproduced here". The research work of these researchers is valuable and cannot be ignored. It indicates how these researches have used M-score and its accounting ratios to find out the probability of financial manipulations.

M-Score and Financial Manipulation Detection in Italian Companies

To identify the extent up to which M-score can detect the financial manipulations, "Buranel (2024), examined a sample of Italian academic spin-offs established in 2004 and 2005, which continued to exist until 2015. This sample was drawn from the database of the national network of Italian academic spin-offs and patents, known as Netval (Sharaf et al., 2025). This examination took into account the results achieved between 2009 and 2010, shortly after the commencement of the financial crisis, which was viewed as a critical period for earnings management. Information was gathered from multiple sources, including the Infocamere database (the Italian national registry of companies), the AidaBvdep system, and corporate websites (Irwandi et al., 2019)".

At the time of performing their research, the researchers were careful and "excluded companies that were inactive, had no financial statements after 2010, were in distress, or were undergoing liquidation. The resulting sample consisted of 99 firms, representing approximately

12% of the academic spin-offs listed in the Netval database in 2010 and 66% of those established in 2004-2005 (Triani, 2019). The variation index of net income from period t to t-1 as a proxy to estimate the risk of manipulation was used. The descriptive statistics illustrated the increased volatility of GMI and SGI indicators, which impacted the M-score value, particularly for the SGI index, the median value exceeded one, indicating a significant associated risk of earnings manipulation related to revenue management (Hakimah et al., 2019)". The researchers managed to establish a connection between M-score and the probability of financial manipulation.

The researchers continued their work and identified that "according to the M-score model based on variables, approximately 33% of the sample exhibited a significant risk of financial manipulation (Lotfi & Aghaei, 2018). The researchers inferred that the variable having the most substantial impact on the disparity between the two scores was linked to fluctuations in sales revenue (SGI). This inference was supported by the high standard deviation observed within the sample (Irwandi et al., 2019). The reasons for this divergence could be attributed to the fact that SGI was not adjusted for total assets, unlike the other variables, and to the unique nature of academic spin-offs. The researchers concluded that the independent variables of M-score had the excellent capacity and capability to identify the financial manipulation (Buranel, 2024)". They further concluded that the eight accounting ratios, which are also considered as variables, have the capacity to manipulate them to identify the intensity of the impact on the overall financial performance of the company.

M-Score Implementation for Financial Manipulation Detection in Indian Companies

The research work continued different parts of the world. The further research shows that "to identify the power of M-score in detecting the financial manipulations, Shah et al. (2018) took a sample of twenty-five companies from four industries: Power Generation, Transport, Mining and Petroleum encompassing Manufacturing, Service, Electricity, and Mining. The study collected data over an eleven-year period, starting from the financial year 2002-03 to 2012-13, pertaining to 25 public enterprises of India. The data were obtained from the financial statements published by the Department of Public Enterprise, Government of India (Hakimah et al., 2019). Given the nature of this study, the primary data used is secondary in nature and was sourced from published financial statements. Among various techniques for detecting earnings management, the study utilized the Beneish M-Score Model, following methodologies from previous works (Zelin, 2018). The M-Score, based on the Beneish model, was calculated for each company, considering five variables (as SGAI, LVGI, and TATA were not statistically significant in the original Beneish model). Although these three were not considered significant yet cannot be ignored". These cannot be applied in isolation.

The continuation of the research on these four industries showed that "the M-Score was then compared with benchmarks set by Beneish to determine if a company engaged in financial manipulation during financial reporting. A M-Score less than -2.76 suggests the absence of financial manipulation, while a score beyond this value indicates the likelihood of such practices (Zelin, 2018). Shah et al., (2018), concluded that the financial manipulation the reliability of earnings as a metric for assessing a company's performance. If authentic earnings were manipulated, it opened the door to deceiving stakeholders and misappropriating resources in an unethical manner. Hence, this study employed the Beneish M-Score technique to identify instances of financial manipulations among Public Enterprises in India (Hakimah et al., 2019). Among the 25 companies across four industries, only ECL Company in the mining sector was identified as not employing financial manipulation, except for one year out of the ten financial years studied (Irwandi et al., 2019). The study revealed that the service industry exhibited the highest level of financial management, followed by the petroleum industry, power generation industry, and the mining industry with the lowest incidence”. The comparison showed that the results obtained from M-score outperformed.

At the end of this research, the consensus established by the researchers stated that “it was crucial to note that results obtained from the Beneish M-score were reliable and provided evidence of financial management practices. The results, obtained from M-score, served as red flags for forensic accountants and financial analysts, prompting a closer examination before making critical decisions about a company (Lotfi & Aghaei, 2018). In conclusion, the M-score asserted that financial manipulation was a pervasive practice in Indian public sector enterprises across various industries. This practice compromised the reliability of financial statements (Shah et al., 2018)”. Moreover, the impact of this compromise also faded the reliability of considering earnings as a performance measure.

M-Score and Financial Manipulation Detection in Vietnamese Companies

The researchers have also applied the M-score and its accounting ratios on Vietnamese companies to find out if its application was useful there or not. To see, “a group of researchers implemented the M-score on the Vietnamese companies to identify the financial manipulations. Phong et al., (2024), took the financial statements from Vietstock, a professional data-providing company, for the 2013-2014 period. The sample comprised 292 companies, with data sourced from HOSE Vietnam. However, due to the unavailability of data for 69 companies, the analysis was conducted on a subset of 223 companies. Utilizing complex calculations in Excel, the extensive dataset was inputted, and necessary outputs were obtained (Sharaf et al., 2025). The results indicated that, employing a threshold of -2.22 of M-score to identify the financial manipulation, 48.4 percent of the listed companies on HOSE exhibited a significant likelihood of engaging in financial manipulation, whereas 51.6 percent showed no such financial manipulation probability (Sharaf et al., 2025). The research results indicated that the Beneish M-score was effective in assisting the identification of financial manipulation and earnings management in Vietnamese companies, when making decisions in the HOSE market (Svabova et al., 2020). According to the M-score regression, the Commerce sector exhibited the highest level of financial manipulation practices, reaching 68 percent, while the agriculture sector showed the lowest level of financial manipulation at 0%. Both the Mining and Real estate sectors stood at an equal probability of 50% for being potential financial manipulation sectors (Akra et al., 2020). Moreover, the Service and Telecommunications sectors each had a probability exceeding 50% of having a high level of engaging in fraudulent activities (Svabova et al., 2020)". The application of M-score and its fraud indicators proved their efficiency again.

The application of M-score and its accounting ratios had the meaningful results because "the analyzed outcomes aligned with various studies conducted in developed countries, as well as some in developing nations, where the percentages of detected financial manipulations hovered around 50% (Ozkale & Ozdemir, 2022). These results affirmed that the M-score was applicable to the observed samples in Vietnam, as evidenced by the research consistency with auditing disclosure reports from 2014. Consequently, the utilization of the M-score emerged as a viable approach for detecting earnings management, proving effective not just in developed countries but also in developing nations like Vietnam (Akra et al., 2020)".

M-Score and Financial Manipulation Detection in Nigerian Companies

The application of M-score and its eight independent variables continued as "some researchers implemented the M-score on the Nigerian companies. Chukwuma et al., (2025) explored the impact of SAS 99 on enhancing the capabilities of Nigerian auditors in identifying fraud within the financial statements of corporate entities. It emphasized the potential of the Beneish M-score to further empower auditors in detecting manipulations in financial statements. The research, designed descriptively and historically, involved 100 respondents, including auditors, industry accountants, and accounting academics in Anambra and Enugu State. Topman's formula was employed to select the participants (Tewari & Ramanlal, 2022). Employing a survey and analytical research approach, the study drew on information from both primary and secondary sources. Primary sources involved the use of a questionnaire, while secondary sources encompass published Annual Reports and Audited Accounts of the top five manufacturing companies in Nigeria (Kayikci et al., 2022). These companies were listed among the most capitalized in the Nigeria Stock Exchange 2011/2012 FactBook, supplemented by questionnaire responses, were analyzed using SPSS software and the Two-way ANOVA statistical technique, along with the Beneish Model (Matinheikki et al., 2022)". The data was collected, translated and interpreted.

This was extensive research because of the large number of participants and "information gathered from a total of 91 participants, with 46 and 45 respondents returning questionnaires from Anambra and Enugu States, respectively, included External and Internal Auditors (Unizik Bursary, selected ICAN, and ANAN members in both states), practicing Accountants in companies, and Accounting Academics (from Nnamdi Azikiwe University, Awka, Anambra State University, and Enugu State University of Science and Technology). The data, collected through a structured questionnaire utilizing a 5-point Likert scale, was extensively utilized to test the first hypothesis (Ozkale a& Ozdemir, 2022). This analysis was conducted using the Two-Way ANOVA statistical tool within the SPSS 17.0 statistical software package and the Annual Reports and Audited Accounts of Dangote Cement, Nigeria Breweries, Guinness Nigeria Plc, Nestle Nigeria Plc, and Dangote Sugar Refinery from the years 2006 to 2010 were chosen (Akra et al., 2020)". The selection of these was for the sole purpose efficient utilization of M-score model.

The results of application of Beneish models cleared the dark shaded clouds as "the findings indicated that the selected companies were involved in the financial manipulations in different years. For example, Dangote Cement Plc was involved in the financial manipulations for the years 2006, 2008 and 2009. Nigeria Breweries Plc was involved for the year 2006, 2007 and 2010 (Safta et al., 2021). Guinness Nigeria Plc was involved in manipulating its financial statements for all the selected years, except 2010. Nestle Foods Nigeria Plc was also indulged in the financial manipulations in all the years, especially in 2008 (Al-Hashedi & Magalingam, 2021). Dangote Sugar Refinery Plc, except 2006, all the other years were doubtful and considered as involving financial manipulations. The results also indicated that extreme caution was imperative for fraud detection experts when reaching conclusive decisions regarding years with M-scores indicating no financial manipulation tendency (Ramadhani et al., 2025). This was crucial to avoid potential errors, such as type 1 error, where a financial manipulative company was incorrectly perceived as non-financial manipulative, or type 2 error, where a non-financial manipulative company was erroneously seen as financial manipulative (Akra et al., 2020). Notably, Daniel Beneish, in his 1999 publication, highlighted that users of this model often tend to commit more type 1 errors than type 2 errors. Consequently, users of the model should exert additional diligence in closely scrutinizing the indicators of the eight factored variables against their respective decision rules, even when M-scores suggested non-financial manipulation, before formulating their final assessment of the company's financial reports (Wahid, 2019)". The implementation of eight fraud indicating accounting ratios was again paramount.

The continued reading of the results of these researchers identified that "the outcome further stated that the battle against fraud within corporate Financial Statements was no longer be regarded solely as the responsibility of Internal and External Auditors operating in both private and public institutions (Matinheikki et al., 2022). Preventing fraud in the Financial

Statements of corporate organizations in Nigeria was then be seen as a collective duty involving all stakeholders, including shareholders, the government, financial regulatory agencies, and financial crimes agencies (Tewari & Ramanlal, 2022). If Nigerian auditors adhered to and effectively implement the guidelines of SAS 99 in the audit process, it will not only enhance their understanding of fraud in the Financial Statements of corporate organizations but would undoubtedly contribute to the detection and prevention of fraud (Kayikci et al., 2022). This was particularly true when auditors utilized fraud-sensitive models such as the Beneish Model during their analytical audit procedures, ultimately fostering the consistent publication of fraud-free Financial Statements in Nigeria". The non-application of M-score allowed these Nigerian companies to financially manipulate their financial statements.

M-Score and Financial Manipulation Detection in European Companies

Some of the researchers also showed interest in applying it in European countries as they "explored the likelihood of financial manipulation within Italian stock companies across key traditional industry sectors. The analysis, conducted by Chen et al., (2026), included prominent industrial sectors in Italy known for substantial revenue streams, consistently driving the Italian economy for decades. The noteworthy industry sectors were textile, food, clothing, automotive and metallurgic industries. The selection of companies for the sample was done using the financial information database for Italian companies from AIDA Bureau Van Dijk. The dataset spanned from 2005 to 2012 (Doka & Dhamo, 2025). Due to the unavailability of certain financial data in the database, the percentage coverage for each industry sector was considered by calculating the ratio of companies with available data to total required data (Miharsi et al., 2024). As per the AIDA Bureau Van Dijk database, there were a total of 2,755 Italian stock companies within the primary industrial sectors (Textile, Food, Clothing, Automotive, and Metallurgy). Among them, 157 were undergoing liquidation sales and consequently excluded from the sample (Safta et al., 2021). The remaining 2,598 companies had a coverage of 70%, as data was available for 1,809 of these companies. In this research, the full version of the Beneish Model (8M-Score) was utilized to assess the impact of financial manipulation on each industry. The eight indicators were incorporated into a regression model to derive the Manipulation Score (Akra et al., 2020). Through the application of this model, companies were classified into two groups: those with a low probability of earnings manipulation and those with a high probability". It was extensive research to identify whether M-score and its eight-fraud indicating accounting were able to identify the early possibility of financial manipulations.

The results of the application of this model were calculated by these researchers and "the final manipulation score for each company was determined using the formula. The score was computed by averaging the scores across the years 2005 to 2012 (Kranacher & Riley, 2019). Companies with available financial data were those with no more than two missing values within the period from 2005 to 2012. After calculating the value for each company and for each year, the final value was obtained by averaging all values over the period from 2005 to 2012 (Wahid, 2019). The study sought to ascertain whether Italian stock companies had engaged in financial manipulation in the last decade. The Beneish Model was employed to distinguish between companies at risk of financial manipulating earnings and those that were not (Al-Hashedi & Magalingam, 2021). The comprehensive findings suggested that approximately half of the Italian stock companies exhibited a high probability of engaging in financial manipulation, using a threshold of 1.78".

The results continued for these companies with difference sectors and showed that "the examination of industrial sectors revealed that in textile sector, there were 608 textile stock Companies, with 46 undergoing liquidation sales and excluded from the sample. The remaining

562 companies had a coverage of 72%, as data was available for 370 of them (Al-Hashedi & Magalingam, 2021). The findings indicated that 56.51% of these companies had a high probability of engaging in financial manipulation, while 43.49% did not. The food sector comprised of 803 food stock companies, with 24 undergoing liquidation sales and therefore excluded from the sample (Ozkale & Ozdemir, 2022). The remaining 779 companies had a coverage of 67%, as data was available for 522 of them. The results indicated that 41.00% of these companies had a high probability of financial manipulation, while 59% did not (Tewari & Ramanlal, 2022)". This proved the dominant outcome using two different thresholds.

The application of model continued, and the results of the clothing sectors were obtained as "the clothing sector consisted of 378 Italian Stock Companies, with 34 currently undergoing liquidation sales and consequently excluded from the sample. The remaining 344 companies had a coverage of 69%, with data available for 236 of them (Matinheikki et al., 2022). The findings revealed that 66.95% of these companies showed high financial manipulation, while 33.05% were away from that. The Automotive Stock Companies totaled 454, with 30 currently in liquidation sales and therefore excluded from the sample. The remaining 424 companies had a coverage of 65%, with data available for 274 of them (Kayikci et al., 2022). The results depicted that 55.84% of these companies had a high probability of financial manipulation, while 44.16% were not involved". The application for the clothing sector was successful.

The results of metallurgic sectors were also obtained, and it showed that "there were 512 Italian Stock Companies in the Metallurgic sectors within the Automotive Sector, with 23 currently in liquidation sale and therefore excluded from the sample. The remaining 489 companies had a coverage of 76%, with data available for 370 of them (Kayikci et al., 2022). The results stated that 47.03% of these companies had done the financial manipulation, while

52.97% were out” The metallurgic sectors revealed the results that were in line with the application of this model.

The researchers, Chen et al., (2026), who conducted this research “expressed full contentment with the outcomes of the M-Score model, as it allowed them to effectively differentiate companies with a high likelihood of financial manipulations from those with a low likelihood. They observed a consistent pattern in the results of the M-Score and asserted that, up to that point, it stood out as one of the most outstanding models developed by any financial expert”. The results of M-score and its accounting ratios were successful and because of this fact the model further gained popularity (Hakimah et al., 2019).

Some of the researchers decided to apply M-score and its eight fraud indicating ratios on another European country. To do this the researcher, Hołda (2020), “applied the M-score and its eight independent fraud indicators on Warsaw stock exchange. The research employed both the 8-factor and the 5-factor Beneish models. During proprietary investigation, the values of each model's individual factors were computed and contrasted with the threshold values suggested by Beneish. This assessment aimed to determine the accuracy of the models in correctly identifying manipulators (Akra et al., 2020). The objective of the research was to practically assess the Beneish model on Polish companies, involving eight entities listed on the Warsaw Stock Exchange. The verification was conducted for the year 2010, with an understanding of the subsequent events pertaining to the financial statements of these companies (Akra et al., 2020)”. The research was conducted slightly in a different way.

The research continued and the researcher did the composition and “the composition of the analyzed entities included: a): entities that had been penalized by the Polish Financial Supervision Authority for irregularities associated with financial statements in years subsequent to the ones under analysis (suggesting the possibility of prior financial statement manipulation). These companies were denoted as Alpha and Beta. b): A company that had been issued a disclaimer opinion by auditors reviewing its financial statements (for years beyond the scope of the analysis, implying potential prior manipulation). This particular company was identified as Gamma (Al-Hashedi & Magalingam, 2021). Other companies included a company that, for both the year under examination and the following years, consistently received significantly qualified opinions due to identified irregularities in the financial statements (Ozkale & Ozdemir, 2022). This entity was labeled as Delta. The final category was of entities designated as control companies, meaning companies in which none of the events outlined in other companies. These companies were identified as Dzeta, Eta, Theta, and Iota (Kayikci et al., 2022)". The split of the companies into different components made the research interesting.

The researchers reached the conclusion and stated that "the outcomes for both the 8-factor and 5-factor M-score models indicated that concerning the Alpha and Beta companies, which had faced repeated fines from the PFSA, the 8-factor Beneish model revealed indications of financial data manipulation (Tewari & Ramanlal, 2022). Meanwhile, the 5-factor model identified only the Beta company as a potential financial manipulator. A similar pattern emerged for companies that received altered opinions on their financial statements: the 5-factor model identified only one company, while the 8-factor model accurately identified both companies as potential manipulators (Svabova et al., 2020). Additionally, it was noticeable that the model prominently signaled potential financial manipulations in entities where either a disclaimer opinion or a qualified opinion was issued. Once more, the 8-factor model accurately identified these companies as potential manipulators, whereas the 5-factor model only flagged the Gamma company (Xu et al., 2018). Concerning the entities identified as not having financial manipulations, the 8-factor model did not suggest financial manipulations for any of these companies. In contrast, the 5-factor model identified one company in control group as a potential financial manipulator (Wahid, 2019)". The split of 8-factor and 5-factor model was worth praising for this research.

Members of the accounting professional bodies also decided to use M-score. To do so "members of the Certified Fraud Examiners' Association utilized the M-score along with its eight independent fraud indicators to analyze one of the most significant financial scandals in history, Enron Corporation. The analysis focused on Enron's financial statements spanning from 1995 to 2000. The findings revealed that the corporation's financial statements exhibited signs of financial manipulation and earnings management from 1997 until the declaration of bankruptcy in 2001. According to the CFE Association, they asserted that had the M-Score, established by Beneish, been applied by auditors to Enron Corporation's annual financial statements, stakeholders suffering an accumulated loss of almost $72 billion, could have avoided this substantial damage".

M-Score and Financial Manipulation Detection in Malaysian Companies

A researcher conducted the application of M-score on Malaysian companies and "in the comprehensive study, Kamaluddin et al. (2024) delved into a prominent case involving the Malaysian company, Megan Media Holdings Berhad. The Session court of Kuala Lumpur, in response to extensive financial manipulations and earnings management in the financial statements for the year ending April 30, 2006, imposed penalties on the company (Emilia et al., 2020). Notably, the court mandated a substantial fine and directed the company to undergo "compulsory liquidation" under the administration's oversight. This stern action was a consequence of the company inflating its earnings by 1 billion Malaysian Ringgit for the fiscal year ending April 30, 2006, aiming to appease stakeholders and conceal actual losses (Hołda, 2020). The analysis conducted by Kamaluddin et al., (2024) revealed that the application of the M-Score model by potential investors and other stakeholders could have readily identified early signs of financial manipulations”. As a result, losses could have been mitigated.

Conclusion

The application of M-score and its accounting ratios have concluded that it is a dependable model and the results that are obtained from it are reliable. It further depicts that “the findings of the different researches expand the comprehension of financial manipulations in different countries and the robust performance of the M-score in detecting financial manipulations in these countries have been successfully demonstrated. This M-score serves as a dependable tool for investors, aiding them in decision-making and validating the trustworthiness of accounting information within financial reports. Furthermore, it plays a crucial role for banks and other financial institutions by safeguarding them against fraud or potential cases of uncollectible lending”. To conclude with, M-score is a reliable model and different researchers have used it in different parts of the world with same convincing results.

2.3.2.2.Scrutiny of Financial Information of Listed Companies in Pakistan

The objective is to make sure that the “financial statements of the listed companies of Pakistan are free from the material misstatements. In general, every company does the classification and posting errors which are adjusted at the time of audit and due diligence. So, the objective is to ensure that these errors have been adjusted to present the true and fair view of the financial information in the financial statements (Haryadi et al., 2026). The objective is also to make sure least impact of the unadjusted misstatements on the financial figures. The researchers, in past, have worked on this research objective to determine whether M-score has the capacity to fulfill this objective. The list of researchers is long, nevertheless, the work and results of some of the researchers have been reproduced here”. These researchers have worked using the M-score to reach their conclusion.

M-Score Implementation in Bangladeshi Companies

The true and fair picture of the financial figures is important, therefore, “to determine whether the M-score and its independent variables have the ability to ensure the true and fair view of the financial information in the financial statements, Khatun et al. (2022, p.302), conducted a research study on the banking industry of Bangladesh. The aim of the research was to examine the financial information of the banking companies of Bangladesh to identify the extent of companies engaged in earnings manipulation and to ensure whether these companies’ financial statements were not material misstated. Furthermore, it had empirically examined the typical manipulation practices shared among these companies. This basic objective of the research was to determine if the banks in Bangladesh were involved in fraudulent financial reporting and the disclosure of materially misstated information. Bangladesh had a total of 61 scheduled banks, all operating under the governance of the Bangladesh Bank (Ahmed et al., 2022). To provide an overview of the banking scenario, all scheduled banks were considered, although the analysis spanned a ten-year period from 2009 to 2018, and some banks were established after 2008 (Hossain et al., 2022)”.

The continuation of the research showed that “for calculating the ratios for the M-score, data from 2008 was used, requiring information from the previous year. The availability of annual reports posed a challenge in collecting data for the selected banks. To address both time constraints and resource availability, this study focused on 30 listed commercial banks, representing approximately 50% of the total population of banks in Bangladesh (Hossain et al., 2022). The data gathered from 30 listed commercial banks during the 2009–2018 period underwent examination using the Beneish model to derive the M-score. Banks were categorized into groups based on a benchmark value of -2.22, and the summarized outcomes were obtained. The findings contributed in identifying any discernible patterns among banks in terms of disclosing misleading financial information (Meher et al., 2022)". The findings were dealt in detail to identify the use of M-score and its eight-fraud indicating independent variables.

The researchers decided to bifurcate the findings "into material manipulation in financial information companies versus immaterial financial information manipulation companies from 2009 to 2018. Unfortunately, the results did not reveal a discernible upward or downward trend in financial information manipulation. However, the figures indicated that the number of likely material financial information manipulation companies exceeded that of less financial information manipulation companies (Ahmed et al., 2022). In 2009, 63.33% of banks were identified as likely falsifying financial information, while 36.67% were deemed not-likely manipulating financial information. The following year saw an increase, with 80% classified as likely financial information falsifying companies and the remaining as not-likely. In 2011, there was a decline, with 53.33% identified as manipulating financial information and 46.67% as not manipulating financial information (Hossain et al., 2022)". The application of M-score and its fraud indicating ratios was successful.

The research further showed that "over the ten-year span of analysis, the count of anticipated financial information falsifying banks was lower in 2012, accounting for 36.67%. However, there was a subsequent increase in probable manipulators in 2013, constituting 60% of the total sample (Meher et al., 2022). The following year, the proportion of nonprobable financial information manipulators decreased to 23.33%, contributing to an increase in probable financial information manipulators (Podder et al., 2022). In 2015, the expected financial information manipulation companies count saw a slight decrease, but in 2016, it peaked at 83.33%. The expected financial information manipulation companies' figures exhibited a somewhat decreasing trend in 2017, standing at 70.0% compared to 2016.

Nevertheless, in 2018, there was a resurgence in the upward trend of expected financial information manipulation companies, reaching 73.33% (Podder et al., 2022). In summary, the numbers of expected and unexpected financial information manipulation companies did not display a consistent upward or downward trend; rather, the rates exhibited a fluctuating nature. The results indicated strength of M-score in identifying falsified financial information in financial statements of banking industry of Bangladesh (Khatun et al., 2022)”. The application of M-score and its fraud indicating ratios was successful.

M-Score Implementation in European Companies

One of the European researchers decided to apply M-score on in Slovakia. The researcher, “Kollar (2021), conducted research on the Slovak companies with the help of M-score to ensure the reliability of the financial information in the financial statements. The study focused on examining the financial statements of a specific company. To safeguard the company from potential allegations arising from the research findings, the decision was made not to disclose the company's name featured in the article. The company under analysis had been operating in the Slovak market for over a decade and is a well-established producer of office machinery. It operated as a limited liability company. The financial records of Slovak companies were accessible to the public through sources like the Registry of Financial Statements, provided by the Ministry of Finance of the Slovak Republic (Shah et al., 2018). For this study, financial statements from the 2015 accounting period were acquired and examined, encompassing information from the preceding year, 2014. These statements comprised a Balance Sheet, referred to as BS, and a Profit and Loss Statement, referred to as P&L (Kollar, 2021)”. The information was obtained from the relevant stock exchanges.

While conducting the research, the researcher decided to use tools for interpretation, so “the information extracted from financial statements, including assets, equity, and liabilities, was inputted into the Microsoft Excel office tool. Using the definitions of the original model indicators for Slovak financial statements, the values for all eight individual indicators were computed. These values were along with their respective weights and the resulting weighted values (Shah et al., 2018). Consequently, the Beneish M-Score was derived by summing the intercept with the values of the eight weighted indicators. The calculated Beneish M-Score for the examined company was at -6.84. An M-Score exceeding -2.22 raised concerns about potential misstatement in financial information. However, in this instance, the M-Score fell below -2.22 (specifically, it is -6.84), suggesting that, according to the Beneish M-Score results, the analyzed company likely did not engage in falsifying the financial information in its financial statements within the financial reporting for the year 2015 (Kollar, 2021)". The results obtained were meaningful and helped the researcher to reach a conclusion.

The researcher continued its research further and "concentrated on applying the Beneish fraud detection model to the financial statements of a company established and operating in the Slovak Republic. The Beneish model employed financial ratios, yielding eight variables to discern whether a company had materially misstated the financial information. (Kukreja et al., 2020). The computed Beneish M-Score was -6.84, which was below the threshold of -2.22. Consequently, it could be asserted that the analyzed company likely did not falsify the financial information in the year 2015. Specifically, indicators such as DSRI, SGI, and LVGI signaled noteworthy alterations in the company's receivables, sales, and debt when comparing the years 2014 and 2015 (Kukreja et al., 2020). The application of this model to a company's financial statements, with the potential to detect falsified financial information, held significance for entities such as banks, investors, creditors, or those establishing new business relationships (Shah et al., 2018)". The results indicated that each accounting ratio was of its own significance.

<u>M-Score Implementation in Asian Companies</u>

Some of the researchers, Jalil et al. (2026), decided to implement M-score and its accounting ratios on Asian companies to further filed their research work to “Iraqi companies to scrutinize the financial information in the financial statements of Iraqi companies. The research focused on a sample of 23 listed banks in the Iraqi stock exchange, considering the base years as 2014 and 2015 (Yousef & Al-Fatlawy, 2023). Results indicated the presence of misstatement practices in the financial information in the majority of banks on the Iraqi stock exchange. The researchers advocated for increased professionalism among practitioners by embracing international audit quality standards to mitigate falsifying financial information practices (Al Shammari, 2019). The study emphasized that the practices and decisions of involved parties significantly influenced financial reporting quality. Falsifying the financial information stood out as a widespread practice impacting the quality of financial reporting in a company's financial statements. It involved manipulating accounting policies to present information that deviated from the genuine performance of the companies. The utilization of the M-Score model proved crucial in uncovering material misstatements practices in the financial information among companies listed on the Iraqi stock exchange (Hossain et al., 2022). An additional significance of this research lied in introducing a new measure applicable to the local research landscape. In this context, the M-Score model emerged as a valuable tool for scrutinizing financial information and gauging company behavior (Jalil et al., 2026). Its application had the potential to enhance financial reporting quality, safeguarding the interests of prospective investors”. The application of M-score helped the researchers to reach their conclusion.

By looking at various studies of Iraqi companies, it showed that “Iraqi stock exchange had extensively documented the prevalence of material misstatements in the financial information practices. The underlying motivation behind these practices was to positively influence the company's share price and facilitate profit manipulation, particularly when managers recognized the market value of the company and report profits (Parvin, 2020). Managers strategically falsified financial information in the period leading up to the issuance of new shares to bolster prices in the market. In a departure from previous research in Iraq, this study introduced the utilization of the Beneish M-Score model in a sample of banks listed on the Iraqi Stock Exchange. This model stood out due to its unique features compared to previous models (Podder et al., 2022). It focused specifically on the financial statements of the profit management account, as well as the statement of financial position with cash flows. The findings revealed presence of material misstatements". The findings also showed abuse of financial information by the banks (Khatun et al., 2022) and (Podder et al., 2022).

The researchers continued their research on the other Asian countries. One of the research projects on the Indonesian companies, to verify "whether the financial information of Indonesian companies was free from material misstatement and not manipulated, was conducted by (Ratmono et al, 2020). The research encompassed all manufacturing companies that were publicly listed on the Indonesia Stock Exchange from 2013 to 2017. The sampling methodology employed was purposive sampling, undertaken with the objective of securing a representative sample aligned with predetermined criteria (Narsa et al., 2023). This study aimed to analyze the impact of financial stability, industry nature, and audit opinions on fraudulent financial statements. Additionally, it sought to examine the influence of these factors on real misstatement in financial information and the relationship between falsifying financial information and fraudulent financial statements (Irwandi et al., 2019). Furthermore, the study also aimed at exploring the mediating role of falsified financial information in the association between financial stability, industry nature, and audit opinions with fraudulent financial statements (Subiyono & Suardi, 2020)". It was extensive research study on Indonesian listed companies.

The research showed that "the study's population included all manufacturing companies listed on the Indonesia Stock Exchange from 2013 to 2017. Purposive sampling was employed to obtain a representative sample, resulting in 130 selected samples. The analytical approach utilized path analysis and SPSS version 22. The research findings indicated that financial stability and the nature of the industry significantly impacted fraudulent financial statements (Khatun et al., 2022). However, audit opinions did not have a significant effect on fraudulent financial statements. Moreover, financial stability and the nature of the industry had a notable influence on misstated financial information, whereas audit opinions did not significantly affect falsified financial information (Ahmed et al., 2022). Falsified financial information emerged as a significant factor influencing fraudulent financial statements. It was identified as a mediating variable in the relationship between financial stability, industry nature, and fraudulent financial statements (Meher et al., 2022). However, audit opinions did not play a mediating role in the relationship with fraudulent financial statements". The findings of the research study were pivotal.

By looking at the findings of this research study showed that it was "aligned with Irwandi et al. (2019) research, affirming that financial stability significantly impacted falsified financial information and fraudulent financial statements. Conversely, the results differed from the studies conducted by Triyanto (2020), which suggested that financial stability did not have a significant influence on fraudulent financial statements. Additionally, this study supported another research, indicating that the nature of the industry, represented by the changes in trade receivables, had a significant effect on falsified financial information. The outcomes demonstrated that Auditor Opinion did not affect fraudulent financial statements. Likewise, the study ascertained that the rationalization, proxied by audit opinion, did not impact falsified financial information. Furthermore, this study revealed a significant impact of the nature of the industry on scrutinization of financial information. This suggested that managerial policies aimed to avoid sales manipulation because it could influence accounts receivable and inventory held by company (Haryadi et al., 2026). Sales manipulation actions necessitated subjective valuation in estimating sales targets, creating opportunities for manipulation of financial information (Kukreja et al., 2020)". Nevertheless, the executives took a rational step applied careful approach.

The pressure on "management to engage in earnings management using accounts requiring subjective judgment was not substantial. This was attributed to the fact that the sampled companies exhibited consecutive after-tax profits, alleviating the need for managers to manipulate sales, as a significant increase in accounts receivable could disrupt future cash flow. In conclusion, the nature of the industry significantly influenced real financial information manipulation (Kukreja et al., 2020)".

Gyawali (2021) managed to conduct "research on private commercial banks in Nepal with the help of Beneish M-score and its eight independent variables to identify the accuracy of financial information in the financial statements of Nepali banks. The research sought to investigate falsified financial information which could lead to potential financial fraud by examining the published financial reports of selected commercial banks in Nepal. The Beneish M-Score model, widely employed by academia, auditing agencies, certified fraud examiners, and investment professionals, served as a promising model for this study. A deductive approach was employed to assess the applicability of the Beneish model in recent research. The sample consists of 16 private commercial banks. The published annual reports, encompassing income statements and balance sheets for the years 2018 and 2019, were utilized as a secondary source of information", which helped the researcher in reaching the results.

The current examination took into account "data pertaining to various financial metrics for two consecutive years, 2018 (t-1) and 2019 (t). These metrics included revenues, cost of goods sold, selling general and administrative expenses, depreciation, net income from continuing operations, accounts receivables, current assets, property plant and equipment, securities (also referred to as long-term investments), total assets, current liabilities, total long-term debt, and cash flow from operations (Khatun et al., 2022). This data was utilized to calculate indices such as DSRI (Days' Sales in Receivables Index), AQI (Asset Quality Index), GMI (Gross Margin Index), SGI (Sales Growth Index), DEPI (Depreciation Index), LVGI (Leverage Index), SGAI (Sales General and Administrative Expenses Index), and TATA-Total Accruals to Total Assets (Ahmed et al., 2022)".

The results showed that "there were indications that Bank H and Bank M might be involved in fraudulent financial reporting due to the presence of falsified financial information and irrational DEPI and GMI values (Hossain et al., 2022). However, in other instances, none of the values for DSRI, AQI, SGI, SGAI, LVGI, and TATA seemed to be contributing to deceptive financial information. Similarly, despite having optimal values for ratio indexes, Bank G and Bank K were found to be engaged in income manipulation, suggesting that no single ratio index was responsible for income misrepresentation (Hossain et al., 2022). It was worth noting that as of now, the Nepal Rastra Bank (NRB), the central bank of Nepal, had not reported any incidents of financial statement manipulation by the respective commercial banks. Upon scrutinizing the available data and information, it could be concluded that M-Score model did not point out falsified financial information from among private commercial banks listed on NEPSE" (Meher et al., 2022).

M-Score Implementation by Other Researchers

The two researchers, “Valaskova and Fedorko (2021), performed a different type of research. They tried to identify the falsified financial information, material misstatements in the financial statements and fraudulent financial transactions in the companies of global environment, with the use of M-score and its accounting ratios. As per Valaskova and Fedorko (2021), profit serves as a valuable information source for capital proprietors, prospective investors, rivals, as well as the company's customers and suppliers (Halilbegovic et al., 2020). Managers, armed with both the incentive and understanding, employ appropriate methods to legally modify the disclosed financial information, aligning them with the company's specific needs and ensuring consistent financial outcomes. Consequently, modifying the financial information stands out as the most contentious and relevant subject in the realm of finance and accounting on a global scale” (Al-Hashedi & Magalingam, 2021).

The basic goal of the research was to determine “instances of misstatement in the financial information within a particular economic sector, adhering to global financial reporting principles. Additionally, it also sought to uncover the extent of financial manipulation among enterprises in the chosen countries within the Visegrad grouping (Valaskova & Fedorko, 2021). To identify potential financial information manipulation in the Visegrad countries, the analysis focused on the Transporting and Storage sector. This choice was driven by the sector's challenging environment, marked by various strikes and complaints from carriers regarding the tax burden, which could be viewed as an incentive for falsifying financial information (Ratmono et al., 2020)”.

The research concluded that “the Slovak and Czech transporting sectors appeared to be particularly impacted, making them potential areas to uncover practices of material misstatement of financial information. Selected enterprises needed to meet specific criteria, including a total assets limit of 3 million euros, revenues of 2 million euros, and a net profit of 100,000 euros (Valaskova & Fedorko, 2021). Adhering to these criteria, a database was compiled, initially comprising 1,300 Slovak and 3,679 Czech enterprises (Gyawali, 2021). After filtering out outliers and extreme values and focusing on the Transporting and Storage sector, the final sample was narrowed down to 68 Slovak and 135 Czech enterprises". The application of M-score and its accounting ratios was sector specific.

The research study showed that "the Beneish M-score model was employed with sector-specific data to assess and contrasted the extent of manipulation in financial information during the period from 2015 to 2019. The Beneish model, a mathematical-statistical approach, utilized financial ratios derived from the accounting data of a particular enterprise (Narsa et al., 2023). Its purpose was to identify whether there was a likelihood that the reported financial information, including earnings, of the company had been manipulated. The initial analysis involved examining the results of each indicator incorporated into the Beneish model. The indicator values served as a means to identify potential financial information manipulation, with particular attention to instances where the year-over-year comparison surpassed a threshold value of 1. These indicator values were calculated for the subsequent three years, utilizing data from 2015 to 2018" (Narsa et al., 2023).

The research further revealed that the independent variable DSRI assessed the "ratio of receivables to sales in the current period compared to the previous one. The highest calculated value occurred in 2017 for Slovakia and 2016 in the Czech Republic. GMI evaluated the gross margin by comparing the previous period's gross margin to the current years (Srebro et al., 2021). Throughout the analysis periods, the GMI values hovered close to zero, with a slight exceedance in 2017 in Slovakia, suggesting that gross margins were not significantly deteriorated. Typically, there was a positive correlation between GMI and the likelihood of falsifying financial information practices. AQI index examined the ratio of non-current assets to total assets in the current year relative to the previous one (Ratmono et al, 2020). The values significantly surpassed the limit value, indicating enterprises' involvement in cost accruals. The positive relationship between the results of the assets quality index and manipulation of financial information was evident in both countries" (Parvin, 2020).

SGI (sales growth index) represented "the ratio of current sales to previous-year sales. While an increase in this indicator did not automatically imply financial information manipulation, an unreasonable surge might raise concerns for auditors and professional authorities (Parvin, 2020). The depreciation index contrasted the rate of depreciation in the previous year to the corresponding period. If the indicator exceeded 1, it suggested a slowdown in the depreciation rate, increasing the possibility of manipulation in the financial information (Srebro et al., 2021). The calculated results were close to zero, except for 2017 in the Czech Republic", indicating aggressive falsification of financial information practices.

SGAI (sales, general and admin expenses index) compared "current sales' general and administrative expenses to the previous year's expenses. A significant increase in sales, as discussed by Lev and Thiagarajan, might lead to future financial problems. Positive relations were observed in the values of the SGAI index, with the highest values in 2018 in the Czech Republic. LVGI assessed the rate of total debts to total assets on a year-on-year basis (Kukreja et al., 2020). In both countries, the index was slightly below or very close to zero, implying no significant increase in leverage. The inclusion of the total accruals to total assets ratio aimed to measure the impact of managerial decisions on altering earnings, with higher positive accruals", indicating the potential use of earnings management (Narsa et al., 2023).

The Beneish M-score model successfully "identified and elaborated the enterprises engaging in falsifying the financial information, discerning their quantities, shares within the broader industry, and their conduct over the analyzed period. In the process of identifying financial information manipulation, variations were observed in the count of manipulating enterprises between Slovakia and the Czech Republic (Valaskova & Fedorko, 2021). M-score model and its fraud indicators were also used by Triani (2019) to scrutinize the financial information in the financial statements of the public companies. The study sought to assess the efficacy of the Beneish M-Score model in identifying instances of material misstatements in the financial statements”, and fraudulent financial reporting.

The continuation of the research study showed that “the research data comprised 55 companies engaged in falsifying financial information in the financial statements, barred and fined by the Financial Services Authority for violating POJK regulations between 2012 and 2016 (Ahmed et al., 2022). These fraudulent companies were compared with 55 non-fraudulent companies. The sample selection methodology employed in the study utilized a purposive sampling approach with a judgment sampling technique. Two distinct sample categories were considered, financial information falsifying companies and non-financial information falsifying companies (Hossain et al., 2022). The sampling criteria were consisted of two categories. The first category comprised of companies that were sanctioned or fined for violating Financial Services Authority Regulation (POJK) during the period 2012-2016 (excluding financial and banking sector companies). The second category was of companies without indications of falsifying financial information and fraud, possessing comparable or nearly identical levels of assets and/or sales as a financially manipulated company in the same industrial sub-sector during 2012-2016, based on the 2-digit code structure in the Jakarta Stock Industrial Classification (Meher et al., 2022)”. The findings of the research study favored the use of M-score and its accounting ratios.

By looking at the results of the research study revealed that “out of sample of 55 companies, 28 out of the 55 companies which falsified their financial information in the financial statements were accurately classified as fraudulent firms, accounting for 50.91%, while for other non-falsifying companies, 33 out of 55 were correctly identified as non-fraudulent, making up 60% (Podder et al., 2022). The study highlighted three M-Score variables—Sales and General and Administrative Expenses Index (SGAI), Depreciation Index (DEPI), and Asset Quality Index (AQI)—that were frequently financially manipulated by both categories of companies (Khatun et al., 2022). However, two variables, namely Days Sales in Receivables Index (DSRI) and Sales Growth Index (SGI), were deemed ineffective in detecting fraudulent financial reporting. Furthermore, the logistic regression test results indicated that the eight Beneish M-Score variables did not significantly contribute to the detection of fraudulent financial reporting (Kukreja et al., 2020). This was because the computation of the Beneish M-Score model exhibited high multicollinearity, resulting in the t ratio (Significance value, variable in the equation) being statistically insignificant. However, both the R2 and the model's goodness of fit demonstrated a notably high value (Kukreja et al., 2020). The Days Sales in Receivables Index (DSRI) served to identify the likelihood of companies engaging in asset overstatement through improper increases”, in the value of accounts receivable.

At the same time, the other variables were also interpreted and showed that “the Gross Margin Index (GMI) variable could elucidate the economic challenges faced by the company. The Asset Quality Index (AQI) detected instances where goodwill existed or where the company deliberately capitalized assets improperly. The Sales Growth Index (SGI) was instrumental in identifying intentions to recognize fictitious sales revenue, while the Depreciation Index (DEPI) variable signals the company's intentions to defer depreciation expenses in the hope of reporting higher profits (Yousef & Al-Fatlawy, 2023). The Sales and General and Administrative Expenses Index (SGAI) described the proportion of operating expenses against company sales, and the Leverage Index (LEVI) identified falsifying financial information prompted by debt contract incentives. Additionally, the Total Accrual to Total Assets (TATA) variable measured the extent to which cash was used as a basis for company profit reporting. Despite these insights, it was crucial to acknowledge the limitations of this research. Consequently, the researcher proposed several suggestions, including the need for further investigation into the impact of the Beneish M-Score model on factors beyond fraudulent financial activities (Ratmono et al, 2020)". The interpretation of the variables was done well in depth.

The results of the research study clearly indicated that "the likelihood of identifying falsified financial information and fraudulent financial reporting was significantly high with the Beneish M-Score model. The model was considered a cost-effective method for identifying potential falsified financial information and fraudulent financial reporting, offering a straightforward approach that investors could utilize before making investment decisions (Triani, 2019)". The application of M-score along with its variables was successful here.

Conclusion

The application of M-score and its accounting ratios have concluded that it is a dependable model and the results that are obtained from it are reliable. It further depicts that "the findings of the different researches expand the comprehension of financial manipulations in different countries and the robust performance of the M-score in detecting financial manipulations in these countries have been successfully demonstrated. This M-score serves as a dependable tool for investors, aiding them in decision-making and validating the trustworthiness of accounting information within financial reports. Furthermore, it plays a crucial role for banks and other financial institutions by safeguarding them against fraud or potential cases of uncollectible lending". To conclude with, M-score is a reliable model and different researchers have used it in different parts of the world with same convincing results.

2.3.2.3.Manipulator and Non-Manipulator Companies Listed in Pakistan

It is the third objective of the research study and it depicts that "the goal is to assess the likelihood of financial manipulation in the financial statements of various companies, distinguishing those at high risk from those with minimal risk. Previously, researchers explored this research objective to ascertain if the M-score has the capability to meet this goal. While the list of researchers is extensive, the efforts and findings of certain researchers are summarized here":

<u>M-Score Implementation to Identify Manipulator Companies</u>

One of the researchers, Miharsi et al., (2024), conducted research "to determine the financially manipulated companies and separate them from those which had not committed any financial manipulation. The objective of the study was to assess the effectiveness of the Beneish M-score in identifying financially manipulated companies and apart them from those whose financial information in the financial statements was transparent. The research data pertained to companies engaged in fraudulent activities (manipulating companies) as documented in the Fraud Database of Sanctions of Issuer Cases Public Companies, released by the Financial Services Authority between 2001 and 2014 (Rahimian & Hajiheydari, 2019). To establish a basis for comparison, the financial data of companies that did not engage in fraud (non-manipulating companies) during the same period and within the same industries were also included (Rahimian & Hajiheydari, 2019). The research dataset comprised financial statements of companies involved in fraudulent activities, as reported by the Capital Market Supervisory Agency or the Financial Services Authority (FSA) between 2001 and 2014 (Magdalena & Tanusdjaja, 2018). The results indicated that a total of 35 companies were engaged in fraud and considered as financially manipulated companies. To ensure a fair comparison, 35 companies that did not commit financial fraud, non-manipulating companies, were also selected based on equal asset levels (Miharsi et al., 2024)". The objective was to analyze all the companies.

DSRI (days sales receivable index) values "ranged from a minimum of 0.000 to a maximum of 15.845 for financially manipulated companies engaged in financial fraud and 1.367 was recorded as an average with 2.576 marked as standard deviation. In contrast, non-financially manipulated companies exhibited DSRI values between 0.103 and 3.036, with an average of 1.111 and 0.470 as standard deviation (Sanad & Al-Sartawi, 2021). GMI values for financially manipulated companies involved in fraudulent activities, varied from -81.180 to 48.335, with an average of 0.601 and a standard deviation of 16.349. Financially non-manipulated companies, committing no fraudulent activities, on the other hand, showed GMI values ranging from -18.928 to 26.811, averaging 0.902 with a standard deviation of 6.517 (Magdalena & Tanusdjaja, 2018). The DEPI values for financially manipulated companies carried fraudulent activities ranged from -728.537 to 1.732, with an average of -21.281 and a standard deviation of 123.117. Financially non-manipulated companies exhibited DEPI values between 0.002 and 1.434, with an average of 0.923 and a standard deviation of 0.232 (Magdalena & Tanusdjaja, 2018)". The variables of the model produced meaningful results.

In addition to that, principal component analysis (PCA) was conducted on "variables of the Beneish M-Score model. The SGI component was excluded from explanatory factors due to its negative value. Variables used for fraud detection in the Beneish M-Score Model included LVGI, TATA, SGAI, DEPI, AQI.GMI and DSRI (Sanad & Al-Sartawi, 2021). To evaluate the research model's suitability, the Chi-Square Homer and Lemeshow Goodness of Fit statistic was employed. The logistic regression tested revealed a Chi-Square Hosmer and

Lemeshow Goodness of Fit value of 5.459 with a significance value of 0.708 (sig> 0.05). This indicated that the developed model fit the data used in the study, suggesting that the binary model was acceptable and suitable for further analysis (Miharsi et al., 2024). The findings indicated that, overall, the Beneish M-score model successfully identified financially manipulated companies and differentiated them from those which were non-manipulating companies (Rahimian & Hajiheydari, 2019). Significant factors in detecting financially manipulated companies included the gross margin index, depreciation index, sales and general administrative burden index, and total accruals. Conversely, the sales index, asset quality index, and leverage index were found to be statistically insignificant", in detecting financially manipulated companies.

There was another researcher who conducted similar research. Narsa et al., (2023) "conducted a research study on the detection of financially manipulated with the help of M-score and its independent variables. The objective of the study was to determine the companies which had financially manipulated their financial statements and separate them from those which had not committed any fraudulent activities and considered non-manipulated companies. Several tools were developed to identify financial statement fraud resulting from financial manipulation. One such tool was the Beneish M-Score model, designed for financial forensics to assess the likelihood of financial manipulation in companies' financial statements (Sutainim et al., 2021). The model demonstrated its effectiveness by detecting 76% of firms as manipulator companies as these companies were engaged in financial manipulation that faced accounting enforcement actions from the U.S. Securities and Exchange Commission (U.S. SEC). Additionally, it successfully identified 71% of major fraudulent financial reporting scandals in manipulated companies in the United States before public announcement (Narsa et al., 2023)". The application of the variables was studied in depth.

The continued reading of the research study revealed that “the study evaluated the reliability of the Beneish M-Score model in detecting financially manipulated companies having financial manipulation and financial statement fraud committed by Malaysian public listed companies before public disclosure (Sutainim et al., 2021). The research sample comprised all publicly listed companies on Bursa Malaysia that were identified and accused of engaging in fraudulent financial reporting by the Malaysian Securities Commission from 1993 to 2014. The selection of these companies was based on information obtained from the Malaysian Securities Commission's website, which extensively disclosed companies charged for violations of various Securities Commission Acts and Regulations (Siregar et al., 2023). To ensure the consistency of the sample with the offense of fraudulent financial reporting, only companies found to have violated Section 122A, Section 122B, Section 122C, Section 122D of the Securities Industry Act 1983, and Regulation 4 of the securities Industry (Compliance with Approved Accounting Standards) Regulation 1999, specifically related to fraudulent and misrepresented financial statements, were included (Siregar et al., 2023). The sample included 17 public listed companies, where directors and top management were charged and prosecuted by the Securities Commission Malaysia (SC) for fraudulent reporting and misstatements from 1996 to 2014 (Sanad & Al-Sartawi, 2021)”.

The researchers further stated that “information about companies involved in different breaches of the Securities Commission Act and Regulations was gathered from diverse sources, including the Enforcement Actions list, which was categorized into criminal prosecutions, civil actions, regulatory settlements, and compounded cases (Khatun et al., 2022). These sources were accessible through the Malaysian Securities Commission's website. The details of these companies were meticulously reviewed and screened to identify relevant publicly listed companies that had violated Section 122A (Podder et al., 2022). Following the review, it was determined that 19 publicly listed companies had engaged in fraudulent financial reporting, contravening the Securities Commission Act and Regulations between 1993 and 2014 (Podder et al., 2022). Quarterly and final year financial statements for two consecutive periods (the fraud period and the period preceding the fraud) pertaining to these 19 companies involved in fraudulent reporting were acquired from Bursa Malaysia's website (Khatun et al., 2022). Two out of the 19 companies were excluded from the sample one due to committing fraudulent reporting in the same year after being listed on Bursa Malaysia, and the other due to insufficient financial statement data", for applying the Beneish M-Score model (Ahmed et al., 2022).

The in-depth study of the research indicated that "Beneish M-Score model, used to detect financially manipulated companies, necessitated two consecutive periods of the company's financial statement data, the period during which the fraud occurred and the preceding period (Haryadi et al., 2026). Consequently, a final sample of 17 publicly listed companies implicated in fraudulent reporting underwent examination for financial manipulation using the Beneish M-Score model (Hossain et al., 2022). Data extracted from the pertinent fraudulent and misrepresented financial statements for two consecutive periods were employed to compute the Beneish M-Score total. The results indicated that the Beneish M-Score model was dependable, detecting manipulated companies and separating them from those which were non-manipulated and had not done any financial manipulation and financial statement fraud (Sutainim et al., 2021). The percentage of companies identified by M-score involved in the financial manipulation and considered as manipulated companies was of 82%, indicating that 14 out of the 17 listed companies charged for fraudulent financial reporting (Narsa et al., 2023)". The variables of the model produced meaningful results here.

The researchers further stated that "these findings endorsed the use of the Beneish M-Score model by company management to identify manipulated companies, irregularities in financial reports, allowing adjustments before submission to Bursa Malaysia and averting potential reputational damage. The model was also beneficial for both prospective and existing shareholders in making informed investment decisions and reducing the risk of losses due to fraud (Kamaluddina et al., 2019). Furthermore, the study suggested that researchers, auditors, and enforcement agencies could apply the model as an effective detection tool to flag potentially financially manipulated companies and fraudulent reporting companies in Bursa Malaysia for further investigation and enforcement action (Rahimian & Hajiheydari, 2019)". The findings illustrated the productive use of independent variables of M-score.

M-Score Implementation to Identify Manipulator Companies in Asia

A group of researchers, Arman and Sharmin, (2019), also did a "detailed research analysis on identifying the manipulated companies involving fraudulent financial activities and fraud on Bangladeshi companies, with the help of M-score and its fraud indicators. According to them, the manipulation of financial statements involved purposeful and often malicious adjustments of financial records to meet predetermined objectives. Motivation for such actions might include achieving budgetary targets and rewarding senior managers with substantial incentives, representing a classic example of conflicts of interest. Bangladesh had witnessed a recent surge in the frequency and severity of such financial manipulations (Sakib, 2019). In response to this trend, the concerned board of directors was actively seeking enhanced surveillance techniques to more effectively detect financially manipulated companies", and investigate potential financial frauds (Siregar et al., 2023).

The continuation of the research study showed that "in their proactive approach against financial statement manipulation and identifying the manipulated companies, the board of directors was actively searching for warning signs. The current empirical study addressed that need by providing a profile of companies likely to manipulate their financial statements (Sharif, 2023). The study utilized data from the 2016-2017 financial reports of 105 companies listed on the Dhaka Stock Exchange (DSE), excluding banks and non-banking financial institutions. The present research employed data from companies listed on the Dhaka Stock Exchange, and M-scores were subsequently computed using the Beneish M-score. Subsequently, a multiple linear regression (MLR) model was constructed using SPSS, with the probability of financial manipulation (derived from the M-score using a cumulative normal table) as the dependent variable (Al-Hashedi & Magalingam, 2021). The independent variables were sourced from financial statements" and were not utilized in the Beneish model.

The research study further indicated that, "multiple linear regression was a widely used statistical method for examining the relationship between a single continuous dependent variable, in this case, the probability of financial manipulation or manipulated company, and several independent or predictor variables (Ramadhani et al., 2025). The MLR procedure assigned weights to these predictor variables to optimize prediction, with the weights indicating the relative contributions of the predictor variables to the overall forecasting. Additionally, these weights, also known as coefficients, aid in interpreting the impact of each variable in the forecasting process (Weygandt et al., 2025). Furthermore, a binomial logistic regression model was created using SPSS, where the dependent variable indicated whether a company is likely manipulator and engaged in financial manipulation or not. Companies with M-scores greater than -2.22 were classified as likely manipulators. The independent variables included data not previously considered in the Beneish model. Logistic regression was a specialized form of regression where the dependent variable was discrete rather than continuous (Akra et al., 2020). In this study, a binary logistic model was developed, where the dependent variable was dichotomous, taking values of 1 and 0 (1 if the company was likely manipulator and manipulating financial statements; 0 otherwise). The interpretation was akin to linear regression, though there were some differences" (Rykaczewski et al., 2022).

The data of the research study which was intended for input into the Beneish model was “gathered from the annual reports of companies listed on the Dhaka Stock Exchange (DSE). Despite there being over 500 companies listed on the DSE, not all of them provide their data through annual reports on their websites. Additionally, the analysis excluded banks and non-banking financial institutions, resulting in a total of 104 companies' data being examined for the years 2016-2017 (Kranacher & Riley, 2019). The likelihood of financial manipulation was quantified using the Beneish M-score model. The results indicated a maximum M-score of 7.06 and a minimum of -8.98, where higher scores suggested an increased likelihood of financially manipulated companies (Sutainim et al., 2021). Using a cut-off point of -1.78, twenty-five companies were identified as suspected of being manipulated due to financial manipulation and fraudulent activities., while using a cut-off point of -2.22, fifty-seven companies were deemed likely manipulators” (Sutainim et al., 2021).

The research study highlighted that “subsequently, a logistic model was developed to explore the relationship between the likelihood of financially manipulated companies and various company-specific variables not explicitly considered in the Beneish M-score model (Mollah & Sakib, 2020). The findings were expected to contribute to the analysis of profiles of companies prone to financial manipulation, thereby enhancing corporate governance practices in emerging economies like Bangladesh (Kamaluddina et al., 2019). The Beneish M-score served as one of several quantitative tools complementing quantitative as well as qualitative techniques for evaluating the reliability of financial reporting and identifying the manipulator companies (Arman & Sharmin, 2019). This eight-component model had been widely adopted by both corporate analysts and academic researchers globally to identify companies prone to financial manipulation and fraudulent activities. In a cross-sectional analysis involving over 100 companies listed on the Dhaka Stock Exchange (DSE), approximately half of them were identified as likely manipulators, using an M-score cut-off point of -2.22 (Kamaluddina et al., 2019)”. Beneish M-score model and its independent variables were studied in depth.

In this research study, “subsequent analysis aimed to profile these companies in terms of characteristics not explicitly considered in the Beneish M-model (Hołda, 2020). The multiple linear regression model, with the likelihood of manipulator companies and financial manipulation as the dependent variable, highlighted several statistically significant variables, including age, extent of government ownership, and the sector of the company (Lotfi & Aghaei, 2018). Additionally, the binary logistic regression model identified a few statistically significant variables, such as age, short-term loans, and the percentage of shares owned by the general public. Interestingly, both models revealed a similar pattern in the relationship between age and the likelihood of being a manipulator company due financial manipulation (Hakimah et al., 2019). The study found a positive relationship between the likelihood of being a manipulator company due financial manipulation and the age since incorporation, while the relationship with age since listing on the DSE was negative (Zelin, 2018). This pattern suggested that as a company matures, the likelihood of being a manipulator company due financial manipulation increased”, but once listed, this likelihood decreases, possibly due to enhanced disclosure.

The researchers suggested that “to enhance the study's scope, future research could include data spanning multiple years and address issues of reporting bias and selectivity bias. The current limitation was lying in the availability of financial data, primarily from prominent and well-established firms due to the poor state of corporate governance (Arman & Sharmin, 2019). A more extensive sample size, encompassing poorly performing companies, could provide deeper insights into the quality of financial reporting. Additionally, the inclusion of non-listed companies would enrich the sample and facilitate more in-depth analysis (Sakib, 2019)". M-score could be of valuable use in such a research study.

M-Score Implementation in Indonesian Companies

A group of researchers decided to apply the "modified M-score on the listed manufacturing companies of Indonesia to detect the manipulator companies due to financial fraud and fraudulent activities. Narsa et al. (2023) integrated the fraud triangle concept with a customized Beneish M-score to identify factors influencing financial management and motivating companies to commit financial fraud. The modified M-score formula utilized in this study incorporated five original ratios and four additional ones (Aviantara, 2023). Beneish (1999) employed eight ratios to identify manipulator companies, financial manipulation and fraudulent activities and categorized companies based on financial statement fraud. The M-score consisted of eight independent variables, which Beneish (1999) said were the independent fraud indicators, based on the accounting ratios. These powerful accounting ratios indicated a relationship with manipulator companies and financial manipulation". The use of the accounting ratios proved fruitful and productive.

Beneish's research was rooted in the accounting standards and "policies of the United States in 1999. While Beneish's formula had been widely employed and tested, results have shown variations, prompting the need for modifications to enhance accuracy (Afifa et al., 2021). The study introduced four new ratios derived from the research, which would serve as the basis for categorizing companies as manipulator companies (engaging in financial manipulation) or not. The added ratios were CAT, FAR, EC, and AO (Aviantara, 2023). Recent studies investigating manipulator companies due to financial fraud also leveraged the Beneish M-score to detect financial statement fraud (Afifa et al., 2021). These studies presented a compelling argument that the Beneish M-score was particularly effective in predicting black manipulator companies" and financial manipulation.

The study examined a sample of "284 manufacturing companies listed on the Indonesia Stock Exchange from 2017 to 2019. The data employed in the study was secondary and originated from financial and annual reports of manufacturing companies listed on the Indonesia Stock Exchange for the years 2017–2019 (Narsa et al., 2023). Various websites were also accessed to compile the data. In examining the impact of financial stability, leverage, financial targets, industry nature, supervisory effectiveness, and auditor changes on financial manipulation and manipulator companies in manufacturing sector companies listed on the Indonesia Stock Exchange from 2017 to 2019, this study employed multiple logistic regression analysis (Aviantara, 2023). Logistic regression was chosen due to the categorical nature of the dependent variable (manipulator vs non-manipulator), as recommended to mitigate potential bias arising from group differences (Jain & Bose, 2023). Classical assumption tests for normality on the independent variables were not conducted since multiple logistic regression analysis did not necessitate it. Nevertheless, multicollinearity was also assessed, ensuring that the independent variables lacked correlation (Kabwe, 2023). Alongside logistic regression, an additional t-test was executed to enhance confidence levels and verify the robustness of results. In the t-test, the sample was divided into manipulators and non-manipulators, and each fraud component was compared between the two groups (Narsa et al., 2023). Statistical analyses were carried out using SPSS", to have the best and productive results.

Through logistic regression tests and t-tests, the "findings revealed that asset growth, changes in receivables to sales, and auditor changes exhibited a negative correlation, while M-score's debt ratio showed a positive correlation with manipulator companies and financial manipulation. Furthermore, M-score return on assets showed no significant relationship with fraudulent companies and financial manipulation (Aviantara, 2023). In essence, companies engaging in financial manipulation faced increased leverage pressure and had fewer independent commissioners (Afifa et al., 2021). This study was groundbreaking in its application of the modified Beneish M-score model for detecting manipulator companies, financial manipulation and fraudulent activities in Indonesian manufacturing companies. The model's effectiveness established it as a valuable tool for detecting manipulator companies and fraud; and was anticipated to contribute to future research endeavors (Narsa et al., 2023)". The model proved to be effective and could be used for better results.

M-Score Implementation to Identify Manipulator Companies in Ghana

There was another researcher named, Adu-Gyamfi (2020), who "conducted extensive research on investigating the listed companies on Ghana Stock Exchange to identify the financial statement fraud and manipulator companies due to fraudulent activities. The study aimed to identify potential manipulator companies due to financial manipulation among companies listed on the Ghana Stock Exchange (Adoboe-Mensah et al., 2023). It sought to determine the extent to which different-sized companies employ creative accounting practices and explore any correlation between share prices and earnings manipulation. The dissertation explored the potential for financial manipulation within non-banking and finance companies listed on the Ghana Stock Exchange. Its aim was to uncover the manipulator companies due to financial manipulation and extent of fraudulent activities among these listed companies and to ascertain whether smaller companies, in comparison to larger ones, were more involved in manipulating financial information", in the financial statements from 2011 to 2016 ((Khatun et al., 2022).

The continued reading of the research study revealed that "the research also sought to understand the relationship between financially manipulated companies, financial manipulation and the share prices of the sampled listed companies, exploring whether this correlation differed based on company size (Kukreja et al., 2020). By employing Beneish's M-Score model for analysis, the study identified listed companies that manipulated their financial statements between 2011 and 2016, providing a valuable tool for investors to make informed investment decisions and contribute to the stability of the Ghanaian stock market. Through correlation analysis, the dissertation further examined the connection between financial manipulation (M-score) and the share prices of the sampled companies (Ahmed et al., 2022). The findings had the potential to guide both potential and existing investors in making profitable investment decisions", while minimizing associated risks.

The extensive research of the aforementioned researcher "focused on 22 out of 41 listed companies, examining financial data from 2011 to 2016 obtained from their published financial statements, the Ghana Stock Exchange website, and the Annual Report Ghana website (Adoboe-Mensah et al., 2023). In this quantitative research methodology, financial data extracted from the financial statements of the selected listed companies were utilized. The accuracy of the secondary data collected was ensured by sourcing published financial statements and annual reports directly from the websites of the sampled listed companies, the Ghana Stock Exchange, and the Annual Reports Ghana websites (Hossain et al., 2022). The researcher opted against using primary data, as the financial information required for the analysis was readily available through published sources. Moreover, the chosen research methodology did not necessitate the use of primary data. Drawing on insights from Beneish (1999), the M-Score, a quantitative method, was applied. This method utilized financial statement data to assess the authenticity of a firm's earnings", and identify potential earnings manipulations.

One of the researchers came out with a statement and defined the concept of correlation coefficient. As per the researcher, Kovshun et al. (2024), “the correlation coefficient was a metric for gauging the linear association between two variables. The primary objective of this quantitative research was to ascertain whether public companies listed on the GSE engaged in financial manipulation and needed to be declared as manipulator companies; and to explore the correlation between manipulator companies, financial manipulation and share prices (Bimpong et al., 2020). Out of the approximately 41 companies listed on the GSE as of December 31, 2016, 22 were included in the analysis, with a specific exclusion of all banking and finance-related companies”, in this quantitative research.

Using the Beneish M-score model for the period 2011-2016, the “findings revealed that, on average, 26.2% of the sample engaged in creative accounting and needed to be declared as financially manipulated companies (Adu-Gyamfi, 2020). Additionally, small companies showed a higher average (28.4%) of financial manipulation compared to big companies (25.4%) during the same period. However, statistical analysis using the Mann-Whitney U test indicated no significant difference in the level of manipulator companies due to financial manipulation between small and big companies (Adoboe-Mensah et al., 2023). Spearman’s correlation analysis, conducted on the entire sample and separately on small and big companies, showed no significant relationship between manipulator companies, financial manipulation and share prices (Kukreja et al., 2020). The quantitative research shed light on the prevalence of financial management in Ghana's public companies and evaluated the effectiveness of the M-score model in detecting such manipulator companies. The evidence of creative accounting emphasized the need for stricter measures to curb these practices, ensuring the stability of the Ghanaian stock market”, and safeguarding investor interests (Bimpong et al., 2020).

The Beneish M-score model proved “effective in predicting the likelihood of financial manipulation within listed companies in Ghana and the need to declare them as manipulated companies (Mollah & Sakib, 2020). However, its applicability was limited to companies with diverse fixed or long-term assets, encompassing not only property, plant, and equipment but also other elements like long-term investments and intangible assets” (such as goodwill and patent rights).

In scenarios in which fixed assets solely consisted of “property, plant, and equipment, or where total assets were equivalent to current assets and property, plant, and equipment, the computation of the Asset Quality Index, a crucial component of the M-score formula, became unfeasible and might result in an undefined outcome (Jain & Bose, 2023). This limitation was evident in the computation of M-scores for Transol Solutions Limited, Fan Milk Limited, African Industries Limited, Clydestone (Ghana) Limited, and Cocoa Processing Company Limited. This quantitative research offered valuable insights into the prevalence of financial manipulations among listed companies in Ghana. The revealed instances of manipulator companies due to financial manipulation served as a wake-up call for regulators, auditors, and investors, urging them to adopt more stringent measures when dealing with companies listed on the Ghana Stock Exchange (Ratmono et al., 2020). Additionally, the research contributed substantial knowledge on the application of the M-score model and highlights the specific circumstances”, in which it was most appropriate.

The research findings underscored a potential lack of attention or effectiveness “on the part of various stakeholders responsible for ensuring the authenticity and manipulation-free nature of financial statements published by companies on the GSE (Subiyono & Suardi, 2020). Companies identified as having manipulated their financial information in the financial statements in this research had yet to be detected and penalized, indicating a gap in the tools or processes used by these stakeholders. This aligned with the findings of (Kukreja et al., 2020), who estimated a high probability (approximately 97.61%) of the U.S. Securities and Exchange Commission", failing to detect fraud.

M-Score Implementation to Identify Manipulator Companies in Europe

Another researcher, (Maniatis, 2022), "performed the analysis, using the M-score and its eight independent variables, on the companies listed on the stock exchange of Athens to detect the manipulator companies due to financial manipulation and identify the probability of financial fraud in such companies. The paper sought to identify whether companies listed in the overall index of the Athens Stock Exchange Market might have manipulated their financial statements and engaged in financial manipulation between 2017 and 2018. This study aimed to investigate the likelihood of financial statement fraud through financial manipulation in Greece from 2017 to 2018, employing the Beneish model. The Beneish model, as introduced by Beneish in 1999, utilized eight variables derived from information present in the financial statements (including the balance sheet and income statement) of the companies under examination (Halilbegovic et al., 2020). The findings of this study had the potential to contribute to the existing literature on financially manipulated companies and financial fraud in Greece, as there was a scarcity of recent research", on this specific topic (Gyawali, 2021).

The continuation of the research study showed that "the sample encompassed all company stocks listed in the General index of the Athens Stock Exchange Market during the period from 2017 to 2018. In this research, the sample comprises selected companies listed in the general index of the Athens Stock Exchange Market as of August 31st, 2019, utilizing data extracted from their published financial statements for the years 2017 and 2018 (Lehenchuk et al., 2020). The general index, composed of 60 companies, stood out as the largest among various indices. The inclusion of companies from the general index was deliberate due to their numerical superiority over other indices and their representation across diverse commercial sectors (Kabwe, 2023). However, for model accuracy, financial services-related companies were excluded from consideration, aligning with Beneish's research, which did not encompass them (Lehenchuk et al., 2020)". As a result, the selected sample did not consider five banks and three other financial services companies.

By further looking at the research study revealed that "four additional companies were excluded from the sample due to the inapplicability of certain variables required for the M-score calculation. Specifically, two of these companies reported zero revenue and/or cost of sales in either 2017, 2018, or both years, a characteristic often observed in consulting or construction sectors where the cost of sales may be nonexistent (Kabwe, 2023). In summary, the total sample was composed of 40 publicly listed companies. The stock market company symbols used in the Athens Stock Exchange Market and the corresponding company names were also included in the sample (Maniatis, 2022). Following the computation of the M-score for each company within the sample, the companies were divided into two groups based on their likelihood of engaging in financial manipulation and declaring as manipulator companies and differentiating them from non-manipulators (Ahmed et al., 2022). According to Beneish's model, a company with an M-score exceeding -2.22 was more likely to employ financial manipulation, while a score below -2.22 indicated a lesser likelihood of utilizing such techniques (Hossain et al., 2022)". The application of variables was productive.

As a result, the researchers reach out a conclusion that "companies with an M-score surpassing -2.22 were classified as manipulators, while those scoring below -2.22 are designated as non-manipulators. Considering all the aforementioned criteria, it was determined that 33 out of the 40 companies had an M-score below -2.22 and were therefore categorized as non-manipulators, having less likelihood of financial manipulation and earning management

(Meher et al., 2022). Meanwhile, seven companies exhibited an M-score exceeding -2.22, earning them the classification of manipulators. In essence, 82.5% of the sample was deemed unlikely to engage in financial manipulation, while 17.5% of the companies listed in the general index of the Athens Stock Exchange Market were identified as likely to manipulate their earnings (Podder et al., 2022). The results were based on the descriptive statistics for manipulators, non-manipulators", and the overall sample.

It was concluded that the sample of the selected companies "consistently strived to enhance the presentation of their financial statements and earnings potential to appeal to stakeholders, as their survival and success was dependent on investor funds, the ability to borrow at favorable rates, and customer satisfaction (Khatun et al., 2022). Consequently, during less profitable or loss periods, companies might feel pressure to explore alternative, and sometimes illicit, meant to mask unfavorable financial results. Deliberately misstating a company's financial information to create a misleading and overly positive financial image was deemed financial statement fraud (Hołda, 2020). To assess the significance of each variable independently in relation to the M-score, representing the Beneish model, least squares regression was employed. The same formula was applied for each of the eight variables (Emilia et al., 2020). With t-statistics values of 26.408 and 2.010, respectively, it was determined that the TATA and SGI variables exhibited a significant relationship with the M-score. While the Beneish model assessed the likelihood of financial statement fraud by the manipulator companies, resulting from financial manipulation, and the findings of this study regarding seven potential company manipulators hold significant importance, it was crucial to handle the information with care". The application of M-score model along with its variables provided reliable results.

Conclusion

The application of M-score and its accounting ratios have concluded that it is a dependable model and the results that are obtained from it are reliable. It further depicts that "the findings of the different researches expand the comprehension of financial manipulations in different countries and the robust performance of the M-score in detecting financial manipulations in these countries have been successfully demonstrated. This M-score serves as a dependable tool for investors, aiding them in decision-making and validating the trustworthiness of accounting information within financial reports. Furthermore, it plays a crucial role for banks and other financial institutions by safeguarding them against fraud or potential cases of uncollectible lending". To conclude with, M-score is a reliable model and different researchers have used it in different parts of the world with same convincing results.

2.3.2.4.Likelihood of Financial Manipulation in Pakistani Listed Companies

The most significant indicator here is "the probability, as it serves to reveal whether companies are involved in significant financial manipulations. A strongly negative outcome from the M-score for a company signals a high likelihood of material misrepresentation in its financial statements (Holda, 2020). Thus, the goal is to identify and bring attention to those companies with a high probability of engaging in financial manipulations.

M-Score and Likelihood of Financial Manipulation in Asian Companies

To prove the M-score reliability and ability to detect whether the financial manipulation in the companies is high or low, Lotfi and Aghaei (2018), organized a research study on the listed companies of Tehran. Identifying financial fraud stood as a critical concern, as neglecting it could lead to both financial and non-financial repercussions for individuals and organizations. The study aimed to assess the effectiveness of the Beneish M-Score Model in detecting whether the financial fraud within companies", listed on the Tehran Stock Exchange was high or low (Magdalena & Tanusdjaja, 2018).

It was extensive research which was consisted of 137 companies listed on "the Tehran Stock Exchange over an 11-year period (2005-2015). Logistic regression analysis was employed to test the research hypothesis with a significance level of 5%. The research belonged to the post-event research category, employing past information to test hypotheses. The analysis of data was conducted through logistic regression models using Eviews software (Weygandt et al., 2025). To scrutinize the data, normality tests and Probit analysis were applied. For testing the research hypothesis, regression assumptions were examined, followed by the use of a multivariate regression model. The research encompassed all companies listed on the Tehran Stock Exchange, with a sample comprising 137 companies across various industries (Faisal et al., 2024). The M-Score Beneish model was utilized to detect whether these companies had high or low likelihood of financial manipulation in their financial information", presented in the financial statements (Wahid, 2019).

The discussion stated that in "descriptive statistics, the mean served as the primary indicator, representing the balance point and center of distribution. It provided a reliable measure of data centrality. For instance, the mean value for an independent fraud indicator gross margin index was 1.202, indicating that the majority of data clusters around this point (Matinheikki et al., 2022). Another central indicator was the median, reflecting the sample's status. In this case, 0.605 was the median for total accruals to total assets, signifying that half of the data fell below this value, and the other half exceeded it. From all the fraud indicators, total accruals to total assets had the lowest average level at 0.888, while days sales receivable index had the highest at 7.469. Furthermore, total accruals to total assets and days sales receivable index exhibited the lowest and highest median levels, with values of 0.605 and 7.055, respectively (Tewari and Ramanlal, 2022)”.

The further in-depth analysis of the research study revealed that “the management's distortion process was deliberately well-organized, routine auditing methods struggled to uncover fraudulent practices. Thus, establishing criteria and compiling indicators for fraud detection became a crucial and significant endeavor (Kayikci et al., 2022). In recent years, global organizations had developed numerous laws and regulations pertaining to fraud detection, prevention, and reporting. The M-score Beneish model had emerged in response to this need and had been widely utilized in the analysis of likelihood of high or low fraudulent financial activities (Xu et al., 2018). Consequently, the research aimed to assess the M-score Beneish model's effectiveness in detecting fraud within the financial statements of companies listed on the Tehran Stock Exchange. The study encompassed all companies listed on the Tehran Stock Exchange, with a sample of 137 companies from 2005 to 2015 (Svabova et al., 2020). The findings indicated that the accuracy of the Beneish M-Score model in identifying whether the likelihood of the financial manipulation and fraudulent financial reporting was high or low resulted at 66.03% accurate (Vousinas, 2019)”. The financial manipulation was detected by the variables applied.

The detailed study of the research showed that “the research hypothesis was tested using the logistic regression method. The findings revealed that, based on the logistic model, the accuracy percentage for detecting the high or low likelihood of fraudulent and non-fraudulent financial reporting was 20.67% and 80.16%, respectively. In general, it could be argued that, the M-score Beneish model was suitable tool for detecting likelihood of financial fraud on the Tehran Stock Exchange (Hakimah et al., 2019). Like every research, this research also some limitation. Limitations of the research included the omission of inflation and price level change effects, a restricted time frame, and a lack of industry-specific separation. Despite these limitations, the encouraging results suggested the need for further research to increase the accuracy above 80% level to identify whether the likelihood of financial manipulation and fraudulent activities in the financial statements of the listed companies of Tehran was high or low (Lotfi & Aghaei, 2018)".

M-Score and Likelihood of Financial Manipulation in European Companies

Another researcher, Knežević (2018), "conducted research on the super league football clubs of Serbia, with the help of M-score and its accounting ratios, to identify whether the probability of financial information manipulation in the financial statements of these clubs was high or low, indicating the chances of financial fraud which could lead to financial destruction for these clubs. The primary aim of financial reporting was to safeguard the interests of investors and creditors through the disclosure of objective and unbiased financial information. The importance of high-quality financial reporting had grown substantially due to various accounting manipulations and numerous corporate scandals (Al-Hashedi & Magalingam, 2021). These scandals had underscored the limitations of audits in detecting financial fraud, highlighting the need for forensic accounting. Financial statements served as the primary source of financial information for analyzing a company's business performance. In the study, the research sample was of 13 Super League sport clubs in the Republic of Serbia, with the objective of investigating whether the financial statements of these clubs had high or low probability of financial manipulation", due to potential earnings manipulation (Weygandt et al., 2025).

The findings indicated that a "significant number of clubs revealed high probability of financial misstatements in their financial reports. The values of the accounting ratios of M-score further indicated that these values could signal problematic areas within the company's operations or inaccuracies in the financial reports (Ramadhani et al., 2025). Let's start by examining the findings for the football club named RAD. The first index which was days sales receivable for the club did not exhibit high likelihood of financial manipulation, except for the year 2013, where customer receivables surged nearly 18 times compared to 2012 (Ozkale & Ozdemir, 2022). The other significant index of M-score was assets quality index, this index revealed that high likelihood of financial manipulation predicted in the years 2011, 2013, and 2014, with the index surpassing 1, possibly indicating a higher share of deferred costs. The index named sales growth", evidenced growth in 2010 and 2012 (Safta et al., 2021).

For the football club Crvena Zvezda, DSRI (days sales receivable) was the "concerning indicator which increased over four periods. Additionally, the gross profit index showed a deterioration in gross profit value when the current account differential over the previous year crossed 1 (Akra et al., 2020). For the oter football club named, Partizan football club, it faced challenges with one of the indexes called days sales receivable index, which displayed noticeable year-to-year growth, suggesting a high likelihood of financial manipulation and potential overestimation of income and profit (Kranacher & Riley, 2019). The GP index of this club faced significant growth in 2014. From 2010 to 2013, the AQI consistently exceeded 1, raising a potential red flag regarding the proper valuation of assets. The income value slightly increased each year (Faisal et al., 2024). The other index related to depreciation was problematic across all observed years, with values greater than 1, indicating high likelihood of financial manipulation and potential profit increase", through manipulation of the depreciation rate and asset useful life (Wahid, 2019).

One of the sports club, Vojvodina sports club, among the Beneish M-score model variables, "did not show problematic values for its accounting ratios and fraud indicators like days sales receivable, gross profit and gross margin indexes (Matinheikki et al., 2022).

However, the other indexes like AQI and DEPI exceeded prescribed standard values and pointed towards the high likelihood of financial manipulation. Another football club, Čukarički recorded significant increases in the fraud indicators of M-score compared to the previous year (Tewari & Ramanlal, 2022). Similarly, another football club, Spartak Ždrepčeva krv experienced issues such as decreased gross profit, overstated income, inadequate depreciation rate, write-off value of fixed assets, and useful life manipulation. The football club, Borac, showed that day's sales receivable index had significant oscillations in 2014, with the indicator being approximately 20 times higher than in other years. Similarly, the sales growth index showed abnormal growth in 2010 and 2013 (Kayikci et al., 2022). The depreciation index in 2014 increased by more than 3 times, indicating high likelihood of financial manipulation and potential profit increase", through fixed asset manipulation.

The football club, Mačva, faced a "substantial increase in the ratio of DSRI from customers in 2012, with the value being 39 times higher than other years. The club, Napredak, recorded a significant increase in days sales receivable index in 2010 and 2011, and the DEPI in 2012 showed up to 5 times higher growth compared to other observed years, suggesting high likelihood of financial manipulation and potential profit increase through constant asset manipulation (Svabova et al., 2020). In summary, there were notable differences among football clubs in terms of the significant accounting ratios of M-score, when applied on the financial information of these football clubs. Their behaviors during this period exhibit significant oscillations (Vousinas, 2019). The aim of the conducted research was to pinpoint potential areas of financial manipulation to identify whether these areas had the high or low probability of financial manipulation within financial statements (Zelin, 2018). The Beneish M-score model had been employed to assess the probability that sampled sports clubs had financially manipulated their financial information. The model had highlighted discrepancies in the disclosure of liquidity, profitability, turnover of business assets, income, write-off of assets, and the value of net earnings (Hakimah et al., 2019). These outcomes were attributed to the "subpar quality of financial reporting and the application of IFRS and other accounting-related legislation in the Republic of Serbia. To mitigate occurrence of financial manipulations, it was essential to enhance quality of financial reporting, ensure consistent adherence to legislation, and improve the efficacy of audit procedures (Knežević, 2018)". The application of M-score model and its independent fraud detecting variables produced the results which were reliable and trustworthy.

M-Score and Likelihood of Financial Manipulation in African Companies

One of the researchers named, Marais et al. (2023), conducted a research study on the "companies of South Africa to detect the likelihood of financial manipulation in these companies. The primary objective was to determine whether these companies had modified their books and financial records and there was high or low likelihood of financial manipulation in such companies which could lead to big financial scam and fraud. The study stated that in recent times, South Africa had witnessed several significant instances of financial statement fraud. To aid stakeholders in fraud detection, the study examined the effectiveness of the Beneish M-score and the Dechow et al. F-score in identifying fraud within the South African context (Narsa et al., 2023). The study also delved into similarities in financial manipulation and earnings management characteristics between false positives and companies engaged in financial fraud". The research tried to make an in-depth analysis through this research study.

For this in-depth analysis, the study re-evaluated the "models' coefficients using current South African data to assess if this enhanced their predictive capabilities. Utilizing a sample of 23 manipulated and 2,320 non-manipulated observations from 2006 to 2018, the study revealed that both scores demonstrated low likelihood of financial manipulation, sensitivity and precision (Adoboe-Mensah et al., 2023). False positives exhibited comparable or higher financial and earnings management characteristics compared to manipulative companies. The study took the entire population of 330 non-financial companies listed on the main board of the JSE (Stock Exchange of Johannesburg) from 2006 to 2018. Financial companies were excluded from the study, as the M-score was initially developed for non-financial firms (Kukreja et al., 2020), and financial firms were subject to different regulatory requirements that might influence the calculation outcomes (Yousef & Al-Fatlawy, 2023). The choice of ending the sample in 2018 allowed regulators ample time to investigate suspected irregularities, considering the mean and median time between fraud and the issuance of an enforcement action. As per analysis, 2.41 years was the median period from violation to the first enforcement action in the US", and allowed for a two-year gap (Al Shammari, 2019).

In the South African context, studies had "utilized measures such as qualified audit opinions, small losses, and high likelihood of financial manipulation and earnings distribution discontinuities as proxies for financial statement manipulation instead of relying on enforcement actions (Narsa et al., 2023). Notably, there was a lack of data on the duration it took for the panel of FSCA and FRIP to issue an enforcement action or equivalent. Consequently, the study accommodated a three-and-a-half-year gap for regulators to identify violations of financial manipulations, extending from 2019 to mid-2022 (Aviantara, 2023). In summary, the study involved an unbalanced panel of 330 firms over 13 years, representing 2,775 firm-year observations. Financial data were sourced from Standard and Poor's Capital IQ and Bloomberg databases, utilizing as originally reported, data to mitigate the risk of anomalies being removed during data restatement (Afifa et al., 2021)". It was indeed a detailed analysis of the sampled firms.

The further reading of the research study revealed that "the study examined four hypotheses related to the effectiveness of the M-score model in detecting high or low likelihood of financial statement manipulation in the context of South Africa. The first hypothesis, which assessed the ability of the M- score to identify financial manipulation in SA, was not supported (Jain & Bose, 2023). The second hypothesis, based on previous studies was also not supported. Partial support was found for the third hypothesis, indicating that false positives shared similar or higher levels of discretionary accruals compared to financial manipulators (Kabwe, 2023). The fourth hypothesis, predicting that updating the coefficients of the M-score would enhance their ability to identify likelihood of high or low financial manipulators in SA, was partially supported", with improvements in some aspects and drawbacks in others (Aviantara, 2023).

The results of the research study were interesting and depicted that "in summary, hypotheses 1 and 2 were not supported, while partial support was found for hypotheses 3 and 4. The study, using a sample of 23 manipulators and 2,320 non-manipulators from 2006 to 2018, revealed limited accuracy in classifying financial manipulators (Adoboe-Mensah et al., 2023). Further exploration into the financial manipulation and earnings management characteristics of false positives indicated that the models might be categorizing companies based on AEM (abnormal earnings manipulation) and financial earnings thresholds. However, extensive financial manipulation in terms of earnings management did not definitively indicate likelihood of financial fraud" (Narsa et al., 2023).

The research offered several contributions. First, "it highlighted the M-score model for predicting high or low likelihood of financial manipulation and fraudulent financial reporting. It also suggested that regulators in South Africa might face challenges in identifying financial manipulator companies due to potential underreporting, resource constraints, and weak legal enforcement (Narsa et al., 2023). Second, the study advised researchers to report a diverse range of performance metrics to provide a comprehensive understanding of model strengths and weaknesses. Third, it contributed to the academic literature by investigating the financial manipulation due to earnings management characteristics of false positives, revealing that the models tend to differentiate companies with high levels of financial manipulations due to earnings management rather than those committing fraud (Kabwe, 2023). Lastly, the study emphasized the need for more nuanced approaches in updating model coefficients, advocating for the incorporation of new variables that better distinguished between manipulator and non-manipulator companies (Marais et al., 2023)".

On the flip side, every research has the limitations. Therefore, the research had the "limitations too. The research had limitations, suggesting avenues for future studies. It focused on only a model and incorporated information directly from financial statements, limiting its generalizability to other countries (Marais et al., 2023). Future research should assess model performance in various contexts and explore more sophisticated models. The study also considered only AEM and earnings thresholds, neglecting other types of financial and earnings management. Subsequent studies should delve into real financial and earnings management characteristics and identify additional thresholds relevant to the SA context (Yousef & Al-Fatlawy, 2023). Additionally, future research could explore the inclusion of new variables to enhance model discrimination", between manipulator and non-manipulator companies.

<u>M-Score and Likelihood of Financial Manipulation by Other Researchers</u>

Some of the researchers, Mudith and Kawshalya (2020), did research study on the "Sri Lankan companies, with the use of M-score and its powerful fraud indicating ratios, to detect the likelihood of financial manipulation in the financial statements of the companies registered in the territory of Sri Lanka. As per the researchers, Mudith and Kawshalya (2020), detecting the high or low likelihood of financial statement fraud was a significant concern in today's business landscape, requiring a deep understanding of the nature of financial fraud, its methods, and concealment techniques. The study aimed to identify potential indicators, or red flags, of financial statement fraud by applying the Beneish M Score model. The financial statements of manufacturing sector-listed companies were examined over a seven-year span, from 2013 to 2019 (Akra et al., 2020). According to ACFE (2018), an association related to fraud examiners, the manufacturing sector ranked as the third-highest industry affected by employee financial fraud, with the banking sector and public sector entities occupying the first and second positions, respectively (Svabova et al., 2020). Data extracted from the financial statements spanning seven consecutive periods of manufacturing companies were utilized to compute the total score of the Beneish M-score model". It was a detailed analysis of the financial statements of Sri Lankan Companies.

The benchmark of M-score has always been -2.22 and like other researches a threshold of "scores greater than -2.22 was applied to assess potential practices of financial manipulation and earnings manipulation and financial statement fraud within these companies. Additionally, each of the eight variables indices of the Beneish M-Score underwent scrutiny against the manipulation threshold defined by Beneish (1999). The analytical approach included descriptive statistics and paired sample t-tests to analyze the data. The ensuing results and a detailed discussion were presented (Emilia et al., 2020). The findings revealed that, for each year considered in the study (2013-2019), there were companies exhibiting a Beneish M Score greater than -2.22, signaling a high likelihood of financial manipulation in their financial statements (Kukreja et al., 2020). Through paired sample t-test analysis, it was demonstrated that eight ratios in the Beneish model, showed significant differences between manipulated and non-manipulated firms, having high and low likelihood of financial manipulation respectively (Parvin, 2020). This suggested that the Beneish M Score model could serve as a valuable risk assessment tool for recognizing red flags", associated with potential financial statement fraud in business entities in Sri Lanka (Ratmono et al., 2020).

The further detailed study of this research study revealed that the “financial statement frauds and manipulations had become a prevalent issue in today's business environment, carrying severe repercussions for both individual businesses and the broader economy (Subiyono & Suardi, 2020). Detecting such financial fraud was a challenging task, requiring an in-depth understanding of its nature, motivations, and concealment methods (Triyanto, 2020). In light of this complexity, the current study sought to examine the suitability of the Beneish M Score model in capturing financial statement distortions resulting from financial manipulation or identifying the likelihood of high or low financial manipulation in the financial statements, a precondition, that might lead companies to engage in such fraudulent activities (Valaskova & Fedorko, 2021). The model employed eight ratios calculated from financial statement figures to detect high or low likelihood of financial manipulation and distortions resulting from earnings manipulation or to identify a propensity for engaging in such financial manipulation (Gyawali, 2021). The study focused on listed companies in the manufacturing sector of the Colombo Stock Exchange over seven consecutive years, from 2013 to 2019. The findings indicated that, in each year of the study, there were companies with a Beneish M Score greater than -2.22, potentially indicating high likelihood of financial manipulations in their financial statements (Halilbegovic et al., 2020)”, rather than the low likelihood of financial manipulations.

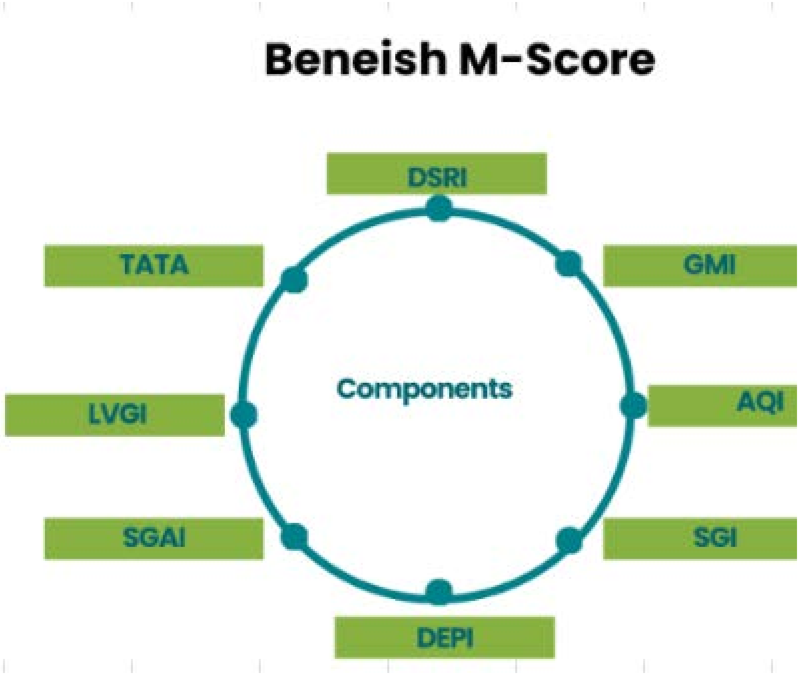
As mentioned earlier, it was extensive study, therefore, “the analysis was extended to include a paired sample t-test to investigate significant differences in ratios between manipulated and non-manipulated firms identified by the Beneish M Score. Results of the t-test revealed that five accounting ratios of M-score exhibited statistically significant differences between manipulated and non-manipulated firms, showing high or low likelihood of financial manipulation (Srebro et al., 2021). These results suggested that the Beneish M Score model could serve as a valuable risk assessment tool for identifying potential manipulations and financial frauds in financial statements (Gyawali, 2021). The implications of this paper extended to various stakeholders, including External Auditors, Forensic Accountants, Accountants, Senior Managers, Regulators, and others involved in financial oversight (Mudith & Kawshalya, 2020). By broadening the knowledge of these stakeholders, the study contributed to enhancing the capacity to detect the likelihood of high or low financial manipulation and red flags indicative of financial statement frauds", in the Sri Lankan context.

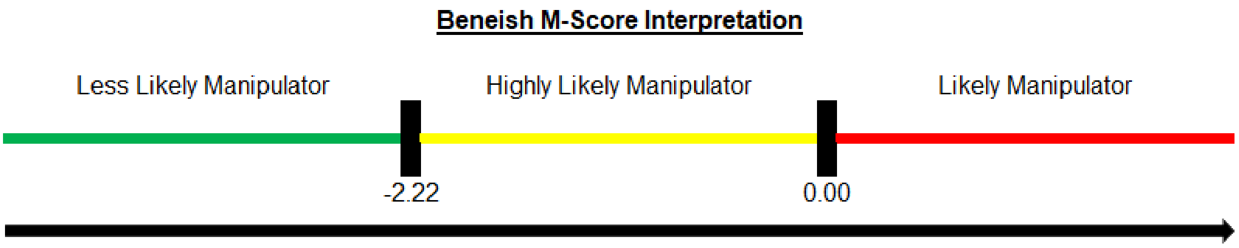
Conclusion

The application of M-score and its accounting ratios have concluded that it is a dependable model and the results that are obtained from it are reliable. It further depicts that "the findings of the different research expand the comprehension of financial manipulations in different countries and the robust performance of the M-score in detecting financial manipulations in these countries have been successfully demonstrated. This M-score serves as a dependable tool for investors, aiding them in decision-making and validating the trustworthiness of accounting information within financial reports. Furthermore, it plays a crucial role for banks and other financial institutions by safeguarding them against fraud or potential cases of uncollectible lending".

2.3.2.5.Conceptual Framework Diagram of M-Score Model

The conceptual diagram of M-Score Model, its eight accounting ratios and its benchmark interpretation have been illustrated below:





Each accounting ratio and benchmark interpretation has been explained in detail in Chapter 3 of this research thesis.

3. CHAPTER 3: RESEARCH METHODS

This chapter describes the direction of the research, ontological or epistemological; and the type of research, quantitative or qualitative. In addition to that, it also explains the mode of data collection, primary or secondary and the data collection tools.

3.1. Research Approach and Design

The research approach and design are explained below:

3.1.1. Research Philosophy and Paradigm

To understand the impact of insights of reality and human nature, the researchers must have full knowledge of the ontological and epistemological directions of their ongoing research (Astle & Fletcher, 2020).

Opoku et al., (2016) stated that ontology is the study of reality. It has two paradigms, constructionism and realism (Walliman, 2010; Boadu & Sorour, 2015, p.145). Constructionism states that there is no absolute truth, whereas realism opposes it and believes in objectivity, rather than an endless state of fluctuation (Howells & Bald, 2020, p.21).

Epistemology deals with knowledge and believes in gaining knowledge with time by education, involvement, and practice (Gorman & Macintosh, 2015). A lot of constructionist ontologies are attached to the epistemological pattern, where truth is not the ultimate reality (Geddes et al., 2018, p.348). On the other hand, there are positive epistemologies, connected with the realist ontologies (Duggan, 2015; Burns, 2020).

Since, this research will look for the truth of probability (high or low) of Pakistani listed companies in the financial manipulations and fraud, therefore, this research project is based on realist ontology and positive epistemology.

3.1.2. Research Type

Research type and design provide practical shape to the objectives of any research (Cunningham, 2014; Bell, 2014). Fundamentally, the type of research may either be quantitative or qualitative (Jamshed, 2014, p.87). Quantitative research normally associates with realist ontology as it deals with the numbers, rather than the observations (Kharbach, 2020, p.85).

Moreover, it has clear and easily identified variables (Creswell & Poth, 2016). On the other side, qualitative research is all about constructionist ontology, where truth is flexible (Fletcher, 2017, p.181).

This research project involves the collection of data from the financial statements of the textile companies of Pakistan; therefore, its nature is quantitative.

3.1.3. Research Design

Research design is the planning phase of any research project (Valente et al., 2024). It deals with methods for the collection of research data, analysis models/tools to be used for interpretation of collected data (Olsen, 2004, p.115). It is worth mentioning here that data collection is not restricted to the methods to be used (Connolly, 2003, p.103). A researcher may collect the same data from a different research method (Cooper et al., 2006, p.744).

There are two basic methods to collect quantitative research data, primary and secondary research methods (Flick, 2018). Primary research methods are mostly used in market-related researchers, where the researcher collects the information directly from the source (Raddon, 2010, p.14). Secondary methods are used to collect the already existing data, interpret them and enhance the efficacy of this existing data (Cooper et al., 2006, p.744).

As this research will use the publicly issued financial data of the listed companies of Pakistan from the official websites of these respective companies, therefore, the source of collection of financial information is secondary.

3.1.4. Population and Sampling

In research, population may include people, objects, and/or situations. The population of this research thesis is all textile companies, listed on the Pakistan stock exchange. The total number of textiles listed companies (including spinning, weaving and composite sectors) are 43. The selection of the entire textile sector has the following reasons. First, Pakistan is an agricultural country, therefore, this sector's significance and influence on the Pakistan stock exchange are paramount (Sharif, 2023). This sector comprised 29.77% of the total non-financial sectors of the Pakistan stock exchange and its revenue is 42.32% as compared to the overall revenue of all the non-financial sectors of Pakistani listed companies (Sharif, 2023).

Valente et al., (2024, p.169) stated that sampling is an organized and competent method for any research, provided that the selected sample size is representative of the entire population. They further explained that, in time-restricted and cost-efficient research, sample size must deliver valid and meaningful information to ensure the achievement of research objectives.

This research thesis samples all forty-three textile companies, listed on the Pakistan stock exchange, for the financial year ended on 30 June 2024. It is the most updated financial year for which audited financial statements are available at the time of data collection.

Census sampling method has been used as it is suitable for this research thesis because textile sector is the backbone to run economic and financial cycle of Pakistan and the most significant and biggest sector on Pakistan Stock Exchange (PSE). So, this research aims to collect complete and accurate information about the entire textile sector and to analyze its stability, investment potential, and economic condition. Moreover, all the forty-three textile companies have been sampled, therefore, there is no chance of biased selection of companies.

3.1.5. Participants

All the textile listed companies of Pakistan are the contributors of this quantitative research thesis because financial statements will be required of all these textiles listed companies. This research thesis will not include any physical interaction with any person.

3.1.6. Research Data Collection Tools

Valente et al., (2024) said that the initial data for any research is collected through the research tools. Therefore, selection of correct research tools becomes highly important because if the wrong tools are selected, the collected data will not lead the researcher to the required output and ultimately, researcher will fail to achieve his/her research aims and objectives. According to them, the next step is the identification of the accurate data analytical tool so that the sampled data can be interpreted in a meaningful way, which is also representative of the population.

The primary objective of this research thesis is the collection of the reliable financial data of the textile listed companies of Pakistan. The most authentic source of collection of financial information of these textile listed companies is the audited financial statements, signed by the statutory auditors. These financial statements will be obtained using following data collection tools or methods:

<u>Stock Exchanges of Pakistan</u>

As per the Companies Ordinance, 1984 (revised 2010) of Pakistan and listing of companies and securities regulations 1988 (last updated 2021), all the listed companies of

Pakistan are required to make the audited financial statements available to all the stock exchanges of Pakistan for use of public. Moreover, the ordinance states that there is no restriction on the public access to these audited financial statements, but everyone can obtain one copy at a time.

Based on the above, the primary source of data collection will be the stock exchanges of Pakistan.

Official Websites of Listed Companies

As the entire business world is in the transitional form of converting from the manual way of doing business into digital way, the companies and business laws have also changed accordingly to cope with the new ways of doing digital businesses.

Similarly, listing regulations of the Pakistani companies 1988, also took a big step in 2014 and made an additional requirement for these listed companies. As per the regulations, all the listed companies were, in addition to make the audited financial statements available on all stock exchanges of Pakistan, required to upload the audited financial statements for 2014 and onward on their official websites for free and unrestrictive access of public.

Therefore, the second reliable method of collection of audited financial statement will be the official websites of listed companies of Pakistan, in case the copies of the audited financial statements are unavailable at the stock exchanges.

3.1.7. Research Data Quality

Schwabe et al., (2024) said that if the collected data is unreliable and loses its quality, then the objectives of any research are eliminated. To ensure the presence of reliability and quality in the collected data, this research project has focused on authentic sources for the collection of financial data, which are the audited, publicly issued, and signed financial statements of the textile companies, listed on the Pakistan stock exchange. It is worth mentioning here that as per Pakistan's Companies Ordinance 1984, all public companies are required to establish a compulsory website and upload their audited financial statements for at least five years (Pakistan Securities 2010). So, the risk of unreliability and poor quality of data is negligible.

3.1.8. Ethical Issues in Research

One of the basic issues, generally faced in almost every research study, is non-compliance of ethical principles. This need avoiding because the purpose of this research does mean to morally, emotionally harm or hurt someone. Therefore, this research project is to "gather the financial information of the textile companies, which are listed on the stock exchange of Pakistan. Under the Companies Rules, 1985 of Pakistan and listing regulations, all the public listed companies of Pakistan are obliged, by law, to upload their financial statements, audited by statutory auditors, on the official websites of companies and provide the hard copies of these audited financial statements to all the stock exchanges of Pakistan for the transparency of their financial results and to make them accessible, free of cost, by the potential investors, internal and external stakeholders and other users of the financial statements. In addition to that, this research project does not include any physical interaction with any individual at all. Therefore, this research project faces no ethical issue at the time, when financial data of the sampled textile companies will be gathered". All the financial statements cannot be considered as living human/participants.

3.2. Operational Definitions of Research Variables

Each independent fraud indicating variable of M-score model has been illustrated below:

3.2.1. Mathematical Representation of M-Score

M-score = intercept + sum (weight * variable)

By putting the values of intercept and weights:

M-Score = -4.840 + (0.920 x DSRI + 0.528 x GMI + 0.404 x AQI + 0.892 x SGI + 0.115 x DEPI - 0.172 x SGAI + 4.697 x TATA - 0.327 x LVGI

In the above formula:

Intercept = The value of intercept is -4.840. It is a “Constant” in the formula (Beneish, 1999). Its value remains the same and never changes, regardless of the nature of the company (Beneish, 1999)

Weight = These are statistical outcomes and like intercept, the weight of each accounting ratio of M-score does not change, irrespective of the firm (Beneish, 1999).

Variables = These are the key variables of the M-score. The value of each variable changes concerning the company and is critical in making a final evaluation (Beneish, 1999).

DSRI: Days Sales Receivables Ratio

GMI: Gross Margin Ratio

AQI: Asset Quality Ratio

SGI: Sale Growth Ratio

DEPI: Depreciation Ratio

SGAI: Sale, General, and Administrative Expense Ratio

TATA: Total Accruals to Total Assets Ratio

LVGI: Leverage Ratio

3.2.2. M-score Benchmark and its Phenomenon

The professor at Indiana University, USA invested the M-score and its eight independent fraud indicating variables in 1999. At the time of its establishment, the professor "established the M-score benchmark at -2.22 through "extensive statistical analysis. According to Beneish (1999), applying the eight accounting ratios comprising the M-score to a company's financial data yields a numerical result, either negative or positive, which Beneish refers to as the Manipulation Score for that specific company. Following the acquisition of a company's manipulation score, the subsequent phase involves comparing this score with the established benchmark of M-score, set at -2.22. This comparison ultimately determines whether a company possesses a high or low", probability of engaging in financial manipulation and earnings management (Beneish, 1999).

The detailed study of Beneish M-score model showed that he "elaborated on the comparison process between the manipulation score and the established benchmark of -2.22. According to his explanation, if the resulting manipulation score of a company is lower than -2.22, it indicates a decreased likelihood of financial misconduct. Essentially, as the manipulation score descends towards the negative end and moves away from zero, the company is considered to be less prone to altering its financial data. For instance, if the manipulation scores of four companies are -2.25, -2.50, -3.16, and -5.87, all these companies are deemed to have a reduced probability of manipulating their financial statements. Conversely, if the resulting manipulation score of a company exceeds the established benchmark of -2.22, it indicates a heightened likelihood of alterations in its accounting records. Thus, when a company's manipulation score trends towards zero or becomes positive, it suggests susceptibility to financial manipulations and earnings management. For instance, if the manipulation scores of four companies are -2.10, -1.03, 0.57, and 3.87, it signifies that all these companies are highly prone to engaging in financial misconduct". It seems like a simple mathematical formula, but calculating the values for each accounting variable of M-score is not an easy task and somewhat a complex arithmetic process.

3.2.3. M-Score Variables

3.2.3.1.DSRI (Days Sale Receivable Ratio)

$$\frac{\text{Current Year Sales Receivable / Current Year Sale}}{\text{Last Year Sales Receivable / Last Year Sale}}$$

M-Score's DSRI and Connection with Financial Manipulation

This ratio highlights a significant link with potential financial manipulation in financial statements. This connection arises when there's an inconsistency in an organization's trade debts from one year to the next, without any justifiable changes in sales credit procedures or the impact of inflation. In such cases, sales might be overstated to attract investors, leading to potentially misleading sales figures. Chen et al., (2026) utilized this variable in their comprehensive study of 1809 Italian organizations spanning from 2005 to 2012, aiming to validate the M-score.

3.2.3.2.GMI (Gross Margin Ratio)

$$\frac{\text{(Current Year Sales – Current Year Cost of Goods Sold) / Current Year Sales}}{\text{(Last Year Sales – Last Year Cost of Goods Sold) / Last Year Sales}}$$

M-Score's GMI and Connection with Financial Manipulation

While an increase in profit is generally viewed positively, it's essential to examine the underlying factors contributing to such profits. In the accounting and finance field, Gross Margins typically remain stable as organizations mature, unless there's a significant breakthrough. Therefore, if the Gross Profit margin exceeds 1 compared to the previous year, it could suggest potential financial manipulation such as sales exaggeration, overstatement of closing stock, or concealing other direct costs. Consequently, this indicates a decline in the firm rather than genuine growth. Kaur et al. (2014) analyzed this variable among 332 Indian companies from 2011 to 2013.

3.2.3.3.AQI (Asset Quality Index)

$$\frac{\text{(1- (Net Fixed Assets + Current Year Current Assets)) / Current Year Total Assets}}{\text{(1- (Net Fixed Assets + Last Year Current Assets)) / Last Year Total Assets}}$$

M-Score's AQI and Connection with Financial Manipulation

This aspect of the M-score also correlates directly with financial manipulation, stemming from the opportunity for organizations to exploit accounting principles. They can do this by setting low standards for capitalizing expenses rather than expenditure in the profit and loss section. By capitalizing items, organizations can depreciate them over their useful life, which may span from five to twenty years. Consequently, this disproportionate capitalization enables companies to bolster their profits by concealing the true expense figures. Chen et al., (2026) utilized this variable in their extensive study of 1809 Italian organizations spanning from 2005 to 2012 to validate the M-score.

3.2.3.4.SGI (Sales Growth Ratio)

$$\frac{\text{Current Year Sales}}{\text{Last Year Sales}}$$

M-Score's SGI and Connection with Financial Manipulation

The explanation of this ratio is sufficiently lucid for grasping its concept. Sales represent a crucial aspect in any financial statement, carrying inherent risks of misstatement. Merely escalating sales figures do not necessarily indicate genuine organizational growth. Financial managers encounter significant challenges when upper management insists on presenting an appealing profit and loss account to entice investors. Kaur et al., (2014) employed this variable in their analysis of 332 Indian companies' data from 2011 to 2013.

3.2.3.5.DEPI (Depreciation Index)

$$\frac{\text{Current Year Depreciation / (Current Year Fixed Assets + Current Year Depreciation)}}{\text{Last Year Depreciation / (Last Year Fixed Assets + Last Year Depreciation)}}$$

M-Score’s DEPI and Connection with Financial Manipulation

Depreciation represents another significant factor that can potentially contribute to financial manipulation in financial statements. Although it's a non-cash item, depreciation aids companies in adjusting their profits. There exist industry-specific standard rates and various depreciation methods that organizations must adhere to. Even a slight deviation from these standards can lead to significant fluctuations in profits, potentially amounting to thousands or even millions, considering that fixed assets constitute the most expensive items for an organization. Kaur et al., (2014) analyzed this variable among 332 Indian companies' data from 2011 to 2013.

3.2.3.6.SGAI (Sales, General, and Administrative Expenses Ratio)

$$\frac{\text{Current Year Sale, General \& Administrative Expense / Current Year Sale}}{\text{Last Year Sale, General \& Administrative Expense / Last Year Sale}}$$

M-Score’s SGAI and Connection with Financial Manipulation

In every income statement, operating expenses are typically divided into general administrative and sales & distribution expenses. A thorough examination of these operating expenses is crucial because sales growth is usually linked with effective marketing and advertising of products or services. However, if sales increase without a corresponding rise in operating expenses, it suggests that management has manipulated the financial data. Therefore, there is a clear correlation between this ratio and financial data manipulation. Chen et al., (2026) utilized this variable in their extensive study of 1809 Italian organizations over an extended period from 2005 to 2012 to validate the M-score.

3.2.3.7.TATA (Total Accruals Based on Total Assets)

Δ Current Assets – Δ Cash – (Δ Current Liabilities – Δ Current maturities of Long-Term Debts –Δ Income Tax payable) – Δ Depreciation / Current Year Total Assets

M-Score's TAT and Connection with Financial Manipulation

This ratio illustrates the net change in the value of total accruals for an organization as a percentage of total assets. The concept of accruals in accounting allows organizations to bolster their working capital (current assets minus current liabilities), presenting the company as capable of meeting day-to-day expenses effortlessly. However, such manipulations are closely linked to the misrepresentation of financial information and necessitate scrutiny. According to Beneish, if this formula yields a higher value, it indicates a greater likelihood of alteration. Chen et al., (2026) utilized this variable in their comprehensive study of 1809 Italian organizations over an extended period from 2005 to 2012 to validate the M-score.

3.2.3.8.LVGI (Leverage Ratio)

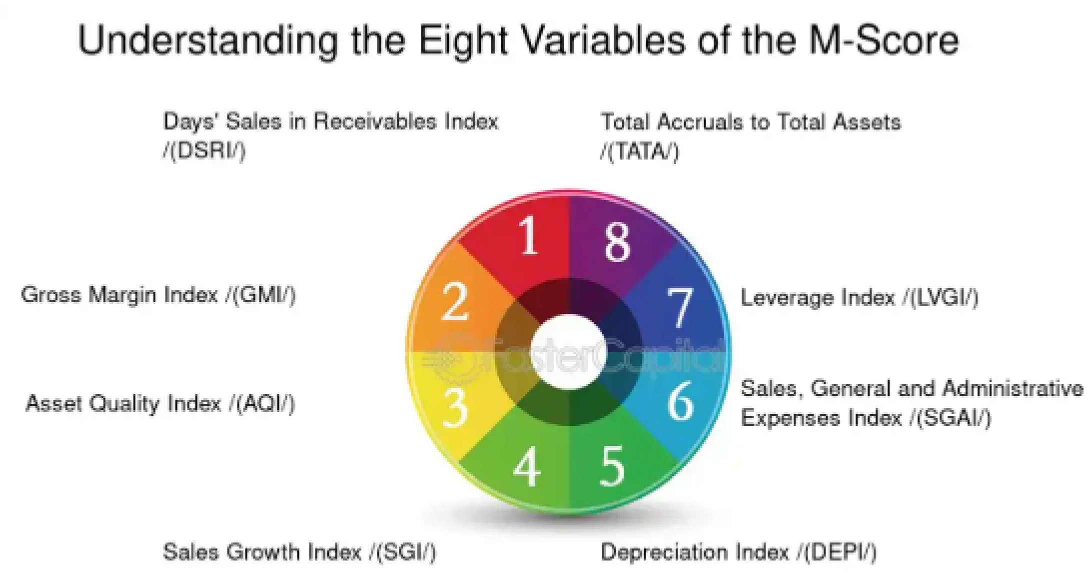
(Current Year Total Long-Term Debt + Current Liabilities) / Current Year Total Assets

(Last Year Total Long-Term Debt + Current Liabilities) / Last Year Total Assets

M-Score's LVGI and Connection with Financial Manipulation

Businesses raise funds by either issuing equity capital or taking on debt to finance their core operations and activities. Long-term debts have a significant impact on the equity structure of an organization since they are considered integral components of it. The equity segment is particularly critical for investors, as various key accounting ratios are derived from it, directly influencing investor decisions. Hence, it is expected that there will be a strong correlation between the Leverage Ratio and the likelihood of financial information being altered. Kaur et al. (2014) analyzed this variable among 332 Indian companies' data from 2011 to 2013.

3.2.3.9.Pictorial Presentation of M-Score and Its Eight Accounting Ratios



Conclusion

All the above eight accounting ratios are directly proportional in identifying the financial manipulation in the financial statements of the listed companies. These accounting ratios provide the researcher or user with the interpretation which helps in determining whether the likelihood of financial manipulation, which can lead to financial fraud, is either high or low. The recognition of high or low probability in turn helps the users of the financial statements, like stakeholders and investors, to make informed decisions.

4. CHAPTER 4: FINDINGS

4.1. Trustworthiness of Data

This chapter is about the trustworthiness of the collected data which has been used for making the analysis and result. The term trustworthiness of data means how much it can be relied on for making decisions, after analysis of such data, and business processes. When data is said to be trustworthy, it reflects the characteristics of reliability and credibility.

<u>Trustworthiness of this Research Data</u>

The research questions and the relevant hypotheses of this research study are directly proportional to one another. They both are in line and support each other. Moreover, one of the most important elements of any research is selection of samples. At the time of taking samples, careful consideration is needed to ensure that sample is representative of the entire population. This research is based on detecting financial manipulations in the financial statements of the companies, listed on Pakistan Stock Exchange. The specific sector selected for this research study is textile and the entire population has been selected as a sample. So, samples are equal to the population and thereby hundred percent representative of it. There is no risk of samples not properly selected, biased or reflecting the entire population which is textile sector in this research study.

The next step is the selection of tools and methods used to collate, analyze, interpret and conclude the data so that the meaningful information can be extracted out of it. The nature of this research study is to identify the probability of financial manipulations in the listed companies of Pakistan; therefore, all the data has been collected from the audited financial statements of these textile sector companies. This financial data is already well organized and verified by the relevant auditors, who are chartered accountants.

Moreover, there are no physical participants in this research study, and these financial statements act as the participants, therefore, no tools like interviews, questionnaires etc. have been used to collate the financial information. Sources of collating the financial statements are listed stock exchanges of Pakistan and official websites of these listed companies. Per Companies Ordinance 1984 and Rules 1985, each listed company is legally required to upload its latest financial statements on its official website for a certain period.

Analysis of the collected data is critical. If data is not scrutinized, it may mislead the findings and ultimately conclusion. Great care is needed at the time of selection of analysis. Some researchers use expensive software like SPSS, Power BI etc., depending on their research, but none of such tools has been used here to analyze financial data. Instead, one of the most valuable Microsoft tools, excel, has been used for all the analysis of these financial statements.

Data collection, analysis and interpretation records are clear and transparent and meet the requirements of the trustworthiness of the data. In addition to that, appropriate information has been provided in this research study which will help the other researchers in future to use this data in their research study, wherever needed. The requirements of the trustworthiness of data have been properly complied with in this research study, so data collated can be relied on.

Evidence of Trustworthiness

The financial statements of all the textile companies, listed on Pakistan Stock Exchange, had been attached here in the appendices section. These financial statements showed that figures were finalized and audited by the qualified chartered accountants and these accountants/auditors also issued their auditors reports, duly signed by the concerned audit partner. Moreover, all these financial statements also showed that these were also signed by at least two directors of the companies. The attached audited financial statements provided evidence about the trustworthiness of the financial data / information used in the research study.

4.2. Reliability and Validity of Data

Reliability of this Research Data

The research study meets the requirements of reliability as well because M-score, its equation, eight independent fraud detectors and dependent variable, all have been used repeatedly by many researchers in different countries and all these researchers have reached the consensus that these variables and equation are consistent and can be used anywhere, given these are applied to non-financial sectors of the listed companies.

The requirements of objectivity are also met by M-score and its variables because it is a mathematical tool and analyzes financial data. This financial information is numerical and produces quantitative information which is highly specific and meticulously related to the collated data. So, the risk of subjectiveness is minimized here. Such risk of subjectiveness arises when qualitative research is being carried out, and the researchers are struggling to find specific information. This is not the picture in this research study because data sources are reliable, authentic and clear information is available from these sources.

Validity of this Research Data

For internal validity, this research study has both dependent and independent variables. Fraud has been considered as dependent variable, whereas the "DSRI, GMI, AQI, SGI, DEPI, SGAI, TATA and LVGI" have been considered as independent ones. The analysis and results that will be obtained from these eight independent variables will influence the dependent variable Fraud and help in deciding whether a financial statement of a listed company of Pakistan has the high probability of committing fraud or vice versa. So, fraud probability may vary from high to low or the other way round depending on the results and behavior of other independent factors.

For external validity, this research has all the features of being considered as generalized and it does not have the risk of people, places and times inadequacy and inappropriateness because people and places are not the participants in this research study due to its nature. The audited financial statements are the active involvers in this research study and therefore eliminate all these risks of misappropriations.

Evidence of Reliability and Validity of Research Data

The financial statements of all the textile companies, listed on Pakistan Stock Exchange, had been attached here in the appendices section. These financial statements showed that figures were finalized and audited by the qualified chartered accountants and these accountants/auditors also issued their auditors reports, duly signed by the concerned audit partner. Moreover, all these financial statements also showed that these were also signed by at least two directors of the companies. The attached audited financial statements provided evidence about the reliability and validity of the financial data / information used in the research study.

4.3. Results

The results of this research have been split based on research objectives. These have been produced below:

4.3.1. Scrutiny of Financial Information of Companies

The research questions are generally derived from the research objectives and should be in line with them. Based on research objectives and questions, hypotheses are established. So, in essence all these three, research objectives, research questions and research hypotheses, should support one another.

The first research objective of this research project was:

“To determine efficiency of eight accounting ratios of M-score in evaluating the probability of financial manipulations in the listed companies of Pakistan.”

Based on it, the research question, in line with the research objective, was:

“How well eight independent variables can identify the likelihood of financial manipulations in companies which are listed on Pakistan stock exchange?”

A hypothesis supporting the research question was:

“H1: Eight fraud indicators of M-score have excellent strength of evaluating financial manipulations in the listed companies of Pakistan.”

Evaluation of Findings

The tables below along with the detailed evaluation, examination and explanation of each company’s findings show the results that coincide with the objective of efficient determination of probability of financial manipulations in the listed companies of Pakistan with the use of M-score’s eight accounting ratios:

Table 4.1:

M-Score and Accounting Ratios Results

Sr. #	Name of the Company	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score	Result
1	Textile Company 1	1.38	1.41	0.99	1.17	1.04	0.78	(0.00)	1.18	(2.14)	HP
2	Textile Company 2	1.46	3.18	0.91	1.36	1.18	0.63	(0.03)	1.08	(1.05)	HP
3	Textile Company 3	2.46	6.87	1.60	5.11	0.92	0.20	(0.03)	1.05	5.24	HP
4	Textile Company 4	1.81	1.27	1.00	1.37	0.59	0.94	(0.01)	1.27	(1.81)	HP
5	Textile Company 5	12.96	4.31	1.12	3.86	1.00	0.26	0.04	1.07	12.75	HP
6	Textile Company 6	4.35	0.40	1.18	0.26	1.01	2.52	(0.04)	1.07	(1.21)	HP
7	Textile Company 7	1.16	3.98	1.20	1.28	1.07	0.82	(0.09)	1.31	(1.33)	HP
8	Textile Company 8	1.22	0.84	0.61	2.13	0.47	0.60	(0.03)	1.36	(2.00)	HP
HP: High Probability of Manipulation											
LP: Low Probability of Manipulation											

Source: *Author's Analyzed Results*

Table 4.2:

M-Score Results

Sr. #	Name of the Company	Intercept	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score	Benchmark	Result
1	Textile Company 1	(4.84)	1.27	0.75	0.0401	1.05	0.1201	(0.13)	(0.01)	(0.39)	(2.14)	(2.22)	HP
2	Textile Company 2	(4.84)	1.34	1.68	0.0369	1.21	0.1355	(0.11)	(0.15)	(0.35)	(1.05)	(2.22)	HP
3	Textile Company 3	(4.84)	2.27	3.62	0.0648	4.56	0.1063	(0.03)	(0.16)	(0.34)	5.24	(2.22)	HP
4	Textile Company 4	(4.84)	1.67	0.67	0.0404	1.22	0.0676	(0.16)	(0.06)	(0.42)	(1.81)	(2.22)	HP
5	Textile Company 5	(4.84)	11.92	2.28	0.0451	3.44	0.1147	(0.04)	0.18	(0.35)	12.75	(2.22)	HP
6	Textile Company 6	(4.84)	4.00	0.21	0.0478	0.23	0.1164	(0.43)	(0.20)	(0.35)	(1.21)	(2.22)	HP
7	Textile Company 7	(4.84)	1.06	2.10	0.0485	1.14	0.1235	(0.14)	(0.40)	(0.43)	(1.33)	(2.22)	HP
8	Textile Company 8	(4.84)	1.12	0.44	0.0247	1.90	0.0542	(0.10)	(0.15)	(0.44)	(2.00)	(2.22)	HP
HP: High Probability of Manipulation													
LP: Low Probability of Manipulation													

Source: *Author's Analyzed Results*

1.Textile Company 1

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Ahmad Hassan Textile Mills Limited was 1.38. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Ahmad Hassan Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Ahmad Hassan Textile Mills Limited was -2.14, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Ahmad Hassan Textile Mills Limited was 1.41. This was a negative sign for the company Ahmad Hassan Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Ahmad Hassan Textile Mills Limited did not perform better than last year. M-score of Ahmad Hassan Textile Mills Limited was -2.14, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Ahmad Hassan Textile Mills was 0.99 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Ahmad Hassan Textile Mills Limited was -2.14 which showed high probability of financial manipulation. Although M-score showed high probability, still the company managed to correctly record capitalization of assets and relevant expenses.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Ahmad Hassan Textile Mills Limited was 1.17. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Ahmad Hassan Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Ahmad Hassan Textile Mills Limited was -2.14, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Ahmad Hassan Textile Mills Limited was 1.04 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company Ahmad Hassan Textile Mills Limited because there was possibility of under-charging the depreciation in the current year. M-score of Ahmad Hassan Textile Mills Limited was -2.14 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of

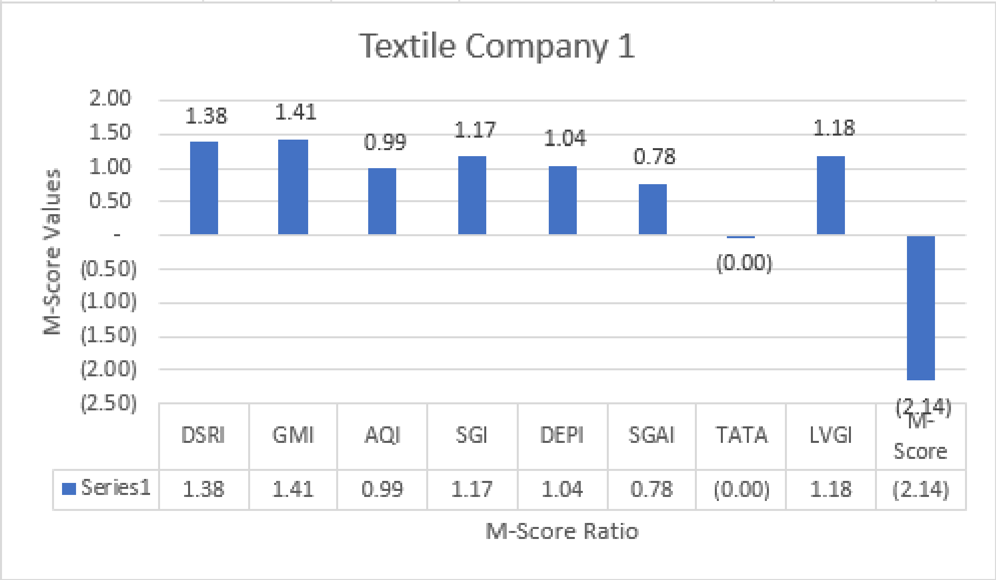
Ahmad Hassan Textile Mills Limited was 0.78 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -2.14 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Ahmad Hassan Textile Mills Limited was -0.00. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -2.14, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Ahmad Hassan Textile Mills Limited was 1.18, which was a negative sign for the company and showed the company's borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #1:

M-Score Accounting Ratios



Summary

M-score of Ahmad Hassan Textile Mills Limited was -2.14 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

2.Textile Company 2

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Ashfaq Textile Mills Limited was 1.46. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Ashfaq Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue

because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Ashfaq Textile Mills Limited was -1.05, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Ashfaq Textile Mills Limited was 3.18. This was a negative sign for the company Ashfaq Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Ashfaq Textile Mills Limited did not perform better than last year. M-score of Ashfaq Textile Mills Limited was -1.05, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Ashfaq Textile Mills Limited was 0.91 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements.

M-score of Ashfaq Textile Mills Limited was -1.05 which showed high probability of financial manipulation. Although M-score showed high probability, still the company managed to correctly record capitalization of assets and relevant expenses.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Ashfaq Textile Mills Limited was 1.36. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Ashfaq Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Ashfaq Textile Mills Limited was -1.05, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Ashfaq Textile Mills Limited was 1.18 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company Ashfaq Textile Mills Limited because there was possibility of under-charging the depreciation in the current year. M-score of Ashfaq Textile Mills Limited was -1.05 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of

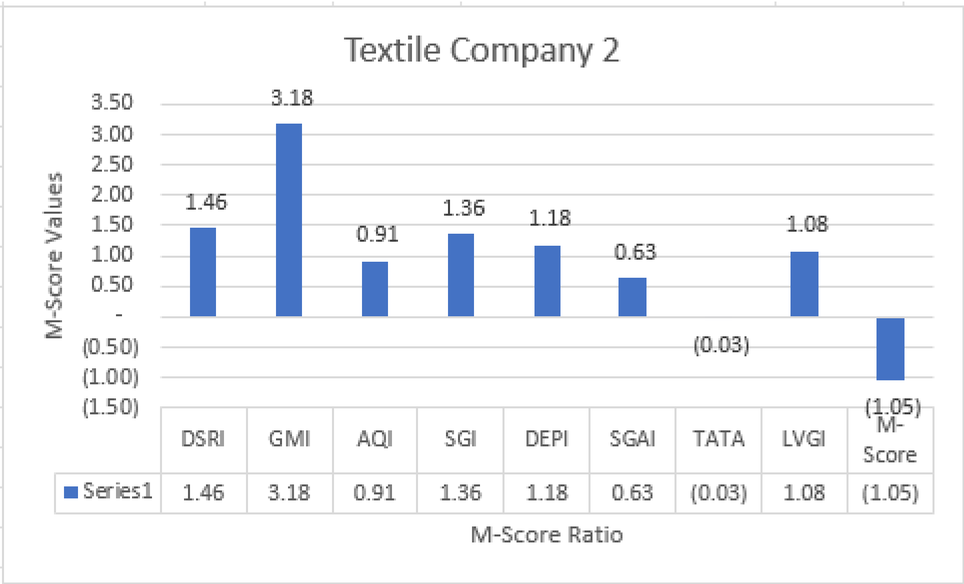
Ashfaq Textile Mills Limited was 0.63 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -1.05 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Ashfaq Textile Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -1.05, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Ashfaq Textile Mills Limited was 1.08, which was a negative sign for the company and showed the company's borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #2:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Ashfaq Textile Mills Limited was -1.05 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>3.Textile Company 3</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Asim Textile Mills Limited was 2.46. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Asim Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because

it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Asim Textile Mills Limited was 5.24, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Asim Textile Mills Limited was 6.87. This was a negative sign for the company Asim Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Asim Textile Mills Limited did not perform better than last year. M-score of Asim Textile Mills Limited was 5.24, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Asim Textile Mills Limited was 1.60 which showed the probability of deferment of cost. This also indicated that the company might have unnecessarily overstated its assets to present a good picture of its financial statements. M-score of Asim Textile Mills Limited was 5.24 which showed high probability of financial manipulation. So, a parallel relationship was identified between high probability of financial manipulation and unnecessary asset capitalization and deferment of cost.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Asim Textile Mills Limited was 5.11. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Asim Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Asim Textile Mills Limited was 5.24, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Asim Textile Mills Limited was 0.92 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was not considered here as negative sign for the company Asim Textile Mills Limited. Nevertheless, M-score of Asim Textile Mills Limited was 5.24, which indicated high probability of financial manipulation.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Asim

Textile Mills Limited was 0.20 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was 5.24 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses. AQI ratio also indicated here unnecessary capitalization of assets and deferment of cost.

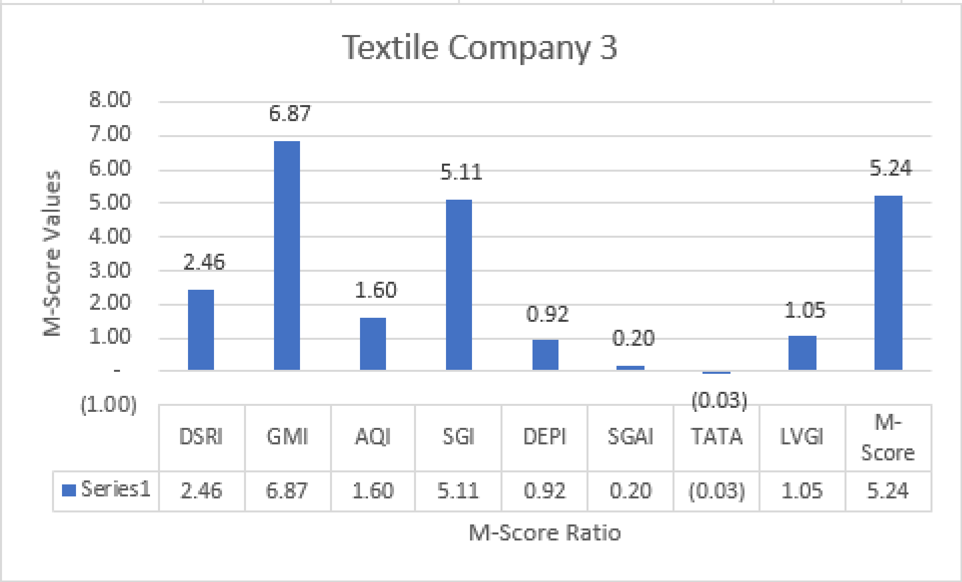
TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Asim Textile Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was 5.24, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Asim Textile Mills Limited was 1.05, which was a negative sign for the company and showed the company's borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further

pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #3:

M-Score Accounting Ratios



Summary

M-score of Asim Textile Mills Limited was 5.24 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

4.Textile Company 4

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Hamid Textile Mills Limited was 1.81. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Hamid Textile Mills Limited failed to effectively manage its receivables in the current year, which was a negative sign for the company.

M-score of Hamid Textile Mills Limited was -1.81, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Hamid Textile Mills Limited was 1.27. This was a negative sign for the company Hamid Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year, because cost of sales increased in the current year which reduced the gross profit margin in the current year. So, Hamid Textile Mills Limited did not perform better than last year. M-score of Hamid Textile Mills Limited was -1.81, which indicated high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Hamid Textile Mills Limited was 1.00 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Hamid Textile Mills Limited was -1.81 which showed high probability of financial manipulation. Although M-score showed high probability, still the company managed to correctly record capitalization of assets and relevant expenses.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Hamid Textile Mills Limited was 1.37. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Hamid Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Hamid Textile Mills Limited was -1.81, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Hamid Textile Mills Limited was 0.59 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as positive sign for the company Hamid Textile Mills Limited. M-score of Hamid Textile Mills Limited was -1.81 which indicated high probability of financial manipulation.

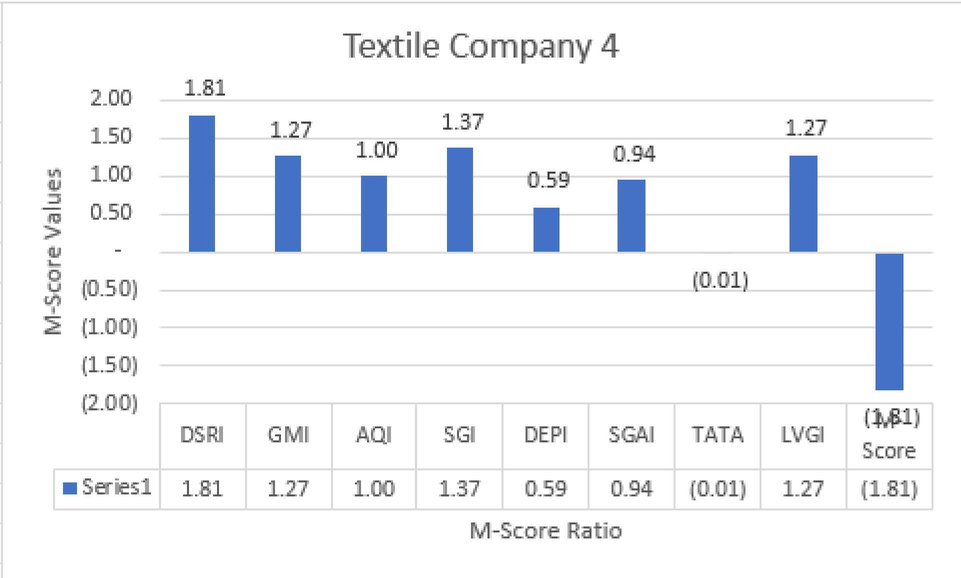
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Hamid Textile Mills Limited was 0.94 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -1.81 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Hamid Textile Mills Limited was -0.01. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -1.81, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Hamid Textile Mills Limited was 1.27, which was a negative sign for the company and showed the company’s borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #4:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Hamid Textile Mills Limited was -1.81 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>5.Textile Company 5</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of J.A Textile Mills Limited was 12.96. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that J.A Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of J.A Textile Mills Limited was 12.75, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of J.A Textile Mills Limited was 4.31. This was a negative sign for the company J.A Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, J.A Textile Mills Limited did not perform better than last year. M-score of J.A Textile Mills Limited was 12.75, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of J.A Textile Mills Limited was

1.12 which did not show its consistency with the last year. This also indicated that the company unnecessarily overstated its assets to present a good picture of its financial statements. M-score of J.A Textile Mills Limited was 12.75 which showed high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of J.A Textile Mills Limited was 3.86. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that J.A Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of J.A Textile Mills Limited was 12.75, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of J.A Textile Mills Limited was 1.00 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company J.A Textile Mills Limited because there was possibility of under-charging the depreciation in the current year. M-score of J.A Textile Mills Limited was 12.75 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

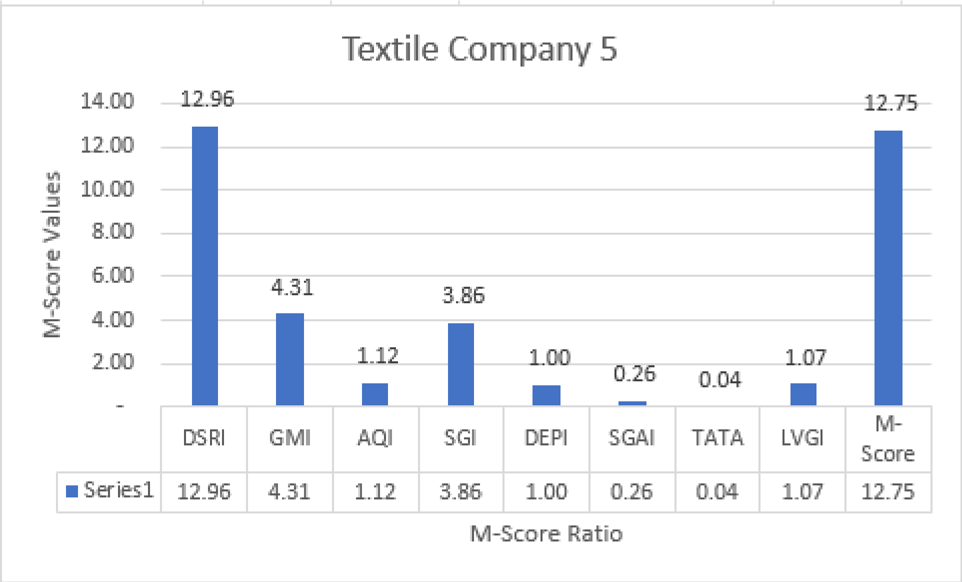
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of J.A Textile Mills Limited was 0.26 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was 12.75 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of J.A Textile Mills Limited was 0.04. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was 12.75, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of J.A Textile Mills Limited was 1.07, which was a negative sign for the company and showed the company’s borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #5:

M-Score Accounting Ratios



Summary

M-score of J.A Textile Mills Limited was 12.75 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

6.Textile Company 6

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Quetta Textile Mills Limited was 4.35. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Quetta Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Quetta Textile Mills Limited was -1.21, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Quetta Textile Mills Limited was 0.40. This was a positive sign for the company Quetta Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated higher gross margin than last year. So, Quetta Textile Mills Limited performed better than last year. Nevertheless, M-score of Quetta Textile Mills Limited was -1.21, which indicated high probability of financial manipulation. So, increased in GMI could be due to inflated sales or understatement of cost of goods sold.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Quetta Textile Mills Limited was 1.18 which was higher than the last year. This also indicated that the company might have unnecessarily overstated its assets to present a good picture of its financial statements. M-score of Quetta Textile Mills Limited was -1.21 which showed high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Quetta Textile Mills Limited was 0.26. It was a negative sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so lower than 1 indicated lower sales than last year. It also indicated that Quetta Textile Mills Limited did not manage to increase its sales in the current year, comparing last year, which showed its inefficiency in the current year. M-score of Quetta Textile Mills Limited was -1.21. So, indirect association was identified between high probability of financial manipulation and decrease in sales.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Quetta Textile Mills Limited was 1.01 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company Quetta Textile Mills Limited because there was possibility of under-charging the depreciation in the current year. M-score of Quetta Textile Mills Limited was -1.21 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Quetta Textile Mills Limited was 2.52 which was above 1. It showed the company incurred more expenses in the current year, comparing the last year. Here it showed inefficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -1.21, which showed high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high SGAI.

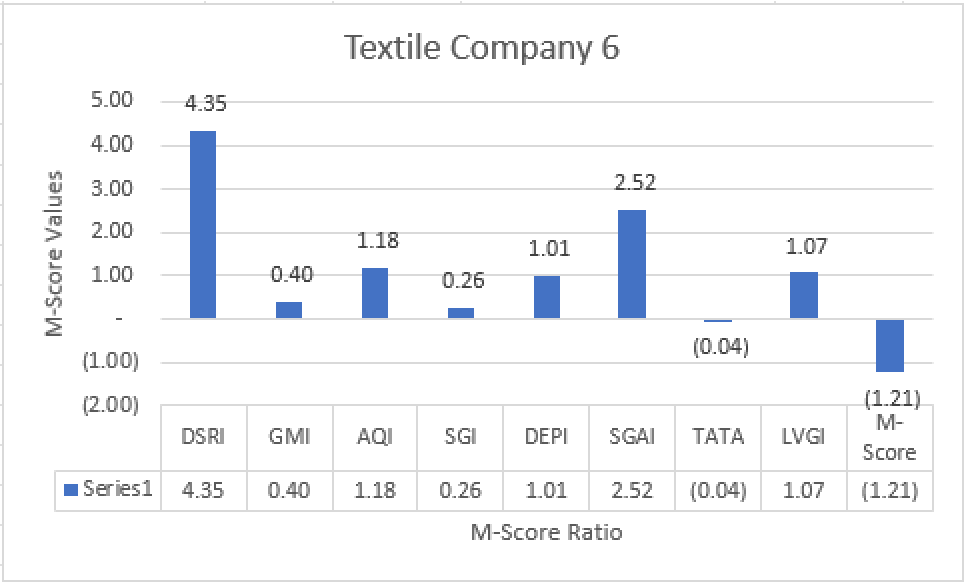
TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Quetta Textile Mills Limited was -0.04. It showed net change in current assets and liabilities was not drastic. Although, M-score of the company was -1.21, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Quetta Textile Mills Limited was 1.07, which was a negative sign for the company and showed the company’s borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts.

It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #6:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Quetta Textile Mills Limited was -1.21 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>7.Textile Company 7</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Service Industries Textile Limited was 1.16. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Service Industries Textile Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Service Industries Textile Limited was -1.33, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Service Industries Textile Limited was 3.98. This was a negative sign for the company Service Industries Textile Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Service Industries Textile Limited did not perform better than last year. M-score of Service Industries Textile Limited was -1.33, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Service Industries Textile Limited was 1.20 which showed high probability of asset capitalization. This also indicated that the company might have unnecessarily overstates its assets and deferred expenses to present a good picture of its financial statements. M-score of Service Industries Textile Limited was -1.33 which showed high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Service Industries Textile Limited was 1.28. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Service Industries Textile Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Service Industries Textile Limited was -1.33, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Service Industries Textile Limited was 1.07 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company Service Industries Textile Limited because there was possibility of under-charging the depreciation in the current year. M-score of Service

Industries Textile Limited was -1.33 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

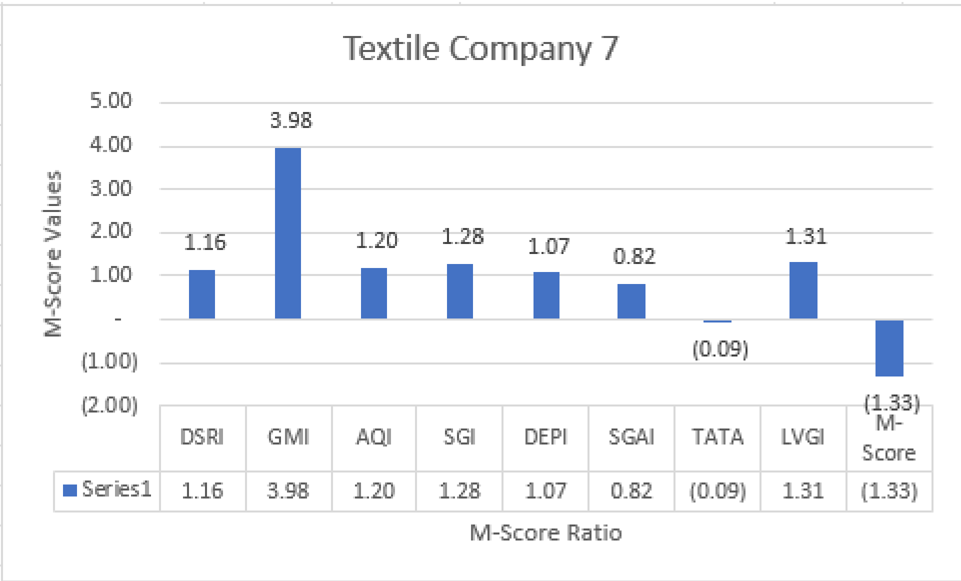
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Service Industries Textile Limited was 0.82 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -1.33 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Service Industries Textile Limited was -0.09. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -1.33, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Service Industries Textile Limited was 1.31, which was a negative sign for the company and showed the company's borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #7:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Service Industries Textile Limited was -1.33 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

8.Textile Company 8

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Sunrays Textile Mills Limited was 1.22. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Sunrays Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Sunrays Textile Mills Limited was -2.00, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Sunrays Textile Mills Limited was 0.84. This was a positive sign for the company Sunrays Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Sunrays Textile Mills Limited performed better than last year. Nevertheless, M-score of Sunrays Textile Mills Limited was -2.00, which indicated high probability of financial manipulation. So, increase in GMI indicated inflated sales and understatement of cost of goods sold and expenses.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Sunrays Textile Mills Limited was 0.61 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. Nevertheless, M-score of Sunrays Textile Mills Limited was -2.00 which showed high probability of financial manipulation. Although M-score showed high probability, still the company managed to correctly record capitalization of assets and relevant expenses.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Sunrays Textile Mills Limited was 2.13. Although it was a positive for the company, but the high probability of M-score 2.00 indicated that sales might have been inflated by the company because SGI showed sales were doubled in the current year, comparing the last year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Sunrays Textile Mills Limited was 0.47 that showed the company charged lower depreciation expense in the current year, comparing the last year. Although it is normally a positive sign for the company, but M-score was -2.00 showing high probability of financial manipulation. So, half the depreciation charged in the current year indicated that there was a strong possibility of undercharging the depreciation expenses by changing the depreciation policies fundamentally. In this way, the company might have understated its expenses to increase the profits of the company.

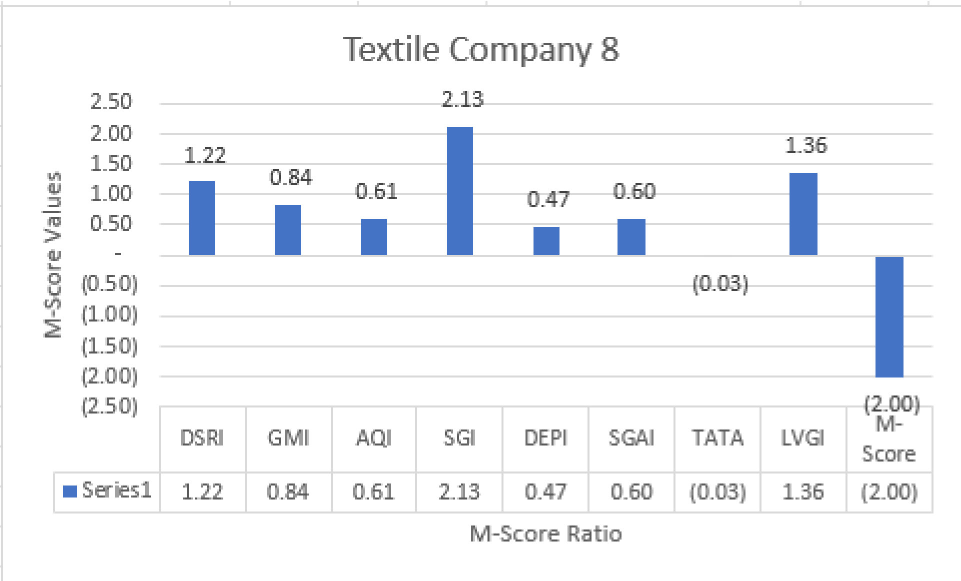
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Sunrays Textile Mills Limited was 0.60 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -2.00 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Sunrays Textile Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -2.00, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Sunrays Textile Mills Limited was 1.36, which was a negative sign for the company and showed the company's borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #8:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Sunrays Textile Mills Limited was -2.00 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

Evaluation of Findings Along with Research Objective

The above detailed analysis of each accounting ratio, clearly indicated strength of these fraud indicators, when applied on the textile companies, listed on Pakistan Stock Exchange. These independent variables of M-score were able to extract the complicated financial information out of these financial statements of these listed companies and showed how each ratio played its role in determining the financial manipulation.

These accounting ratios also indicated that these were equally important and none of them could be ignored. These fraud indicators identified that these companies were manipulating their financial figures and there was a strong possibility that these companies were not maintaining their books properly.

The accounting ratios, specifically DSRI, DEPI and LVGI, of these companies were erratic and not supporting these companies. The DSRIs of these companies showed debtors collection days were increased disproportionately. The unusual massive increase in the debtors' collections days determined a strong possibility of inflated turnover of these companies.

DEPI of these companies showed decrease in depreciation expense in almost all these companies, which showed depreciation for the current year slowed down which could be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company.

LVGI of all these companies was higher than 1, which was a negative sign and showed the companies borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the companies in handling its borrowings and liabilities in the current year, comparing last year. It was showing the companies did not manage to pay off its long-term debts. It further pointed that assets of the companies were not sufficient enough to pay off its long-term debts in the current year.

The above detailed evaluation, examination and explanation of each company's result showed the efficiency of M-score eight accounting ratios in detecting the financial manipulation in the listed companies of Pakistan.

4.3.2. Financial Manipulations in Companies

The research questions are generally derived from the research objectives and should be in line with them. Based on research objectives and questions, hypotheses are established. So, in essence all these three, research objectives, research questions and research hypotheses, should support one another.

The second research objective of this research project was:

"To identify the extent up to which financial manipulations, in the listed companies of Pakistan, can be detected with the help of M-score."

Based on it, the research question, in line with the research objective, was:

"What is the extent up to which M-score can evaluate the financial manipulations in the listed companies of Pakistan?"

A hypothesis supporting the research question was:

"H2: M-score has the strong probability of detecting financial manipulations in financial statements of listed companies of Pakistan."

Evaluation of Findings

Table 4.3:

M-Score and Accounting Ratios Results

Sr. #	Name of the Company	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score	Result
1	Textile Company 9	0.80	1.76	1.47	1.78	0.55	0.81	(0.06)	1.03	(2.22)	LP
2	Textile Company 10	0.96	2.77	1.45	1.32	0.58	0.87	(0.14)	1.01	(2.31)	LP
3	Textile Company 11	0.66	2.34	1.11	1.19	0.77	0.84	(0.10)	0.52	(2.59)	LP
4	Textile Company 12	0.86	1.64	1.02	1.23	0.84	0.72	(0.10)	1.08	(2.91)	LP
5	Textile Company 13	1.36	1.54	1.09	1.25	0.67	0.86	(0.17)	1.02	(2.81)	LP
6	Textile Company 14	0.82	1.24	1.35	1.28	0.83	0.93	(0.03)	1.00	(2.78)	LP
7	Textile Company 15	0.94	0.93	1.01	1.34	1.04	0.92	0.01	1.01	(2.57)	LP
8	Textile Company 16	1.05	1.11	0.93	1.38	0.86	0.83	(0.05)	0.96	(2.60)	LP
9	Textile Company 17	0.90	0.97	0.93	1.22	0.93	1.01	(0.04)	0.93	(2.95)	LP
10	Textile Company 18	1.33	1.25	0.08	1.19	0.91	1.02	(0.08)	1.06	(2.70)	LP
11	Textile Company 19	1.13	0.27	0.62	1.05	0.81	0.69	0.05	1.01	(2.85)	LP
12	Textile Company 20	1.19	1.06	1.03	1.13	0.86	0.96	0.03	0.89	(2.33)	LP
13	Textile Company 21	0.81	1.65	0.83	1.30	0.96	0.72	0.01	0.99	(2.34)	LP
14	Textile Company 22	0.86	1.66	0.38	1.17	1.23	0.71	(0.06)	1.14	(2.74)	LP
15	Textile Company 23	0.90	1.26	1.06	1.27	0.72	0.77	(0.02)	0.94	(2.63)	LP
16	Textile Company 24	0.93	1.99	0.90	1.20	1.02	0.79	(0.08)	1.02	(2.54)	LP
17	Textile Company 25	0.93	0.98	0.55	1.16	0.53	0.88	(0.01)	1.02	(2.88)	LP
18	Textile Company 26	0.53	1.20	0.97	2.05	0.66	0.50	(0.03)	0.90	(2.28)	LP
19	Textile Company 27	0.70	0.95	1.53	1.33	0.92	0.76	(0.02)	0.81	(2.81)	LP

HP: High Probability of Manipulation

LP: Low Probability of Manipulation

Source: *Author's Analyzed Results*

The tables below along with detailed evaluation, examination and explanation of each company's findings show the results that coincide with objective of efficient determination of financial manipulations in the listed companies of Pakistan with the use of M-score.

Table 4.4:

M-Score Results

Sr. #	Name of the Company	Intercept	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score	Benchmark	Result
1	Textile Company 9	(4.84)	0.74	0.93	0.0594	1.59	0.0634	(0.14)	(0.29)	(0.34)	(2.22)	(2.22)	LP
2	Textile Company 10	(4.84)	0.88	1.46	0.0587	1.18	0.0662	(0.15)	(0.64)	(0.33)	(2.31)	(2.22)	LP
3	Textile Company 11	(4.84)	0.60	1.23	0.0450	1.07	0.0884	(0.15)	(0.47)	(0.17)	(2.59)	(2.22)	LP
4	Textile Company 12	(4.84)	0.79	0.87	0.0413	1.09	0.0969	(0.12)	(0.48)	(0.35)	(2.91)	(2.22)	LP
5	Textile Company 13	(4.84)	1.25	0.81	0.0441	1.12	0.0766	(0.15)	(0.80)	(0.33)	(2.81)	(2.22)	LP
6	Textile Company 14	(4.84)	0.75	0.66	0.0545	1.14	0.0953	(0.16)	(0.15)	(0.33)	(2.78)	(2.22)	LP
7	Textile Company 15	(4.84)	0.87	0.49	0.0409	1.19	0.1197	(0.16)	0.05	(0.33)	(2.57)	(2.22)	LP
8	Textile Company 16	(4.84)	0.97	0.59	0.0375	1.23	0.0984	(0.14)	(0.22)	(0.32)	(2.60)	(2.22)	LP
9	Textile Company 17	(4.84)	0.83	0.51	0.0376	1.09	0.1072	(0.17)	(0.20)	(0.30)	(2.95)	(2.22)	LP
10	Textile Company 18	(4.84)	1.23	0.66	0.0031	1.06	0.1051	(0.18)	(0.39)	(0.35)	(2.70)	(2.22)	LP
11	Textile Company 19	(4.84)	1.04	0.14	0.0252	0.93	0.0929	(0.12)	0.21	(0.33)	(2.85)	(2.22)	LP
12	Textile Company 20	(4.84)	1.10	0.56	0.0416	1.01	0.0990	(0.16)	0.16	(0.29)	(2.33)	(2.22)	LP
13	Textile Company 21	(4.84)	0.74	0.87	0.0334	1.16	0.1106	(0.12)	0.03	(0.32)	(2.34)	(2.22)	LP
14	Textile Company 22	(4.84)	0.79	0.88	0.0153	1.04	0.1417	(0.12)	(0.27)	(0.37)	(2.74)	(2.22)	LP
15	Textile Company 23	(4.84)	0.82	0.67	0.0426	1.13	0.0833	(0.13)	(0.09)	(0.31)	(2.63)	(2.22)	LP
16	Textile Company 24	(4.84)	0.85	1.05	0.0363	1.07	0.1177	(0.14)	(0.36)	(0.33)	(2.54)	(2.22)	LP
17	Textile Company 25	(4.84)	0.85	0.52	0.0223	1.03	0.0608	(0.15)	(0.04)	(0.33)	(2.88)	(2.22)	LP
18	Textile Company 26	(4.84)	0.49	0.63	0.0392	1.83	0.0758	(0.09)	(0.13)	(0.29)	(2.28)	(2.22)	LP
19	Textile Company 27	(4.84)	0.65	0.50	0.0617	1.18	0.1055	(0.13)	(0.08)	(0.26)	(2.81)	(2.22)	LP

HP: High Probability of Manipulation

LP: Low Probability of Manipulation

Source: *Author's Analyzed Results*

1.Textile Company 9

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Bhanero Textile Mills Limited was 0.80. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Bhanero Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Bhanero Textile Mills Limited was -2.22, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Bhanero Textile Mills Limited was 1.76. This was a negative sign for the company Bhanero Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Bhanero Textile Mills Limited did not perform better than last year, because cost of sales increased in the current year which reduced the gross profit margin of current year. Nevertheless, M-score of Bhanero Textile Mills Limited was -2.22, which indicated low probability of financial manipulation.

So, even there was reduction in gross margin, still the company managed to fall in the category of low probability of financial manipulation.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Bhanero Textile Mills Limited was 1.47 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Bhanero Textile Mills Limited was -2.22 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Bhanero Textile Mills Limited was 1.78. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Bhanero Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Bhanero Textile Mills Limited was -2.22, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Bhanero Textile Mills Limited was 0.55 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Bhanero Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Bhanero Textile Mills Limited was -2.22 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio, less than one.

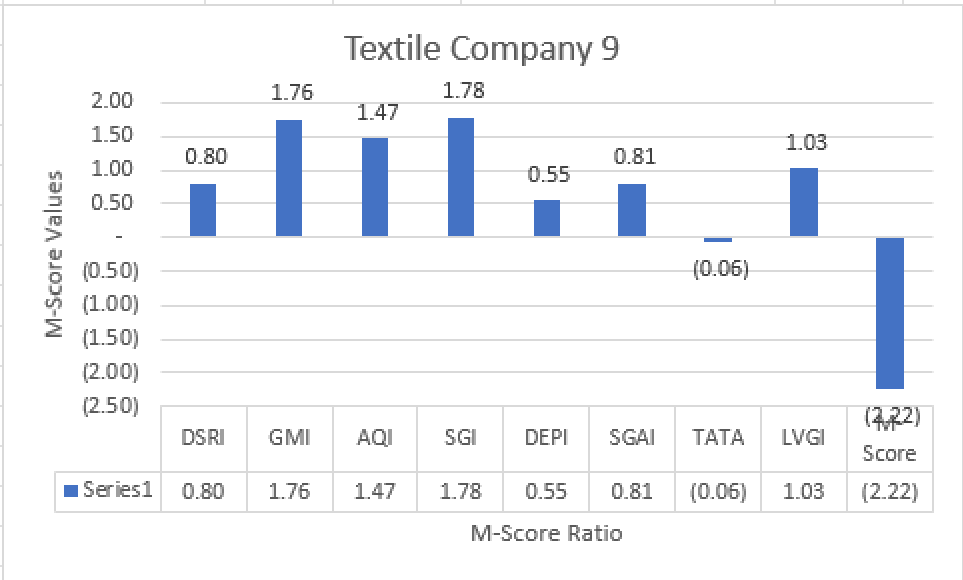
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Bhanero Textile Mills Limited was 0.81 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. It also indicated efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.22, which showed low probability of financial manipulation. So, a parallel relationship was identified between low probability of financial manipulation and low incurring of expenses in the current year.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Bhanero Textile Mills Limited was -0.06. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.22, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Bhanero Textile Mills Limited was 1.03, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to maintain its long-term debts. It further pointed that assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #9:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Bhanero Textile Mills Limited was -2.22 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>2. Textile Company 10</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Blessed Textile Mills Limited was 0.96. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Blessed Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Bhanero Textile Mills Limited was -2.31, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Blessed Textile Mills Limited was 2.77. This was a negative sign for the company Blessed Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Blessed Textile Mills Limited did not perform better than last year, because cost of sales increased in the current year which reduced the gross profit margin of current year. Nevertheless, M-score of Blessed Textile Mills Limited was -2.31, which indicated low probability of financial manipulation. So, even there was reduction in gross margin, still the company managed to fall in the category of low probability of financial manipulation.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Blessed Textile Mills Limited was 1.45 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Blessed Textile Mills Limited was -2.31 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Blessed Textile Mills Limited was 1.32. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Blessed Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Blessed Textile Mills Limited was -2.31, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Blessed Textile Mills Limited was 0.58 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Blessed Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Blessed Textile Mills

Limited was -2.31 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio, less than one.

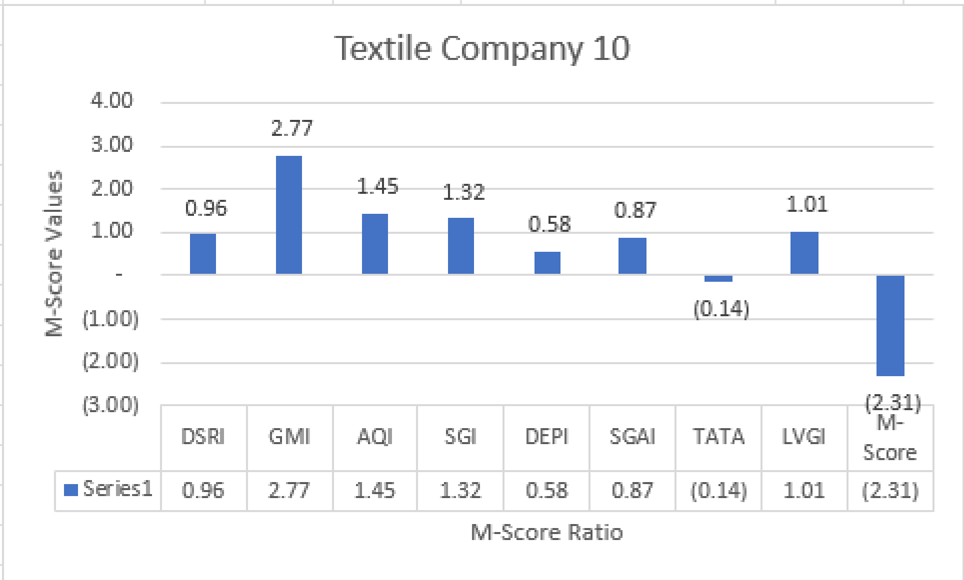
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Blessed Textile Mills Limited was 0.87 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. It also indicated efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.31, which showed low probability of financial manipulation. So, a parallel relationship was identified between low probability of financial manipulation and low incurring of expenses in the current year.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Blessed Textile Mills Limited was -0.14. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.31, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Blessed Textile Mills Limited was 1.01, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to maintain its long-term debts. It further pointed that assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #10:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Blessed Textile Mills Limited was -2.31 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>3.Textile Company 11</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of The Crescent

Textile Mills Limited was 0.66. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that The Crescent Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of The Crescent Textile Mills Limited was -2.59, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of The Crescent Textile Mills Limited was 2.34. This was a negative sign for the company The Crescent Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, The Crescent Textile Mills Limited did not perform better than last year, because cost of sales increased in the current year which reduced the gross profit margin of current year. Nevertheless, M-score of The Crescent Textile Mills Limited was -2.59, which indicated low probability of financial manipulation. So, even there was reduction in gross margin, still the company managed to fall in the category of low probability of financial manipulation.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of The Crescent Textile Mills Limited was 1.11 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of The Crescent Textile Mills Limited was -2.59 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of The Crescent Textile Mills Limited was 1.19. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that The Crescent Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of The Crescent Textile Mills Limited was -2.59, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of The Crescent Textile Mills Limited was 0.77 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company The Crescent Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of The Crescent Textile Mills Limited was -2.59 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio, less than one.

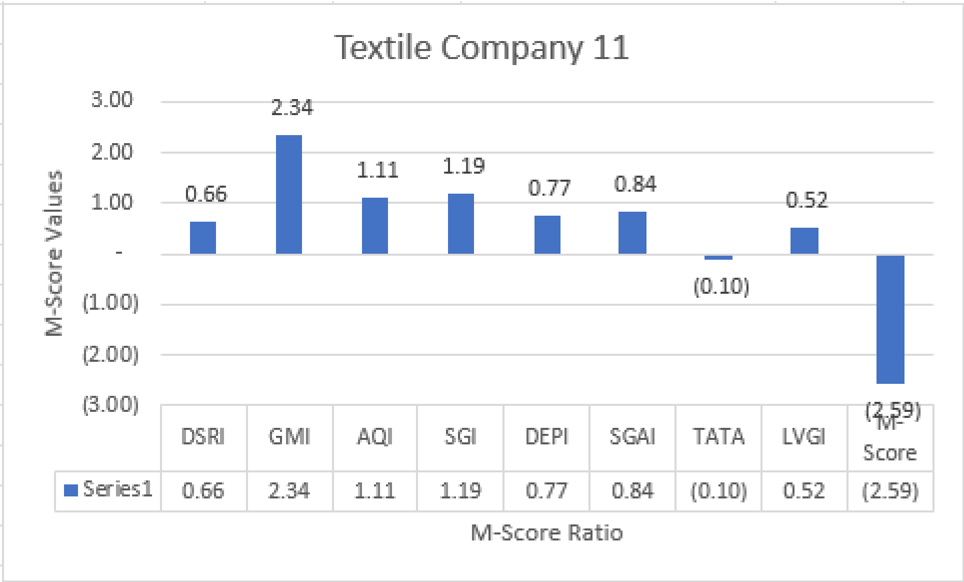
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of The Crescent Textile Mills Limited was 0.84 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. It also indicated efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.59, which showed low probability of financial manipulation. So, a parallel relationship was identified between low probability of financial manipulation and low incurring of expenses in the current year.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of The Crescent Textile Mills Limited was -0.10. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.59, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of The Crescent Textile Mills Limited was 0.52, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to pay-off some portion of its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off its long-term debts in the current year.

Figure #11:

M-Score Accounting Ratios



<u>Summary</u>

M-score of The Crescent Textile Mills Limited was -2.59 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>4.Textile Company 12</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Din Textile Mills Limited was 0.86. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Din Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Din Textile Mills Limited was -2.91, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Din Textile Mills Limited was 1.64. This was a negative sign for the company Din Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year, because cost of sales increased in the current year that reduced the gross profit margin in the current year. So, Din Textile Mills Limited did not perform better than last year. Nevertheless, M-score of Din Textile Mills Limited was -2.91, which indicated low probability of financial manipulation. So, decrease in gross profit margin could be due to actual increase in cost of goods produced.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Din Textile Mills Limited was 1.02 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Din Textile Mills Limited was -2.91 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Din Textile Mills Limited was 1.23. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Din Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Din Textile Mills Limited was -2.91, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Din Textile Mills Limited was 0.84 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Din Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Din Textile Mills Limited was -2.91 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio, less than one.

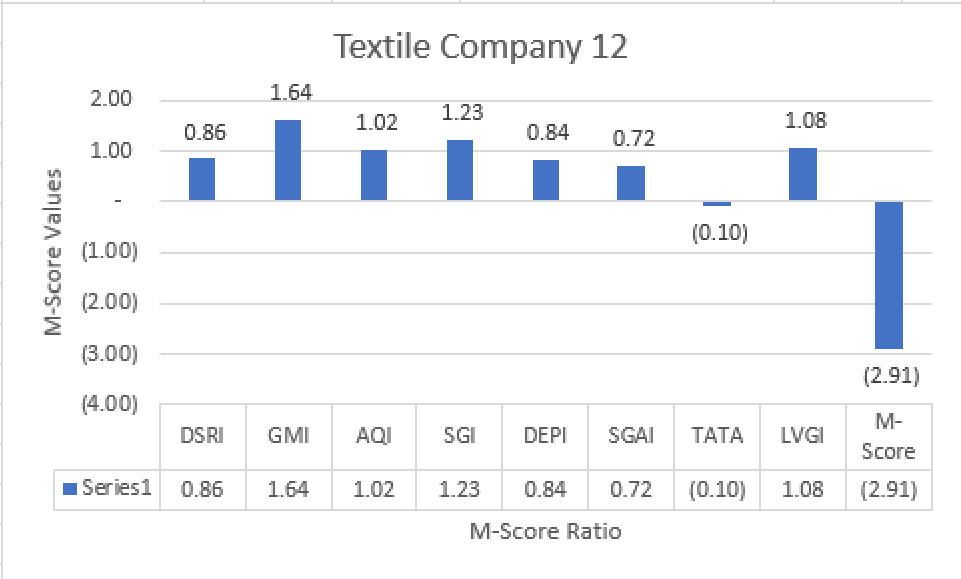
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Din Textile Mills Limited was 0.72 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. It also indicated efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.91, which showed low probability of financial manipulation.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Din Textile Mills Limited was -0.10. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.91, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Din Textile Mills Limited was 1.08, which was a positive sign for the company, although slightly higher than 1, and showed the company's borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to maintain its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #12:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Din Textile Mills Limited was -2.91 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>5.Textile Company 13</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Gadoon Textile Mills Limited was 1.36. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Gadoon Textile Mills Limited failed to effectively manage its receivables in the current year, which was a negative sign for the company.

Nevertheless, M-score of Gadoon Textile Mills Limited was -2.81, which showed low probability of committing financial manipulations. Although, M-score of this company was bending towards the low probability of financial manipulation, it needed to improve its DSRI.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Gadoon Textile Mills Limited was 1.54. This was a negative sign for the company Gadoon Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year, because cost of sales increased in the current year which reduced the gross profit margin in the current year. So, Gadoon Textile Mills Limited did not perform better than last year. Nevertheless, M-score of Gadoon Textile Mills Limited was -2.81, which indicated low probability of financial manipulation. So, reduction in gross profit margin could be due to factors like inflation, increase in salaries etc.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Gadoon Textile Mills Limited was 1.09 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Gadoon Textile Mills Limited was -2.81 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Gadoon Textile Mills Limited was 1.25. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so greater than 1 indicated higher sales than last year. It also indicated that Gadoon Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Gadoon Textile Mills Limited was -2.81, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Gadoon Textile Mills Limited was 0.67 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Gadoon Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Gadoon Textile Mills Limited was -2.81 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with low DEPI ratio.

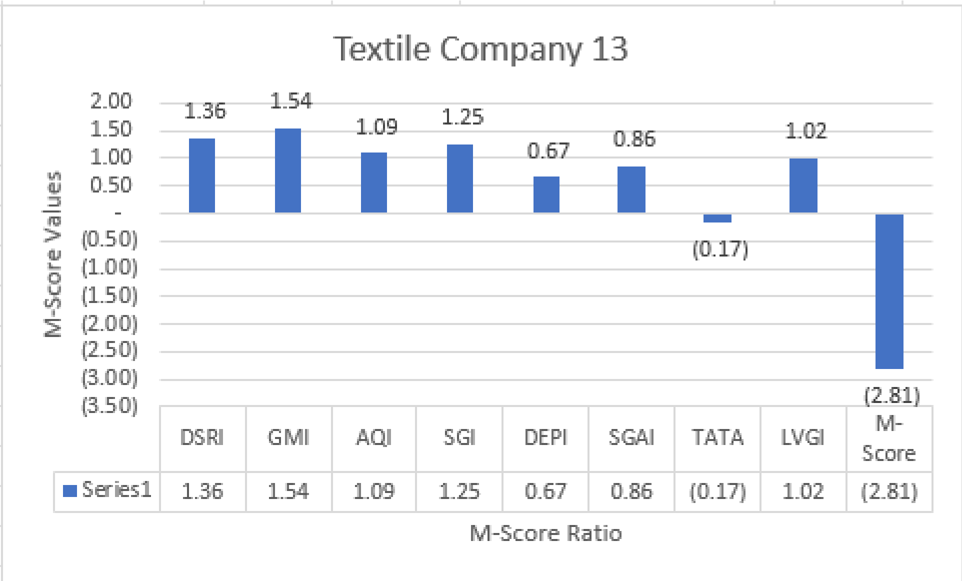
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Gadoon Textile Mills Limited was 0.86 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. It also indicated efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.81, which showed low probability of financial manipulation.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Gadoon Textile Mills Limited was -0.17. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.81, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Gadoon Textile Mills Limited was 1.02, which was a positive sign for the company, although slightly higher than 1, and showed the company's borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to maintain its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #13:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Gadoon Textile Mills Limited was -2.81 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>6.Textile Company 14</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Gul Ahmed Textile Mills Limited was 0.82. It was below 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Gul Ahmed Textile Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Gul Ahmed Textile Mills Limited was -2.78, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Gul Ahmed Textile Mills Limited was 1.24. This was a negative sign for the company Gul Ahmed Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year, because cost of sales increased in the current year which reduced the gross profit margin in the current year. So, Gul Ahmed Textile Mills Limited did not perform better than last year. Nevertheless, M-score of Gul Ahmed Textile Mills Limited was -2.78, which indicated low probability of financial manipulation. So, reduction in gross profit margin could be due to factors like inflation, increase in salaries etc.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Gul Ahmed Textile Mills Limited was 1.35 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Gul Ahmed Textile Mills Limited was -2.78 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Gul Ahmed Textile Mills Limited was 1.28. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so greater than 1 indicated higher sales than last year. It also indicated that Gul Ahmed Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Gul Ahmed Textile Mills Limited was -2.78, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Gul Ahmed Textile Mills Limited was 0.83 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Gul Ahmed Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Gul Ahmed Textile Mills Limited was -2.78 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with low DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Gul

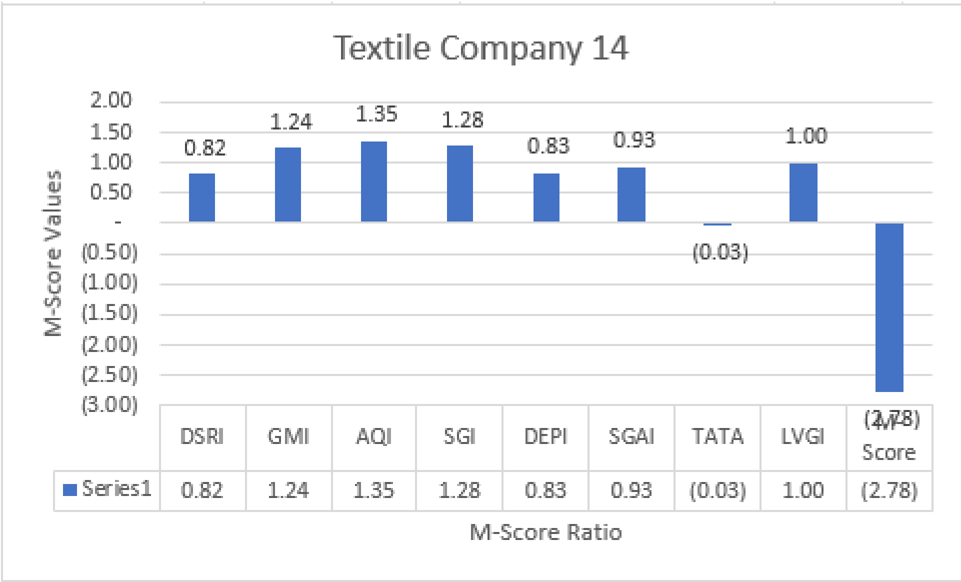
Ahmed Textile Mills Limited was 0.93 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. It also indicated efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.78, which showed low probability of financial manipulation.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Gul Ahmed Textile Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.78, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Gul Ahmed Textile Mills Limited was 1.00, which was a positive sign for the company and showed the company's borrowings and liabilities in the current year did not increase, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to maintain its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #14:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Gul Ahmed Textile Mills Limited was -2.78 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>7.Textile Company 15</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Kohat Textile Mills Limited was 0.94. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Kohat Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Kohat Textile Mills Limited was -2.57, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Kohat Textile Mills Limited was 0.93. This was a positive sign for the company Kohat Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Kohat Textile Mills Limited performed better than last year. M-score of Kohat Textile Mills Limited was -2.57, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Kohat Textile Mills Limited was 1.01 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Kohat Textile Mills Limited was -2.57 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Kohat Textile Mills Limited was 1.34. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Kohat Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Kohat Textile Mills Limited was -2.57, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Kohat Textile Mills Limited was 1.04 that showed the company charged more or less equal depreciation expense in the current year, comparing with the last year. DEPI was considered here as a positive sign for the company Kohat Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Kohat Textile Mills Limited was -2.57 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Kohat Textile Mills Limited was 0.92 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.57, which showed low probability of financial manipulation. So,

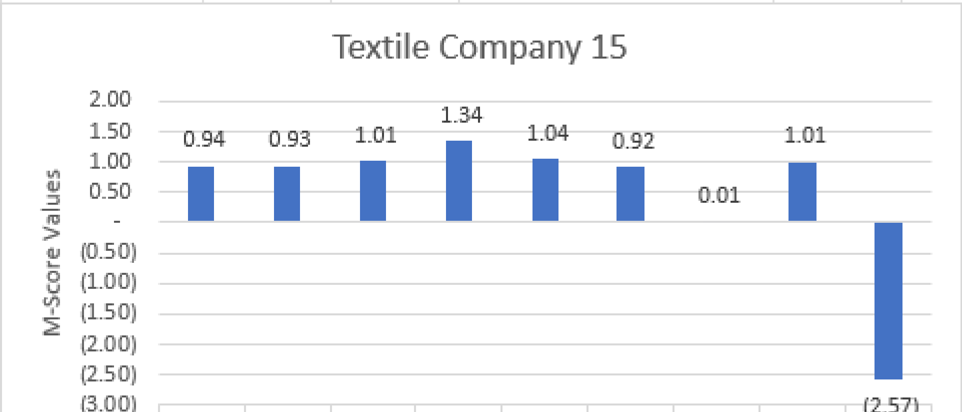
parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Kohat Textile Mills Limited was 0.01. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.57, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Kohat Textile Mills Limited was 1.01, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing with last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the company managed to pay-off some portion of its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off its long-term debts in the current year.

Figure #15:

M-Score Accounting Ratios



	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score
Series1	0.94	0.93	1.01	1.34	1.04	0.92	0.01	1.01	(2.57)

<u>Summary</u>

M-score of Kohat Textile Mills Limited was -2.57 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>8.Textile Company 16</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Kohinoor Textile Mills Limited was 1.05. It was more or less equal to 1, which showed that last year debtors recovery days were consistent with the current year. In other words, current year was consistent with the prior year. It also reflected that Kohinoor Textile Mills Limited maintained to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Kohinoor Textile Mills Limited was -2.60, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Kohinoor Textile Mills Limited was 1.11. This was a positive sign for the company Kohinoor Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than or equal to 1 indicated better or consistent gross margin, comparing with last year. So, Kohinoor Textile Mills Limited performed consistent in the current year. M-score of Kohinoor Textile Mills Limited was -2.60, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Kohinoor Textile Mills Limited was 0.93 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Kohinoor Textile Mills Limited was -2.60 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Kohinoor Textile Mills Limited was 1.38. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Kohinoor Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Kohinoor Textile Mills Limited was -2.60, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Kohinoor Textile Mills Limited was 0.86 that showed the company charged more depreciation expense in the current year, comparing with the last year. DEPI was considered here as a positive sign for the company Kohinoor Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Kohinoor Textile Mills Limited was -2.60 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Kohinoor Textile Mills Limited was 0.83 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.60, which showed low probability of financial manipulation. So,

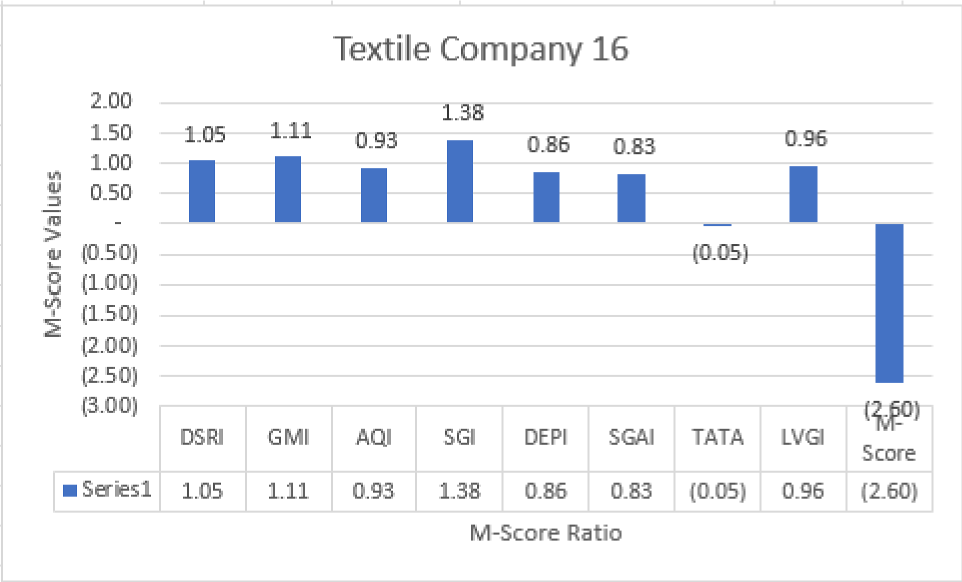
parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Kohinoor Textile Mills Limited was 0.05. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.60, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Kohinoor Textile Mills Limited was 0.96, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing with last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the company managed to pay-off some portion of its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off its long-term debts in the current year.

Figure #16:

M-Score Accounting Ratios



Summary

M-score of Kohinoor Textile Mills Limited was -2.60 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

9.Textile Company 17

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Mehmood Textile Mills Limited was 0.90. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Mehmood Textile Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Mehmood Textile Mills Limited was -2.95, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Mehmood Textile Mills Limited was 0.97. This was a positive sign for the company Mehmood Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Mehmood Textile Mills Limited performed better than last year. M-score of Mehmood Textile Mills Limited was -2.95, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Mehmood Textile Mills Limited was 0.93 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Mehmood Textile Mills Limited was -2.95 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Mehmood Textile Mills Limited was 1.22. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Mehmood Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Mehmood Textile Mills Limited was -2.95, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Mehmood Textile Mills Limited was 0.93 that showed the company charged higher depreciation expense in the current year, comparing with the last year. DEPI was considered here as a positive sign for the company Mehmood Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Mehmood Textile Mills Limited was -2.95 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

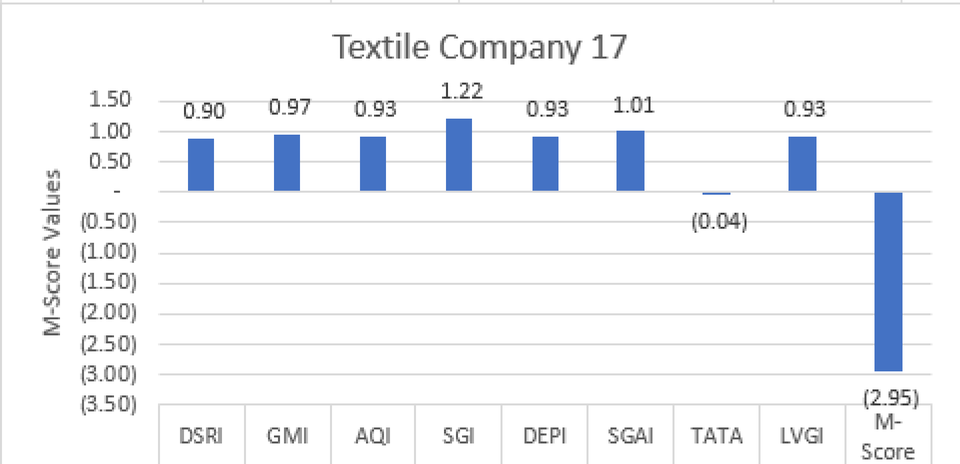
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Mehmood Textile Mills Limited was 1.01 which was equal 1. It showed the company incurred more or less same expenses in the current year, comparing with the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.95, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Mehmood Textile Mills Limited was -0.04. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.95, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Mehmood Textile Mills Limited was 0.93, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing with last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the company managed to pay-off some portion of its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off its long-term debts in the current year.

Figure #17:

M-Score Accounting Ratios



	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score
Series1	0.90	0.97	0.93	1.22	0.93	1.01	(0.04)	0.93	(2.95)

<u>Summary</u>

M-score of Mehmood Textile Mills Limited was -2.95 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>10.Textile Company 18</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Premium Textile Mills Limited was 1.33. It was slightly higher than 1, which showed that last year debtors recovery days were consistent with the current year. In other words, current year was consistent with the prior year. It also reflected that Premium Textile Mills Limited maintained to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Premium Textile Mills Limited was -2.70, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Premium Textile Mills Limited was 1.25. This was still a positive sign for the company Premium Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so equal to or sightly higher than 1 indicated better or consistent gross margin, comparing with last year. So, Premium Textile Mills Limited performed consistent in the current year. M-score of Premium Textile Mills Limited was -2.70, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Premium Textile Mills Limited was 0.08 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Premium Textile Mills Limited was -2.70 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Premium Textile Mills Limited was 1.19. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Premium Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Premium Textile Mills Limited was -2.70, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Premium Textile Mills Limited was 0.91 that showed the company charged more depreciation expense in the current year, comparing with the last year. DEPI was considered here as a positive sign for the company Premium Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Premium Textile Mills Limited was -2.70 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Premium Textile Mills Limited was 1.02 which was equal 1. It showed the company incurred same expenses in the current year, comparing the last year. Here it showed efficiency of the

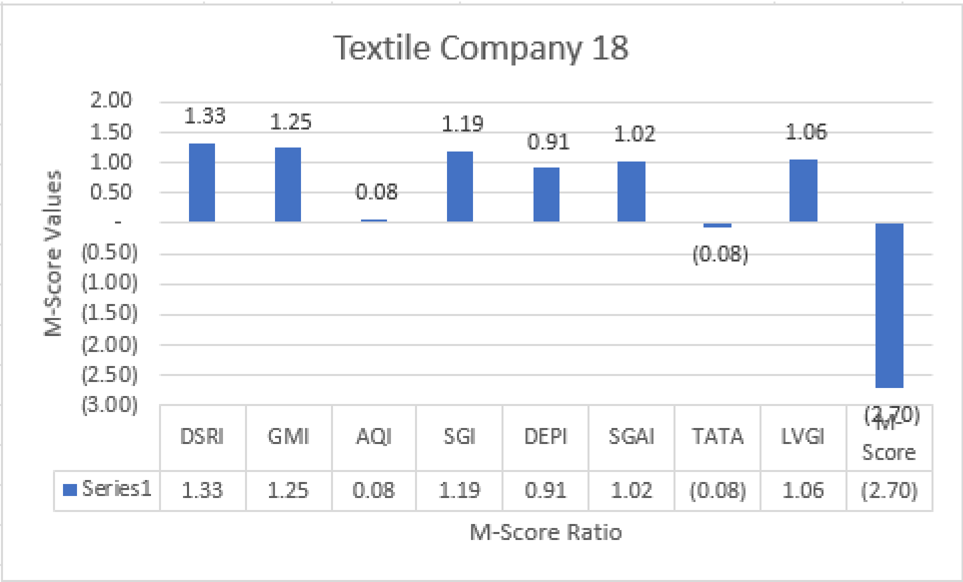
management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.70, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Premium Textile Mills Limited was -0.08. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.70, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Premium Textile Mills Limited was 1.06, which was a positive sign for the company and showed the company's borrowings and liabilities in the current year did not increase massively, comparing with last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #18:

M-Score Accounting Ratios



Summary

M-score of Premium Textile Mills Limited was -2.70 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

11.Textile Company 19

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Saif Textile Mills Limited was 1.13. It was slightly higher than 1, which showed that last year debtors recovery days were slightly lower than the current year. In other words, current year was more or less consistent as compared to the last year. It also reflected that Saif Textile Mills Limited

succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Saif Textile Mills Limited was -2.85, which showed low probability of committing financial manipulations. So, low DSRI was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Saif Textile Mills Limited was 0.27. This was a positive sign for the company Saif Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Saif Textile Mills Limited performed better than last year. M-score of Saif Textile Mills Limited was -2.85, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Saif Textile Mills Limited was 0.62 which showed its better performance, comparing with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Saif Textile Mills Limited was -2.85 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Saif Textile Mills Limited was 1.05. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated consistent sales comparing with last year. It also indicated that Saif Textile Mills Limited managed to increase its sales in the current year, comparing with last year, which showed its efficiency in the current year. M-score of Saif Textile Mills Limited was -2.85, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Saif Textile Mills Limited was 0.81 that showed the company charged higher depreciation expense in the current year, comparing with the last year. DEPI was considered here as a positive sign for the company Saif Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Saif Textile Mills Limited was -2.85 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Saif Textile Mills Limited was 0.69 which was lower than 1. It showed the company incurred less expenses in the current year, comparing with the last year. Here it showed efficiency of the

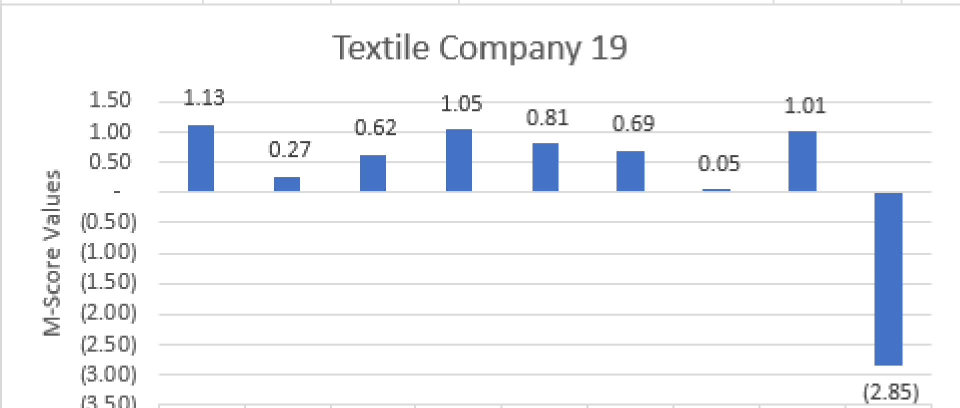
management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.85, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Saif Textile Mills Limited was 0.05. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.85, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Saif Textile Mills Limited was 1.01, which was a positive sign for the company and showed the company's borrowings and liabilities in the current year did not increase massively, comparing with last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #19:

M-Score Accounting Ratios



	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score
Series1	1.13	0.27	0.62	1.05	0.81	0.69	0.05	1.01	(2.85)

<u>Summary</u>

M-score of Saif Textile Mills Limited was -2.85 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>12.Textile Company 20</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Sapphire Textile Mills Limited was 1.19. It was slightly higher than 1, which showed that last year debtors recovery days were consistent with the current year. In other words, current year was consistent with the prior year. It also reflected that Sapphire Textile Mills Limited maintained to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Sapphire Textile Mills Limited was -2.33, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Sapphire Textile Mills Limited was 1.06. This was still a positive sign for the company Sapphire Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so equal to or slightly higher than 1 indicated better or consistent gross margin, comparing with last year. So, Sapphire Textile Mills Limited performed consistent in the current year. M-score of Sapphire Textile Mills Limited was -2.33, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Sapphire Textile Mills Limited was 1.03 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Sapphire Textile Mills Limited was -2.33 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Sapphire Textile Mills Limited was 1.13. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Sapphire Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Sapphire Textile Mills Limited was -2.33, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Sapphire Textile Mills Limited was 0.86 that showed the company charged more depreciation expense in the current year, comparing with the last year. DEPI was considered here as a positive sign for the company Sapphire Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Sapphire Textile Mills Limited was -2.33 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Sapphire Textile Mills Limited was 0.96 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.33, which showed low probability of financial manipulation. So,

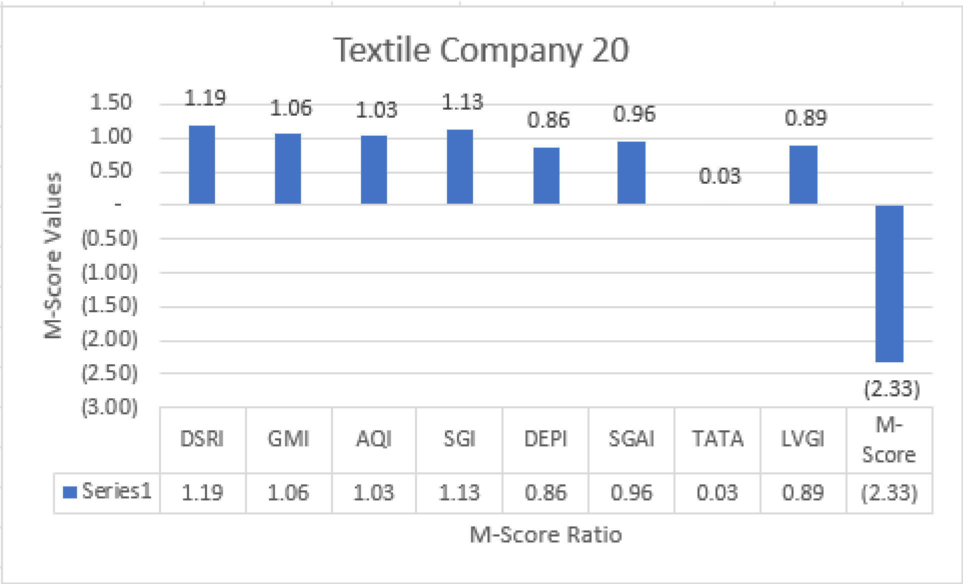
parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Sapphire Textile Mills Limited was 0.03. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.33, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Sapphire Textile Mills Limited was 0.89, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing with last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #20:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Sapphire Textile Mills Limited was -2.33 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>13.Textile Company 21</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Tata Textile Mills Limited was 0.81. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Tata Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Tata Textile Mills Limited was -2.34, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Tata Textile Mills Limited was 1.65. This was not a positive sign for the company Tata Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Tata Textile Mills Limited did not perform better than last year. Although, M-score of Tata Textile Mills Limited was -2.34, which indicated low probability of financial manipulation, still the company needed to improve its GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Tata Textile Mills Limited was 0.83 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Tata Textile Mills Limited was -2.34 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI, lower than one.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Tata Textile Mills Limited was 1.30. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Tata Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Tata Textile Mills Limited was -3.01, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Tata Textile Mills Limited was 0.96 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Tata Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Tata Textile Mills Limited was -2.34 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Tata Textile Mills Limited was 0.72 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.34, which showed low probability of financial manipulation. So,

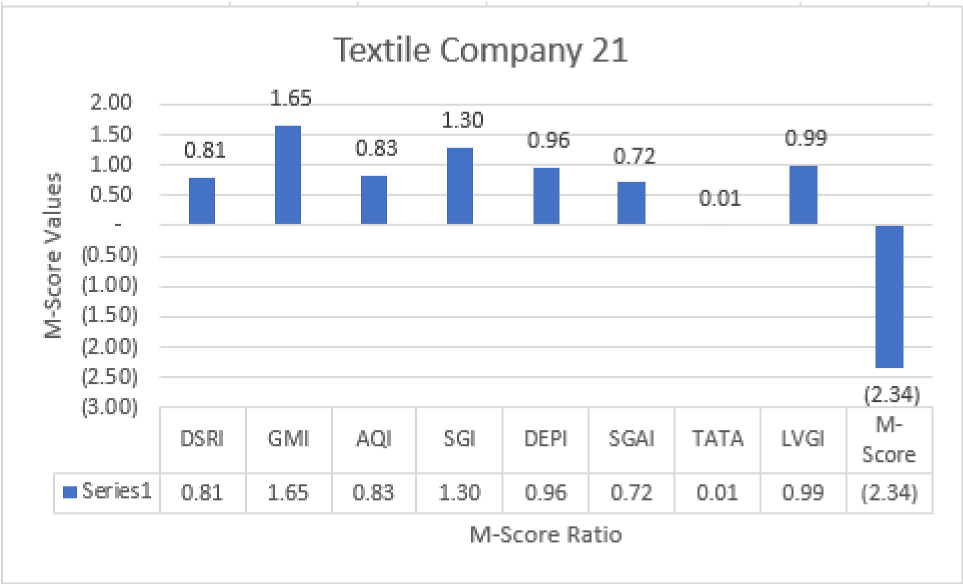
parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Tata Textile Mills Limited was 0.01. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.34, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Tata Textile Mills Limited was 0.99, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #21:

M-Score Accounting Ratios



Summary

M-score of Tata Textile Mills Limited was -2.34 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

14.Textile Company 22

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Zahid Jee Textile Mills Limited was 0.86. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year has been more efficient as compared to the last year. It also reflected that Zahid Jee Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Zahid Jee Textile Mills Limited was -2.74, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Zahid Jee Textile Mills Limited was 1.66. This was not a positive sign for the company Zahid Jee Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Zahid Jee Textile Mills Limited did not perform better than last year. Although, M-score of Zahid Jee Textile Mills Limited was -2.74, which indicated low probability of financial manipulation, still the company needed to improve its GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Zahid Jee Textile Mills Limited was 0.38 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Zahid Jee Textile Mills Limited was -2.74 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI, lower than one.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Zahid Jee Textile Mills Limited was 1.17. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Zahid Jee Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Zahid Jee Textile Mills Limited was -2.74, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Zahid Jee Textile Mills Limited was 1.23 that showed the company charged slightly lower depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Zahid Jee Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Zahid Jee Textile Mills Limited was -2.74 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

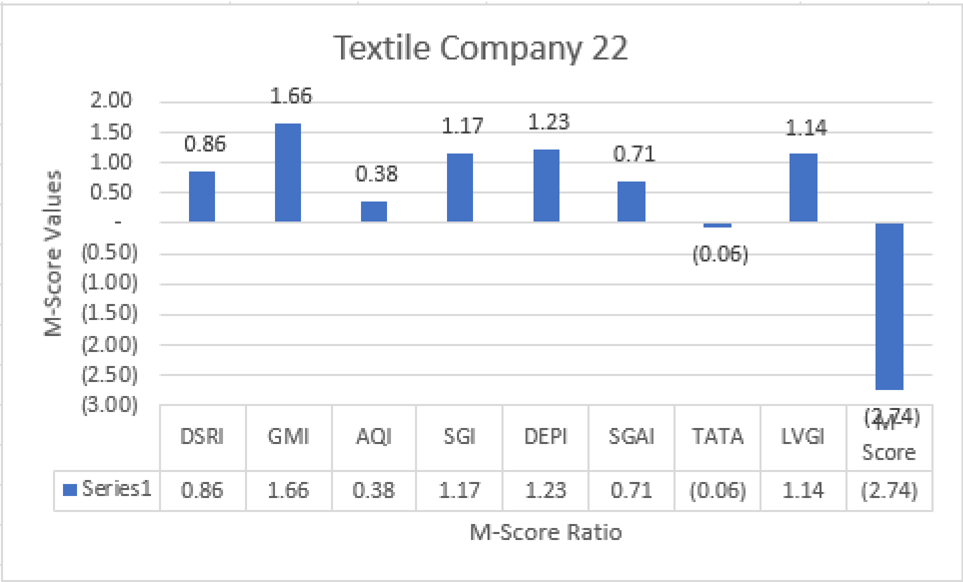
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Zahid Jee Textile Mills Limited was 0.71 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.74, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and lower SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Zahid Jee Textile Mills Limited was -0.06. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.74, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Zahid Jee Textile Mills Limited was 1.14, which was a positive sign for the company, although slightly higher than 1, and showed the company's borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #22:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Zahid Jee Textile Mills Limited was -2.74 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>15.Textile Company 23</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Ellcot Spinning Mills Limited was 0.90. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Ellcot Spinning Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Ellcot Spinning Mills Limited was -2.63, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Ellcot Spinning Mills Limited was 1.26. This was not a positive sign for the company Ellcot Spinning Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Ellcot Spinning Mills Limited did not perform better than last year. Although, M-score of Ellcot Spinning Mills Limited was -2.63, which indicated low probability of financial manipulation, still the company needed to improve its GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Ellcot Spinning Mills Limited was 1.06 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Ellcot Spinning Mills Limited was -2.63 which showed low probability of financial

manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Ellcot Spinning Mills Limited was 1.27. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Ellcot Spinning Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Ellcot Spinning Mills Limited was -2.63, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Ellcot Spinning Mills Limited was 0.72 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Ellcot Spinning Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Ellcot Spinning Mills Limited was -2.63 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

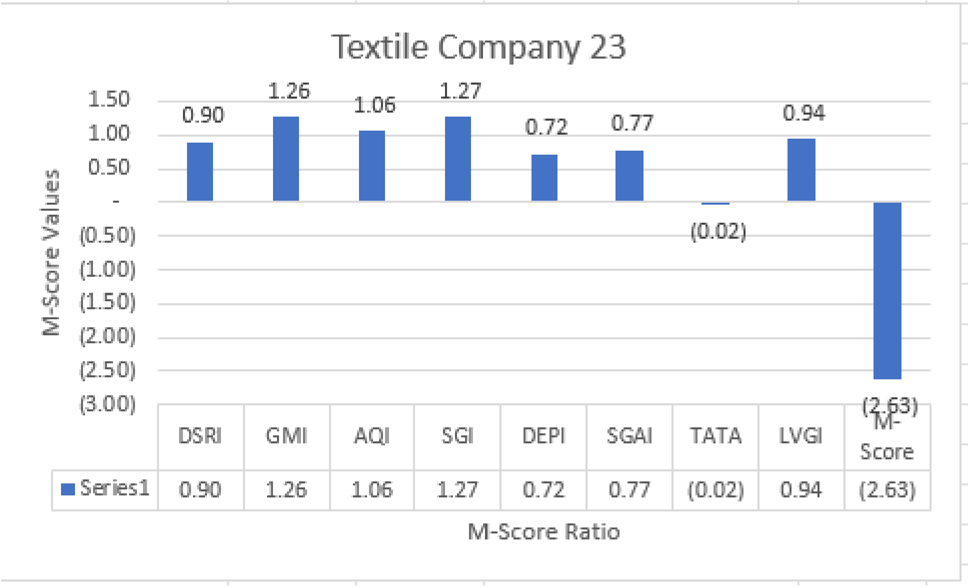
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Ellcot Spinning Mills Limited was 0.77 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.63, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and lower SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Ellcot Spinning Mills Limited was -0.02. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.63, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Ellcot Spinning Mills Limited was 0.94, which was a positive sign for the company, and showed the company’s borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #23:

M-Score Accounting Ratios



Summary

M-score of Ellcot Spinning Mills Limited was -2.63 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

16.Textile Company 24

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Faisal Spinning Mills Limited was 0.93. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Faisal Spinning Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Faisal Spinning Mills Limited was -2.54, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Faisal Spinning Mills Limited was 1.99. This was not a positive sign for the company Ellcot Spinning Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Faisal Spinning Mills Limited did not perform better than last year. Although, M-score of Faisal Spinning Mills Limited was -2.54, which indicated low probability of financial manipulation, still the company needed to improve its GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Faisal Spinning Mills Limited was 0.90 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Faisal Spinning Mills Limited was -2.54 which showed low probability of financial

manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Faisal Spinning Mills Limited was 1.20. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Faisal Spinning Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Faisal Spinning Mills Limited was -2.54, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Faisal Spinning Mills Limited was 1.02 that showed the company charged slightly lower depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Faisal Spinning Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Faisal Spinning Mills Limited was -2.54 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

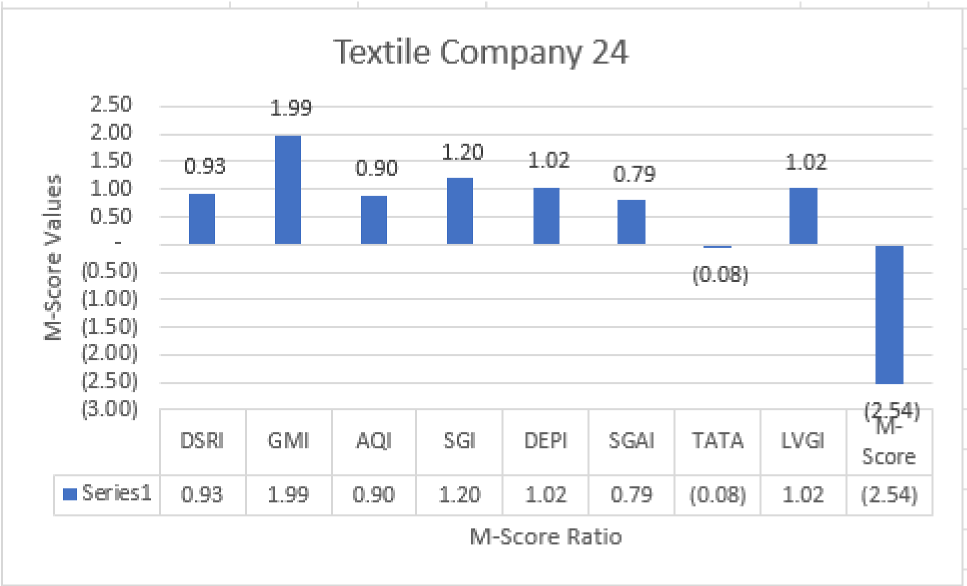
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Faisal Spinning Mills Limited was 0.79 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.54, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and lower SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Faisal Spinning Mills Limited was -0.08. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.54, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Faisal Spinning Mills Limited was 1.02, which was a positive sign for the company, and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #24:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Faisal Spinning Mills Limited was -2.54 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>17.Textile Company 25</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of J.K. Spinning Mills Limited was 0.93. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that J.K. Spinning Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of J.K. Spinning Mills Limited was -2.88, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of J.K. Spinning Mills Limited was 0.98. This was a positive sign for the company J.K. Spinning Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, J.K. Spinning Mills Limited performed better than last year. M-score of J.K. Spinning Mills Limited was -2.88, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of J.K. Spinning Mills Limited was 0.55 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of J.K. Spinning Mills Limited was -2.88 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of J.K. Spinning Mills Limited was 1.16. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that J.K. Spinning Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of J.K. Spinning Mills Limited was -2.88, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of J.K. Spinning Mills Limited was 0.53 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company J.K. Spinning Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of J.K. Spinning Mills Limited was -2.88 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

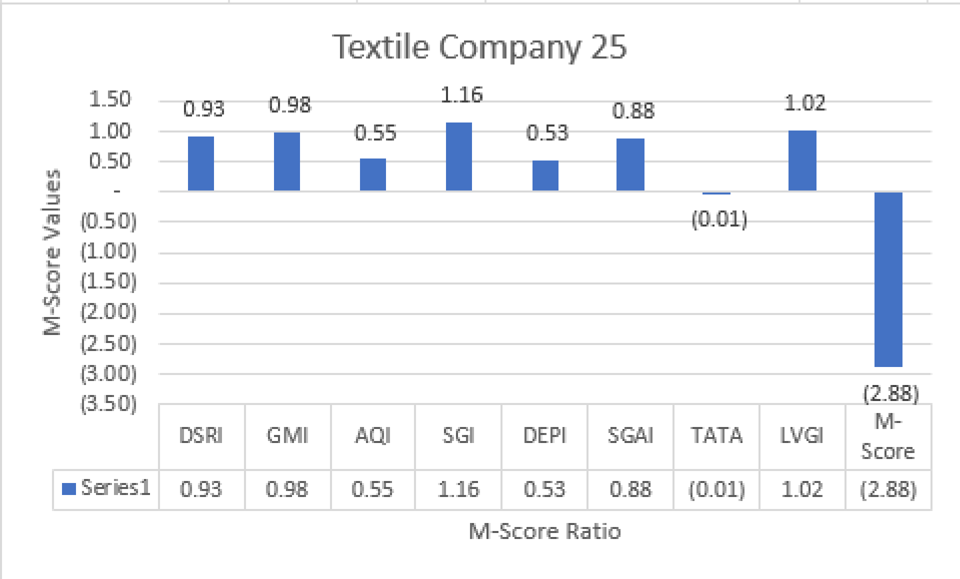
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of J.K. Spinning Mills Limited was 0.88 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.88, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low value of SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of J.K. Spinning Mills Limited was -0.01. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.88, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of J.K. Spinning Mills Limited was 1.02, which was a positive sign for the company and showed the company's borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #25:

M-Score Accounting Ratios



	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score
Series1	0.93	0.98	0.55	1.16	0.53	0.88	(0.01)	1.02	(2.88)

Summary

M-score of J.K. Spinning Mills Limited was -2.88 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

18.Textile Company 26

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Jubilee Spinning Mills Limited was 0.53. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Jubilee Spinning Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Jubilee Spinning Mills Limited was -2.28, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Jubilee Spinning Mills Limited was 1.20. Although it was not a positive sign for the company Jubilee Spinning Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated better gross margin than last year, yet the company managed to maintain its gross margin as it dropped slightly. Moreover, M-score of Jubilee Spinning Mills Limited was -2.28, which indicated low probability of financial manipulation. So, decrease in gross margin could be due to actual increase in cost of goods sold due to factors like inflation, increase in cost of direct labor etc.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Jubilee Spinning Mills Limited was 0.97 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Jubilee Spinning Mills Limited was -2.28 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Jubilee Spinning Mills Limited was 2.05. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Jubilee Spinning Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Jubilee Spinning Mills Limited was -2.28, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Jubilee Spinning Mills Limited was 0.66 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Jubilee Spinning Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Jubilee Spinning Mills Limited was -2.28 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

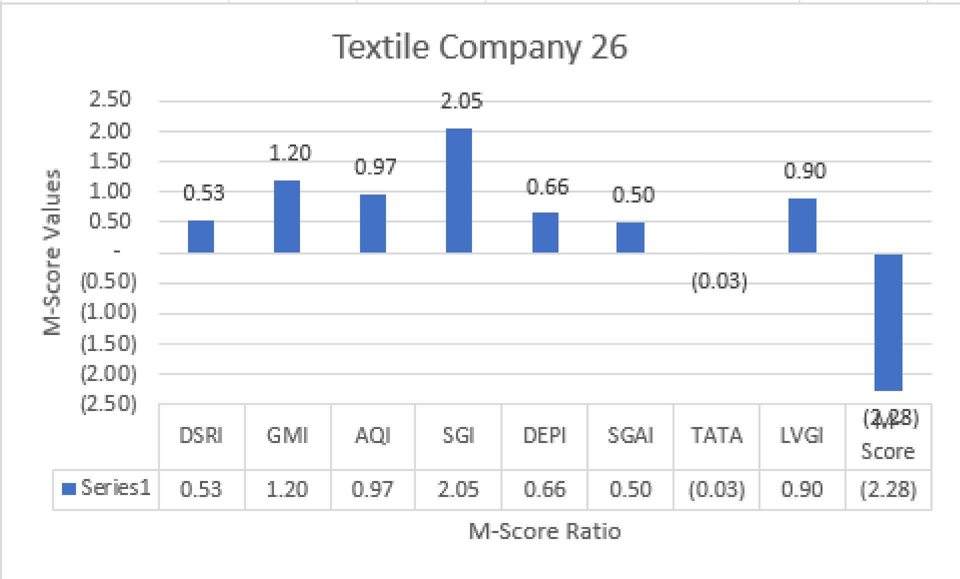
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Jubilee Spinning Mills Limited was 0.50 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.28, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low value of SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Jubilee Spinning Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.28, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Jubilee Spinning Mills Limited was 0.90, which was a positive sign for the company and showed the company's borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #26:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Jubilee Spinning Mills Limited was -2.28 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>19.Textile Company 27</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Reliance Cotton Spinning Mills Limited was 0.70. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Reliance Cotton Spinning Mills Limited

succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Reliance Cotton Spinning Mills Limited was -2.81, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Reliance Cotton Spinning Mills Limited was 0.95. This was a positive sign for the company Reliance Cotton Spinning Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Reliance Cotton Spinning Mills Limited performed better than last year. M-score of Reliance Cotton Spinning Mills Limited was -2.81, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Reliance Cotton Spinning Mills Limited was 1.53 which showed its consistency with the last year, although slightly higher. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Reliance Cotton Spinning Mills Limited was -

2.81 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Reliance Cotton Spinning Mills Limited was 1.33. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Reliance Cotton Spinning Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Reliance Cotton Spinning Mills Limited was -2.81, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Reliance Cotton Spinning Mills Limited was 0.92 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Reliance Cotton Spinning Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Reliance Cotton Spinning Mills Limited was -2.81 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

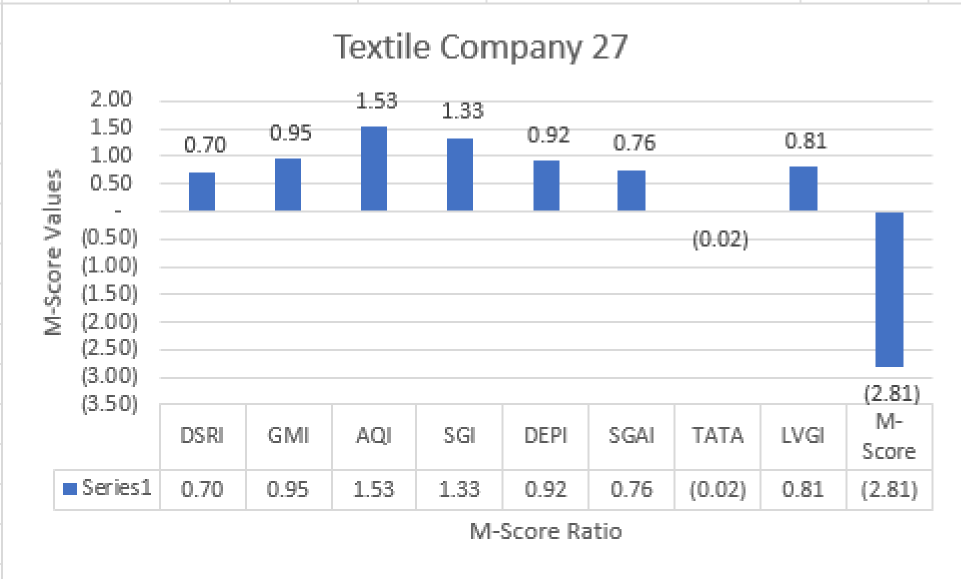
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Reliance Cotton Spinning Mills Limited was 0.76 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -2.81, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low value of SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Reliance Cotton Spinning Mills Limited was -0.02. It showed net change in current assets and liabilities was not drastic. M-score of the company was -2.81, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Reliance Cotton Spinning Mills Limited was 0.81, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #27:

M-Score Accounting Ratios



Summary

M-score of Reliance Cotton Spinning Mills Limited was -2.81 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

Evaluation of Findings Along with Research Objective

The above detailed analysis showed that indeed M-score had the strong strength of detecting probability of financial manipulations in the financial statements of the textile companies, listed on Pakistan Stock Exchange. The results also showed the association between application of M-score and detection of financial manipulations in the textile sector of companies, listed in Pakistan. The application of M-score successfully disclosed that although these companies had the low probability of committing financial manipulations in their financial statements, yet the M-score results of these companies were inclining towards the benchmark of M-score -2.22, which indicated these companies could have been on the verge of committing material financial manipulations in future which could lead to a financial fraud. This suggested further examination of the prior years' financial statements, specifically from the investors point of view to get the better understanding of the financial position and performance of these companies.

4.3.3. Manipulator and Non-Manipulator Companies

The research questions are generally derived from the research objectives and should be in line with them. Based on research objectives and questions, hypotheses are established. So, in essence all these three, research objectives, research questions and research hypotheses, should support one another.

The third research objective of this research project was:

"To differentiate financial manipulator companies from the those which have not manipulated their financial information."

Based on it, the research question, in line with the research objective, was:

"Will fraud indicating variables of M-score differentiate between financial manipulator and non-manipulator listed companies, registered on stock exchange of Pakistan?"

A hypothesis supporting the research question was:

"H3: M-score and its eight accounting ratios will successfully differentiate between financially manipulated and non-manipulated companies, listed on Pakistan stock exchange."

<u>Evaluation of Findings</u>

The tables below along with the detailed evaluation, examination and explanation of each company's findings showed the results that coincide with the objective of detecting the financial manipulator companies and differentiating them from those companies which have not committed financial manipulations, with the help of M-score and its eight accounting ratios.

Table 4.5:

M-Score and Accounting Ratios Results

Sr. #	Name of the Company	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score	Result
1	Textile Company 1	1.38	1.41	0.99	1.17	1.04	0.78	(0.00)	1.18	(2.14)	HP
2	Textile Company 28	0.65	0.91	0.70	1.15	1.33	0.83	(0.04)	3.81	(4.12)	LP
3	Textile Company 2	1.46	3.18	0.91	1.36	1.18	0.63	(0.03)	1.08	(1.05)	HP
4	Textile Company 3	2.46	6.87	1.60	5.11	0.92	0.20	(0.03)	1.05	5.24	HP
5	Textile Company 29	0.25	0.20	1.38	0.80	0.97	1.25	(0.13)	1.17	(4.84)	LP
6	Textile Company 4	1.81	1.27	1.00	1.37	0.59	0.94	(0.01)	1.27	(1.81)	HP
7	Textile Company 5	12.96	4.31	1.12	3.86	1.00	0.26	0.04	1.07	12.75	HP
8	Textile Company 30	0.07	(13.81)	1.20	0.98	0.96	1.37	(0.06)	1.06	(11.91)	LP
9	Textile Company 6	4.35	0.40	1.18	0.26	1.01	2.52	(0.04)	1.07	(1.21)	HP
10	Textile Company 31	0.58	(7.89)	1.04	1.06	0.88	2.09	(0.04)	0.96	(8.25)	LP
11	Textile Company 7	1.16	3.98	1.20	1.28	1.07	0.82	(0.09)	1.31	(1.33)	HP
12	Textile Company 8	1.22	0.84	0.61	2.13	0.47	0.60	(0.03)	1.36	(2.00)	HP
13	Textile Company 32	0.97	1.41	0.85	1.04	1.06	0.82	(1.37)	0.96	(8.98)	LP

HP: High Probability of Manipulation

LP: Low Probability of Manipulation

Source: *Author's Analyzed Results*

Table 4.6:

M-Score Results

Sr. #	Name of the Company	Intercept	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score	Benchmark	Result
1	Textile Company 1	(4.84)	1.27	0.75	0.0401	1.05	0.1201	(0.13)	(0.01)	(0.39)	(2.14)	(2.22)	HP
2	Textile Company 28	(4.84)	0.60	0.48	0.0283	1.02	0.1526	(0.14)	(0.18)	(1.25)	(4.12)	(2.22)	LP
3	Textile Company 2	(4.84)	1.34	1.68	0.0369	1.21	0.1355	(0.11)	(0.15)	(0.35)	(1.05)	(2.22)	HP
4	Textile Company 3	(4.84)	2.27	3.62	0.0648	4.56	0.1063	(0.03)	(0.16)	(0.34)	5.24	(2.22)	HP
5	Textile Company 29	(4.84)	0.23	0.11	0.0556	0.72	0.1114	(0.21)	(0.63)	(0.38)	(4.84)	(2.22)	LP
6	Textile Company 4	(4.84)	1.67	0.67	0.0404	1.22	0.0676	(0.16)	(0.06)	(0.42)	(1.81)	(2.22)	HP
7	Textile Company 5	(4.84)	11.92	2.28	0.0451	3.44	0.1147	(0.04)	0.18	(0.35)	12.75	(2.22)	HP
8	Textile Company 30	(4.84)	0.07	(7.29)	0.0486	0.87	0.1099	(0.24)	(0.30)	(0.35)	(11.91)	(2.22)	LP
9	Textile Company 6	(4.84)	4.00	0.21	0.0478	0.23	0.1164	(0.43)	(0.20)	(0.35)	(1.21)	(2.22)	HP
10	Textile Company 31	(4.84)	0.53	(4.17)	0.0419	0.94	0.1008	(0.36)	(0.19)	(0.31)	(8.25)	(2.22)	LP
11	Textile Company 7	(4.84)	1.06	2.10	0.0485	1.14	0.1235	(0.14)	(0.40)	(0.43)	(1.33)	(2.22)	HP
12	Textile Company 8	(4.84)	1.12	0.44	0.0247	1.90	0.0542	(0.10)	(0.15)	(0.44)	(2.00)	(2.22)	HP
13	Textile Company 32	(4.84)	0.89	0.75	0.0344	0.92	0.1214	(0.14)	(6.40)	(0.31)	(8.98)	(2.22)	LP

HP: High Probability of Manipulation

LP: Low Probability of Manipulation

Source: *Author's Analyzed Results*

<u>1.Textile Company 1</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Ahmad Hassan Textile Mills Limited was 1.38. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Ahmad Hassan Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Ahmad Hassan Textile Mills Limited was -2.14, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Ahmad Hassan Textile Mills Limited was 1.41. This was a negative sign for the company Ahmad Hassan Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Ahmad Hassan Textile Mills Limited did not perform better than last year. M-score of Ahmad Hassan Textile Mills Limited was -2.14, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Ahmad Hassan Textile Mills was 0.99 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Ahmad Hassan Textile Mills Limited was -2.14 which showed high probability of financial manipulation. Although M-score showed high probability, still the company managed to correctly record capitalization of assets and relevant expenses.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Ahmad Hassan Textile Mills Limited was 1.17. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Ahmad Hassan Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Ahmad Hassan Textile Mills Limited was -2.14, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Ahmad Hassan Textile Mills Limited was 1.04 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company Ahmad Hassan Textile Mills Limited because there was possibility of under-charging the depreciation in the current year. M-score of Ahmad Hassan Textile Mills Limited was -2.14 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

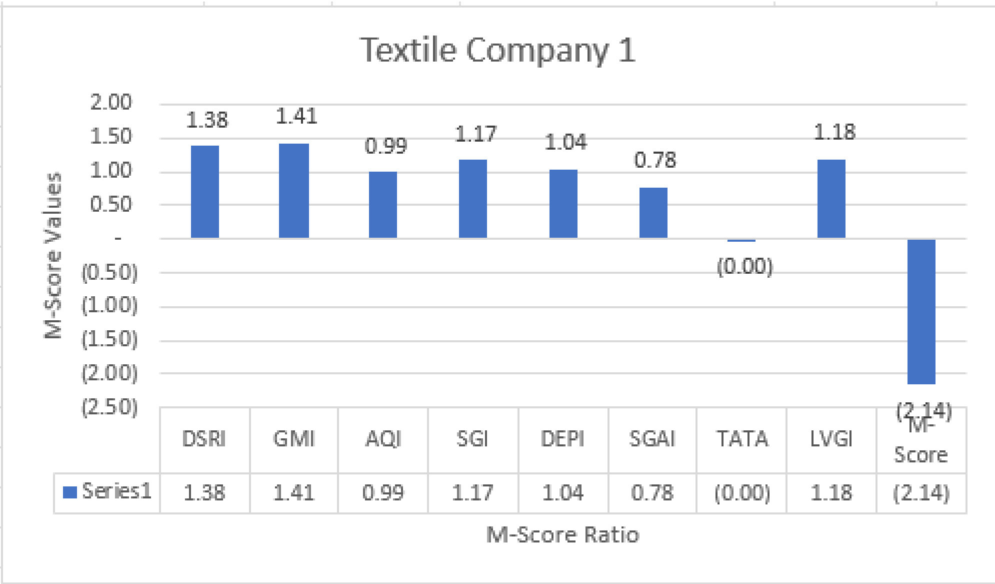
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Ahmad Hassan Textile Mills Limited was 0.78 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -2.14 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Ahmad Hassan Textile Mills Limited was -0.00. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -2.14, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Ahmad Hassan Textile Mills Limited was 1.18, which was a negative sign for the company and showed the company’s borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #1:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Ahmad Hassan Textile Mills Limited was -2.14 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>2.Textile Company 28</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Arctic Textile Mills Limited was 0.65. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Arctic Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Arctic Textile Mills Limited was -4.12, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Arctic Textile Mills Limited was 0.91. This was a positive sign for the company Arctic Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Arctic Textile Mills Limited performed better than last year. M-score of Arctic Textile Mills Limited was -4.12, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI, lower than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Arctic Textile Mills Limited was 0.70 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Arctic Textile Mills Limited was -4.12 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI, lower than one.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Arctic Textile Mills Limited was 1.15. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Arctic Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Arctic Textile Mills Limited was -4.12, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Arctic Textile Mills Limited was 1.33 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as a negative sign for the company Arctic Textile Mills Limited because it showed chances of deferment of cost and unnecessary capitalization. Nevertheless, M-score of Arctic Textile Mills Limited was -4.12 which indicated low probability of financial manipulation.

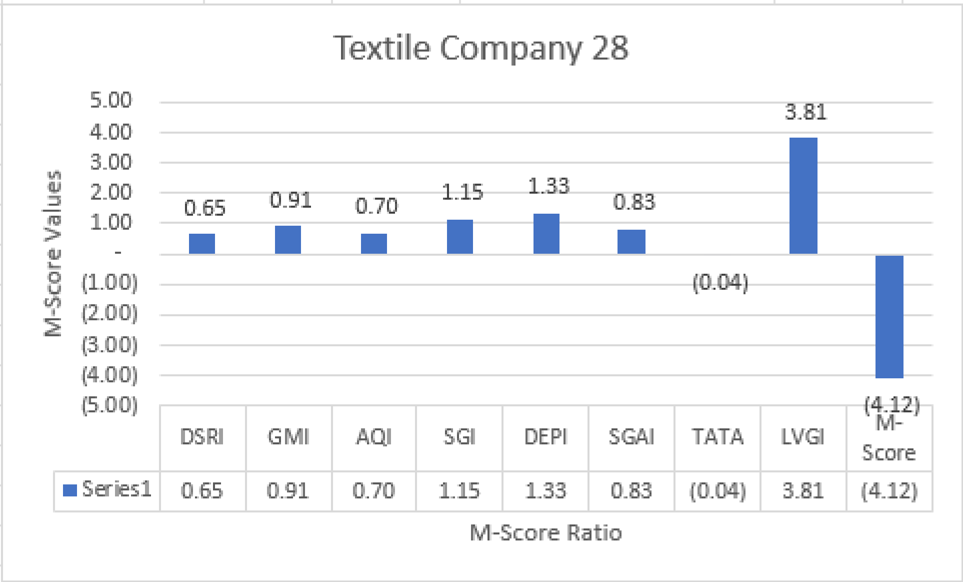
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Arctic Textile Mills Limited was 0.83 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -4.12, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low expenses in the current year.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Arctic Textile Mills Limited was -0.04. It showed net change in current assets and liabilities was not drastic. M-score of the company was -4.12, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Arctic Textile Mills Limited was 3.81, which was a negative sign for the company and showed the company’s borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #28:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Arctic Textile Mills Limited was -4.12 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>3.Textile Company 2</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Ashfaq Textile Mills Limited was 1.46. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Ashfaq Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue

because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Ashfaq Textile Mills Limited was -1.05, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Ashfaq Textile Mills Limited was 3.18. This was a negative sign for the company Ashfaq Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Ashfaq Textile Mills Limited did not perform better than last year. M-score of Ashfaq Textile Mills Limited was -1.05, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Ashfaq Textile Mills Limited was 0.91 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements.

M-score of Ashfaq Textile Mills Limited was -1.05 which showed high probability of financial manipulation. Although M-score showed high probability, still the company managed to correctly record capitalization of assets and relevant expenses.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Ashfaq Textile Mills Limited was 1.36. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Ashfaq Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Ashfaq Textile Mills Limited was -1.05, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Ashfaq Textile Mills Limited was 1.18 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company Ashfaq Textile Mills Limited because there was possibility of under-charging the depreciation in the current year. M-score of Ashfaq Textile Mills Limited was -1.05 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of

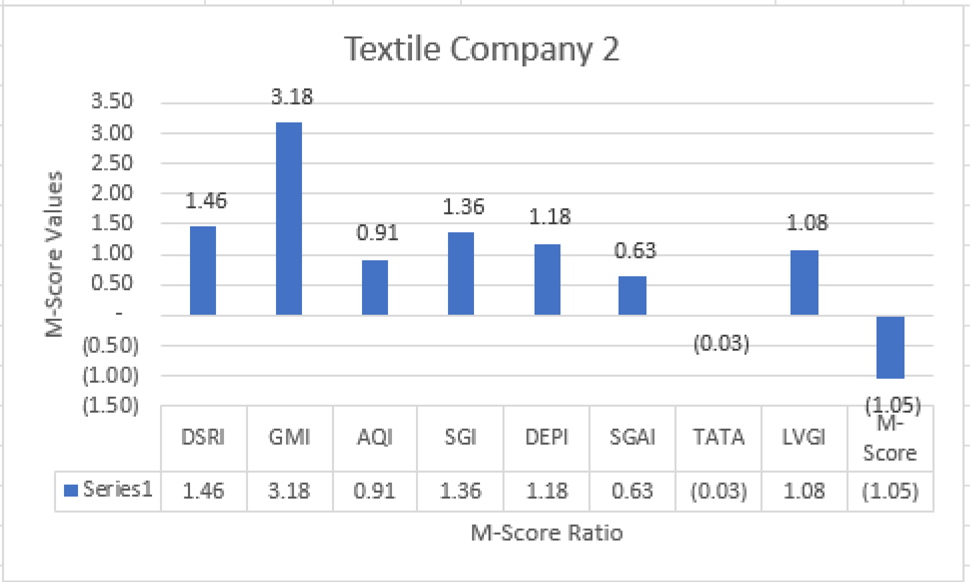
Ashfaq Textile Mills Limited was 0.63 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -1.05 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Ashfaq Textile Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -1.05, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Ashfaq Textile Mills Limited was 1.08, which was a negative sign for the company and showed the company's borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #2:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Ashfaq Textile Mills Limited was -1.05 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>4.Textile Company 3</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Asim Textile Mills Limited was 2.46. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Asim Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because

it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Asim Textile Mills Limited was 5.24, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Asim Textile Mills Limited was 6.87. This was a negative sign for the company Asim Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Asim Textile Mills Limited did not perform better than last year. M-score of Asim Textile Mills Limited was 5.24, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Asim Textile Mills Limited was 1.60 which showed the probability of deferment of cost. This also indicated that the company might have unnecessarily overstated its assets to present a good picture of its financial statements. M-score of Asim Textile Mills Limited was 5.24 which showed high probability of financial manipulation. So, a parallel relationship was identified between high probability of financial manipulation and unnecessary asset capitalization and deferment of cost.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Asim Textile Mills Limited was 5.11. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Asim Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Asim Textile Mills Limited was 5.24, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Asim Textile Mills Limited was 0.92 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was not considered here as negative sign for the company Asim Textile Mills Limited. Nevertheless, M-score of Asim Textile Mills Limited was 5.24, which indicated high probability of financial manipulation.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Asim

Textile Mills Limited was 0.20 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was 5.24 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses. AQI ratio also indicated here unnecessary capitalization of assets and deferment of cost.

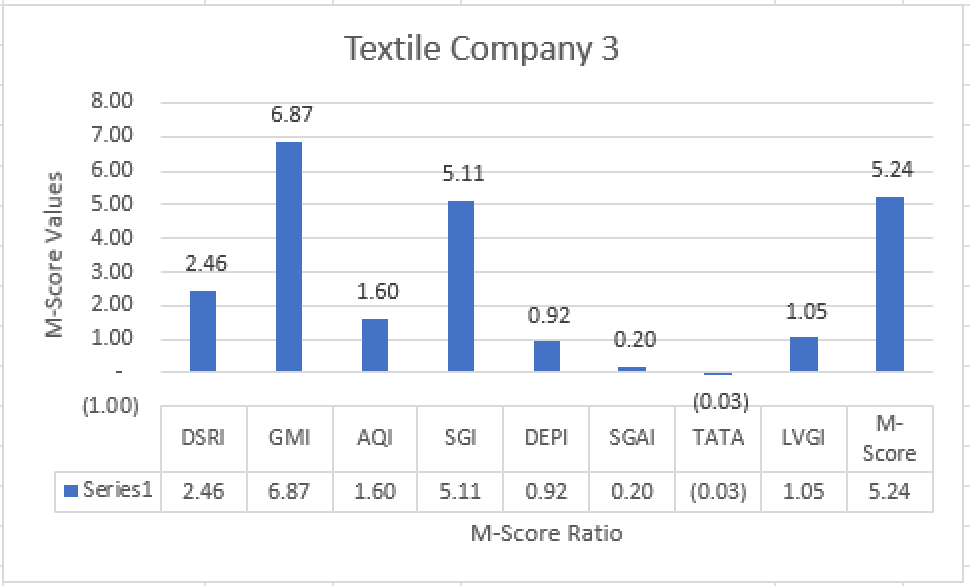
TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Asim Textile Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was 5.24, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Asim Textile Mills Limited was 1.05, which was a negative sign for the company and showed the company’s borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further

pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #3:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Asim Textile Mills Limited was 5.24 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>5.Textile Company 29</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Colony Textile Mills Limited was 0.25. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Colony Textile Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Colony Textile Mills Limited was -4.84, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Colony Textile Mills Limited was 0.20. This was a positive sign for the company Colony Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated higher gross margin than last year. So, Colony Textile Mills Limited performed better than last year. M-score of Colony Textile Mills Limited was -4.84, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and low GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Colony Textile Mills Limited was 1.38 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Colony Textile Mills Limited was -4.84 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Colony Textile Mills Limited was 0.80. It was a negative sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Colony Textile Mills Limited did not manage to increase its sales in the current year, comparing last year, which showed its inefficiency in the current year. Nevertheless, M-score of Colony Textile Mills Limited was -4.84, which showed low probability of financial manipulation. Moreover, DSRI and GMI were also in favor of the company. So, even the company did not manage to increase its sales, yet the company managed to increase gross margin and to show efficiency in debtors collection period.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Colony Textile Mills Limited was 0.97 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Colony Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Colony Textile Mills Limited was -4.84 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio, less than one.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is

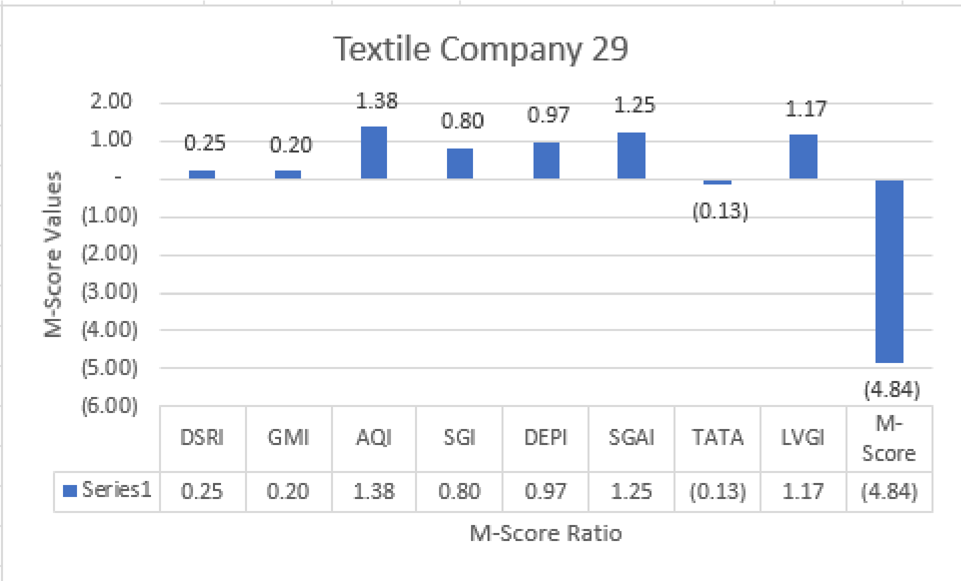
divided by the last year and it is expense of the company, rather than an income. SGAI of Colony Textile Mills Limited was 1.25 which was above 1. It showed the company incurred more expenses in the current year, comparing the last year. It also indicated inefficiency of the management in controlling sales, administrative and general expenses in the current year. Nevertheless, M-score of the company was -4.84, which showed low probability of financial manipulation. So, increase in sales, administrative and general expenses could be due to inflation, increase salaries etc.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Colony Textile Mills Limited was -0.13. It showed net change in current assets and liabilities was not drastic. M-score of the company was -4.84, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Colony Textile Mills Limited was 1.17, which was a positive sign for the company, although slightly higher than 1, and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to maintain its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #29:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Colony Textile Mills Limited was -4.84 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>6.Textile Company 4</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Hamid Textile Mills Limited was 1.81. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Hamid Textile Mills Limited failed to effectively manage its receivables in the current year, which was a negative sign for the company.

M-score of Hamid Textile Mills Limited was -1.81, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Hamid Textile Mills Limited was 1.27. This was a negative sign for the company Hamid Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year, because cost of sales increased in the current year which reduced the gross profit margin in the current year. So, Hamid Textile Mills Limited did not perform better than last year. M-score of Hamid Textile Mills Limited was -1.81, which indicated high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Hamid Textile Mills Limited was 1.00 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Hamid Textile Mills Limited was -1.81 which showed high probability of financial manipulation. Although M-score showed high probability, still the company managed to correctly record capitalization of assets and relevant expenses.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Hamid Textile Mills Limited was 1.37. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Hamid Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Hamid Textile Mills Limited was -1.81, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Hamid Textile Mills Limited was 0.59 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as positive sign for the company Hamid Textile Mills Limited. M-score of Hamid Textile Mills Limited was -1.81 which indicated high probability of financial manipulation.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Hamid Textile Mills Limited was 0.94 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -1.81 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Hamid Textile Mills Limited was -0.01. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -1.81, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Hamid Textile Mills Limited was 1.27, which was a negative sign for the company and showed the company’s borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #4:

M-Score Accounting Ratios

<u>Summary</u>

M-score of Hamid Textile Mills Limited was -1.81 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>7.Textile Company 5</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of J.A Textile Mills Limited was 12.96. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that J.A Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of J.A Textile Mills Limited was 12.75, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of J.A Textile Mills Limited was 4.31. This was a negative sign for the company J.A Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, J.A Textile Mills Limited did not perform better than last year. M-score of J.A Textile Mills Limited was 12.75, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of J.A Textile Mills Limited was 1.12 which did not show its consistency with the last year. This also indicated that the company unnecessarily overstated its assets to present a good picture of its financial statements. M-score of J.A Textile Mills Limited was 12.75 which showed high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of J.A Textile Mills Limited was 3.86. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that J.A Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of J.A Textile Mills Limited was 12.75, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of J.A Textile Mills Limited was 1.00 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company J.A Textile Mills Limited because there was possibility of under-charging the depreciation in the current year. M-score of J.A Textile Mills Limited was 12.75 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is

divided by the last year and it is expense of the company, rather than an income. SGAI of J.A Textile Mills Limited was 0.26 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was 12.75 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

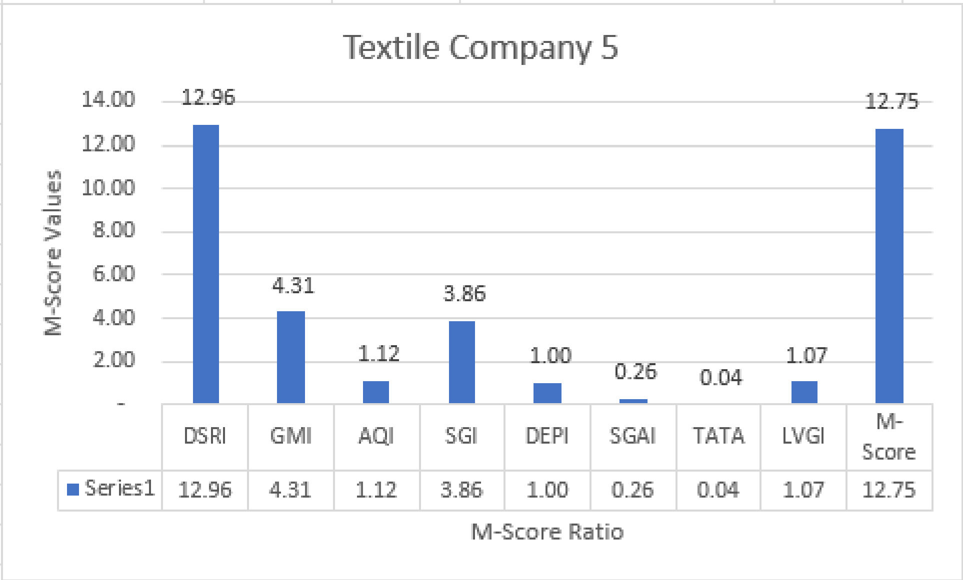
TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of J.A Textile Mills Limited was 0.04. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was 12.75, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of J.A Textile Mills Limited was 1.07, which was a negative sign for the company and showed the company's borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further

pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #5:

M-Score Accounting Ratios



<u>Summary</u>

M-score of J.A Textile Mills Limited was 12.75 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>8.Textile Company 30</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Janana De Malucho Textile Mills Limited was 0.07. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Janana De Malucho Textile Mills Limited

succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Janana De Malucho Textile Mills Limited was -11.91, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Janana De Malucho Textile Mills Limited was -13.81. This was a positive sign for the company Janana De Malucho Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Janana De Malucho Textile Mills Limited performed better than last year. M-score of Janana De Malucho Textile Mills Limited was -11.91, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI, lower than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Janana De Malucho Textile Mills Limited was 1.20 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Janana De Malucho Textile Mills Limited was -11.91 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Janana De Malucho Textile Mills Limited was 0.98. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so equal to almost 1 indicated consistent sales comparing with last year. It also indicated that Janana De Malucho Textile Mills Limited managed to maintain its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Janana De Malucho Textile Mills Limited was -11.91, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Janana De Malucho Textile Mills Limited was 0.96 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Janana De Malucho Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Janana De Malucho Textile Mills Limited was -11.91 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio, less than one.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of

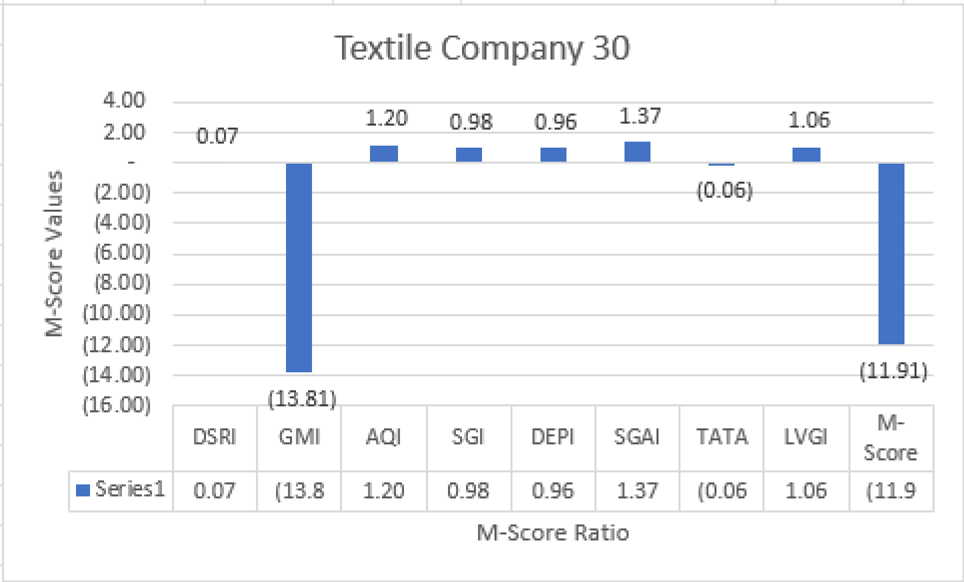
Janana De Malucho Textile Mills Limited was 1.37 which was above 1. It showed the company incurred more expenses in the current year, comparing the last year. Here it showed a slight inefficiency of the management in controlling sales, administrative and general expenses in the current year. Nevertheless, M-score of the company was -11.91, which showed low probability of financial manipulation. This low probability indicated that increase in expenses could be due to factors like inflation, increase in salaries etc.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Janana De Malucho Textile Mills Limited was -0.06. It showed net change in current assets and liabilities was not drastic. M-score of the company was -11.91, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Janana De Malucho Textile Mills Limited was 1.06, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #30:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Janana De Malucho Textile Mills Limited was -11.95 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>9.Textile Company 6</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Quetta Textile Mills Limited was 4.35. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Quetta Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because

it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Quetta Textile Mills Limited was -1.21, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Quetta Textile Mills Limited was 0.40. This was a positive sign for the company Quetta Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated higher gross margin than last year. So, Quetta Textile Mills Limited performed better than last year. Nevertheless, M-score of Quetta Textile Mills Limited was -1.21, which indicated high probability of financial manipulation. So, increased in GMI could be due to inflated sales or understatement of cost of goods sold.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Quetta Textile Mills Limited was 1.18 which was higher than the last year. This also indicated that the company might have unnecessarily overstated its assets to present a good picture of its financial statements. M-score of Quetta Textile Mills Limited was -1.21 which showed high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Quetta Textile Mills Limited was 0.26. It was a negative sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so lower than 1 indicated lower sales than last year. It also indicated that Quetta Textile Mills Limited did not manage to increase its sales in the current year, comparing last year, which showed its inefficiency in the current year. M-score of Quetta Textile Mills Limited was -1.21. So, indirect association was identified between high probability of financial manipulation and decrease in sales.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Quetta Textile Mills Limited was 1.01 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company Quetta Textile Mills Limited because there was possibility of under-charging the depreciation in the current year. M-score of Quetta Textile Mills Limited was -1.21 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is

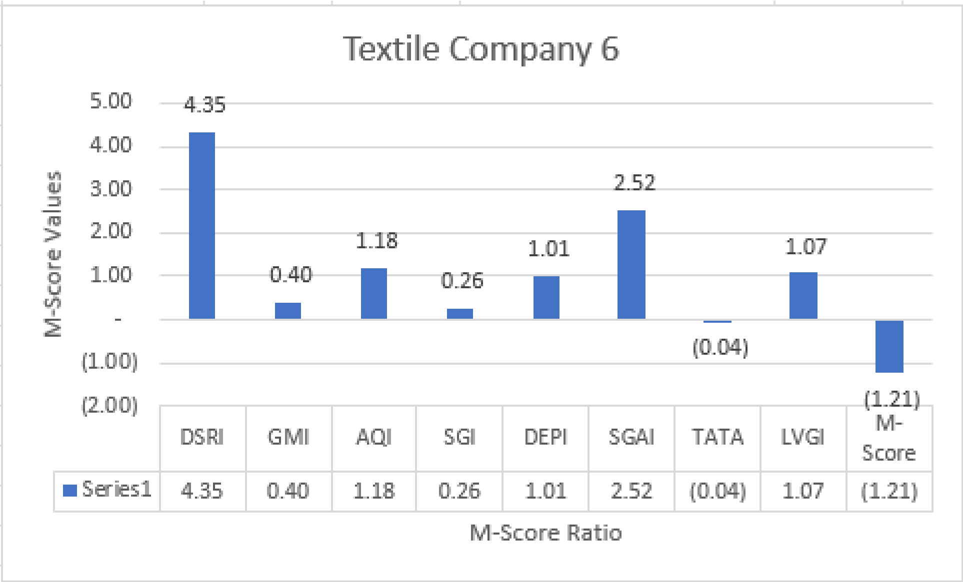
divided by the last year and it is expense of the company, rather than an income. SGAI of Quetta Textile Mills Limited was 2.52 which was above 1. It showed the company incurred more expenses in the current year, comparing the last year. Here it showed inefficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -1.21, which showed high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Quetta Textile Mills Limited was -0.04. It showed net change in current assets and liabilities was not drastic. Although, M-score of the company was -1.21, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Quetta Textile Mills Limited was 1.07, which was a negative sign for the company and showed the company's borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #6:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Quetta Textile Mills Limited was -1.21 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>10.Textile Company 31</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Ruby Textile Mills Limited was 0.58. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Ruby Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Ruby Textile Mills Limited was -8.25, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Ruby Textile Mills Limited was -7.89. This was a positive sign for the company Ruby Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Ruby Textile Mills Limited performed better than last year. M-score of Ruby Textile Mills Limited was -8.25, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Ruby Textile Mills Limited was 1.04 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Ruby Textile Mills Limited was -8.25 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Ruby Textile Mills Limited was 1.06. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated consistent sales comparing with last year. It also indicated that Ruby Textile Mills Limited managed to increase its sales in the current year, comparing with last year, which showed its efficiency in the current year. M-score of Ruby Textile Mills Limited was -8.25, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Ruby Textile Mills Limited was 0.88 that showed the company charged higher depreciation expense in the current year, comparing with the last year. DEPI was considered here as a positive sign for the company Ruby Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Ruby Textile Mills Limited was -8.25 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

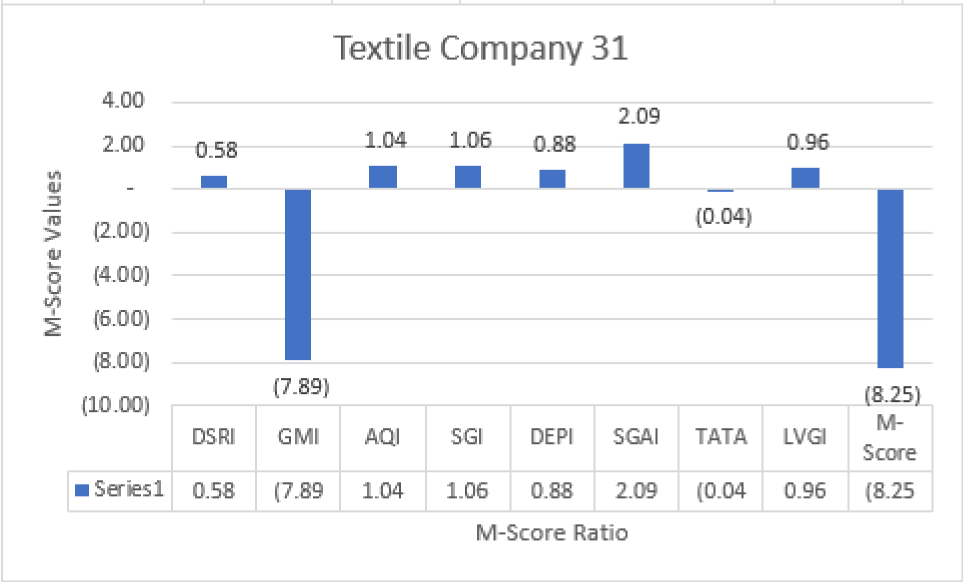
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Ruby Textile Mills Limited was 2.09 which was higher than 1. It showed the company incurred more expenses in the current year, comparing with the last year. Here it showed inefficiency of the management in controlling sales, administrative and general expenses in the current year. Nevertheless, M-score of the company was -8.25, which showed low probability of financial manipulation. Moreover, DSRI, GMI also supported the low probability of financial manipulation of the company. So, increase in expenses could be due to inflation and increase in salaries expenses etc.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Ruby Textile Mills Limited was -0.04. It showed net change in current assets and liabilities was not drastic. M-score of the company was -8.25, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Ruby Textile Mills Limited was 0.96, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing with last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #31:

M-Score Accounting Ratios



Summary

M-score of Ruby Textile Mills Limited was -8.25 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

11.Textile Company 7

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Service Industries Textile Limited was 1.16. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Service Industries Textile Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue

because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Service Industries Textile Limited was -1.33, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Service Industries Textile Limited was 3.98. This was a negative sign for the company Service Industries Textile Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Service Industries Textile Limited did not perform better than last year. M-score of Service Industries Textile Limited was -1.33, which indicated high probability of financial manipulation. So, parallel relationship was identified between high probability of financial manipulation and higher value of GMI, greater than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Service Industries Textile Limited was 1.20 which showed high probability of asset capitalization. This also indicated that the company might have unnecessarily overstates its assets and deferred expenses to present a good picture of its financial statements. M-score of Service Industries Textile Limited was -1.33 which showed high probability of financial manipulation. So, parallel association was identified between high probability of financial manipulation and high value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Service Industries Textile Limited was 1.28. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Service Industries Textile Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. Nevertheless, M-score of Service Industries Textile Limited was -1.33, which showed high probability of financial manipulation, which could be due to inflated sales in the current year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Service Industries Textile Limited was 1.07 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as negative sign for the company Service Industries Textile Limited because there was possibility of under-charging the depreciation in the current year. M-score of Service Industries Textile Limited was -1.33 which indicated high probability of financial manipulation. So, high probability of financial manipulation was associated with higher DEPI ratio.

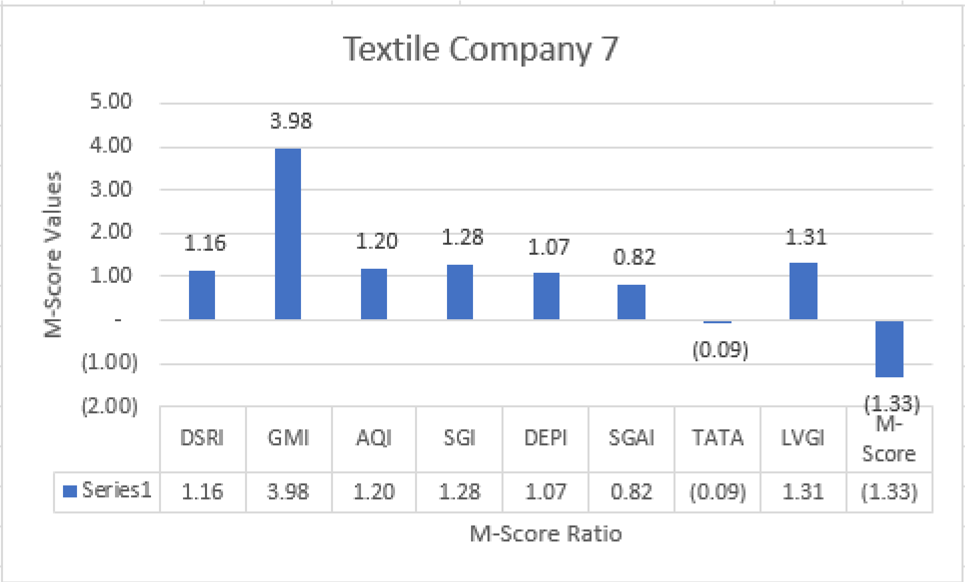
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Service Industries Textile Limited was 0.82 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -1.33 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Service Industries Textile Limited was -0.09. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -1.33, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Service Industries Textile Limited was 1.31, which was a negative sign for the company and showed the company’s borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #7:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Service Industries Textile Limited was -1.33 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>12.Textile Company 8</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Sunrays Textile Mills Limited was 1.22. It was above 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that Sunrays Textile Mills Limited had failed to effectively manage its receivables in the current year, which was a negative sign for the company because it was highly probable that the company would face working capital issue because cash was needed by all companies to meet their day-to-day expenses and the company was struggling in meeting this requirement of funds.

M-score of Sunrays Textile Mills Limited was -2.00, which showed high probability of committing financial manipulations. So, high DSRI, usually above 1, was associated with high probability of financial manipulation. This also indicated that increase in DSRI above 1 was one of the indicators of high probability of financial manipulations which could be a source of ultimate financial fraud. Since M-score of this company was bending towards the high probability of financial manipulation, it also pointed out that there were high chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Sunrays Textile Mills Limited was 0.84. This was a positive sign for the company Sunrays Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Sunrays Textile Mills Limited performed better than last year. Nevertheless, M-score of Sunrays Textile Mills Limited was -2.00, which indicated high probability of financial manipulation. So, increase in GMI indicated inflated sales and understatement of cost of goods sold and expenses.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Sunrays Textile Mills Limited was 0.61 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. Nevertheless, M-score of Sunrays Textile Mills Limited was -2.00 which showed high probability of financial manipulation. Although M-score showed high probability, still the company managed to correctly record capitalization of assets and relevant expenses.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Sunrays Textile Mills Limited was 2.13. Although it was a positive for the company, but the high probability of M-score 2.00 indicated that sales might have been inflated by the company because SGI showed sales were doubled in the current year, comparing the last year.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Sunrays Textile Mills Limited was 0.47 that showed the company charged lower depreciation expense in the current year, comparing the last year. Although it is normally a positive sign for the company, but M-score was -2.00 showing high probability of financial manipulation. So, half the depreciation charged in the current year indicated that there was a strong possibility of undercharging the depreciation expenses by changing the depreciation policies fundamentally. In this way, the company might have understated its expenses to increase the profits of the company.

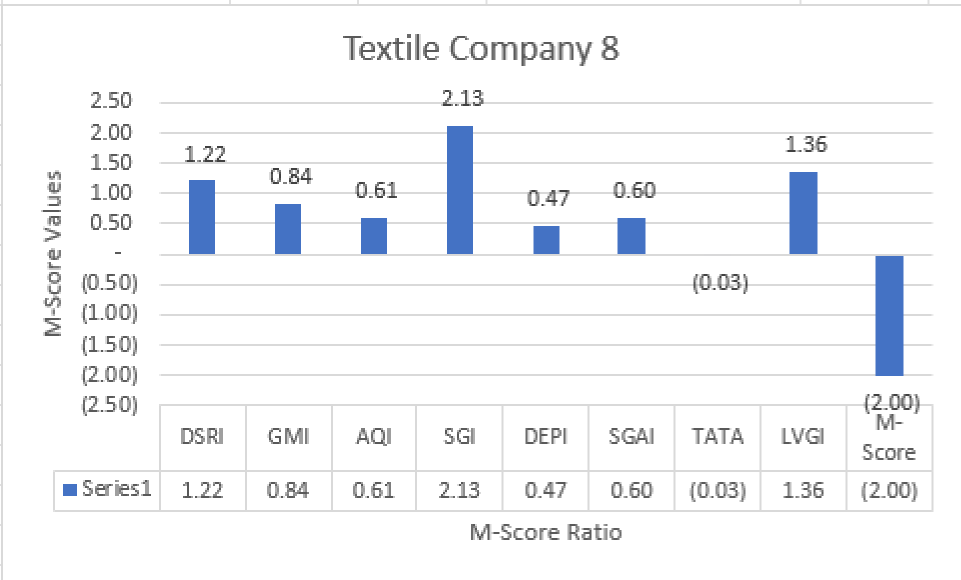
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Sunrays Textile Mills Limited was 0.60 which was less than 1. It showed the company incurred less expenses in the current year, comparing the last year. Although less than one normally indicates positive sign for a company, but since M-score of the company was -2.00 showing high probability of financial manipulation, therefore, less incurring of expenses in the current year indicated that there was a possibility of deferring expenses to increase the profits of the company. So, high probability of M-score could be due to unreal reduction in sales, general and administrative expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Sunrays Textile Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. Although M-score of the company was -2.00, which showed high probability of financial manipulation, yet the calculation showed no drastic changes in the net change in current assets and current liabilities.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Sunrays Textile Mills Limited was 1.36, which was a negative sign for the company and showed the company’s borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #8:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Sunrays Textile Mills Limited was -2.00 which was higher than the benchmark and therefore indicated high probability of financial manipulation in the financial statements.

<u>13.Textile Company 32</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Zephyr Textile Mills Limited was 0.97. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Zephyr Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Zephyr Textile Mills Limited was -8.98, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Zephyr Textile Mills Limited was 1.41. This was not a positive sign for the company Zephyr Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so higher than 1 indicated lower gross margin than last year. So, Zephyr Textile Mills Limited did not perform better than last year. Although, M-score of Zephyr Textile Mills Limited was -8.98, which indicated low probability of financial manipulation, still the company needed to improve its GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Zephyr Textile Mills Limited was 0.85 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements.

M-score of Zephyr Textile Mills Limited was -8.98 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI, lower than one.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Zephyr Textile Mills Limited was 1.04. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Zephyr Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Zephyr Textile Mills Limited was -8.98, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Zephyr Textile Mills Limited was 1.06 that showed the company charged slightly lower depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Zephyr Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Zephyr Textile Mills Limited was -8.98 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

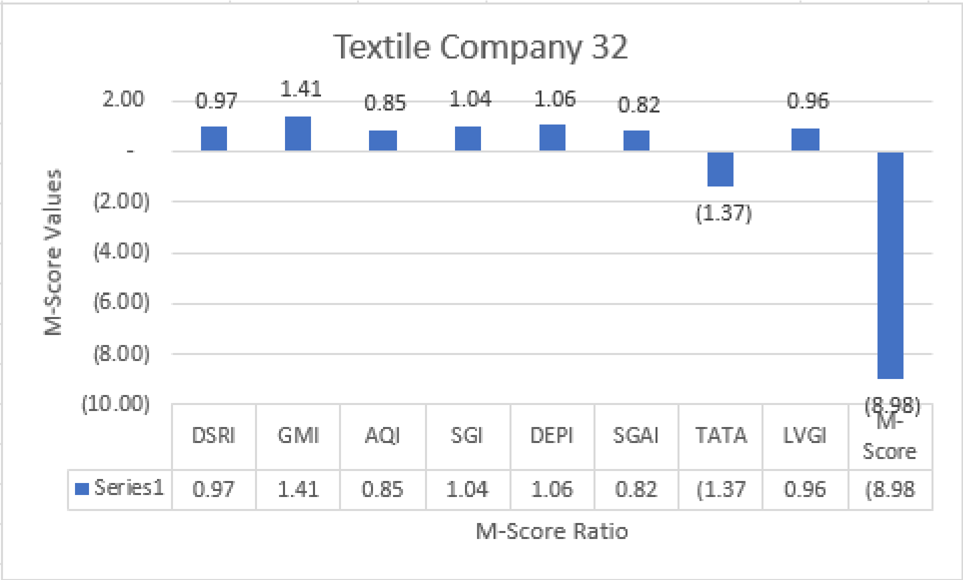
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Zephyr Textile Mills Limited was 0.82 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -8.98, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and lower SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Zephyr Textile Mills Limited was 1.37. It showed net change in current assets and liabilities was drastic and positive for the company. It indicated that current assets of the company increased massively as compared to the current liabilities in the current year. M-score of the company was -8.98, which showed low probability of financial manipulation which was in line with the positive TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Zephyr Textile Mills Limited was 0.96, which was a positive sign for the company, and showed the company’s borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #32:

M-Score Accounting Ratios



Summary

M-score of Zephyr Textile Mills Limited was -8.98 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

Evaluation of Findings Along with Research Objective

The above detailed analysis of M-score and each accounting ratio respectively, differentiated financial manipulator textile companies, listed on Pakistan Stock Exchange, from those which did not intend to financially manipulate their financial statements. The M-score and its eight fraud indicating ratios successfully identified the companies that had either committed or were on the brink of committing manipulation in the financial figures in their financial statements.

4.3.4. Likelihood of Financial Manipulation in Companies

The research questions are generally derived from the research objectives and should be in line with them. Based on the research objectives and questions, hypotheses are established. So, in essence all these three, research objectives, research questions and research hypotheses, should support one another.

The fourth research objective of this research project was:

"To determine whether the likelihood of financial manipulations is high or low in the companies, listed on Pakistan stock exchange."

Based on it, the research question, in line with the research objective, was:

"What will be the likelihood, high or low, of financial manipulations of listed companies of Pakistan?"

A hypothesis supporting the research question was:

"H4: M-score will detect companies with high likelihood of committing financial fraud and separate them from the companies which have low possibility."

Evaluation of Findings

The tables below along with the detailed evaluation, examination and explanation of each company's findings show the results that coincide with the objective of determining the companies with low or high probability of financial manipulations, with the help of M-score and its fraud indicators.

Table 4.7:

M-Score and Accounting Ratios Results

Sr. #	Name of the Company	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score	Result
1	Amtex Textile Mills Limited	0.53	0.47	0.91	1.65	0.91	1.80	(0.01)	0.91	(3.15)	LP
2	AN Textile Mills Limited	1.37	(2.56)	3.43	2.06	0.85	1.32	(0.07)	1.11	(3.77)	LP
3	Allawasaya Tex. & Finishing Mills Ltd	0.43	0.84	1.11	1.62	0.74	0.86	(0.03)	0.99	(3.06)	LP
4	Dewan Textile Mills Limited	0.60	0.67	0.52	0.57	1.08	0.59	(0.04)	1.05	(3.90)	LP
5	Khyber Textile Mills Limited	0.96	1.03	1.16	0.68	1.42	1.01	(0.01)	0.70	(3.03)	LP
6	Masood Textile Mills Limited	0.86	0.83	1.01	0.98	0.95	0.85	(0.07)	1.02	(3.38)	LP
7	Shadab Textile Mills Limited	0.71	0.56	0.77	1.22	1.00	1.10	(0.03)	1.04	(3.32)	LP
8	Shahtaj Textile Mills Limited	1.00	0.94	1.73	0.98	1.18	1.16	(0.12)	0.98	(3.43)	LP
9	Shams Textile Mills Limited	0.70	(0.42)	1.68	2.09	1.06	0.66	(0.07)	1.07	(3.18)	LP
10	Shahzad Textile Mills Limited	0.98	0.59	0.94	1.31	1.22	0.73	(0.06)	1.06	(3.01)	LP
11	Ideal Spinning Mills Limited	0.77	0.74	25.18	0.81	1.10	0.95	(0.19)	1.05	(3.28)	LP

HP: High Probability of Manipulation

LP: Low Probability of Manipulation

Source: *Author's Analyzed Results*

Table 4.8:

M-Score Results

Sr. #	Name of the Company	Intercept	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score	Benchmark	Result
1	Textile Company 33	(4.84)	0.49	0.25	0.0368	1.47	0.1048	(0.31)	(0.06)	(0.30)	(3.15)	(2.22)	LP
2	Textile Company 34	(4.84)	1.26	(1.35)	0.1387	1.84	0.0978	(0.23)	(0.32)	(0.36)	(3.77)	(2.22)	LP
3	Textile Company 35	(4.84)	0.39	0.44	0.0448	1.45	0.0854	(0.15)	(0.16)	(0.32)	(3.06)	(2.22)	LP
4	Textile Company 36	(4.84)	0.55	0.36	0.0211	0.51	0.1246	(0.10)	(0.18)	(0.34)	(3.90)	(2.22)	LP
5	Textile Company 37	(4.84)	0.89	0.54	0.0467	0.60	0.1633	(0.17)	(0.03)	(0.23)	(3.03)	(2.22)	LP
6	Textile Company 38	(4.84)	0.80	0.44	0.0407	0.87	0.1090	(0.15)	(0.32)	(0.33)	(3.38)	(2.22)	LP
7	Textile Company 39	(4.84)	0.65	0.30	0.0313	1.09	0.1155	(0.19)	(0.13)	(0.34)	(3.32)	(2.22)	LP
8	Textile Company 40	(4.84)	0.92	0.49	0.0699	0.88	0.1351	(0.20)	(0.57)	(0.32)	(3.43)	(2.22)	LP
9	Textile Company 41	(4.84)	0.64	(0.22)	0.0679	1.86	0.1215	(0.11)	(0.35)	(0.35)	(3.18)	(2.22)	LP
10	Textile Company 42	(4.84)	0.90	0.31	0.0381	1.17	0.1405	(0.13)	(0.26)	(0.35)	(3.01)	(2.22)	LP
11	Textile Company 43	(4.84)	0.71	0.39	1.0173	0.72	0.1268	(0.16)	(0.91)	(0.34)	(3.28)	(2.22)	LP

HP: High Probability of Manipulation

LP: Low Probability of Manipulation

Source: *Author's Analyzed Results*

1.Textile Company 33

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Amtex Textile Mills Limited was 0.53. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Amtex Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Amtex Textile Mills Limited was -3.15, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Amtex Textile Mills Limited was 0.47. This was a positive sign for the company Amtex Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Amtex Textile Mills Limited performed better than last year. M-score of Amtex Textile Mills Limited was -3.15, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI, lower than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Amtex Textile Mills Limited was 0.91 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Amtex Textile Mills Limited was -3.15 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI, lower than one.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Amtex Textile Mills Limited was 1.65. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Amtex Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Amtex Textile Mills Limited was -3.15, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Amtex Textile Mills Limited was 0.91 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Amtex Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Amtex Textile Mills

Limited was -3.15 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio, less than one.

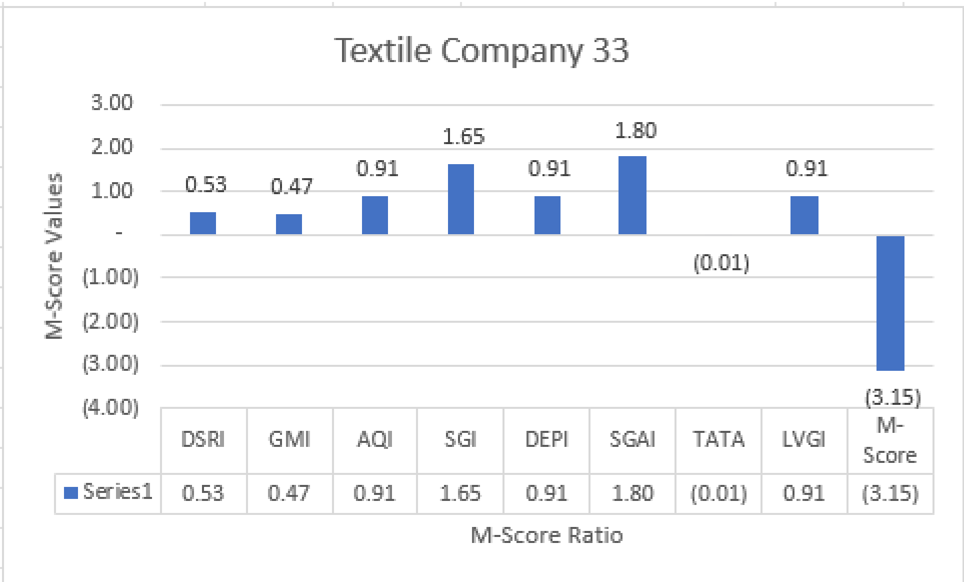
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Amtex Textile Mills Limited was 1.80 which was above 1. It showed the company incurred more expenses in the current year, comparing the last year. Here it showed a slight inefficiency of the management in controlling sales, administrative and general expenses in the current year. Nevertheless, M-score of the company was -3.15, which showed low probability of financial manipulation. This low probability indicated that increase in expenses could be due to factors like inflation, increase in salaries etc.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Amtex Textile Mills Limited was -0.01. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.15, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Amtex Textile Mills Limited was 0.91, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to pay-off some portion of its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off its long-term debts in the current year.

Figure #33:

M-Score Accounting Ratios



	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score
Series1	0.53	0.47	0.91	1.65	0.91	1.80	(0.01)	0.91	(3.15)

<u>Summary</u>

M-score of Amtex Textile Mills Limited was -3.15 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>2.Textile Company 34</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of AN Textile

Mills Limited was 1.37. It was higher than 1, which showed that last year debtors recovery days were lower than the current year. In other words, current year was less efficient as compared to the last year. It also reflected that AN Textile Mills Limited failed to effectively manage its receivables in the current year, which was a negative sign for the company.

Nevertheless, M-score of AN Textile Mills Limited was -3.77, which showed low probability of committing financial manipulations. Although, low DSRI, usually less than 1, is associated with low probability of financial manipulation, but here DSRI slightly exceeded 1, which showed increase in debtors collection period. The company needed to improve its DSRI to increase in current assets over current liabilities and to make its working capital efficient.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of AN Textile Mills Limited was -2.56. This was a positive sign for the company AN Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, AN Textile Mills Limited performed better than last year. M-score of AN Textile Mills Limited was -3.77, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI, lower than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of AN Textile Mills Limited was 3.43 which showed asset capitalization during current year. M-score of AN Textile Mills Limited was -3.77 which showed low probability of financial manipulation, which could be due to capital injection in the current as well as fixed assets of the company. The DEPI ratio also supported the possible increase in the assets of the company.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of AN Textile Mills Limited was 2.06. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that AN Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of AN Textile Mills Limited was -3.77, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of AN Textile Mills Limited was 0.85 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company AN Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of AN Textile Mills Limited was -3.77 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio, less than one.

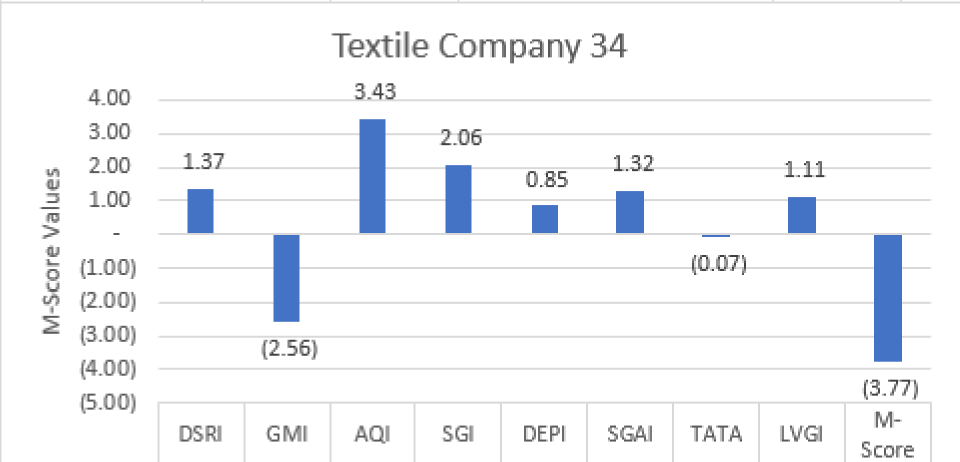
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of AN Textile Mills Limited was 1.32 which was above 1. It showed the company incurred more expenses in the current year, comparing the last year. Here it showed a slight inefficiency of the management in controlling sales, administrative and general expenses in the current year. Nevertheless, M-score of the company was -3.77, which showed low probability of financial manipulation. This low probability indicated that increase in expenses could be due to factors like inflation, increase in salaries etc.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of AN Textile Mills Limited was -0.07. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.77, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of AN Textile Mills Limited was 1.11, which was a slight negative sign for the company and showed the company's borrowings and liabilities in the current year decreased slightly, comparing last year. It also indicated a small inefficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company did not correctly manage to pay off its long-term debts. It further pointed that assets of the company were not sufficient enough to pay off its long-term debts in the current year.

Figure #34:

M-Score Accounting Ratios



	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score
Series1	1.37	(2.56)	3.43	2.06	0.85	1.32	(0.07)	1.11	(3.77)

<u>Summary</u>

M-score of AN Textile Mills Limited was -3.77 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>3.Textile Company 35</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Allawasaya Textile and Finishing Mills Limited was 0.43. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Allawasaya Textile and Finishing Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Allawasaya Textile and Finishing Mills Limited was -3.06, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Allawasaya Textile and Finishing Mills Limited was 0.84. This was a positive sign for the company Amtex Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Allawasaya Textile and Finishing Mills Limited performed better than last year. M-score of Allawasaya Textile and Finishing Mills Limited was -3.06, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI, lower than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Allawasaya Textile and Finishing Mills Limited was 1.11 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Allawasaya Textile and Finishing Mills Limited was -3.06 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Allawasaya Textile and Finishing Mills Limited was 1.62. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Allawasaya Textile and Finishing Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Allawasaya Textile and Finishing Mills Limited was -3.06, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Allawasaya Textile and Finishing Mills Limited was 0.74 that showed the company charged higher depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Allawasaya Textile and Finishing Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Allawasaya Textile and Finishing Mills Limited was -3.06 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio, less than one.

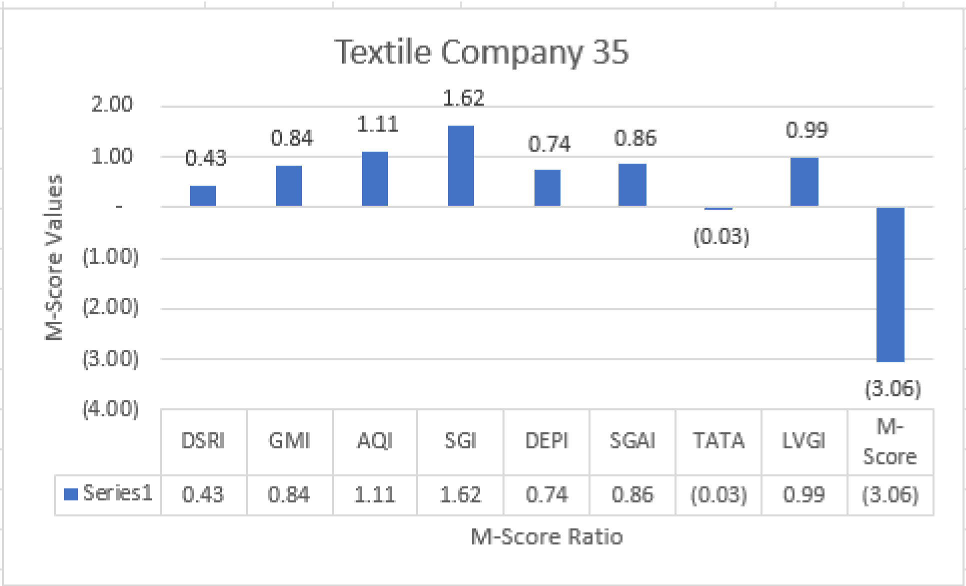
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Allawasaya Textile and Finishing Mills Limited was 0.86 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. It also indicated efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -3.06, which showed low probability of financial manipulation. So, a parallel relationship was identified between low probability of financial manipulation and low incurring of expenses in the current year.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Allawasaya Textile and Finishing Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.06, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Allawasaya Textile and Finishing Mills Limited was 0.99, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to pay off its long-term debts. It further pointed that assets of the company were sufficient enough to pay off its long-term debts in the current year.

Figure #35:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Allawasaya Textile and Finishing Mills Limited was -3.06 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>4. Textile Company 36</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Dewan Textile Mills Limited was 0.60. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Dewan Textile Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Dewan Textile Mills Limited was -3.90, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Dewan Textile Mills Limited was 0.67. This was a positive sign for the company Dewan Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated higher gross margin than last year. So, Dewan Textile Mills Limited performed better than last year. M-score of Dewan Textile Mills Limited was -3.90, which indicated low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low GMI, less than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Dewan Textile Mills Limited was 0.52 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Dewan Textile Mills Limited was -3.90 which showed low probability of financial

manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Dewan Textile Mills Limited was 0.57. It was a negative sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so lower than 1 indicated lower sales than last year. It also indicated that Dewan Textile Mills Limited did not manage to increase its sales in the current year, comparing last year, which showed its inefficiency in the current year. Nevertheless, M-score of Dewan Textile Mills Limited was -3.90, which showed low probability of financial manipulation. Moreover, DSRI and GMI also supported the low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Dewan Textile Mills Limited was 1.08 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as consistent for the company Dewan Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Dewan Textile Mills Limited was -3.90 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower or consistent DEPI ratio.

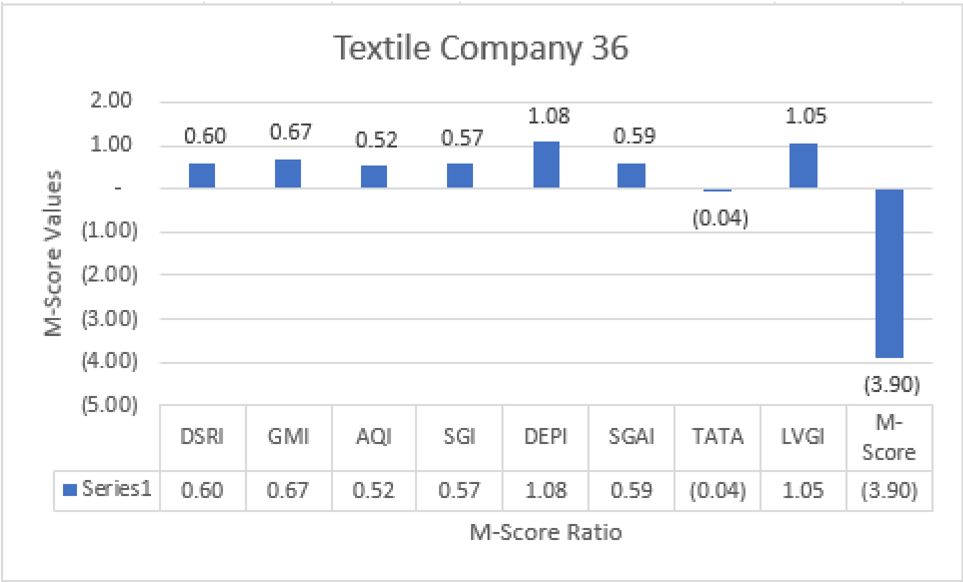
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Dewan Textile Mills Limited was 0.59 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. It also indicated efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -3.90, which showed low probability of financial manipulation.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Dewan Textile Mills Limited was -0.04. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.90, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Dewan Textile Mills Limited was 1.05, which was a positive sign for the company, although slightly higher than 1, and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the company managed to maintain its long-term debts in the current year. It further pointed that assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #36:

M-Score Accounting Ratios



Summary

M-score of Dewan Textile Mills Limited was -3.90 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

5.Textile Company 37

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Khyber Textile Mills Limited was 0.96. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Khyber Textile Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Khyber Textile Mills Limited was -3.03, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Khyber Textile Mills Limited was 1.03. This was a positive sign for the company Khyber Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so equal to 1 indicated consistent gross margin comparing with last year. M-score of Khyber Textile Mills Limited was -3.03, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Khyber Textile Mills Limited was 1.16 which showed its consistency with the last year, although slightly higher than 1. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Khyber Textile Mills Limited was -3.03 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Khyber Textile Mills Limited was 0.68. It was a negative sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so less than 1 indicated lower sales comparing with last year. It also indicated that Khyber Textile Mills Limited did not manage to increase its sales in the current year, comparing last year, which showed its inefficiency in the current year. M-score of Khyber Textile Mills Limited was -3.03, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Khyber Textile Mills Limited was 1.42 that showed the company charged lower depreciation expense in the current year, comparing the last year. DEPI was considered here as a negative sign for the company Khyber Textile Mills Limited because it showed fundamental change in depreciation rates or policies. Nevertheless, M-score of Khyber Textile Mills Limited was -3.03 which indicated low probability of financial manipulation. So, higher depreciation could be due to increase in fixed assets of the company.

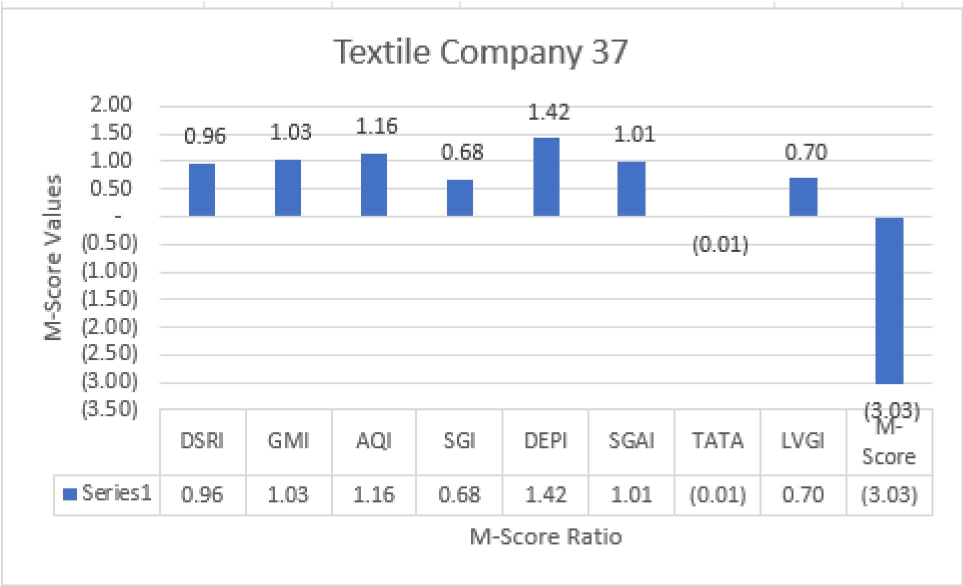
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Khyber Textile Mills Limited was 1.01 which was equal 1. It showed the company incurred more or less equal expenses in the current year, comparing with the last year. Here it showed consistency of the sales, general and administrative expenses in the current year. M-score of the company was -3.03, which showed low probability of financial manipulation. This low probability of financial manipulation could be associated with the consistent control in the current year sales, admin and general expenses.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Khyber Textile Mills Limited was -0.01. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.03, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Khyber Textile Mills Limited was 0.70, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #37:

M-Score Accounting Ratios



Summary

M-score of Khyber Textile Mills Limited was -3.03 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

6.Textile Company 38

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Masood Textile Mills Limited was 0.86. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Masood Textile Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Masood Textile Mills Limited was -3.38, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Masood Textile Mills Limited was 0.86. This was a positive sign for the company Masood Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Masood Textile Mills Limited performed better than last year. M-score of Masood Textile Mills Limited was -3.38, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Masood Textile Mills Limited was 1.01 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Masood Textile Mills Limited was -3.38 which showed low probability of financial

manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Masood Textile Mills Limited was 0.98. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so equal to 1 indicated consistent sales comparing with last year. It also indicated that Masood Textile Mills Limited managed to maintain its sales in the current year, comparing with last year, which showed its efficiency in the current year. M-score of Masood Textile Mills Limited was -3.38, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Masood Textile Mills Limited was 0.95 that showed the company charged higher depreciation expense in the current year, comparing with the last year. DEPI was considered here as a positive sign for the company Masood Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Masood Textile Mills Limited was -3.38 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

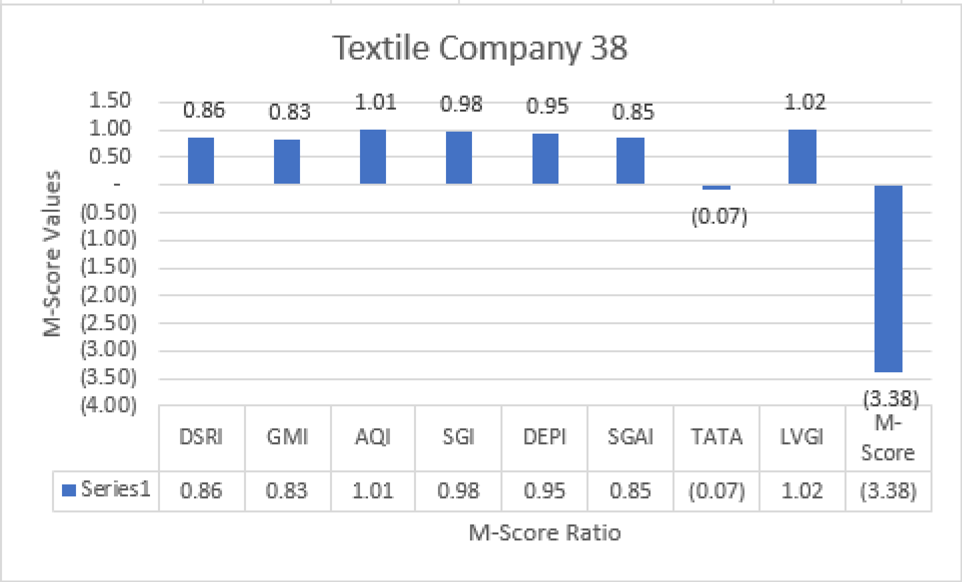
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Masood Textile Mills Limited was 0.85 which was below 1. It showed the company incurred less expenses in the current year, comparing with the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -3.38, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Masood Textile Mills Limited was -0.07. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.38, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Masood Textile Mills Limited was 1.02, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing with last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #38:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Masood Textile Mills Limited was -3.38 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>7.Textile Company 39</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Shadab Textile Mills Limited was 0.71. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Shadab Textile Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Shadab Textile Mills Limited was -3.32, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Shadab Textile Mills Limited was 0.56. This was a positive sign for the company Shadab Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Shadab Textile Mills Limited performed better than last year. M-score of Shadab Textile Mills Limited was -3.32, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI, lower than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Shadab Textile Mills Limited was 0.77 which showed its better performance, comparing with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Shadab Textile Mills Limited was -3.32 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI, lower than one.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Shadab Textile Mills Limited was 1.22. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Shadab Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Shadab Textile Mills Limited was -3.32, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Shadab Textile Mills Limited was 1.00 that showed the company charged consistent depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Shadab Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Shadab Textile Mills Limited was -3.32 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

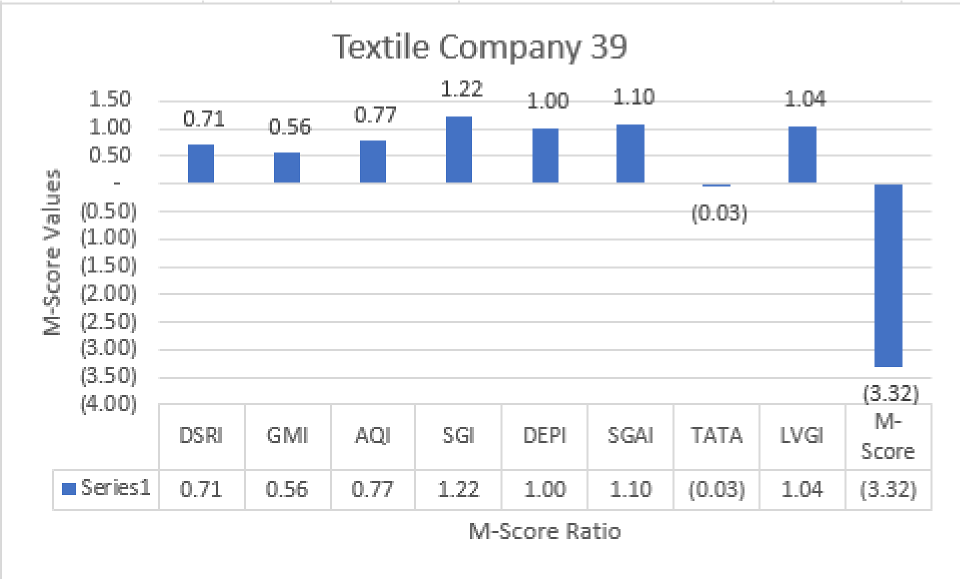
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Shadab Textile Mills Limited was 1.10 which was slightly above 1. It showed the company incurred more or less the same expenses in the current year, comparing the last year. Here it showed a slight inefficiency of the management in controlling sales, administrative and general expenses in the current year, but overall, the performance was consistent. Nevertheless, M-score of the company was -3.32, which showed low probability of financial manipulation. This low probability indicated that slight increase in expenses could be due to factors like inflation, increase in salaries etc.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Shadab Textile Mills Limited was -0.03. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.32, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Shadab Textile Mills Limited was 1.04, which was a positive sign for the company and showed the company's borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #39:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Shadab Textile Mills Limited was -3.32 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>8.Textile Company 40</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Shahtaj Textile Mills Limited was 1.00. It was equal to 1, which showed that last year debtors recovery days were consistent in the current year. In other words, current year was consistently efficient as compared to the last year. It also reflected that Shahtaj Textile Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Shahtaj Textile Mills Limited was -3.43, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Shahtaj Textile Mills Limited was 0.94. This was a positive sign for the company Shahtaj Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Shahtaj Textile Mills Limited performed better than last year. M-score of Shahtaj Textile Mills Limited was -3.43, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI, lower than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Shahtaj Textile Mills Limited was 1.73 which showed its consistent performance, comparing with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Shahtaj Textile Mills Limited was -3.43 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Shahtaj Textile Mills Limited was 0.98. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so equal to 1 indicated consistent sales comparing with last year. It also indicated that Shahtaj Textile Mills Limited managed to maintain its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Shahtaj Textile Mills Limited was -3.43, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Shahtaj Textile Mills Limited was 1.18 that showed the company charged slightly more depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Shahtaj Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Shahtaj Textile Mills Limited was -3.43 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

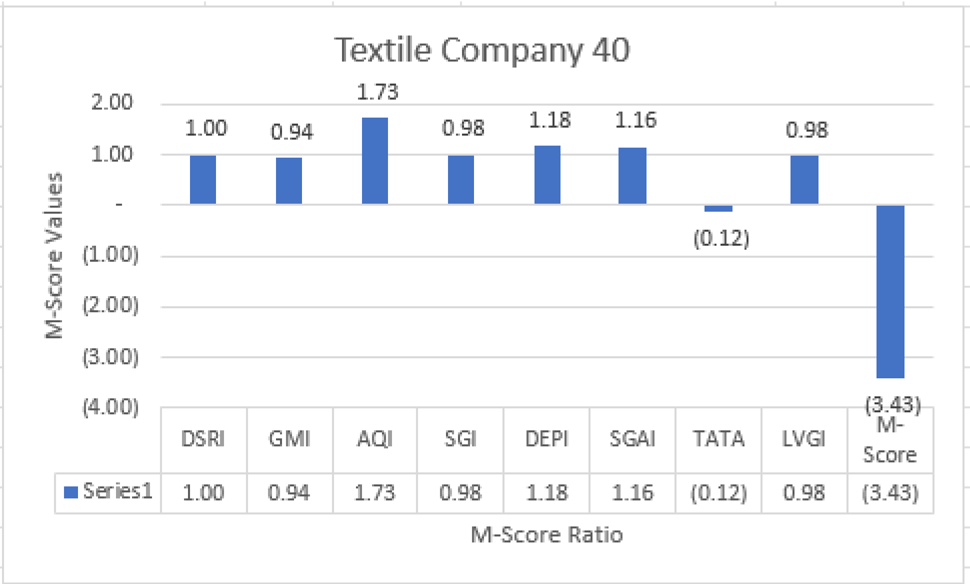
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Shahtaj Textile Mills Limited was 1.16 which was slightly above 1. It showed the company incurred more or less the same expenses in the current year, comparing the last year. Here it showed a slight inefficiency of the management in controlling sales, administrative and general expenses in the current year, but overall, the performance was consistent. Nevertheless, M-score of the company was -3.43, which showed low probability of financial manipulation. This low probability indicated that slight increase in expenses could be due to factors like inflation, increase in salaries etc.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Shahtaj Textile Mills Limited was -0.12. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.43, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Shahtaj Textile Mills Limited was 0.98, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year decreased, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #40:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Shahtaj Textile Mills Limited was -3.43 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>9.Textile Company 41</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Shams Textile Mills Limited was 0.70. It was lower than 1, which showed that last year debtors recovery days was better in the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Shams Textile Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Shams Textile Mills Limited was -3.18, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Shams Textile Mills Limited was -0.42. This was a positive sign for the company Shams Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Shams Textile Mills Limited performed better than last year. M-score of Shams Textile Mills Limited was -3.18, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI, lower than one.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Shams Textile Mills Limited was 1.68 which showed its consistent performance, comparing with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Shams Textile Mills Limited was -3.18 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Shams Textile Mills Limited was 2.09. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated higher sales comparing with last year. It also indicated that Shams Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Shams Textile Mills Limited was -3.18, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Shams Textile Mills Limited was 1.06 that showed the company charged slightly more depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Shams Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Shams Textile Mills Limited was -3.18 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Shams Textile Mills Limited was 0.66 which was lower than 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -3.18, which showed low probability of financial manipulation. So,

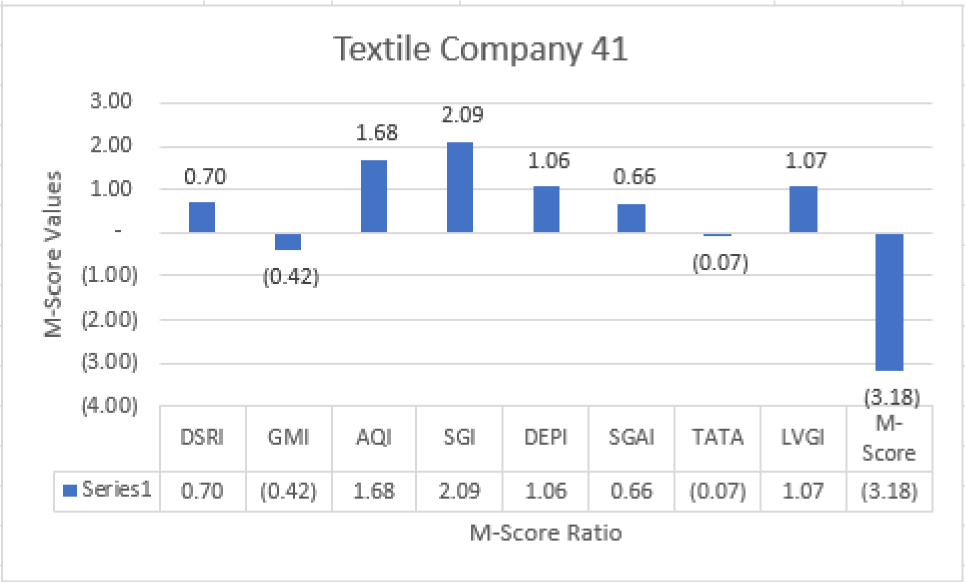
parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Shams Textile Mills Limited was -0.07. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.18, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Shams Textile Mills Limited was 1.07, which was a positive sign for the company and showed the company's borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #41:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Shams Textile Mills Limited was -3.18 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

<u>10.Textile Company 42</u>

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Shahzad Textile Mills Limited was 0.98. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Shahzad Textile Mills Limited succeeded to

effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Shahzad Textile Mills Limited was -3.01, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Shahzad Textile Mills Limited was 0.59. This was a positive sign for the company Shahzad Textile Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Shahzad Textile Mills Limited performed better than last year. M-score of Shahzad Textile Mills Limited was -3.01, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Shahzad Textile Mills Limited was 0.94 which showed its consistency with the last year. This also indicated that the company did not unnecessarily overstate its assets to present a good picture of its financial statements. M-score of Shahzad Textile Mills Limited was -3.01 which showed low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of AQI, lower than one.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of Shahzad Textile Mills Limited was 1.31. It was a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so higher than 1 indicated better sales than last year. It also indicated that Shahzad Textile Mills Limited managed to increase its sales in the current year, comparing last year, which showed its efficiency in the current year. M-score of Shahzad Textile Mills Limited was -3.01, which showed low probability of financial manipulation.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Shahzad Textile Mills Limited was 1.22 that showed the company charged slightly lower depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Shahzad Textile Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Shahzad Textile Mills Limited was -3.01 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Shahzad Textile Mills Limited was 0.73 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the

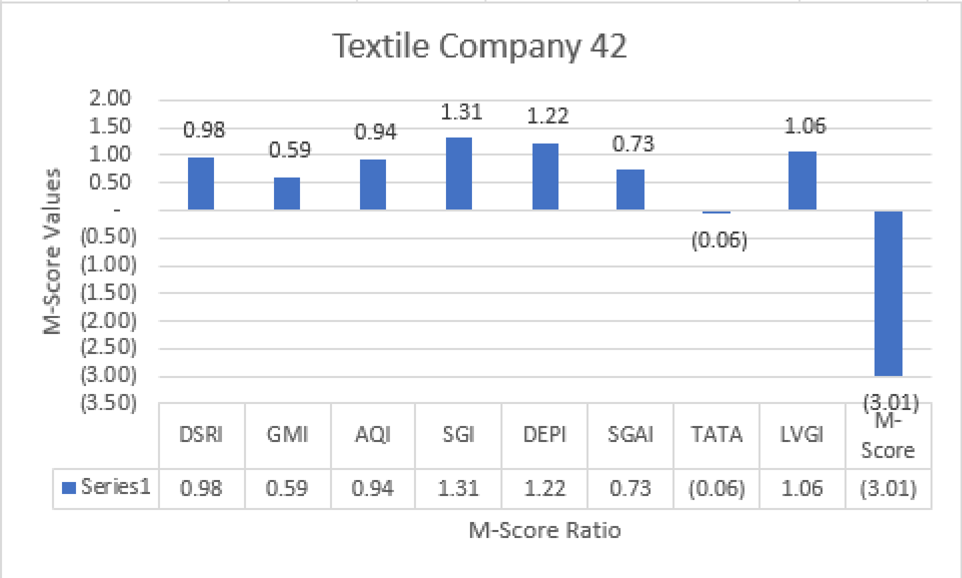
management in controlling sales, administrative and general expenses in the current year. M-score of the company was -3.01, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and low SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Shahzad Textile Mills Limited was -0.06. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.01, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Shahzad Textile Mills Limited was 1.06, which was a positive sign for the company and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year, comparing last year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #42:

M-Score Accounting Ratios



	DSRI	GMI	AQI	SGI	DEPI	SGAI	TATA	LVGI	M-Score
Series1	0.98	0.59	0.94	1.31	1.22	0.73	(0.06)	1.06	(3.01)

Summary

M-score of Shahzad Textile Mills Limited was -3.01 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

11.Textile Company 43

DSRI stands for Days Sales Receivable Ratio. This is the ratio that shows the days sales will be received by a company. The lower it is, usually less than 1, the more efficient a company is in collecting the amounts from its customers, comparing the last year. DSRI of Ideal Spinning Mills Limited was 0.77. It was less than 1, which showed that last year debtors recovery days were higher than the current year. In other words, current year was more efficient as compared to the last year. It also reflected that Ideal Spinning Mills Limited succeeded to effectively manage its receivables in the current year, which was a positive sign for the company.

M-score of Ideal Spinning Mills Limited was -3.28, which showed low probability of committing financial manipulations. So, low DSRI, usually less than 1, was associated with low probability of financial manipulation. Since M-score of this company was bending towards the low probability of financial manipulation, it also pointed out that there were less chances the management might have inflated sales in the current year to meet the demands of stakeholders and keep the market price of its shares high.

GMI stands for Gross Margin Ratio. This is the ratio that shows the percentage of gross profit over sales by a company. As per M-score, the lower the ratio is, less than 1, the more efficient a company is in generating the profits, comparing the last year. GMI of Ideal Spinning Mills Limited was 0.74. This was a positive sign for the company Ideal Spinning Mills Limited because per ratio formula of GMI, last year GM was divided with the current year one, so lower than 1 indicated better gross margin than last year. So, Ideal Spinning Mills Limited performed better than last year. M-score of Ideal Spinning Mills Limited was -3.28, which indicated low probability of financial manipulation. So, parallel relationship was identified between low probability of financial manipulation and lower value of GMI.

AQI stands for Asset Quality Ratio. As per the M-score, if the ratio is higher than 1, it shows probability of asset capitalization and deferment of cost/expenses to overstate the assets and at the same time increase profits of the company. AQI of Ideal Spinning Mills Limited was 25.18 which showed there was a high probability of unnecessary asset capitalization and deferment of revenue nature expenses to present a good picture of its financial statements. Although, M-score of Ideal Spinning Mills Limited was -3.28 which showed low probability of financial manipulation, still unusual increase the assets needed to tested thoroughly.

SGI stands for Sales Growth Ratio. As per the M-score, the higher the ratio is, higher than 1, the more efficient a company is in generating the sales, comparing the last year. SGI of

Ideal Spinning Mills Limited was 0.81. It was not a positive sign for the company because per ratio formula of SGI, current year gross sales were divided with the last year, so lower than 1 indicated lower sales than last year. It also indicated that Ideal Spinning Mills Limited did not manage to increase its sales in the current year, comparing last year, which showed its inefficiency in the current year. Although, M-score of Ideal Spinning Mills Limited was -3.28, which showed low probability of financial manipulation, still the company needed to improve its sales.

DEPI stands for Depreciation Ratio. As per the M-score, if the ratio is above 1, it shows depreciation for the current year has slowed down which can be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company. DEPI of Ideal Spinning Mills Limited was 1.10 that showed the company charged slightly lower depreciation expense in the current year, comparing the last year. DEPI was considered here as a positive sign for the company Ideal Spinning Mills Limited because it did not show any fundamental change in depreciation rates or policies. M-score of Ideal Spinning Mills Limited was -3.28 which indicated low probability of financial manipulation. So, low probability of financial manipulation was associated with lower DEPI ratio.

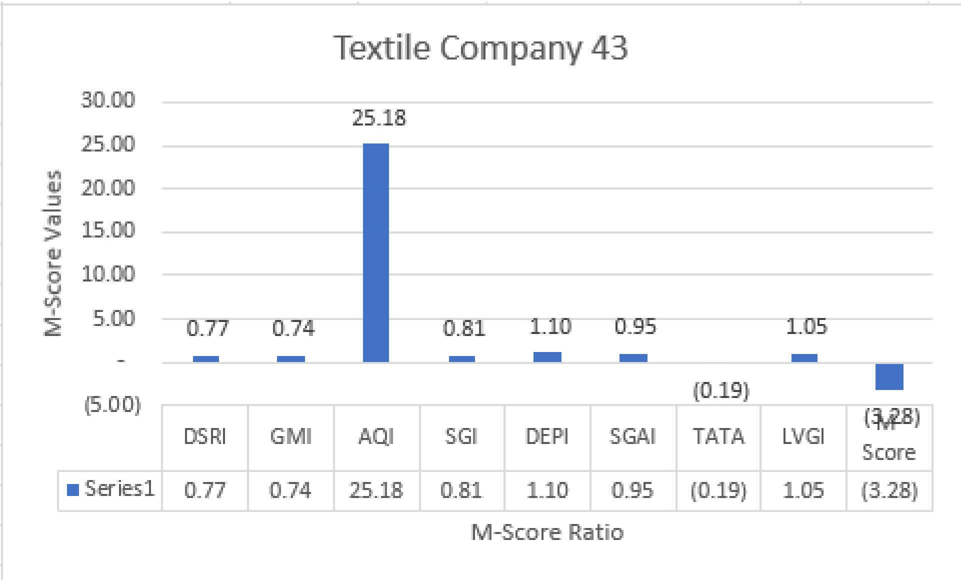
SGAI stands for Sales, General and Administrative Expenses Ratio. As per M-score, the lower ratio, specifically less than 1 favors a particular company because current year is divided by the last year and it is expense of the company, rather than an income. SGAI of Ideal Spinning Mills Limited was 0.95 which was below 1. It showed the company incurred less expenses in the current year, comparing the last year. Here it showed efficiency of the management in controlling sales, administrative and general expenses in the current year. M-score of the company was -3.28, which showed low probability of financial manipulation. So, parallel association was identified between low probability of financial manipulation and lower SGAI.

TATA stands for Total Accruals to Total Assets Ratio. This is the ratio that shows whether the net change in current assets, when divided by the total assets of a company, is positive or not. A positive or negative value itself does not indicate any financial manipulation as long as the change in not drastic. As per M-score, it only calculates the current year value. TATA of Ideal Spinning Mills Limited was -0.19. It showed net change in current assets and liabilities was not drastic. M-score of the company was -3.28, which showed low probability of financial manipulation. So, parallel associated was identified between low probability and low net change in TATA.

LVGI stands for Leverage Ratio. As per the M-score, the lower ratio, normally less than 1, favors a particular company because current year is divided by the last year and it is liability of the company, rather than an asset. LVGI of Ideal Spinning Mills Limited was 1.05, which was a positive sign for the company, and showed the company’s borrowings and liabilities in the current year did not increase massively, comparing last year. It also indicated efficiency of the management of the company in handling its borrowings and liabilities in the current year. It was showing the assets of the company were sufficient enough to pay off major portion of its long-term debts in the current year.

Figure #43:

M-Score Accounting Ratios



<u>Summary</u>

M-score of Ideal Spinning Mills Limited was -3.28 which was lower than the benchmark and therefore indicated low probability of financial manipulation in the financial statements.

4.4. Evaluation of Findings

The detailed analysis of M-score and each accounting ratio detected the textile companies, listed on Pakistan Stock Exchange, with the low likelihood of committing financial manipulations and separated these companies from those with the high probability of financial manipulations, which were explained in detail in evaluation of companies in objective two.

The detailed analysis of objective two showed that the companies like Ahamad Textile Mills Limited, Ashfaq Textile Mills Limited, Asim Textile Mills Limited, Hamid Textile Mills Limited, J.A Textile Mills Limited, Quetta Textile Mills Limited, Service Industries Textile

Limited and Sunrays Textile Mills Limited were the companies with unsuitable results of accounting ratios of M-score and therefore, it was considered these textile listed companies of Pakistan had window dressed their financial figures with the probable purpose of showing the better picture to the stakeholders and to increase the market value of their shares.

These companies showed high probability of financial manipulations because their DSRI, GMI, AQI and SGAIs accounting ratios were not consistent when these were compared with the last year. A substantial change in these accounting ratios attracted the attention to scrutinise the books of accounts of these companies to identify whether there was any management bias involved to window dress the turnover, expenses, assets and liabilities of these listed companies.

4.5. Summary of Findings

A detailed and comprehensive analysis of the textile companies, listed on Pakistan Stock Exchange, was performed with the application of M-score and its eight accounting ratios to achieve this research study objectives, which were to identify the extent up to which financial manipulations, in the listed companies of Pakistan, could be detected with the help of M-score and to determine efficiency of eight accounting ratios of M-score in evaluating the probability of financial manipulations in the listed companies of Pakistan. The objectives also included to differentiate financial manipulator companies from the those which had not manipulated their financial information and to determine whether the likelihood of financial manipulations was high or low in the companies, listed on Pakistan stock exchange.

The tables along with the supporting figures showed that indeed M-score had the strong strength of detecting financial manipulations in the financial statements of the textile companies, listed on Pakistan Stock Exchange.

The application of M-score successfully disclosed that out of forty-three textile companies, listed on Pakistan Stock Exchange, eight of the companies had the high probability of committing financial manipulations in their financial statements, while on the other side, thirty-five of the textiles listed companies showed the low probability of financial manipulations. It also showed the association between application of M-score and financial manipulations in the textile sector of companies, listed in Pakistan. The detailed analysis further indicated the textile listed companies, which could lead to financial fraud due to material financial manipulations and could cause the stakeholders of these companies to suffer loss.

The tables, showing the detailed analysis of each accounting ratios, further indicated strength of these accounting ratios, when applied on the textile companies, listed on Pakistan Stock Exchange. These independent variables of M-score were able to extract the complicated financial information out of these financial statements of these listed companies and showed how each ratio played its role in determining the financial manipulation.

These accounting ratios also indicated that these were equally important and none of them could be ignored. These fraud indicators identified that the companies like Asim Textile Mills Limited, J.A Textile Mills Limited and Ashfaq Textile Mills Limited were manipulating their financial figures and there was a strong possibility that these companies were not maintaining their books properly because their M-score results were 5.24, 12.75 and -1.05 which were far away from M-score benchmark -2.22 and higher than this benchmark.

The accounting ratios, specifically DSRI, GMI and AQI, of these companies were erratic and not supporting these companies. The DSRIs of these companies showed debtors collection days were increased disproportionately with J.A Textile Mills Limited showing twelve times increase in them. The unusual massive increase in the debtors' collections days determined a strong possibility of inflated turnover of these companies.

GMIs of these companies showed substantial decreased in profits margins with Asim Textile Mills Limited showing six times decreased in the gross margins, when compared with the last year. This unusual decreased attracted the attention whether books were maintained properly or not. The AQI of these companies showed high probability unnecessary asset capitalisation and deferment of direct, sales, admin and other general expenses. The results, produced by the accounting ratios, supported M-score's strength and showed these fraud indicators were effective and had association in identifying financial manipulations.

The tables, showing the summarised and detailed analysis of M-score and each accounting ratio, differentiated financial manipulator textile companies, listed on Pakistan Stock Exchange, from those which did not intend to financially manipulate their financial statements. The M-score and its eight fraud indicating ratios successfully identified the companies that had either committed or were on the brink of committing manipulation in the financial figures in their financial statements. The M-score and its application determined that out of the population of forty-three companies, there were eight companies which were considered financial manipulators, while the other thirty-five had the low probability of considering them as financial manipulators or non-financial manipulator companies.

5. CHAPTER 5: IMPLICATIONS, RECOMMENDATIONS AND CONCLUSIONS

This chapter is all about the implications, recommendations and conclusions of the entire research project. This will cover what are the implications of M-score and its eight fraud indicators, also known as independent variables, in Pakistan along with the recommendations for its applications and future research. At the end it will provide the summary of the findings and their evaluation in the form of conclusion.

The problem statement of this research study encompasses “the risk of undetected financial manipulations in the financial statements of the companies, listed on Pakistan Stock Exchange, as these unidentified financial manipulations directly impact the true and fair presentation of the financial figures of the financial statements of these listed companies”. The unfair and false presentation of the financial statements have their own consequences as on one side they affect the portfolio management of the potential investors because they might make investment in such financially manipulated companies and risk their investment. On the other side, the materially misstated financial statements can result in a big financial fraud or financial scam, which can affect the entire stock exchange, where the company is listed and also the economic cycle of that country.

The risk in the financial statements regarding the misstatement of financial figures of either “listed or unlisted companies” has become the priority of many professional bodies. The studies show that over a decade, audits of the listed companies have been transformed to risk-based audits. Owing to the mounting significance of financial manipulations, Association of Certified Fraud Examiners (ACFE) already conducted research on the types of financial frauds. The body concluded that there were three major categories of financial fraud, including “assets misappropriation, corruption and financial manipulations”. The association further ranked these three gigantic categories of financial frauds and resulted that ‘financial manipulations’ in the listed companies was at the top because of its severe impact on the financial figures of the financial statements of the companies.

The books of accounts of a company are normally considered financially manipulated when the management or people having interest in a particular company do the material misstatements of the financial figures intentionally with the sole purpose of window dressing the financial figures to present the financial statements in an attractive way to catch the attention of the potential investors. The financial numbers are manipulated to show overstatement of sales, understatement of expenses, overstatement of assets and understatements of liabilities of the companies. These financial figures are window dressed to produce the results as per the desires of the potential investors and stakeholders as well.

A look at the financial history shows that it is full of financial frauds and scams. It clearly shows how blue-chip companies of their times fell, when they were running at their peak and presenting excellent financial figures. It also shows that once these financial frauds were detected by either the external auditors or regulatory authorities, the impact of these financial manipulations was so overwhelming that these companies failed to find their feet after the capture of financial fraud. As a result, the history shows that either these companies declared voluntary winding up or went bankrupt or entered in the phase of winding up by court after detection of their financial frauds. Some of the examples include “Enron and WorldCom”. These both were United States of America’s companies and involved in the voluntary manipulation of their financial books. These both were listed companies and at the top of their progress when the financial manipulations were detected. Resultantly, these companies had to shut down their businesses because these companies had no other option.

The financial market of “Pakistan is not different from rest of the world as Pakistani financial market is quite volatile and there are sudden ups and downs all the time. The market has also experienced financial fraud cases in past. The examples include Axact software company, which inflated sales to attract investors, and Khannani and Kalia International Limited, which executed a hefty amount of unauthorized foreign exchange transactions", and as a result went bust.

The financial market of Pakistan is sensitive in respect of financial scams and care needs to be taken. In such a delicate situation, "the use of M-score and its fraud indicating accounting ratios will act as a catalyst, for the potential investors and stakeholders, in identifying the extent up to which Pakistani financial statements of the companies, listed on Pakistan Stock Exchange, have been financially manipulated. The use of M-score and fraud indicating accounting ratios will also help in detecting the companies which are considered as financially manipulated companies and separate them from those" which have not financially manipulated their books.

5.1. Implications

M-score and its accounting ratios have several implications on the landscape of Pakistan ranging from the corporate sector to forensic accounting. The M-score's independent fraud indicators can be applied on regulatory oversight and can help in boosting the confidence level of potential Pakistani investors. Based on the financial manipulation cases in the financial market of Pakistan, it is significant to apply M-score tool which can help in identifying the probability of financial manipulations in the companies of Pakistan, listed on Pakistan Stock Exchange. Implications include, but are not limited to:

5.1.1. Theoretical / Academics Implications

All the seven theories are directly related to the primary objective of this research thesis of identifying the financial manipulations in the financial statements of the companies. Nevertheless, out of these seven theories, this research thesis has made efficient use of three theories, namely earnings management, prudence and matching principles theories. It does not mean here that other four theories are less important. These have not been considered in this research thesis because these require inclusion of other accounting ratios and substantive audit procedures which are beyond the scope of this research thesis as this research thesis has only used M-score and its eight accounting ratios. Justification regarding each theory has been explained below in detail:

Earnings management theory is directly related to this research thesis as it coincides with the primary objective of identifying the financial manipulations, which can be conducted by window dressing the earnings of a listed company to keep the shareholders happy in the form of either paying high dividends to them or capital appreciation by raising the market share price. The M-score and its eight accounting ratios include G.P, sales growth and admin expenses ratios which are correlated with earnings management theory as these ratios identify whether there has been any significant manipulation in the earnings or not.

Prudence theory is directly related to this research thesis as it coincides with the primary objective of identifying the financial manipulations, which can be conducted by either overstating the assets and income or understating the liabilities and expenses of a company. The M-score and its eight accounting ratios include days' sales receivable and asset quality ratios which are correlated with prudence theory as these ratios identify whether there has been any significant overstatement of assets / income or understatement of liabilities / expenses.

Matching principles theory is directly related to this research thesis as it coincides with the primary objective of identifying the financial manipulations, which can be conducted by either recording the income and receivables or expenses and payables which are not related to a particular year for the company. Such financial manipulation normally incurs at the end of the year when the books are closing. The M-score and its eight accounting ratios include total assets to total accruals and leverage / debt ratios which are correlated with matching principles theory as these ratios identify whether there has been any significant overstatement of income and receivables or expenses and liabilities.

5.1.2. Practical Implications

Practical implications include, but are not limited to:

5.1.2.1. Financial Manipulation Detection by Regulatory Authorities

The corporate regulatory bodies of Pakistan include “Securities and Exchange Commission of Pakistan (SECP) and State Bank of Pakistan (SBP)”. These autonomous bodies have experienced weak applications of regulatory enforcements and frequent financial manipulation. The use of M-score will assist these bodies in identifying the likelihood of financial misstatements in the financial books. The detection will avoid the incurrence of these financial manipulations and encourage the implementation of strict regulatory enforcements.

The application of M-score and its powerful fraud detection accounting ratios can help these corporate regulatory bodies, SECP and SBP, to flag red the companies that have the high likelihood of getting considered as the financial manipulators and split them from those that are non-manipulators. After the identification, these regulatory bodies can move further to put these highly probable financial manipulator companies under the strict regulatory examination. This implementation of close scrutiny can further be extended to official investigation, provided that the high likelihood of financial manipulation, which can lead to a big financial scam, is proved in these companies.

These regulatory bodies can take other steps as well that include financial penalties and legal actions, through court of law, to set an example for the other companies. Such actions will either prevent or bring down the possibility of incurrence of material misstatement in the financial statements regarding the companies which are listed on Pakistan Stock Exchange.

5.1.2.2. Investors' Confidence Boosting and Truthfulness of Stock Market

Potential investors act as the backbone of any stock exchange because they invest their funds to trade in the stock markets in the form of buying and selling the shares of listed companies. This trading process of buying and selling a share is not easy and the potential investor do ample amount of study and in-depth analysis of these listed companies before making any investment. The interpretation of these companies' financial figures helps investors in understanding the historical patterns and future forecasting of these listed companies and based on these analyses, these investors develop their own portfolio and invest the money with the sole intention of making profits.

The transparency of the financial figures of these listed companies is the key. The transparency includes true and fair "presentation of financial figures in the financial statements of these companies and compliance with the disclosures' requirements of listed regulations. The combination of these true and fair presentation of financial amounts and disclosure of non-financial information help investors to analyze the financial behavior of the companies, listed of Pakistan Stock Exchange" and such information helps them to manage their portfolio accordingly to diverse the risk of investment and loss.

The stock exchange of Pakistan has already experienced financial fraud cases, where the listed companies financially manipulated their figures and inflated their earnings, overstated their assets and understated their liabilities for the sole purpose of attracting the potential investors. So, in such fraud prevailing environment, the getting of more information is the way to minimize the risk of losing the investment. The potential investors can make use of M-score and its fraud indicating accounting ratios to identify whether a company, listed on Pakistan Stock Exchange, has either the high or low probability of manipulating its financial figures and, by doing so, can better design their portfolio and manage it by dispersing their risk of financial loss.

The sole purpose of an investor is to earn profit. This can be attained if an investor has information about the futuristic amount of dividend that a company can declare and also the market value of a company's share. The use of the M-score and its fraud identifying accounting ratios can provide investors with the early information of what is the probability of a company, listed on Pakistan Stock Exchange, regarding declaration of dividend and what can be the market value of its shares. The provision of such financial information will help the investors to earn maximum number of profits, out of their investments.

The use M-score and its accounting ratios will also help investors in gaining confidence in the listed companies and stock market of Pakistan itself. This feeling of integrity of Pakistan Stock Market will boost the investors' morale to make the investment in the economy of Pakistan. In addition to that, it will also attract foreign investment as the foreign investors can perform the due diligence, scrutiny of the books of accounts of the listed companies of Pakistan, before making investment in Pakistani listed companies. The M-score will help the foreign investors to perform the fundamental analysis of financial statements of these Pakistani listed companies to gain the authenticity of financial figures and improve their level of confidence.

5.1.2.3. Credit Rating and Risk Assessment by Credit Institutions

The credit agencies in Pakistan include Banking institutions, leasing companies, non-banking financial companies and other private lending companies. These corporate credit institutions provide financial support to corporate sectors. The corporate sectors include companies, listed on Pakistan Stock Exchange. The financial support is provided in the form of financial lending, like loans, and non-financial lending, like leasing of plant and machinery, vehicles, equipment, sale and leaseback transactions of assets of the companies etc., to these corporate sectors.

Pakistan has faced ample number of cases where the companies, listed on Pakistan Stock Exchange, have taken these financial and non-financial borrowings and then declared themselves as bankrupt. The declaration of bankruptcy, although provided right to these financial institutions to seize the assets of these delinquent companies, but could not recover the actual amount of funding of these financial agencies. The result was bearing of a high amount of loss for these credit agencies.

The use of M-score and fraud identifying accounting ratios can help these banking sectors and other credit agencies to set a minimum passing criteria for the companies, listed on Pakistan Stock Exchange, to qualify to apply for the financial and non-financial borrowings. These bank institutions and other credit agencies can apply M-score on the financial statements of these listed companies and compare the results obtained with M-score benchmark to identify whether a company has higher or lower score, when compared with the benchmark. This can be set as a preliminary check for all the companies of Pakistan, including listed ones. The only companies which pass this initial check should be further proceeded for the financial and non-financial borrowing.

5.1.2.4. Solidifying Internal Controls and Corporate Governance

The system if internal controls play a vital role in identifying the strength and weakness of business operations of a company. The internal audit committees are formed and internal audits are conducted, in the listed companies of Pakistan, to identify and rectify the weaknesses in the system of internal controls and ensure its strength. If the internal controls of a company are strong, it will have strict policies and less chances of financial manipulations.

Many companies, listed on Pakistan Stock Exchange, have been identified by the internal auditors as facing challenges regarding the strong implementation of internal controls. “The use of M-Score and its eight fraud indicating accounting ratios can help management of companies, listed on Pakistan Stock Exchange, in flagging red the financial business operations of different financial departments”, which financially manipulating the figures.

Corporate governance may also be measured “with the use of M-score and its eight fraud indicating accounting ratios in the companies, listed on Pakistan Stock Exchange”. A high M-score of a listed company will generally indicate the bad corporate performance of the management and at the same time will also point out the unethical and unprofessional behavior of the management towards the company. In such a situation, board of directors and shareholders can make use of M-score and its eight fraud indicating accounting ratios to identify the financial manipulations of the lower and middle level management, monitor their actions and take strict measures to strengthen internal controls of the company.

M-score and its eight accounting ratios can also be used as a benchmark by the state-owned enterprises and companies, listed on Pakistan Stock Exchange, to maintain their level of credibility. These state-owned and listed companies have to maintain their repute and goodwill to survive and thrive in the stock markets of Pakistan. By applying M-score as a benchmark, these companies can evaluate themselves whether they are transparent with their financial figures in the financial statements and honest with their share and stakeholders.

5.1.2.5. Strengthening Financial and Forensic Audits

Each company, listed on Pakistan Stock Exchange, has the statutory and legal requirement to get its books of accounts audited by an independent auditor. In the same way, the companies identified by the “Securities and Exchange Commission and State Bank of

Pakistan" further undergo the investigation and examination of books of accounts by the forensic accountants.

The use of M-score and its fraud indicating accounting ratios can help these external auditors and forensic accountants to plan and design their audits. The M-score can help them to identify the risks in the listed companies of Pakistan and plan their audit procedures accordingly. The use of M-score can act as a starting point for the statutory auditors in detecting "whether a company has the high or low probability of manipulating their financial figures". The provision of such information will help the auditors to select their sample size for sales and purchase transaction testing, selection of number of trade debtors and ask the listed company to provide the direct confirmations, selection of number of trade creditors and ask the listed company to provide the suppliers statements etc.

The selection of appropriate sample size, with the help of M-score and its fraud indicating accounting ratios, will these external as well as forensic auditors to perform the audits in an efficient and effective, reduce the risk of financial manipulations and increase the likelihoods of true and fair presentation "of financial figures in the financial statements of the companies, listed on Pakistan Stock Exchange".

5.2. Limitations

Every research has an inherent limitation. These limitations can become recommendations and can act as motivating factors for onward research. The limitations inherent to this research thesis are as follows:

Beneish M-score is a probabilistic model. Therefore, it cannot identify, "with absolute assurance and hundred perent accuracy, the financial manipulations in the financial statements of the listed companies. This research thesis also identifies the likelihood of the selected companies, which, in no way, meant that financial fraud is going on in these high probability companies. To claim the absolute assurance of financial manipulation and financial fraud in these companies, the research thesis needs a more in-depth analysis of the sampled companies and collection of further evidence”.

Due to the limited scope of this research thesis, only “one non-financial sector (textile industry) has been selected, whereas there are other 25 non-financial sectors, listed on the Pakistan Stock Exchange, which have not been considered. These other non-financial sectors also include big sectors like Automotive, Cement, Chemical and Sugar sectors, but M-score and its accounting ratios have not been applied on these big sectors to further identify the probability of financial manipulations to analyze the in-depth picture of Pakistan Stock Exchange and its listed companies”.

The research thesis only includes the public listed textile companies of Pakistan, whereas the private textile companies have not been considered.

5.3. Recommendations

The results, produced by M-score and its eight-fraud indicating accounting ratios, were in line and fulfilled all the research objectives, answered all the research questions and hypothesis.

M-score and its eight-fraud indicating accounting ratios were successfully applied on the latest available financial statements of textile sector of companies, listed on Pakistan. The results, produced by M-score and its accounting ratios, answered the research question whether these textile companies had financially manipulated their financial statements or not. The interpretation of the results also fulfilled the research objective whether the books of these companies, listed on Pakistan Stock Exchange, had materially misstated their financial figures or not. Moreover, the analysis answered the research question by showing the companies which were financially manipulators and also separated it from those which were non-manipulators.

Recommendation for Future Research

The followings were the recommendation for future research, based on the current research study:

M-score and its eight fraud indicating accounting ratios were applied on the latest available financial statements to obtain the results of current “financial statements of textile companies, listed on Pakistan Stock Exchange”. Nevertheless, in order to analyze these listed companies further and to have in-depth interpretation, the recommendation was to apply the M-score and its accounting ratios on last five years’ financial statements of these textiles listed companies, so that a better analysis of the pattern and behavior of these financial companies could have been made.

M-score and its eight fraud indicating accounting ratios were applied on one non-financial sector of Pakistan Stock Exchange, that is Textile Sector, “whereas there were 26 non-financial sectors listed on Pakistan Stock Exchange”. The recommendation was to apply M-score and its accounting ratios on the other non-financial sectors as well to provide the “in-depth knowledge and detailed understanding of the financial figure of financial statements” of those other non-financial sectors’ companies to potential investors, so that they could mitigate their risk of loss; and at the same time to banking institutions, leasing companies and other non-banking financial companies, so that they could avoid un-recoverability of their financial and non-financial borrowings.

M-score and its eight fraud indicating accounting ratios were applied on public textile companies, listed on Pakistan Stock Exchange. The recommendation was to apply M-score and its accounting ratios to private Pakistani companies as well, so that the stakeholders and board of directors could have identified the management financial misconducts and applied strict measures in the form of strengthening internal controls.

M-score and its eight fraud indicating accounting ratios were applied alone “on the textile companies, listed on Pakistan Stock Exchange. The recommendation was to apply M-score in conjunction with Securities and Exchange Commission of Pakistan’s financial guidelines, Code of Corporate Governance and Listing Regulations of Pakistan so as to obtain the in-depth non-financial information as well regarding compliance with these listing regulations, guidelines of SECP and code of corporate governance”.

5.4. Conclusion

The conclusion of research study has been split based on research objectives and its related questions:

5.4.1. Scrutiny of Financial Information of Companies

The first research objective of this research project was:

“To determine efficiency of eight accounting ratios of M-score in evaluating the probability of financial manipulations in the listed companies of Pakistan.”

Based on it, the research question, in line with the research objective, was:

“How well eight independent variables can identify the likelihood of financial manipulations in companies which are listed on Pakistan stock exchange?”

A hypothesis supporting the research question was:

“H1: Eight fraud indicators of M-score have excellent strength of evaluating financial manipulations in the listed companies of Pakistan.”

The results showed the efficiency of fraud indicating eight accounting ratios of M-score as these accounting ratios identified that there were “eight textile companies, listed on Pakistan Stock Exchange, that had high probability of conducting financial manipulations in their financial statements. These companies included Ahmad Hassan Textile Mills Limited, Ashfaq Textile Mills Limited, Asim Textile Mills Limited, Hamid Textile Mills Limited, J.A Textile Mills Limited, Quetta Textile Mills Limited, Service Industries Textile Mills Limited and Sunrays Textile Millas Limited”.

The results further indicated that out of these highly probable financially manipulated companies, J.A Textile Mills Limited was the worst one with the highest M-score of 12.75 and further investigation in the form of close scrutinization of books of accounts of that company was required. Ahmad Hassan Textile Mills Limited, although indicated high probability of financial manipulation, was the one which failed the M-score test by a fraction because M-score of this company was -2.14, comparing to M-score benchmark of -2.22. This indicated Ahmad Hassan Textile Mills Limited could have performed better in future and come out of danger zone of high probability of financial manipulations.

The results clearly indicated strength of this fraud indicating accounting ratios, when applied on the textile companies, listed on Pakistan Stock Exchange. These independent variables of M-score were able to extract the complicated financial information out of these financial statements of these listed companies and showed how each ratio played its role in determining the financial manipulation.

These accounting ratios also indicated that these were equally important and none of them could be ignored. These fraud indicators identified that these companies were manipulating their financial figures and there was a strong possibility that these companies were not maintaining their books properly.

The accounting ratios, specifically DSRI, DEPI and LVGI, of these companies were erratic and not supporting these companies. The DSRIs of these companies showed debtors collection days were increased disproportionately. The unusual massive increase in the debtors' collections days determined a strong possibility of inflated turnover of these companies.

DEPI of these companies showed decrease in depreciation expense in almost all these companies, which showed depreciation for the current year slowed down which could be due to change in depreciation rate or policy in a possible attempt to decrease the expenses and increase the profits of the company.

LVGI of all these companies was higher than 1, which was a negative sign and showed the companies borrowings and liabilities in the current year increased, comparing last year. It also indicated inefficiency of the management of the companies in handling its borrowings and liabilities in the current year, comparing last year. It was showing the companies did not manage to pay off its long-term debts. It further pointed that assets of the companies were not sufficient enough to pay off its long-term debts in the current year.

The results showed the efficiency of M-score eight accounting ratios in detecting the financial manipulation in the listed companies of Pakistan.

5.4.2. Financial Manipulations in Companies

The second research objective of this research project was:

"To identify the extent up to which financial manipulations, in the listed companies of Pakistan, can be detected with the help of M-score."

Based on it, the research question, in line with the research objective, was:

“What is the extent up to which M-score can evaluate the financial manipulations in the listed companies of Pakistan?”

A hypothesis supporting the research question was:

“H2: M-score has the strong probability of detecting financial manipulations in financial statements of listed companies of Pakistan.”

The results showed the competence of “M-score in identifying the extent up to which it could detect the financial manipulations in the companies, listed on Pakistan Stock Exchange. M-score detected that there were nineteen textile companies, listed on Pakistan Stock Exchange, that had low probability of conducting financial manipulations in their financial statements. The names included in these companies were Bhanero Textile Mills Limited, Blessed Textile Mills Limited, The Crescent Textile Mills Limited” etc. Full list of these companies was mentioned in Results Section in Table 4.4.

The results further indicated that out of these lowly probable financially manipulated companies, Bhanero Textile Mills Limited was the one whose M-score was equal to benchmark -2.22. Although it showed that Bhanero Textile Mills Limited had low probability of financial manipulation, yet since it was on the verge of crossing the benchmark line to shift to highly probable financially manipulated company, a close scrutiny was required to see the future results and make examination of the history for at least five prior years to identify the pattern. The results further showed that Mehmood Textile Mills Limited had M-score of -2.95, which was far from the benchmark -2.22 and depicted good maintenance of books of accounts.

The results clearly showed that indeed M-score had the strong strength of detecting probability “of financial manipulations in the financial statements of the textile companies, listed on Pakistan Stock Exchange”. The results also showed the association between application of M-score and detection of financial manipulations in the textile sector of companies, listed in Pakistan.

The application of M-score successfully disclosed that although these companies had the low probability of committing financial manipulations in their financial statements, yet the M-score results of these companies were inclining towards the benchmark of M-score -2.22, which indicated these companies could have been on the verge of committing material financial manipulations in future which could lead to a financial fraud. This suggested further examination of the prior years' financial statements, specifically from the investors point of view to get the better understanding of the financial position and performance of these companies.

5.4.3. Manipulator and Non-Manipulator Companies

The third research objective of this research project was:

"To differentiate financial manipulator companies from the those which have not manipulated their financial information."

Based on it, the research question, in line with the research objective, was:

"Will fraud indicating variables of M-score differentiate between financial manipulator and non-manipulator listed companies, registered on stock exchange of Pakistan?"

A hypothesis supporting the research question was:

"H3: M-score and its eight accounting ratios will successfully differentiate between financially manipulated and non-manipulated companies, listed on Pakistan stock exchange."

The results showed the success of M-score and its fraud indicating "accounting ratios when applied on the companies, listed on Pakistan Stock Exchange", as it clearly indicated the companies with could be considered as financial manipulator companies. Moreover, M-score and its accounting ratios also detected and separated the companies which had very low probability of conducting financial manipulations in their financial statements. The total companies identified by M-score and its accounting ratios were thirteen, out of which eight companies had the high probability of conducting financial manipulations in their financial statements and were marked as manipulators, whereas only five companies were identified as free from financially manipulating their books of accounts and considered as non-manipulators.

These companies included in the list of financially manipulated companies were Ahmad Hassan Textile Mills Limited, Ashfaq Textile Mills Limited, Asim Textile Mills Limited, Hamid Textile Mills Limited, J.A Textile Mills Limited, Quetta Textile Mills Limited, Service Industries Textile Mills Limited and Sunrays Textile Millas Limited. The results further indicated that out of these highly probable financially manipulated companies, J.A Textile Mills Limited was the worst one with the highest M-score of 12.75 and further investigation in the form of close scrutinization of books of accounts of that company was required. Ahmad Hassan Textile Mills Limited, although indicated high probability of financial manipulation, was the one which failed the M-score test by a fraction because M-score of this company was -2.14, comparing to M-score benchmark of -2.22. This indicated Ahmad Hassan Textile Mills Limited could have performed better in future and come out of danger zone of high probability of financial manipulations.

These companies included in the list of non-manipulator companies were Arctic Textile Mills Limited, Colony Textile Mills Limited, Janana De Malucho Textile Mills Limited, Ruby Textile Mills Limited and Zephyr Textile Mills Limited. The results further indicated that out of these low probable financially manipulated companies, Janana De Malucho Textile Mills Limited was the best one with the lowest M-score of -11.91 and no further investigation in the form of close scrutinization of books of accounts of that company was required. Arctic Textile Mills Limited showed the lowest M-score of -4.12, but still it was way lower than M-score benchmark of -2.22. So, even the lowest M-score company was considered maintaining appropriate books of accounts and applying better internal controls.

The results of M-score and each accounting ratio respectively, differentiated financial manipulator textile companies, listed on Pakistan Stock Exchange, from those which did not intend to financially manipulate their financial statements. The M-score and its eight fraud indicating ratios successfully identified the companies that had either committed or were on the brink of committing manipulation in the financial figures in their financial statements.

5.4.4. Likelihood of Financial Manipulations in Companies

The fourth research objective of this research project was:

"To determine whether the likelihood of financial manipulations is high or low in the companies, listed on Pakistan stock exchange."

Based on it, the research question, in line with the research objective, was:

"What will be the likelihood, high or low, of financial manipulations of listed companies of Pakistan?"

A hypothesis supporting the research question was:

"H4: M-score will detect companies with high likelihood of committing financial fraud and separate them from the companies which have low possibility."

The results showed the success of M-score and its fraud indicating accounting ratios when applied on the companies, listed on Pakistan Stock Exchange, as it clearly indicated the companies with low likelihood of financial manipulations. The total companies identified by

M-score and its accounting ratios were eleven, all of which had the low likelihood of conducting financial manipulations in their financial statements and were marked as companies with proper maintenance of books of accounts. The names included in these companies were Amtex Textile Mills Limited, AN Textile Mills Limited, Dewan Textile Mills Limited etc. Full list of these companies was mentioned in Results Section in Table 4.9.

The results of M-score and each accounting ratio detected the textile companies, listed on Pakistan Stock Exchange, with the low likelihood of committing financial manipulations. The detailed analysis showed that these were the companies with suitable results of accounting ratios of M-score and therefore, it was considered these textiles listed companies of Pakistan had not window dressed their financial figures with the probable purpose of showing the better picture to the stakeholders and to increase the market value of their shares. The books of accounts of these eleven companies were considered appropriate.

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Appendix

Appendix A: Ethics Application Documents

UNICAF UNIVERSITY

UREC Decision, Version 2.0

Unicaf University Research Ethics Committee Decision

Student's Name:	Muhammad Zahid Mahmood
Student's ID #:	R1808D6080395
Supervisor's Name:	Dr Benson Benedict Okech
Program of Study:	UU-DOC-900-3-ZM
OfferID / GroupID:	O60077G61550
Dissertation stage:	DS3
Research Project Title:	Detection of Financial Manipulations in Financial Statements of Listed Companies of Pakistan, using M-Score Model
Ethical conditions for approval:	No comments.
Methodological recommendations:	
Decision*:	A. Approved without revision or comments
Date:	March 29, 2024

All Doctoral students are advised to check the regulations pertaining to research and General Data Protection Regulation (GDPR) of the country in which the research will take place as each country may have different restrictions on conducting research.

i. Approval from a local Research Ethics Committee (REC) or professional regulatory body such as Institutional Review Board (IRB)

ii. Approval from Ministry or public agency

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UU_GL - Version 2.0

Gatekeeper letter

Institution / Organization :

Address:

Date:

Subject:

Dear

I am an/a **[undergraduate, postgraduate, doctoral]** student at Unicaf University **[insert the name of the University, e.g. Malawi / Zambia]**.

As part of my degree I am carrying out a study on **[insert project / research topic and area].**

I am writing to enquire whether you would be interested in/willing to **[insert request for assistance, participation, permission to recruit etc.]** in this research.

[Describe what would be required of the person, for example, sending an e-mail on your behalf, allowing you to recruit on their premises, giving you access to personal data after participants have consented, allow children to complete experiments during school hours etc. Include the estimated time for the engagement of this person.]

Subject to approval by Unicaf Research Ethics Committee (UREC) this study will be using **[mention the research activity / activities].**

[Describe the project briefly and state its title and the name of your supervisor.]

Thank you in advance for your time and for your consideration of this project. Kindly please let me know if you require any further information or need any further clarifications.

Yours Sincerely,

Student's Name:
Student's E-mail:
Student's Address and Telephone:
Supervisor's Title and Name:
Supervisor's Position:
Supervisor's E-mail:

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Guardian Informed Consent Form

Part 1: Debriefing of Participants

Student's Name:

Student's E-mail Address:

Student ID #:

Supervisor's Name:

University Campus: Choose from the list

Program of Study: Choose from the list

Research Project Title:

Date:

Provide a short description (purpose, aim and significance) of the research project, and explain why and how you have chosen this person to participate in this research (maximum 150 words).

The above named Student is committed to ensuring participant's voluntarily participation in the research project and guaranteeing there are no potential risks and/or harms to the participants.
Participants have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In these cases, data collected will be deleted.

All data and information collected will be coded and will not be accessible to anyone outside this research. Data described and included in dissemination activities will only refer to coded information ensuring beyond the bounds of possibility participant identification.

I, ________________, ensure that all information stated above is true and that all conditions have been met.

Student's Signature:

UU_GIC - Version 2.1

Guardian Informed Consent Form

Part 2: Certificate of Consent

This section is mandatory and should to be signed by the participant's legal guardian

Student's Name:

Student's E-mail Address:

Student ID #:

Supervisor's Name:

University Campus: Choose from the list

Program of Study: Choose from the list

Research Project Title:

I have read the foregoing information about this study, or it has been read to me. I have had the opportunity to ask questions and discuss about it. I have received satisfactory answers to all my questions and I have received enough information about this study. I understand that the participant is free to withdraw from this study at any time without giving a reason for withdrawing and without negative consequences. I consent to the use of multimedia (e.g. audio recordings, video recordings) for the purposes of the participation to this study. I understand that all data will remain anonymous and confidential, unless stated otherwise.

I, __________, the legal guardian of __________ allow and provide consent that __________ can willingly participate in the study.

I, __________, the legal guardian of __________ have been ensured that verbal consent given by __________ will also be taken before the study.

Date:

UU_IC - Version 2.1

Informed Consent Form

Part 1: Debriefing of Participants

Student's Name:

Student's E-mail Address:

Student ID #:

Supervisor's Name:

University Campus: Choose from the list

Program of Study:

Research Project Title:

Date:

Provide a short description (purpose, aim and significance) of the research project, and explain why and how you have chosen this person to participate in this research (maximum 150 words).

The above named student is committed to ensuring participant's voluntarily participation in the research project and guaranteeing there are no potential risks and/or harms to the participants.

Participants have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In these cases, data collected will be deleted.

All data and information collected will be coded and will not be accessible to anyone outside this research. Data described and included in dissemination activities will only refer to coded information ensuring beyond the bounds of possibility participant identification.

I, ____________________, ensure that all information stated above is true and that all conditions have been met.

Student's Signature: ____________________

UU_IC - Version 2.1

Informed Consent Form

Part 2: Certificate of Consent

This section is mandatory and should to be signed by the participant(s)

Student's Name:

Student's E-mail Address:

Student ID #:

Supervisor's Name:

University Campus: Choose from the list

Program of Study:

Research Project Title:

I have read the foregoing information about this study, or it has been read to me. I have had the opportunity to ask questions and discuss about it. I have received satisfactory answers to all my questions and I have received enough information about this study. I understand that I am free to withdraw from this study at any time without giving a reason for withdrawing and without negative consequences. I consent to the use of multimedia (e.g. audio recordings, video recordings) for the purposes of my participation in this study. I understand that my data will remain anonymous and confidential, unless stated otherwise. I consent voluntarily to be a participant in this study.

Participant's Print name:

Participant's Signature: ______________________

Date:

If the Participant is illiterate:

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had an opportunity to ask questions. I confirm that the aforementioned individual has given consent freely.

Witness's Print name:

Witness's Signature: ______________________

Date:

Data Collection Summary / Details

Student's Name: Muhammad Zahid Mahmood

Student's ID: R1808D6080395

Start date for data collection: 04/12/2023

End Date for Data Collection: 26/02/2024

UREC Decision Date: 29/03/2024

A	B	C	D	E	F	G
Select the tools to be used in your study	Select how the tools selected in column A will be administered (select one or more)	Select what types of questions will be included in the tools previously selected in column A (select one or more)	Number of Participants Participating	Gender of Participants	Age of Participants	Participants Consents
Interviews ☐	☐ Face-to-face ☐ Online with camera (synchronous live discussion with camera) ☐ Audio only (synchronous live discussion without camera, i.e., via phone)	☐ Open-ended questions ☐ Close-ended questions ☐ Both open- and close-ended questions ☐ Includes section related to demographics		Male ☐ Female ☐	From To	☐ Physical (completion of the actual consent form) ☐ Retrieved online (through the questionnaire for instance) ☐ Guardian Informed Consent
Focus Groups ☐	☐ Face-to-face ☐ Online with camera (synchronous live discussion with camera) ☐ Audio only (synchronous live discussion without camera, i.e., via phone)	☐ Open-ended questions ☐ Close-ended questions ☐ Both open- and close-ended questions ☐ Includes section related to demographics		Male ☐ Female ☐	From To	☐ Physical (completion of the actual consent form) ☐ Retrieved online (through the questionnaire for instance) ☐ Guardian Informed Consent

A	B	C	D	E	F	G
Select the tools to be used in your study	Select how the tools selected in column A will be administered (select one or more)	Select what types of questions will be included in the tools previously selected in column A (select one or more)	Number of Participants Participating	Gender of Participants	Age of Participants	Participants Consents
Questionnaire ☐	☐ Face-to-face self – administered questionnaire ☐ Online i.e., via phone or any other platform. The researcher reads the questions to the participants ☐ Online asynchronous self – administered questionnaire (i.e., via email)	☐ Open-ended questions ☐ Close-ended questions ☐ Both open- and close-ended questions ☐ Includes section related to demographics		Male ☐ Female ☐	From To	☐ Physical (completion of the actual consent form) ☐ Retrieved online (through the questionnaire for instance) ☐ Guardian Informed Consent
Experiments ☐	☐ Face-to-face self – administered questionnaire ☐ Online i.e., via phone or any other platform. The researcher reads the questions to the participants ☐ Online asynchronous self – administered questionnaire (i.e., via email)	☐ Open-ended questions ☐ Close-ended questions ☐ Both open- and close-ended questions ☐ Includes section related to demographics		Male ☐ Female ☐	From To	☐ Physical (completion of the actual consent form) ☐ Retrieved online (through the questionnaire for instance) ☐ Guardian Informed Consent

A	B	C	D	E	F	G
Select the tools to be used in your study	Select how the tools selected in column A will be administered (select one or more)	Select what types of questions will be included in the tools previously selected in column A (select one or more)	Number of Participants Participating	Gender of Participants	Age of Participants	Participants Consents
Tests ☐	☐ Face-to-face self – administered questionnaire ☐ Online i.e., via phone or any other platform. The researcher reads the questions to the participants ☐ Online asynchronous self – administered questionnaire (i.e., via email)			Male ☐ Female ☐	From ☐ To ☐	☐ Physical (completion of the actual consent form) ☐ Retrieved online (through the questionnaire for instance) ☐ Guardian Informed Consent
Other (i.e. observation Check list)	It is a desktop study and includes secondary sources of research. The tools or sources of data collection include stock exchanges of Pakistan and official websites of the listed companies. The research project does not involve the recruitment and participation of any physical individual or person.					

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UNICAF UNIVERSITY RESEARCH ETHICS APPLICATION FORM DOCTORAL STUDIES	UREC USE ONLY: Application No: Date Received:

Student's Name: Muhammad Zahid Mahmood

Student's E-mail Address: zahidm81@hotmail.com

Student's ID #: R1808D6080395

Supervisor's Name: Dr Benson B. Okech

University Campus/Program: Unicaf University Zambia: PhD Doctorate of Philosophy

Research Project Title: Detection of Financial Manipulations in Financial Statements of Listed Companies of Pakistan, using M-Score Model

1. Please state the timelines involved in the proposed research project:

Estimated Start Date: 17-Oct-2022 Estimated End Date: 30-Nov-2024

2. External Research Funding (if applicable):

2.a. Do you have any external funding for your research?

☐ YES ☑ NO

If YES, please answer questions **2b** and **2c**.

2.b. List any external (third party) sources of funding you plan to utilise for your project. You need to include full details on the source of funds (e.g. state, private or individual sponsor), any prior / existing or future relationships between the funding body / sponsor and any of the principal investigator(s) or co-investigator(s) or student researcher(s), status and timeline of the application and any conditions attached.

N/A

2.c. If there are any perceived ethical issues or potential conflicts of interest arising from applying for and/or receiving external funding for the proposed research then these need to be fully disclosed below and also further elaborated on, in the relevant sections on ethical considerations later on in this form.

N/A

3. **The research project**

3.a. Project Summary:

In this section fully describe the purpose and underlying rationale for the proposed research project. Ensure that you pose the research questions to be examined, state the hypotheses, and discuss the expected results of your research and their potential.

It is important in your description to use plain language so it can be understood by all members of the UREC, especially those who are not necessarily experts in the particular discipline. To that effect ensure that you fully explain/define any technical terms or discipline-specific terminology (use the space provided in the box).

Purpose & Rationale:

Pakistan is a highly competitive market. The history shows that the higher management of the well-reputed firms in Pakistan were involved in financial manipulations. These financial manipulations went undetected, due to lack of proper implementation of financial controls. Therefore, to testify the probability of financial manipulations in Pakistani listed companies, this research project will use the M-Score Model and its eight independent variables (accounting ratios). M-score will be used as this model has the globally acknowledged ability to detect whether a company has the probability to commit financial manipulation or not.

Moreover, M-score and its eight key variables is new in Pakistan has not yet been applied to the listed companies of Pakistan.

Research Questions (in line with research objectives):

i. What is the extent up to which M-score can evaluate the financial manipulations in the listed companies of Pakistan?

ii. How well eight independent variables can identify the likelihood of financial manipulations in companies which are listed on Pakistan stock exchange?

iii. Will M-score and its eight accounting ratios differentiate between financial manipulator and non-manipulator companies, listed on Pakistan Stock exchange?

iv. What will be the likelihood, high or low, of financial manipulations of listed companies of Pakistan?

Hypothesis:

H1: M-score has the strong probability of detecting financial manipulations in financial statements of listed companies of Pakistan.

H2: Eight fraud indicators of M-score have excellent strength of evaluating financial manipulations in the listed companies of Pakistan.

H3: M-score and its eight accounting ratios will successfully differentiate between financially manipulated and non-manipulated companies, listed on Pakistan stock exchange.

H4: M-score will detect companies with high likelihood of committing financial fraud and separate them from the companies which have low possibility.

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3.b. Significance of the Proposed Research Study and Potential Benefits:

Outline the potential significance and/or benefits of the research (use the space provided in the box).

The past shows that financial manipulations, conducted by the listed companies, were never immaterial because the losses recorded were in millions or even billions. Enron case is one of the most obvious examples. These losses directly affect, not only, the external stakeholders (investors) of the listed companies, like banks, leasing companies and other non-banking financial institutions (NBFCs), as these institutions are directly connected with these large companies, but also the internal stakeholders (investors) like employees, suppliers and customers.

Such financial manipulations also impact the goodwill of the companies and these companies then face problems in raising financial capital from the banks and other financial institutions.

The results of this research project, with the help of M-score, will be highly valuable for the potential investors who want to invest in the listed companies of Pakistan. These results may help them to manage their portfolio of investment efficiently.

4. Project execution:

4.a. The following study is an:

- ☐ experimental study (primary research)
- ☐ desktop study (secondary research)
- ☑ desktop study using existing databases involving information of human/animal subjects
- ☐ Other

If you have chosen 'Other' please Explain:

N/A

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4.b. Methods. The following study will involve:

- [x] a Quantitative methodology
- [ ] a Qualitative methodology
- [ ] a mixed methods approach

If you have chosen mixed methods please state below whether you are going to proceed with triangulation or not.

[ ] YES [x] NO

4.c. Please state below which tools you are going to use:

A Select the tools to be used in your study	B Select how the tools selected in column A will be administered (select one or more)	C Select what types of questions will be included in the tools previously selected in column A (select one or more)
Interviews [ ]	[ ] Face-to-face [ ] Online with camera (synchronous live discussion with camera) [ ] Audio only (synchronous live discussion without camera, i.e., via phone)	[ ] Open-ended questions [ ] Close-ended questions [ ] Includes section related to demographics
Focus Groups [ ]	[ ] Face-to-face [ ] Online with camera (synchronous live discussion with camera) [ ] Audio only (synchronous live discussion without camera, i.e., via phone)	[ ] Open-ended questions [ ] Close-ended questions [ ] Includes section related to demographics
Questionnaire [ ]	[ ] Face-to-face self – administered questionnaire [ ] Online, i.e., via phone or any other platform. The researcher reads the questions to the participants [ ] Online asynchronous self-administered questionnaire (i.e., via email)	[ ] Open-ended questions [ ] Close-ended questions [ ] Includes section related to demographics

A	B	C
Select the tools to be used in your study	Select how the tools selected in column A will be administered (select one or more)	Select what types of questions will be included in the tools previously selected in column A (select one or more)
Experiments ☐	☐ Face-to-face ☐ Online with camera (synchronous live discussion with camera) ☐ Audio only (synchronous live discussion without camera, i.e., via phone) ☐ Asynchronously via any online platform	☐ Open-ended questions ☐ Close-ended questions ☐ Includes section related to demographics
Tests ☐	☐ Face-to-face ☐ Online with camera (synchronous live discussion with camera) ☐ Audio only (synchronous live discussion without camera, i.e., via phone) ☐ Asynchronously via any online platform	Provide a brief description of the test in the box 'Other' below.
Other		

5. **Participants:**

5 a. **Does the Project involve the recruitment and participation of additional persons other than the researcher(s) themselves?**

☐ YES **If YES, please complete all following sections.**

☑ NO **If NO, please directly proceed to Question 7.**

5 b. Relevant Details of the Participants of the Proposed Research

State the number of participants you plan to recruit, and explain in the box below how the total number was calculated.

Number of participants

N/A

Describe important characteristics such as: demographics (e.g. age, gender, location, affiliation, level of fitness, intellectual ability etc). It is also important that you specify any inclusion and exclusion criteria that will be applied (e.g. eligibility criteria for participants).

Age range From To

Gender

☐ Female

☐ Male

Eligibility Criteria:

- Inclusion criteria N/A
- Exclusion criteria N/A

Disabilities/Disorders: You should only include the participants who can provide informed consent for themselves. Individuals who have a mental disability and are not in a position to provide their own consent should not participate in the study. Please provide information for any other disabilities/disorders the participants may have:

N/A

Other relevant information (use the space provided in the box):

N/A

5 c. Participation & Research setting:

Clearly describe which group of participants (described in 5b) is completing/participating in the material(s)/tool(s) described in 4c above (use the space provided in the box)

N/A

5 d. Recruitment Process for Human Research Participants:

Clearly describe how the potential participants will be identified, approached and recruited (use the space provided in the box).

N/A

5 e. Research Participants Informed Consent.

Select below which categories of participants will participate in the study. Complete the relevant Informed Consent form and submit it along with the REAF form.

Yes	No	Categories of participants	Form to be completed
☐	☐	Typically Developing population(s) above the maturity age *	Informed Consent Form
☐	☐	Typically Developing population(s) under the maturity age *	Guardian Informed Consent Form

* Maturity age is defined by national regulations in laws of the country in which the research is being conducted.

5 f. Relationship between the principal investigator and participants.

Is there any relationship between the principal investigator (student), co-investigators(s), (supervisor) and participant(s)? For example, if you are conducting research in a school environment on students in your classroom (e.g. instructor-student).

☐ YES ☐ NO

If YES, specify (use the space provided in the box).

6. <u>Potential Risks of the Proposed Research Study.</u>

6 a. i. Are there any potential risks, psychological harm and/or ethical issues associated with the proposed research study, other than risks pertaining to everyday life events?

☐ YES ☐ NO

If YES, specify below and answer the question 6 a.ii.

N/A

6 a.ii Provide information on what measures will be taken in order to exclude or minimise risks described in 6.a.i.

N/A

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6 b. Choose the appropriate option

		Yes	No
i.	Will you obtain a written informed consent form from all participants?	☐	☐
ii.	Does the research involve, as participants, people whose ability to give free and informed consent is in question?	☐	☐
iii.	Does this research involve participants who are children under maturity age? If you answered YES to question iii, complete all following questions. If you answered NO to question iii, do not answer Questions iv, v, vi and proceed to Questions vii, viii, ix and x.	☐	☐
iv.	Will the research tools be implemented in a professional educational setting in the presence of other adults (i.e. classroom in the presence of a teacher)?	☐	☐
v.	Will informed consent be obtained from the legal guardians (i.e. parents) of children?	☐	☐
vi.	Will verbal assent be obtained from children?	☐	☐
vii.	Will all data be treated as confidential? If NO, explain why confidentiality of the collected data is not appropriate for this proposed research project, providing details of how all participants will be informed of the fact that any data which they will provide will not be confidential.	☐	☐
viii.	Will all participants/data collected be anonymous? If NO, explain why and describe the procedures to be used to ensure the anonymity of participants and/or confidentiality of the collected data both during the conduct of the research and in the subsequent release of its findings.	☐	☐

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		Yes	No
ix.	Have you ensured that personal data and research data collected from participants will be securely stored for five years?	☐	☐
x.	Does this research involve the deception of participants? If YES, describe the nature and extent of the deception involved. Explain how and when the deception will be revealed, and who will administer this debrief to the participants:	☐	☐

6 c. i. Are there any other ethical issues associated with the proposed research study that are not already adequately covered in the preceding sections?

☐ Yes ☐ No

If YES, specify (maximum 150 words).

6.c.ii Provide information on what measures will be taken in order to exclude or minimise ethical issues described in 6.c.i.

6 d. Indicate the Risk Rating.

☐ High ☐ Low

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7. Further Approvals

All researchers are advised to check the regulations pertaining to research and General Data Protection Regulation (GDPR) of the country in which the research will take place as each country may have different restrictions on conducting research. **Are there any other approvals required (i.e., from a ministry or public agency in the country, in addition to ethics clearance from UREC) in order to carry out the proposed research study?**

☐ YES ☑ NO If YES, specify.

8. Application Checklist

Mark √ if the study involves any of the following:

☐ Children and young people under 18 years of age, vulnerable populations such as children with special educational needs (SEN), racial or ethnic minorities, socioeconomically disadvantaged persons, pregnant women, elderly, malnourished people, and ill people.

☐ Research that foresees risks and disadvantages that would affect any participant of the study such as anxiety, stress, pain or physical discomfort, harm risk (which is more than is expected from everyday life) or any other act that participants might believe is detrimental to their wellbeing and/or has the potential to / will infringe on their human rights / fundamental rights.

☐ Risk to the well-being and personal safety of the researcher.

☐ Administration of any substance (food / drink / chemicals / pharmaceuticals / supplements / chemical agent or vaccines or other substances (including vitamins or food substances) to human participants.

☐ Results that may have an adverse impact on the natural or built environment.

9. Further documents

Check that the following documents are attached to your application:

		ATTACHED	NOT APPLICABLE
1	Recruitment advertisement (if any)	☐	☑
2	Informed Consent Form / Guardian Informed Consent Form	☐	☑
3	Research Tool(s)	☐	☑
4	Gatekeeper Letter	☐	☑
5	Any other approvals required in order to carry out the proposed research study, e.g., institutional permission (e.g. school principal or company director) or approval from a local ethics or professional regulatory body.	☐	☑

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10. Final Declaration by Applicants:

(a) I declare that this application is submitted on the basis that the information it contains is confidential and will only be used by Unicaf University for the explicit purpose of ethical review and monitoring of the conduct of the research proposed project as described in the preceding pages.

(b) I understand that this information will not be used for any other purpose without my prior consent, excluding use intended to satisfy reporting requirements to relevant regulatory bodies.

(c) The information in this form, together with any accompanying information, is complete and correct to the best of my knowledge and belief and I take full responsibility for it.

(d) I undertake to abide by the highest possible international ethical standards governing the Code of Practice for Research Involving Human Participants, as published by the UN WHO Research Ethics Review Committee (ERC) on http://www.who.int/ethics/research/en/ and to which Unicaf University aspires to adhere.

(e) In addition to respect any and all relevant professional bodies' codes of conduct and/or ethical guidelines, where applicable, while in pursuit of this research project.

☑ **I agree with all points listed under Question 10**

Student's Name: Muhammad Zahid Mahmood

Supervisor's Name: Dr Benson B. Okech

Date of Application: 03-Mar-2024

Important Note:
Save your completed form (we suggest you also print a copy for your records) and then submit it to your UU Dissertation/project supervisor (tutor). **In the case of student projects, the responsibility lies with the Faculty Dissertation/Project Supervisor.** If this is a student application, then it should be submitted via the relevant link in the VLE. Please submit only electronically filled in copies; **do not** hand fill and submit scanned paper copies of this application.

Appendix B: Financial Statements of Listed Companies

1. Ahmad Hassan Textile Mills Limited

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
ASSETS			
Non-current assets			
Property, plant and equipment	6	1,705,004,326	1,636,465,404
Long term deposits	7	13,739,322	11,847,375
		1,718,743,648	1,648,312,779
Current assets			
Stores and spares	8	64,432,671	50,775,618
Stock in trade	9	1,257,467,390	1,115,879,467
Trade debts	10	367,450,616	226,426,757
Loans and advances	11	6,250,383	13,208,448
Advance tax	12	74,339,412	41,993,809
Due from government	13	374,633,658	207,581,898
Short term investment	14	28,232,957	18,382,292
Other receivables	15	3,297,797	3,343,355
Cash and bank balances	16	8,570,843	17,174,375
		2,184,675,727	1,694,766,020
Total assets		3,903,419,375	3,343,078,799
EQUITY AND LIABILITIES			
Share capital and reserves			
Share capital	17	84,715,354	84,715,354
Share premium	18	32,746,284	32,746,284
Surplus on revaluation of property, plant and equipment - net of deferred tax	19	508,050,844	527,309,623
Unappropriated profit		1,208,585,132	1,155,019,175
		1,834,097,614	1,799,790,436
Subordinated loans	20	62,500,000	62,500,000
Non-current liabilities			
Long term financing	21	194,602,173	150,652,445
Lease liabilities	23	21,032,552	27,774,501
Deferred taxation	24	83,802,503	90,303,690
Gas infrastructure development cess	25	-	12,953,609
		299,437,228	281,684,244
Current liabilities			
Trade and other payables	26	747,279,775	700,379,910
Short term borrowings	27	699,131,943	343,631,499
Current portion of non-current liabilities	28	161,857,896	86,167,004
Accrued mark up	29	32,172,464	16,828,026
Unclaimed dividend		4,110,591	3,722,109
Provision for tax	30	62,831,864	48,375,571
		1,707,384,533	1,199,104,119
Contingencies and commitments	31		
Total equity and liabilities		3,903,419,375	3,343,078,799

The annexed notes from 1 to 55 form an integral part of these financial statements.

Sd/-	Sd/-	Sd/-
Chief Executive	Director	Chief Financial Officer

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
Revenue from contracts with customers	32	**5,078,314,652**	4,327,094,699
Cost of goods sold	33	**(4,771,685,138)**	(3,957,514,542)
Gross profit		**306,629,514**	369,580,157
Profit on trading	34	**6,036,566**	555,478
Other income	35	**37,331,419**	4,133,021
		349,997,499	374,268,656
Selling and distribution expenses	36	**33,025,307**	28,472,257
Administrative expenses	37	**75,495,970**	78,290,215
Other operating expenses	38	**7,748,212**	20,619,232
		(116,269,488)	(127,381,704)
Finance cost	39	**(132,396,691)**	(86,693,226)
Profit before final taxes,revenue taxes and income tax		**101,331,320**	160,193,726
Final taxes	40	**(17,946,756)**	(16,802,592)
Profit before revenue taxes and income tax		**83,384,564**	143,391,134
Revenue Taxes	41	**(27,714,025)**	(15,030,703)
Profit before income tax		**55,670,539**	128,360,431
Income tax - net	42	**(15,009,710)**	(35,442,337)
Profit after taxation		**40,660,829**	92,918,094
Earnings per share - basic and diluted	43	**4.80**	10.97

The annexed notes from 1 to 55 form an integral part of these financial statements.

2.Amtex Textile Mills Limited

AMTEX LIMITED
STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	NOTE	2024 RUPEES	2023 RUPEES
ASSETS			
NON CURRENT ASSETS			
Property, plant and equipment	5.	974,336,976	952,481,891
Investment property- fair value	6.	1,270,465,767	1,258,691,557
Long term deposits	7.	19,462,379	15,103,828
		2,264,265,122	2,226,277,276
CURRENT ASSETS			
Stores, spares and loose tools	8.	216,676,502	173,226,112
Stock in trade	9.	498,912,010	261,847,909
Trade debts	10.	217,932,489	247,322,571
Loans and advances	11.	41,092,393	26,003,572
Deposits and prepayments	12.	5,948,126	4,799,126
Other receivables	13.	23,934,191	19,623,150
Tax refunds due from the Government	14.	297,592,878	238,832,422
Cash and bank balances	15.	118,252,023	112,088,168
		1,420,340,612	1,083,743,030
		3,684,605,734	3,310,020,306
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorised capital 260,000,000 (2023: 260,000,000) ordinary shares of Rs.10/- each		2,600,000,000	2,600,000,000
Issued, subscribed and paid up capital	16.	2,594,301,340	2,594,301,340
Capital reserves	17.1&2	281,039,330	281,039,330
Surplus on revaluation of property, plant and equipment	17.3	923,546,882	933,235,260
General reserves	17.4	250,000,000	250,000,000
Accumulated loss		(12,593,079,594)	(12,692,102,450)
		(8,544,192,042)	(8,633,526,520)
NON CURRENT LIABILITIES			
Redeemable capital	18.	-	-
Long term financing	19.	1,097,290,479	-
Lease liabilities	20.	-	-
Deferred liabilities	21.	1,569,877,120	1,464,089,365
		2,667,167,599	1,464,089,365
CURRENT LIABILITIES			
Trade and other payables	22.	721,438,870	236,585,802
Contract liabilities	23.	162,463,213	39,545,748
Interest / markup payable	24.	2,702,818,114	2,730,625,453
Short term borrowings	25.	5,166,503,195	5,407,100,994
Current portion of non current liabilities	26.	808,406,785	2,065,599,464
		9,561,630,177	10,479,457,461
Contingencies and commitments	27.	-	-
		3,684,605,734	3,310,020,306

The annexed notes from 1 to 42 form an integral part of these financial statements.

AMTEX LIMITED
STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
Revenue from contract with customers-Net	28.	2,793,103,295	1,691,533,515
Cost of revenue	29.	2,358,715,725	1,566,604,667
Gross Profit		434,387,570	124,928,848
Other Income	30.	50,348,122	318,394,562
		484,735,692	443,323,410
Selling and distribution expenses	31.	102,802,264	57,245,157
Administrative expenses	32.	93,126,774	138,855,639
Finance cost	33.	157,431,475	76,999,678
Workers' profit participation fund		6,568,759	8,511,147
Workers' welfare fund		2,540,301	3,234,236
		362,469,573	284,845,857
Profit before income tax and final taxes		122,266,119	158,477,553
Taxation - Other taxes	34.	(27,251,995)	(14,865,562)
Profit before income tax		95,014,124	143,611,991
Taxation - Income tax		(3,403,576)	(5,701,158)
Profit after income tax		91,610,548	137,910,833
Earning per share - Basic and diluted	35.	0.35	0.53

The annexed notes from 1 to 42 form an integral part of these financial statements.

CHIEF EXECUTIVE DIRECTOR Chief Financial Officer

3.AN Textile Mills Limited

STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital			
10 000 000 (2023: 10 000 000) ordinary shares of Rupees 10 each		100,000	100,000
Issued, subscribed and paid up share capital	3	96,600	96,600
Directors' loans	4	360,000	360,000
Reserves			
Capital reserves			
Premium on issue of shares	5	17,250	17,250
Equity portion of shareholders' loans		44,778	44,778
Surplus on revaluation of property, plant and equipment - net of deferred income tax	6	461,610	475,667
Total reserves		523,638	537,695
Accumulated loss		(161,588)	(69,985)
TOTAL EQUITY		818,650	924,310
LIABILITIES			
NON-CURRENT LIABILITIES			
Deferred income tax liability	7	110,474	112,714
Lease liability	8	-	1,218
Staff retirement gratuity	9	39,312	40,714
		149,786	154,646
CURRENT LIABILITIES			
Trade and other payables	10	446,123	252,073
Unclaimed dividend		1,023	1,023
Accrued mark-up on short term borrowings		10,151	16,365
Current portion of lease liability	8	-	365
Short term borrowings	11	494,942	585,922
		952,239	855,748
TOTAL LIABILITIES		1,102,025	1,010,394
CONTINGENCIES AND COMMITMENTS	12		
TOTAL EQUITY AND LIABILITIES		1,920,675	1,934,704

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	13	1,236,906	1,266,356
Right-of-use asset	14	-	2,380
Long term deposits and prepayments	15	3,824	3,801
Long term loans	16	200	-
		1,240,930	1,272,537
CURRENT ASSETS			
Stores, spare parts and loose tools	17	67,449	97,562
Stock in trade	18	197,565	313,479
Trade debts	19	267,206	94,771
Loans and advances	20	2,121	1,931
Advance income tax and levy - net	21	45,607	59,395
Short term deposits and prepayments	22	12,308	8,039
Other receivables	23	60,621	37,331
Cash and bank balances	24	26,868	29,659
		679,745	662,167
TOTAL ASSETS		1,920,675	1,934,704

The annexed notes form an integral part of these financial statements.

AIZAD AMER
Chief Executive Officer

KHAWAJA AMER KHURSHID
Director

Muhammad Saqib Ehsan
Chief Financial Officer

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 30 JUNE 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
REVENUE FROM CONTRACTS WITH CUSTOMER	25	3,460,089	1,676,679
COST OF SALES	26	(3,391,953)	(1,760,996)
GROSS PROFIT / (LOSS)		68,136	(84,317)
DISTRIBUTION COST	27	(5,507)	(1,289)
ADMINISTRATIVE EXPENSES	28	(67,397)	(53,889)
OTHER EXPENSES	29	(21,415)	(228)
OTHER INCOME	30	5,070	3,913
FINANCE COST	31	(50,178)	(95,954)
LOSS BEFORE TAXATION AND LEVY		(71,291)	(231,764)
LEVY	21	(43,251)	(20,958)
LOSS BEFORE TAXATION		(114,542)	(252,722)
TAXATION	32	4,166	56,987
LOSS AFTER TAXATION		(110,376)	(195,735)
LOSS PER SHARE - BASIC AND DILUTED (RUPEES)	33	(11.43)	(20.26)

The annexed notes form an integral part of these financial statements.

4.Arctic Textile Mills Limited

arctic

STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital			
17 000 000 (2023: 17 000 000) ordinary shares of Rupees 10 each		170,000	170,000
Issued, subscribed and paid up share capital			
13 174 800 (2023: 13 174 800) ordinary shares			
of Rupees 10 each fully paid in cash	3	131,748	131,748
Reserves			
Capital reserves			
Equity portion of former shareholders' loan		13,335	13,335
Surplus on revaluation of property, plant and equipment - net of deferred income tax	4	155,274	173,500
		168,609	186,835
Accumulated loss		(33,016)	(165,512)
Total equity		267,341	153,071
LIABILITIES			
NON-CURRENT LIABILITIES			
Deferred income tax liability	5	58,434	56,397
Staff retirement gratuity	6	73,193	51,793
Long term security deposit	7	30,000	30,000
		161,627	138,190
CURRENT LIABILITIES			
Trade and other payables	8	293,640	259,621
Provision for taxation and levy payable - net	9	3,906	13,820
		297,546	273,441
TOTAL LIABILITIES		459,173	411,631
CONTINGENCIES AND COMMITMENTS	10		
TOTAL EQUITY AND LIABILITIES		726,514	564,702

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	11	498,560	394,782
Long term deposits and prepayment	12	11,190	12,399
		509,750	407,181
CURRENT ASSETS			
Stores, spare parts and loose tools	13	79,721	57,776
Trade debts	14	66,486	88,753
Loans and advances	15	3,052	4,269
Short term deposits, prepayment and other receivables	16	43,665	154
Cash and bank balances	17	23,840	6,569
		216,764	157,521
TOTAL ASSETS		726,514	564,702

The annexed notes form an integral part of these financial statements.

CHIEF EXECUTIVE OFFICER

DIRECTOR

CHIEF FINANCIAL OFFICER

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 30 JUNE 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
REVENUE FROM CONTRACTS WITH CUSTOMERS	18	1,809,851	1,577,693
COST OF SALES	19	(1,580,962)	(1,395,597)
GROSS PROFIT		228,889	182,096
DISTRIBUTION COST	20	(4,160)	(6,047)
ADMINISTRATIVE EXPENSES	21	(39,793)	(35,742)
OTHER EXPENSES	22	(13,915)	(18,931)
OTHER INCOME	23	13,169	24,141
FINANCE COST	24	(1,063)	(1,192)
PROFIT BEFORE TAXATION AND LEVY		183,127	144,325
LEVY	9	(392)	(621)
PROFIT BEFORE TAXATION		182,735	143,704
TAXATION	25	(68,022)	(41,329)
PROFIT AFTER TAXATION		114,713	102,375
EARNINGS PER SHARE - BASIC AND DILUTED (RUPEES)	26	8.71	7.77

The annexed notes form an integral part of these financial statements.

CHIEF EXECUTIVE OFFICER DIRECTOR CHIEF FINANCIAL OFFICER

5.Ashfaq Textile Mills Limited

ASHFAQ TEXTILE MILLS LIMITED
STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVE			
Authorised capital			
100,000,000 ordinary shares of Rs.10/- each		1,000,000,000	1,000,000,000
Issued, subscribed and paid up capital	4	465,650,350	465,650,350
Capital reserve			
Revaluation surplus on property, plant and equipment	5	430,407,738	331,558,667
Revenue reserve			
Unappropriated profit		91,606,117	131,305,076
		987,664,205	928,514,093
NON CURRENT LIABILITIES			
Deferred liability			
Staff retirement gratuity	6	109,084,575	95,560,353
Deferred taxation	7	101,226,504	76,988,888
		210,311,079	172,549,241
CURRENT LIABILITIES			
Trade and other payables	8	60,297,736	46,169,608
Provision for taxation - income tax	26	5,955,767	5,927,238
		66,253,503	52,096,846
CONTINGENCIES AND COMMITMENTS	9	-	-
		1,264,228,787	1,153,160,180

	Note	2024 Rupees	2023 Rupees
ASSETS			
NON CURRENT ASSETS			
Property, plant and equipment	10	1,016,484,388	899,680,090
Long term security deposits	11	4,509,782	4,509,782
		1,020,994,170	904,189,872
CURRENT ASSETS			
Stores, spares and loose tools	12	38,608,254	32,062,988
Contract costs	20.1.1	5,318,913	4,658,401
Trade debts	13	58,116,586	49,554,138
Loans and advances	14	37,146,437	30,444,824
Prepayments		742,039	652,742
Other receivables	15	47,383	43,360
Tax refunds due from Government	16	45,255,971	35,095,724
Short term investments	17	-	60,719,566
Cash and bank balances	18	17,988,034	35,738,565
		243,234,617	248,970,308
		1,264,228,787	1,153,160,180

The annexed notes 1 to 34 form an integral part of these financial statements.

ASHFAQ TEXTILE MILLS LIMITED
STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees (Restated)
Sales	19	456,650,695	335,983,552
Cost of sales	20	493,044,410	421,114,578
Gross (loss)		(36,393,715)	(85,131,026)
Other income	21	5,810,674	17,485,858
		(30,583,041)	(67,645,168)
Selling cost	22	2,726,225	2,194,490
Administrative expenses	23	36,450,680	43,856,598
Other operating expenses	24	-	10,941
Finance cost	25	3,673	137,823
		39,180,578	46,199,852
(Loss) for the year before income tax and minimum tax differential / Final tax		(69,763,619)	(113,845,020)
Levies	26	5,955,767	5,927,238
(Loss) for the year before taxation		(75,719,386)	(119,772,258)
Provision for taxation	27	(17,867,952)	(39,894,185)
(Loss) for the year		(57,851,434)	(79,878,073)
Earnings per share - Basic and diluted	28	(1.24)	(1.72)

The annexed notes 1 to 34 form an integral part of these financial statements.

6.Asim Textile Mills Limited

ASIM TEXTILE MILLS LIMITED

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
ASSETS			
NON CURRENT ASSETS			
Property, plant and equipment	6	615,846,832	628,797,986
Long term deposits	7	33,956,795	22,560,795
		649,803,627	651,358,781
CURRENT ASSETS			
Stores and spares	8	26,913,459	28,385,286
Stock in trade	9	133,618,943	198,328,421
Trade debts	10	22,877,301	1,818,063
Advances, deposit and prepayment	11	28,266,266	4,568,447
Short term investments	12	18,531,627	6,198,441
Accrued income	13	3,131,479	1,729,525
Tax refunds due from the Government	14	55,701,139	63,512,930
Cash and bank balances	15	148,778,968	202,517,759
		437,819,182	507,058,872
TOTAL ASSETS		1,087,622,809	1,158,417,653
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital 17,500,000 ordinary shares of Rs.10 each		175,000,000	175,000,000
Issued, subscribed and paid up share capital	16	151,770,000	151,770,000
Accumulated loss		(27,675,302)	(10,246,922)
Deficit on remeasurement of investments		-	(1,438,560)
Surplus on revaluation of property, plant and equipment	17	205,603,211	214,735,149
		329,697,909	354,819,667
NON CURRENT LIABILITIES			
Deferred taxation	18	45,720,945	81,262,412
CURRENT LIABILITIES			
Trade and other payables	19	81,934,730	71,069,204
Contract Liabilities	20	18,517,096	39,514,241
Accrued markup	21	194,161,422	194,161,422
Short term borrowings	22	417,590,707	417,590,707
		712,203,955	722,335,574
CONTINGENCIES AND COMMITMENTS	23	-	-
TOTAL EQUITY AND LIABILITIES		1,087,622,809	1,158,417,653

The annexed notes 1 to 43 form an integral part of these financial statements.

ASIM TEXTILE MILLS LIMITED

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
Sales - net	24	1,812,689,595	354,678,335
Cost of sales	25	(1,835,965,811)	(385,944,815)
Gross loss		(23,276,216)	(31,266,480)
Operating expenses			
Distribution cost	26	(329,488)	(450,664)
Administrative expenses	27	(41,973,469)	(40,468,261)
Other operating expenses	28	(1,549,130)	(1,650,979)
		(43,852,087)	(42,569,904)
Loss from operations		(67,128,303)	(73,836,384)
Finance cost	29	(101,868)	(139,432)
Other income	30	27,930,683	32,752,849
Loss before levies and income tax		(39,299,488)	(41,222,967)
Levies	31	(23,389,878)	(4,519,369)
Loss before income tax		(62,689,366)	(45,742,336)
Income tax	32	36,129,048	16,233,429
Loss for the year		(26,560,318)	(29,508,907)
Loss per share - basic and diluted	33	(1.75)	(1.94)

The annexed notes 1 to 43 form an integral part of these financial statements.

CHIEF EXECUTIVE　　　　CHIEF FINANCIAL OFFICER　　　　DIRECTOR

7.Allawasaya Tex. & Finishing Mills Ltd

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
ASSETS			
Non-current assets			
Property, plant and equipment	6	**2,243,547,766**	2,298,225,326
Long term deposits		**5,337,497**	5,337,497
		2,248,885,263	2,303,562,823
Current assets			
Stores and spares	7	**58,578,263**	56,672,966
Stock in trade	8	**545,123,823**	934,774,914
Trade debts	9	**282,144,194**	406,488,578
Loans and advances	10	**24,012,983**	40,784,179
Advance income tax		**75,638,815**	79,212,240
Trade deposits and prepayments	11	**3,742,015**	2,938,965
Tax refunds due from government	12	**323,555,029**	127,061,759
Other financial assets	13	**15,000,000**	14,918,610
Cash and bank balances	14	**3,786,864**	2,181,905
		1,331,581,986	1,665,034,116
Total assets		**3,580,467,249**	3,968,596,939
EQUITY AND LIABILITIES			
Share capital and reserves			
Share capital	15	**8,000,000**	8,000,000
Surplus on revaluation of property, plant and equipment	16	**1,126,303,251**	1,157,451,172
Tax holiday reserve		**2,668,746**	2,668,746
General reserve		**80,000,000**	80,000,000
Unappropriated profits		**106,251,722**	320,120,489
		1,323,223,719	1,568,240,407
Loan from directors	17	**157,500,000**	105,000,000
		1,480,723,719	1,673,240,407
Non-current liabilities			
Long term loan	18	**129,196,856**	214,740,876
Lease liabilities	19	**5,886,705**	8,584,574
Deferred taxation	20	**170,967,248**	129,071,394
Deferred grant	21	**34,011,367**	-
		340,062,176	352,396,844
Current liabilities			
Trade and other payables	22	**770,156,906**	665,119,885
Accrued markup	23	**48,779,664**	69,799,699
Short term borrowings	24	**731,873,325**	1,108,873,180
Current portion of long term loan	18	**116,696,198**	45,758,724
Current portion of lease liabilities	19	**2,693,918**	2,043,917
Current portion of deferred grant	21	**8,836,456**	-
Unclaimed dividend		**1,029,630**	1,029,630
Provision for taxation	25	**79,615,257**	50,334,653
		1,759,681,354	**1,942,959,688**
Contingencies and commitments	26		
Total equity and liablities		**3,580,467,249**	3,968,596,939

The annexed notes from 1 to 46 form an integral part of these financial statements. ya

Sd/-	Sd/-	Sd/-
Mian Muhammad Alamgir Jamil Khan	Mian Idrees Ahmed Sheikh	Sohail Nadeem
Chief Executive Officer	Director	Chief Financial Officer

Allawasaya Textile and Finishing Mills Limited

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
Revenue from contracts - net	27	**6,118,253,956**	3,775,805,614
Cost of goods sold	28	**(5,838,525,289)**	(3,631,234,119)
Gross profit		**279,728,667**	144,571,495
Other income	29	**12,969,720**	19,133,311
Distribution and marketing expenses	30	**(40,080,030)**	(28,073,399)
Administrative expenses	31	**(94,395,163)**	(87,368,269)
Other expenses	32	**(12,616,555)**	(81,390)
Finance cost	33	**(272,249,300)**	(248,851,134)
		(406,371,328)	(345,240,881)
Loss before revenue taxes and income tax		**(126,642,661)**	(200,669,386)
Revenue taxes	34	**(76,478,174)**	(47,197,570)
Loss before income tax		**(203,120,835)**	(247,866,956)
Income tax- net	35	**(41,895,853)**	83,100,323
Loss for the year		**(245,016,688)**	(164,766,633)
(Loss) / earnings per share - basic and diluted	36	**(306.27)**	(205.96)

The annexed notes from 1 to 46 form an integral part of these financial statements. ya

8.Bhanero Textile Mills Limited

Bhanero Textile Mills Limited

Statement of Financial Position
As at June 30, 2024

	Note	June 30, 2024	June 30, 2023 Restated	June 30, 2022 Restated
EQUITY AND LIABILITIES		Rupees	Rupees	Rupees
SHARE CAPITAL AND RESERVES				
Authorized capital				
6,000,000 (2023: 6,000,000) ordinary shares of Rs.10 each		60,000,000	60,000,000	60,000,000
Issued, subscribed and paid up capital	6	30,409,640	30,000,000	30,000,000
Reserves	7	9,108,598,461	9,109,008,101	8,000,000,000
Loans from directors and sponsors	8	180,618,200	149,618,200	-
Unappropriated profit		1,543,487,381	1,814,285,256	1,470,474,119
		10,863,113,682	11,102,911,557	9,500,474,119
NON CURRENT LIABILITIES				
Long term financing - secured	9	3,300,067,962	3,602,309,054	2,816,943,750
Staff retirement benefits	10	342,151,723	263,229,037	208,934,489
Deferred taxation	11	-	-	36,975,097
Deferred government grant	12	731,949,939	936,561,136	673,119,963
		4,374,169,624	4,802,099,227	3,735,973,299
CURRENT LIABILITIES				
Trade and other payables	13	2,462,664,394	2,044,635,974	1,865,174,293
Unclaimed dividend	14	1,831,650	1,722,649	1,519,833
Accrued markup / interest	15	331,423,890	286,252,639	31,367,006
Short term borrowings - secured	16	7,770,606,030	7,321,871,416	-
Current portion of long term financing	17	861,131,886	664,200,264	336,847,787
Provision for taxation	18	-	-	73,746,474
		11,427,657,850	10,318,682,942	2,308,655,393
CONTINGENCIES AND COMMITMENTS	19	-	-	-
TOTAL EQUITY AND LIABILITIES		26,664,941,156	26,223,693,726	15,545,102,811

	Note	June 30, 2024	June 30, 2023 Restated	June 30, 2022 Restated
ASSETS		Rupees	Rupees	Rupees
NON CURRENT ASSETS				
Property, plant and equipment	20	9,051,463,926	9,170,687,068	6,777,100,444
Long term deposits	21	65,237,929	43,651,869	41,596,116
		9,116,701,855	9,214,338,937	6,818,696,560
CURRENT ASSETS				
Stores, spares and loose tools	22	308,372,617	248,715,047	150,348,628
Stock in trade	23	11,747,332,888	12,298,227,957	5,101,913,563
Trade debts	24	3,594,593,076	2,519,846,485	1,883,524,023
Loans and advances	25	76,922,215	172,094,898	65,701,413
Trade deposits and prepayments	26	306,470,627	289,990,214	246,263,643
Other receivables	27	32,820,322	88,419,626	28,945,773
Advance income tax	28	287,118,358	164,296,451	-
Sales tax refundable	29	458,236,921	878,834,820	608,870,900
Cash and bank balances	30	736,372,277	348,929,291	640,838,308
		17,548,239,301	17,009,354,789	8,726,406,251
TOTAL ASSETS		26,664,941,156	26,223,693,726	15,545,102,811

The annexed notes from 1 to 53 form an integral part of these financial statements.

Bhanero Textile Mills Limited

Statement of Profit or Loss
For The Year Ended June 30, 2024

	Note	June 30, 2024 Rupees	June 30, 2023 Restated Rupees
Sales	31	33,057,244,654	18,545,108,053
Cost of sales	32	(30,023,432,811)	(15,554,879,715)
Gross profit		3,033,811,843	2,990,228,338
Other income	33	128,313,555	317,226,772
		3,162,125,398	3,307,455,110
Distribution cost	34	(757,124,365)	(391,950,785)
Administrative expenses	35	(335,713,971)	(256,536,892)
Other operating expenses	36	(33,376,153)	(132,217,604)
Finance cost	37	(1,866,239,907)	(745,266,273)
		(2,992,454,396)	(1,525,971,554)
Profit before Levies and taxation		169,671,002	1,781,483,556
Levies	38	(357,944,172)	(236,978,739)
(Loss) / Profit before taxation		(188,273,170)	1,544,504,817
Taxation	38.3	56,512,019	36,975,097
(Loss) / Profit after taxation for the year		(131,761,151)	1,581,479,914
(Loss) / Earnings per share - basic	39.1	(43.36)	527.16
(Loss) / Earnings per share - diluted	39.2	(43.36)	520.06

The annexed notes from 1 to 53 form an integral part of these financial statements.

9.Blessed Textile Mills Limited

BLESSED TEXTILES LIMITED

STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2024

	Note	30-Jun-24	30-Jun-23	30-Jun-22
		Rupees	Rupees (Restated)	Rupees (Restated)
EQUITY AND LIABILITIES				
SHARE CAPITAL AND RESERVES				
Authorized share capital	7	65,000,000	65,000,000	65,000,000
Issued share capital	8	64,320,000	64,320,000	64,320,000
General reserve	9	7,000,000,000	7,000,000,000	7,000,000,000
Loan from directors and sponsors	10	102,660,500	102,660,500	-
Retained earnings		915,581,818	2,747,124,432	2,053,990,635
TOTAL EQUITY		8,082,562,318	9,914,104,932	9,118,310,635
LIABILITIES				
NON-CURRENT LIABILITIES				
Long term finances	11	3,713,703,359	4,452,609,765	3,061,920,470
Employees retirement benefits	12	298,181,818	235,492,661	185,493,380
Deferred taxation	13	-	-	121,017,627
Deferred grant	14	49,435,971	65,937,572	85,293,434
		4,061,321,148	4,754,039,998	3,453,724,911
CURRENT LIABILITIES				
Trade and other payables	15	2,567,253,032	2,721,042,472	1,933,780,657
Unclaimed dividend		8,598,269	8,613,908	7,809,531
Accrued interest/profit	16	733,600,052	629,628,589	60,290,812
Short term borrowings	17	6,968,160,949	9,243,031,713	2,559,054,165
Current taxation		-	-	224,628,237
Current portion of non-current liabilities	18	611,278,986	368,669,904	364,483,938
		10,888,891,288	12,970,986,586	5,150,047,340
TOTAL LIABILITIES		14,950,212,436	17,725,026,584	8,603,772,251
CONTINGENCIES AND COMMITMENTS	19			
TOTAL EQUITY AND LIABILITIES		23,032,774,754	27,639,131,516	17,722,082,886

BLESSED TEXTILES LIMITED

STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2024

	Note	30-Jun-24 Rupees	30-Jun-23 Rupees	30-Jun-22 Rupees
ASSETS				
NON-CURRENT ASSETS				
Property, plant and equipment	20	**7,904,533,172**	8,313,996,317	6,104,324,714
Long term deposits	21	**61,040,989**	50,441,329	47,485,185
		7,965,574,161	8,364,437,646	6,151,809,899
CURRENT ASSETS				
Stores and spares		**226,236,789**	219,827,850	185,918,306
Stock in trade	22	**8,896,618,958**	13,817,307,187	5,537,502,379
Trade receivables	23	**2,950,545,094**	2,343,689,065	1,758,705,012
Short term deposits	24	**509,929,358**	389,590,577	474,465,177
Advances, prepayments and other receivables	25	**518,665,427**	713,257,953	368,713,032
Tax refunds due from government	26	**1,019,341,981**	1,309,394,052	666,959,007
Cash and bank balances	27	**945,862,986**	481,627,186	2,578,010,074
		15,067,200,593	19,274,693,870	11,570,272,987
TOTAL ASSETS		**23,032,774,754**	27,639,131,516	17,722,082,886

The annexed notes from 1 to 56 form an integral part of these financial statements.

BLESSED TEXTILES LIMITED

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 30 JUNE 2024

	Note	30-Jun-24 Rupees	30-Jun-23 Rupees (Restated)
Revenue from contracts with customers - *net*	28	**31,821,773,255**	24,156,586,324
Cost of sales	29	**(30,599,709,962)**	(21,584,363,517)
Gross profit		**1,222,063,293**	2,572,222,807
Selling and distribution expenses	30	**(484,723,784)**	(427,916,625)
Administrative expenses	31	**(287,991,423)**	(240,788,101)
Other expenses	32	**(510,976)**	(3,100,000)
		(773,226,183)	(671,804,726)
Impairment reversals for expected credit losses	44.1.6	**4,635,857**	89,113,977
		453,472,967	1,989,532,058
Other income	33	**128,518,564**	92,851,253
Operating profit		**581,991,531**	2,082,383,311
Finance cost	34	**(1,988,895,082)**	(997,356,701)
(Loss)/profit before statutory levies and taxation		**(1,406,903,551)**	1,085,026,610
Provision for statutory levies		**(299,327,914)**	(392,253,494)
(Loss)/profit before taxation		**(1,706,231,465)**	692,773,116
Provision for taxation	36	**-**	228,267,419
(Loss)/profit after taxation		**(1,706,231,465)**	921,040,535
(Loss)/earnings per share - *basic and diluted*	37	**(265.27)**	143.20

The annexed notes from 1 to 56 form an integral part of these financial statements.

10.The Crescent Textile Mills Limited

STATEMENT OF FINANCIAL POSITION

as at June 30, 2024

(Rupees in '000')	Note	2024	2023
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital			
200 000 000 (2023: 200 000 000) ordinary			
shares of Rupees 10 each		2,000,000	2,000,000
Issued, subscribed and paid up share capital	3	1,000,000	1,000,000
Sponsors' loans	4	252,952	-
Reserves			
Capital reserves	5.1	391,559	391,559
Premium on issue of right shares	5.1	539,335	29,456
Fair value reserve			
Surplus on revaluation of operating fixed	6	5,904,012	5,928,182
assets - net of deferred income tax		6,834,906	6,349,197
Revenue reserves	5.2	3,305,724	5,147,791
Total reserves		10,140,630	11,496,988
TOTAL EQUITY		11,393,582	12,496,988
LIABILITIES			
NON-CURRENT LIABILITIES			
Long term financing	7	949,621	1,142,121
Deferred income tax liability	8	-	15,317
		949,621	1,157,438
CURRENT LIABILITIES			
Trade and other payables	9	3,313,798	3,413,557
Unclaimed dividend		14,231	12,472
Accrued mark-up	10	340,363	360,235
Short term borrowings	11	7,472,718	7,248,114
Current portion of long term financing	7	405,129	428,001
		11,546,239	11,462,379
TOTAL LIABILITIES		12,495,860	12,619,817
CONTINGENCIES AND COMMITMENTS	12		
TOTAL EQUITY AND LIABILITIES		23,889,442	25,116,805

The annexed notes form an integral part of these financial statements.

STATEMENT OF FINANCIAL POSITION

as at June 30, 2024

(Rupees in '000')	Note	2024	2023
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	13	11,296,004	10,897,732
Intangible assets	14	-	32
Long term investments	15	3,472,651	3,277,915
Long term loans and advances	16	2,149	1,289
Long term deposits and prepayments	17	5,593	8,067
		14,776,397	14,185,035
CURRENT ASSETS			
Stores, spare parts and loose tools	18	376,567	379,511
Stock-in-trade	19	3,793,213	4,952,860
Trade debts	20	3,007,283	3,834,785
Loans and advances	21	35,314	98,464
Short term deposits and prepayments	22	9,836	31,317
Advance income tax and levy - net	23	577,467	393,376
Other receivables	24	374,745	735,616
Short term investments	25	600,201	255,051
Cash and bank balances	26	205,919	181,395
		8,980,545	10,862,375
Non-current assets held for sale	27	132,500	69,395
		9,113,045	10,931,770
TOTAL ASSETS		23,889,442	25,116,805

STATEMENT OF PROFIT OR LOSS

for the Year Ended June 30, 2024

(Rupees in '000')	Note	2024	2023
Revenue	28	23,755,882	19,891,361
Cost of sales	29	(22,394,980)	(17,226,096)
Gross profit		1,360,902	2,665,265
Distribution cost	30	(905,218)	(886,706)
Administrative expenses	31	(549,746)	(523,744)
Other expenses	32	(34,372)	(66,677)
		(1,489,336)	(1,477,127)
		(128,434)	1,188,138
Other income	33	117,427	623,265
(Loss) / profit from operations		(11,007)	1,811,403
Finance cost	34	(1,631,765)	(1,024,827)
(Loss) / profit before levy and taxation		(1,642,772)	786,576
Levy	23	(261,177)	(286,725)
(Loss) / profit before taxation		(1,903,949)	499,851
Taxation	35	154,107	60,963
(Loss) / profit after taxation		(1,749,842)	560,814
(Loss) / earnings per share - basic And diluted (rupees)	36	(17.50)	5.61

The annexed notes form an integral part of these financial statements.

11.Colony Textile Mills Limited

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	2024 Rupees ('000')	2023 Rupees ('000')
EQUITY AND LIABILITIES			
Share capital and reserves			
Authorized share capital	8	5,300,000	5,300,000
Issued, subscribed and paid up capital	9	4,980,100	4,980,100
Reserve arising on amalgamation		3,156,388	3,156,388
Revaluation surplus on property, plant and equipment		19,594	19,594
Directors' loan	10	120,000	120,000
General reserves		4,702	4,702
Unappropriated (loss) / profit		(931,689)	2,708,963
Surplus on remeasurement of investments		819	694
		7,349,914	10,990,441
Non-current liabilities			
Long term financing	11	6,351,781	6,607,342
Liabilities against assets subject to finance lease	12	-	-
Deferred liabilities	13	4,583,756	3,822,520
		10,935,536	10,429,862
Current liabilities			
Trade and other payables	14	6,998,396	3,922,123
Short term borrowings	15	1,572,646	2,881,132
Accrued mark up	16	516,138	207,489
Unclaimed dividend		94	94
Current portion of long term liabilities	17	1,296,174	1,005,992
Provision for taxation and tax levies	18	278,338	330,754
		10,661,786	8,347,585
Contingencies and commitments	19	-	-
		28,947,236	29,767,887

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	2024 Rupees ('000')	2023 Rupees ('000')
ASSETS			
Non-current assets			
Property, plant and equipment	20	18,671,967	19,077,185
Right of use assets	21	77,665	81,753
Investment property	22	1,542,570	942,570
Long term investments	23	223,374	182,164
Investment in subsidiary	24	-	160,000
Long term deposits		54,465	51,132
		20,570,041	20,494,804
Current assets			
Stores, spare parts and loose tools	25	382,198	386,796
Stock in trade	26	4,203,953	4,460,113
Trade debts	27	201,306	1,017,013
Loans and advances	28	301,291	975,921
Trade deposits and short term prepayments	29	102,363	89,076
Other financial assets	30	22	14
Tax refunds due from the government	31	3,098,184	2,253,234
Cash and bank balances	32	87,878	90,916
		8,377,195	9,273,083
		28,947,236	29,767,887

The annexed notes from 01 to 53 form an integral part of these financial statements.

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees ('000')	2023 Rupees ('000')
Sales - net	33	16,764,028	20,852,724
Cost of sales	34	19,150,617	21,456,188
Gross profit / (loss)		(2,386,589)	(603,464)
Operating expenses:			
Distribution cost	35	245,736	249,008
Administrative expenses	36	368,911	372,449
		614,647	621,458
Operating profit / (loss)		(3,001,236)	(1,224,921)
Finance cost	37	1,554,808	1,045,548
Other operating charges	38	14,880	5,997
		1,569,688	1,051,545
Other income	39	1,143,266	2,927,384
Profit / (loss) before taxation and tax levies		(3,427,658)	650,918
Taxation and tax levies	40	213,541	(173,460)
Profit / (loss) after taxation and tax levies for the year		(3,641,199)	824,378
		Rupees	Rupees
Earnings/(loss) per share - basic and diluted	41	(7.31)	1.66

<u>12.Din Textile Mills Limited</u>

Statement of Financial Position
As at June 30, 2024

	Note	2024 Rupees	2023 Rupees
NON CURRENT ASSETS			
Property, plant and equipment	6	15,845,724,095	16,263,252,496
Intangible assets	7	8,027,419	10,719,677
Long term deposits	8	24,294,981	23,867,551
Deferred taxation Asset	22	-	-
		15,878,046,465	16,297,839,724
CURRENT ASSETS			
Stores, spareparts and loose tools	9	1,245,030,059	535,991,173
Stock in trade	10	9,492,278,845	11,794,532,231
Trade debts	11	5,163,813,748	4,913,841,792
Advances	12	807,134,437	190,222,128
Trade deposits	13	865,300	1,324,300
Other receivables	14	531,260,981	582,698,110
Tax refunds due from Government - Net	15	1,196,094,784	3,556,302,838
Cash and bank balances	16	421,824,354	118,771,905
		18,858,322,508	21,694,084,477
CURRENT LIABILITIES			
Trade and other payables	17	[illegible]	[illegible]
Contract liabilities		3,514,566	134,940,401
Unclaimed dividend		5,347,392	5,367,392
Accrued mark up / interest	18	1,342,799,818	1,089,948,340
Short term borrowings - Secured	19	3,190,799,409	4,203,413,084
Current portion of			
Long term financing - Secured	20	1,155,679,608	1,180,865,389
		19,383,987,753	20,108,817,407
WORKING CAPITAL		(524,665,245)	1,585,267,070
TOTAL CAPITAL EMPLOYED		15,353,381,220	17,883,146,794
NON CURRENT LIABILITIES			
Long term financing	20	7,233,162,221	7,056,860,008
Deferred liabilities			
Staff retirement benefits - gratuity	21	368,272,090	286,561,592
		7,601,434,311	7,343,421,600
CONTINGENCIES AND COMMITMENTS	23	-	-
NET WORTH		7,751,946,909	10,539,725,194
EQUITY			
SHARE CAPITAL AND RESERVES			
Authorized capital			
200,000,000 ordinary shares of Rs. 10 each		2,000,000,000	2,000,000,000
Net Worth Represented by:			
Issued, subscribed and paid up capital			
52,466,749 ordinary shares of Rs. 10/- each	24	524,667,490	524,667,490
Reserves	25	3,928,193,205	6,715,471,490
Surplus on revaluation of property, plant and equipment	25	3,299,086,214	3,299,586,214
		7,751,946,909	10,539,725,194

Statement of Profit or Loss
For the year ended June 30, 2024

	Note	2024 Rupees	2023 Rupees
Sales - net	26	39,608,139,408	32,313,734,893
Cost of sales	27	(37,291,351,718)	(29,211,516,967)
Gross profit		2,316,787,689	3,102,217,926
Distribution cost	28	383,971,577	470,566,053
Administrative expenses	29	397,662,931	389,172,559
Other operating expenses	30	18,191,108	40,628,061
Finance costs	31	3,984,704,728	3,013,394,602
		4,784,530,344	3,913,761,275
		(2,467,742,654)	(811,543,349)
Other income	32	185,382,902	187,214,398
Loss before income tax and levies		(2,282,359,752)	(624,328,951)
Final / minimum taxes - levies	33	(482,964,062)	(365,690,384)
Loss before income tax		(2,765,323,814)	(990,019,335)
Taxation - income tax	34	(3,174,612)	122,496,276
Loss for the year		(2,768,498,426)	(867,523,059)
Loss per share - basic and diluted	35	(52.77)	(16.53)

The annexed notes from 1 to 47 form an integral part of these financial statements.

FAISAL JAWED
Director

FARHAD SHAIKH MOHAMMAD
Director

AHSAN NAZIR KHAWAJA
Chief Financial Officer

As required U/S.232(1) of the Companies Act,2017 these financial statements have been signed by two Directors and CFO, as the Chief Executive is out of country

13.Dewan Textile Mills Limited

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Notes	2024	2023
		(Rupees)	
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorised share capital			
50,000,000 (2023: 50,000,000) Ordinary shares of Rs. 10/- each		500,000,000	500,000,000
Issued, subscribed and paid-up share capital	5	460,646,090	460,646,090
Revenue reserves			
General reserve		333,000,000	333,000,000
Accumulated losses		(6,248,315,316)	(6,176,908,526)
Capital reserves			
Surplus on revaluation of property, plant and equipment	6	2,715,378,092	2,779,222,794
		(2,739,291,134)	(2,604,039,642)
NON-CURRENT LIABILITIES			
Long term financing	7	226,897,833	201,360,300
Deferred taxation	8	214,704,600	240,782,014
		441,602,433	442,142,314
CURRENT LIABILITIES			
Trade and other payables	9	140,724,216	148,814,459
Mark-up accrued		2,276,503,741	2,276,503,741
Short term borrowings	10	293,897,780	293,897,780
Liability for staff gratuity	11	1,784,351	1,984,351
Unclaimed dividend		254,206	254,206
Overdue portion of long term financing	7	2,925,634,170	2,925,634,170
		5,638,798,464	5,647,088,707
CONTINGENCIES AND COMMITMENTS	12	–	–
		3,341,109,763	3,485,191,379
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	13	3,330,513,777	3,465,363,570
Long term investment	14	–	–
Long term deposits	15	4,371,174	8,721,608
		3,334,884,951	3,474,085,178
CURRENT ASSETS			
Stores and spares	16	–	–
Trade debts - Unsecured	17	2,446,146	7,084,978
Advances and receivable	18	509,648	556,248
Taxes recoverable - Net		180,739	151,160
Cash and bank balances	19	3,088,279	3,313,815
		6,224,812	11,106,201
		3,341,109,763	3,485,191,379

The annexed notes form an integral part of these financial statements.

YD A YOUSUF DEWAN COMPANY

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Notes	2024	2023
		(Rupees)	
Sales - Net		–	--
Cost of sales	20	(149,322,241)	(188,705,727)
Gross (loss)		(149,322,241)	(188,705,727)
Operating expenses			
Administrative and general expenses	21	(5,500,963)	(15,609,584)
Operating (loss)		(154,823,204)	(204,315,311)
Finance cost	22	(26,133,268)	(397,976,479)
Other charges	23	(3,651,434)	(11,439,780)
		(29,784,702)	(409,416,259)
Other income	24	23,279,000	40,544,036
(Loss) before taxation		(161,328,906)	(573,187,534)
Taxation			
- Current	25	–	--
- Deferred		26,077,414	29,715,353
		26,077,414	29,715,353
(Loss) for the year		(135,251,492)	(543,472,181)
(Loss) per share - Basic and diluted	26	(2.94)	(11.80)

The annexed notes form an integral part of these financial statements.

14.Gadoon Textile Mills Limited

Statement of Financial Position

As at June 30, 2024

	Note	2024	2023
		(Rupees in '000)	
ASSETS			
Non-Current Assets			
Property, plant and equipment	5	24,563,610	21,242,834
Biological assets	6	761,358	753,053
Long term advance	7	-	-
Long term loans	8	7,753	37,944
Long term deposits		64,586	39,136
Long term investments	9	6,357,687	5,497,655
		31,754,994	27,570,622
Current Assets			
Stores, spares and loose tools	10	1,409,278	1,266,860
Stock-in-trade	11	19,283,229	23,408,079
Trade debts	12	5,062,757	2,972,086
Loans and advances	13	177,829	735,426
Trade deposits and short term prepayments		52,800	5,819
Other receivables	14	2,616,577	3,015,155
Current tax asset		73,339	86,459
Cash and bank balances	15	1,401,011	265,177
		30,076,820	31,755,061
Total Assets		61,831,814	59,325,683

	Note	2024	2023
		(Rupees in '000)	
EQUITY AND LIABILITIES			
Share Capital and Reserves			
Authorized			
57,500,000 ordinary shares of Rs.10/- each		575,000	575,000
Issued, subscribed and paid-up capital	16	280,296	280,296
Capital reserves	17	16,637,541	16,637,541
Revenue reserves	17	4,580,461	3,773,365
Total Equity		21,498,298	20,691,202
Non-Current Liabilities			
Long term finance	18	5,887,345	9,431,586
Deferred government grant	19	140,159	180,342
Retirement benefit obligation	20	1,205,342	1,008,944
Deferred tax liabilities	21	944,968	1,415,003
		8,177,814	12,035,875
Current Liabilities			
Trade and other payables	22	10,826,480	9,278,163
Unclaimed dividend		32,380	34,504
Levies payable		431,977	180,135
Current portion of long term finance	18	679,913	666,994
Current portion of deferred government grant	19	40,132	54,879
Accrued mark-up		622,525	921,539
Short term borrowings	23	19,522,295	15,462,392
		32,155,702	26,598,606
Total Liabilities		40,333,516	38,634,481
Total Equity and Liabilities		61,831,814	59,325,683

CONTINGENCIES AND COMMITMENTS 24

The annexed notes from 1 to 44 form an integral part of these financial statements.

Statement of Profit or Loss

For the Year Ended June 30, 2024

	Note	2024	2023
		(Rupees in '000)	
Sales - net	25	72,723,982	57,997,240
Cost of sales	26	(67,706,538)	(51,829,395)
Gross profit		5,017,444	6,167,845
Distribution cost	27	(894,348)	(846,043)
Administrative expenses	28	(538,602)	(478,197)
		(1,432,950)	(1,324,240)
		3,584,494	4,843,605
Finance cost	29	(3,974,220)	(2,148,630)
Other expenses	30	(100,646)	(288,902)
		(490,372)	2,406,073
Other income	31	450,004	686,461
Share of profit from associates	9	1,429,272	1,689,749
Profit before final taxes, revenue taxes and income taxes		1,388,904	4,782,283
Final taxes	32	640,147	510,649
Profit before revenue taxes and income tax		748,757	4,271,634
Revenue taxes	32	432,324	352,670
Profit before income tax		316,433	3,918,964
Taxation - net	32	(478,115)	627,097
Profit for the year		794,548	3,291,867
Earnings per share - basic and diluted (Rupees)	33	28.35	117.44

The annexed notes from 1 to 44 form an integral part of these financial statements.

<u>15.Gul Ahmed Textile Mills Limited</u>

Gul Ahmed Textile Mills Limited

Unconsolidated Statement of Financial Position

As at 30 June 2024

	Note	30 June 2024	30 June 2023
		(Rupees in '000)	
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	5	50,023,808	50,121,838
Intangible assets	6	45,484	38,251
Long term investment	7	3,591,206	3,591,206
Long term loans	8	17,939	67,901
Long term deposits		145,595	132,947
Total non-current assets		53,824,032	53,952,143
CURRENT ASSETS			
Stores and spares	9	2,298,322	1,762,858
Stock-in-trade	10	49,014,078	38,450,431
Trade debts	11	24,567,107	23,421,883
Loans, advances and other receivables	12	2,638,317	2,070,610
Short term prepayments		63,612	172,505
Receivable from government	13	3,705,858	3,301,038
Short term investments		1,243	-
Cash and bank balances	14	375,876	334,471
Total current assets		82,664,413	69,513,796
Total Assets		136,488,445	123,465,939
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Share capital	15	7,400,594	7,400,594
Reserves	16	37,352,629	32,670,783
Total Share Capital and Reserve		44,753,223	40,071,377
NON-CURRENT LIABILITIES			
Long term financing	17	14,591,587	20,117,007
Deferred taxation	18	-	257,699
Deferred income - government grant	19	74,655	102,606
Defined benefit plan - staff gratuity	20	523,996	329,018
Total non-current liabilities		15,190,238	20,806,330
CURRENT LIABILITIES			
Trade and other payables	21	28,775,841	27,220,295
Accrued mark-up / profit	22	1,391,643	1,570,154
Short term borrowings	23	42,005,502	30,205,729
Current maturity of long term financing		3,233,936	3,096,186
Current maturity of deferred income - government grant		28,251	32,388
Unclaimed dividend		9,840	9,931
Unpaid dividend	24	23,505	23,505
Taxation-net		1,076,466	430,044
Total current liabilities		76,544,984	62,588,232
CONTINGENCIES AND COMMITMENTS	25	-	-
Total Equity and Liabilities		136,488,445	123,465,939

The annexed notes from 1 to 47 form an integral part of these unconsolidated financial statements.

Gul Ahmed Textile Mills Limited
Unconsolidated Statement of Profit or Loss
For the year ended 30 June 2024

	Note	**30 June 2024**	30 June 2023 *(Restated)*
		(Rupees in '000)	
Sales - net	*26*	**143,145,844**	111,967,612
Cost of sales	*27*	**(125,954,822)**	(95,272,129)
Gross profit		**17,191,022**	16,695,483
Selling and distribution cost	*28*	**(3,247,465)**	(2,200,949)
Administrative cost	*29*	**(3,471,467)**	(3,428,329)
Other operating cost	*30*	**(491,140)**	(432,181)
		(7,210,072)	(6,061,459)
Operating profit		**9,980,950**	10,634,024
Other income	*31*	**1,982,933**	662,873
Finance costs	*32*	**(5,426,456)**	(5,347,543)
Profit before income tax and final taxes		**6,537,427**	5,949,354
Final taxes	*33*	**(2,043,969)**	(1,633,219)
Profit before income tax		**4,493,458**	4,316,135
Income tax	*34*	**234,344**	(330,116)
Profit after income tax		**4,727,802**	3,986,019
		2024	2023
		(Rupees)	
Earnings per share - basic and diluted	*35*	**6.39**	5.39

The annexed notes from 1 to 47 form an integral part of these unconsolidated financial statements.

16.Hamid Textile Mills Limited

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	JUNE 2024 Rupees	JUNE 2023 Rupees
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	4	555,401,186	596,999,533
CURRENT ASSETS			
Stores, spares and loose tools	5	13,752,485	11,606,664
Stock in trade	6	73,103,621	52,115,185
Trade debts	7	70,592,713	28,480,612
Loans and advances	8	720,870	2,898,477
Trade deposits and short term prepayments	9	360,000	360,000
Tax refunds due from the Government	10	11,269,655	3,137,895
Cash and bank balances	11	5,118,964	3,658,352
		174,918,309	102,257,185
		730,319,495	**699,256,718**
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized Share Capital			
15,000,000 shares (2023: 15,000,000) of Rs. 10/= each		150,000,000	150,000,000
Issued, Subscribed and Paid Up Share Capital			
Issued, subscribed and paid up capital	12	132,716,000	132,716,000
Accumulated loss		(242,886,212)	(240,637,117)
		(110,170,212)	(107,921,117)
Surplus On Revaluation Of Property, Plant And Equipment	13	483,999,917	508,175,661
		373,829,705	400,254,544
NON-CURRENT LIABILITIES			
Long term loan	14	25,000,000	-
Deferred liabilities	15	96,158,890	102,702,037
		121,158,890	102,702,037
CURRENT LIABILITIES			
Trade and other payables	16	122,844,281	64,761,849
Accrued mark-up	17	32,676,328	32,676,328
Loan from Director	18	7,901,600	11,248,100
Short term borrowings	19	24,520,298	24,520,298
Current & overdue portion of long term liabilities	20	47,388,393	47,388,393
Provisions	21	-	15,705,169
		235,330,899	196,300,137
CONTINGENCIES AND COMMITMENTS	22	-	-
		730,319,495	**699,256,718**

The annexed notes from 1 to 42 form an integral part of these financial statements.

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	JUNE 2024 Rupees	JUNE 2023 Rupees
Sales - (Net)	23	771,550,202	563,533,352
Cost of sales	24	(760,304,561)	(553,138,001)
Gross Profit / (Loss)		11,245,641	10,395,351
- Distribution Cost	25	4,568,670	1,945,883
- Administrative Expenses	26	31,272,323	25,839,232
		(35,840,993)	(27,785,115)
Operating loss		(24,595,352)	(17,389,764)
Other Income	27	35,000	-
Finance Cost	28	(12,130)	(2,362)
(Loss) / profit before taxation		(24,572,482)	(17,392,126)
Taxation	29	(1,671,833)	24,782,355
(Loss) / profit after taxation carried to statement of comprehensive income		(26,244,315)	7,390,229
(Loss) / Earning Per Share - Basic	30	(1.98)	0.56

The annexed notes from 1 to 42 form an integral part of these financial statements.

17.J.A Textile Mills Limited

J. A. TEXTILE MILLS LIMITED

STATEMENT OF FINANCIAL POSITION

AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
ASSETS			
NON CURRENT ASSETS			
Property, plant and equipment	6	556,395,751	577,926,585
Long term deposits	7	32,145,750	32,145,750
CURRENT ASSETS			
Stores and spares	8	10,524,613	14,437,963
Stock in trade	9	51,121,781	13,162,644
Trade debts	10	50,284	-
Advances, prepayments and other receivables	11	333,121	506,762
Short term investment	12	469,695	366,162
Accrued income	13	1,481,326	2,114,655
Balance with statutory authorities	14	31,718,887	18,747,035
Cash and bank balances	15	52,079,958	163,318,064
		147,779,665	212,653,285
		736,321,166	**822,725,620**
SHARE CAPITAL AND RESERVES			
Share Capital	16	126,011,600	126,011,600
Accumulated loss		(107,814,852)	(57,238,974)
Capital Reserve :			
- *Surplus / (Deficit) on remeasurement of investment*		22,190	(11,746)
- *Surplus on revaluation of property, plant and equipment - net*	17	272,214,581	282,469,875
Loan from related parties	18	126,286,574	128,768,659
		416,720,093	479,999,414
NON CURRENT LIABILITIES			
Deferred liabilities	19	92,183,664	106,305,116
CURRENT LIABILITIES			
Trade and other payables	20	197,018,689	235,977,370
Liability for legal settlement	21	29,955,000	-
Unclaimed dividend		443,720	443,720
		227,417,409	236,421,090
CONTINGENCIES AND COMMITMENTS	22	-	-
		736,321,166	**822,725,620**

J. A. TEXTILE MILLS LIMITED

STATEMENT OF PROFIT OR LOSS

FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
Sales - net	23	129,953,740	33,685,700
Cost of sales	24	185,360,608	95,622,908
Gross loss		(55,406,868)	(61,937,208)
Operating expenses			
Distribution cost - ***Selling Commission***		63,800	-
Administrative expenses	25	17,643,414	17,684,570
Other operating expenses- **workers welfare fund**		32,488	8,421
		17,739,702	17,692,991
		(73,146,570)	(79,630,199)
Finance cost	26	29,984,751	372,386
		(103,131,321)	(80,002,585)
Other income	27	29,813,718	44,014,609
Loss before taxation, minimum tax differential and final taxes		(73,317,603)	(35,987,976)
Minimum tax differential		1,624,422	421,071
Final taxes		12,282	1,683
		1,636,704	422,754
Loss before taxation		(74,954,307)	(36,410,730)
Taxation	28	(14,123,135)	(2,839,285)
Loss for the year		(60,831,172)	(33,571,445)
Earnings per share - basic and diluted	29	**(4.8274)**	**(2.6642)**

The annexed notes 1 to 43 form an integral part of these financial statements.

18.Janana De Malucho Textile Mills Limited

STATEMENT OF FINANCIAL POSITION AS AT JUNE 30, 2024

	Note	2024	2023
ASSETS		--- Rupees in '000 ---	
Non-current assets			
Property, plant and equipment	5	7,185,322	7,592,697
Intangible assets	6	780	1,040
Investments in Associated Company	7	81,492	71,693
Loans to employees	8	900	1,236
Security deposits		14,598	14,346
		7,283,092	7,681,012
Current assets			
Stores, spares and loose tools	9	75,085	90,099
Stock-in-trade	10	1,293,722	1,465,380
Trade debts	11	4,574	62,405
Advances to employees		1,224	1,588
Advance payments	12	10,942	19,998
Trade deposits and prepayments	13	3,720	77,271
Due from an Associated Company	14	60	-
Other receivables	15	1,923	622
Income tax refundable, advance tax and tax deducted at source		187,027	197,372
Cash and bank balances	16	12,372	40,639
		1,590,649	1,955,374
TOTAL ASSETS		8,873,741	9,636,386
EQUITY AND LIABILITIES			
Equity			
Authorised capital	17	1,000,000	1,000,000
Issued, subscribed and paid-up capital	18	69,158	69,158
Treasury shares	18.6	(3,410)	(3,410)
Capital reserves:			
- other capital reserves	19	23,803	23,803
- revaluation surplus on property, plant and equipment	20	5,007,712	5,110,134
Revenue reserves			
- general reserve		371,530	371,530
- unappropriated profit		567,241	996,914
Shareholders' equity		6,036,034	6,568,129
Liabilities			
Non-current liabilities			
Lease liabilities	21	-	2,034
Long term finances	22	624	138,691
Staff retirement benefits - gratuity	23	118,599	100,467
Deferred taxation	24	362,670	531,218
		481,893	772,410
Current liabilities			
Trade and other payables	25	800,066	421,680
Contract liabilities		69,870	77,675
Unclaimed dividends		2,715	2,715
Accrued mark-up		76,387	1,017
Short term finances	26	1,171,942	1,556,639
Current portion of non current liabilities	27	160,084	159,723
Levies and income tax	28	73,559	75,207
Preference shares redemption account	29	1,191	1,191
		2,355,814	2,295,847
Total liabilities		2,837,707	3,068,257
Contingencies and commitments	30		
TOTAL EQUITY AND LIABILITIES		8,873,741	9,636,386

The annexed notes 1 to 51 form an integral part of these financial statements.

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024	2023
		--- Rupees in '000 ---	
			Restated
Sales	31	5,884,712	6,016,527
Cost of sales	32	5,909,283	5,669,629
Gross (loss) / profit		(24,571)	346,898
Distribution cost	33	74,816	59,077
Administrative expenses	34	140,884	121,224
Other expenses	35	42,654	12,587
Other income	36	(92,833)	(87,837)
		165,521	105,051
(Loss) / profit from operations		(190,092)	241,847
Finance cost	37	357,751	324,940
		(547,843)	(83,093)
Share of (loss) / profit from an Associated Company - net	7	(11,482)	643
Impairment reversal / (loss) on investments in Associated Company	7	22,574	(20,236)
		11,092	(19,593)
Loss before revenue taxes and income taxes		(536,751)	(102,686)
Minimum taxes-levy	38.1	73,559	72,023
Loss before income tax		(610,310)	(174,709)
Income taxes	38.2	(142,726)	(94,433)
Loss for the year		(467,584)	(80,276)
Other comprehensive income / (loss)			
Items that will not be reclassified to profit or loss:			
- gain / (loss) on remeasurement of staff retirement benefit obligation	23	1,485	5,832
- impact of tax		(431)	(1,691)
		1,054	4,141
- (deficit) / surplus arisen upon revaluation of property, plant and equipment	20.2	(90,524)	-
- deferred taxation	20.2	26,252	-
		(64,272)	-
- share of other comprehensive loss of Associated Companies		(28)	(773)
- impact of tax		8	224
	7	(20)	(549)
		(63,238)	3,592
Total comprehensive loss		(530,822)	(76,684)
		---- Rupees ----	
Loss per share - basic and diluted	39	(67.61)	(11.61)

The annexed notes 1 to 51 form an integral part of these financial statements.

19.Khyber Textile Mills Limited

STATEMENT OF FINANCIAL POSITION AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
NON CURRENT ASSETS			
Property, Plant and Equipment	4	1,293,591,415	952,750,359
Bearer Plants (Biological Assets)	5	164,950	72,450
Long Term Deposits		88,983	88,983
		1,293,845,348	952,911,792
CURRENT ASSETS			
Inventory - Livestock (Biological Assets)	6	-	1,663,200
Inventory - Animal Feed		638,510	120,880
Stores and Spares	7	-	-
Advances and Other Receivables	8	1,517,239	23,617
Cash and Bank Balances	9	13,840,420	11,621,222
		15,996,169	13,428,919
		1,309,841,517	966,340,711
SHARE CAPITAL AND RESERVES			
Share Capital	10	12,275,030	12,275,030
		12,275,030	12,275,030
Capital Reserve			
Statutory Reserve		257,782	257,782
Revaluation Surplus on Property, Plant & Equipment	11	1,254,829,867	919,741,339
Revenue Reserve			
Accumulated Loss		(10,561,588)	(13,116,647)
		1,256,801,091	919,157,504
NON CURRENT LIABILITIES			
Loan from Shareholder / Director	12	16,500,757	16,500,757
Deferred Taxation	13	29,416,793	22,329,454
		45,917,550	38,830,211
CURRENT LIABILITIES			
Short Term Loan from Director	14	6,659,718	7,809,718
Trade and Other Payables	15	463,158	543,278
Provision for Taxation		-	-
		7,122,876	8,352,996
CONTINGENCIES AND COMMITMENTS	16		
		1,309,841,517	966,340,711

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
SALES		18,354,500	27,103,500
Less: COST OF SALES	17	13,309,832	19,426,034
GROSS PROFIT		5,044,668	7,677,466
Less: Administrative Expenses	18	16,944,650	15,858,954
Other Operating Expenses	20	585,720	583,290
Financial Expenses - Bank Charges		8,880	3,784
		17,539,250	16,446,028
		(12,494,582)	(8,768,562)
Fair Value Remeasurement Adjustment - Biological Assets		(410,781)	(1,317,724)
Other Operating Income - Rent		6,937,100	5,433,400
Agriculture Income		213,800	124,500
OPERATING (LOSS)		(5,754,463)	(4,528,386)
(LOSS) BEFORE TAXATION		(5,754,463)	(4,528,386)
TAXATION	21	(1,091,994)	(613,371)
NET (LOSS) FOR THE YEAR		(4,662,469)	(3,915,015)
EARNINGS / (LOSS) PER SHARE - BASIC AND DILUTED	22	(3.80)	(3.19)

The annexed notes form an integral part of these financial statements.

CHIEF FINANCIAL OFFICER DIRECTOR CHIEF EXECUTIVE

20.Kohat Textile Mills Limited

STATEMENT OF FINANCIAL POSITION

As at June 30, 2024

	Note	2024	2023 Restated
		------- Rupees in '000 -------	
Equity and Liabilities			
Share Capital and Reserves			
Authorised capital			
22,000,000 ordinary shares of Rs.10 each		220,000	220,000
Issued, subscribed and paid-up capital	5	208,000	208,000
Revenue reserve			
- unappropriated profit		1,138,970	916,972
Capital reserve			
- surplus on revaluation of property, plant and equipment	6	2,563,588	2,584,203
Unrealised loss on financial assets at fair value through other comprehensive income		(114)	(114)
Shareholders' equity		3,910,444	3,709,061
Non-current Liabilities			
Long term financing	7	588,686	648,155
Long term deposits	8	7,281	4,636
Deferred income - government grant	9	18,243	29,923
Deferred liability - staff retirement benefits	10	209,834	182,118
Deferred taxation	11	289,094	286,409
		1,113,138	1,151,241
Current Liabilities			
Trade and other payables	12	944,824	637,846
Contract liabilities		2,210	1,802
Accrued mark-up / profit	13	130,196	135,077
Short term borrowings	14	1,919,215	1,941,357
Current portion of non-current liabilities	15	194,427	218,124
Unpaid dividend		209	209
Unclaimed dividend		939	939
Provision for tax levies	16	99,561	74,426
		3,291,581	3,009,780
		4,404,719	4,161,021
Contingencies and Commitments	17		
		8,315,163	7,870,082

STATEMENT OF FINANCIAL POSITION

As at June 30, 2024

	Note	2024	2023 Restated
		Rupees in '000	
Assets			
Non-current Assets			
Property, plant and equipment	18	4,987,986	5,051,423
Long term investments	19	4,886	4,886
Long term loans	20	1,380	985
Long term deposits		16,321	15,263
		5,010,573	5,072,557
Current Assets			
Stores, spare parts and loose tools	21	56,718	57,182
Stock-in-trade	22	1,360,565	1,233,760
Trade debts	23	1,760,880	1,398,063
Loans and advances	24	2,530	5,550
Deposits, prepayments and other receivables	25	20,489	17,229
Taxation	26	93,789	71,468
Cash and bank balances	27	9,619	14,273
		3,304,590	2,797,525

21.Kohinoor Textile Mills Limited

STATEMENT OF FINANCIAL POSITION

As at 30 June 2024

	Note	2024	2023
		(Rupees in thousand)	
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital			
370,000,000 (2023: 370,000,000) ordinary shares of Rupees 10 each		3,700,000	3,700,000
30,000,000 (2023: 30,000,000) preference shares of Rupees 10 each		300,000	300,000
		4,000,000	4,000,000
Issued, subscribed and paid-up share capital	4	2,692,994	2,992,964
Reserves	5		
Capital reserves			
Share premium		986,077	986,077
Surplus on revaluation of freehold land		5,963,401	3,861,708
Reserve against capacity expansion		15,000,000	-
Reserve against buy-back of shares		1,775,000	-
Own shares purchased for cancellation		-	(312,153)
		23,724,478	4,535,632
Revenue reserves			
General reserve		-	1,450,491
Unappropriated profit		2,815,084	17,415,710
		2,815,084	18,866,201
		26,539,562	23,401,833
Total equity		29,232,556	26,394,797
LIABILITIES			
NON-CURRENT LIABILITIES			
Long term financing	6	5,820,491	6,408,355
Deferred government grant	7	9,970	13,441
Deferred income tax liability	8	1,754,292	1,503,053
		7,584,753	7,924,849
CURRENT LIABILITIES			
Trade and other payables	9	5,434,358	4,641,433
Accrued mark-up	10	565,079	483,829
Short term borrowings	11	7,503,576	6,894,851
Current portion of non-current liabilities	12	1,242,931	1,028,416
Unclaimed dividend		31,543	32,264
Provision for taxation and levy - net	13	258,807	485,779
		15,036,294	13,566,572
TOTAL LIABILITIES		22,621,047	21,491,421
CONTINGENCIES AND COMMITMENTS	14		
TOTAL EQUITY AND LIABILITIES		51,853,603	47,886,218

The annexed notes form an integral part of these financial statements.

	Note	2024	2023
		(Rupees in thousand)	
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	15	23,177,548	19,218,251
Long term investments	16	11,078,733	11,078,733
Long term deposits	17	114,753	61,628
		34,371,034	30,358,612
CURRENT ASSETS			
Stores, spare parts and loose tools	18	1,053,241	1,069,324
Stock-in-trade	19	6,882,432	8,863,674
Trade debts	20	6,437,592	4,430,883
Advances	21	594,872	277,849
Short term deposits and prepayments	22	39,974	30,361
Other receivables	23	1,740,066	1,744,173
Short term investments	24	515,341	467,867
Cash and bank balances	25	219,051	643,475
		17,482,569	17,527,606
TOTAL ASSETS		51,853,603	47,886,218

STATEMENT OF PROFIT OR LOSS

For the year ended 30 June 2024

	Note	2024	2023
		(Rupees in thousand)	
REVENUE	26	58,174,952	42,046,556
COST OF SALES	27	(48,887,621)	(34,566,123)
GROSS PROFIT		9,287,331	7,480,433
DISTRIBUTION COST	28	(1,777,917)	(1,319,918)
ADMINISTRATIVE EXPENSES	29	(1,245,316)	(1,039,808)
OTHER EXPENSES	30	(176,697)	(434,658)
		(3,199,930)	(2,794,384)
		6,087,401	4,686,049
OTHER INCOME	31	455,326	444,851
PROFIT FROM OPERATIONS		6,542,727	5,130,900
FINANCE COST	32	(3,359,345)	(1,667,308)
PROFIT BEFORE LEVY AND TAXATION		3,183,382	3,463,592
LEVY	33	(192,756)	(137,313)
PROFIT BEFORE TAXATION		2,990,626	3,326,279
TAXATION	34	(791,464)	(919,017)
PROFIT AFTER TAXATION		2,199,162	2,407,262

	Note	2024	2023
		--------------Rupees--------------	
EARNINGS PER SHARE - BASIC AND DILUTED	35	8.07	8.05

The annexed notes form an integral part of these financial statements.

<u>22.Mehmood Textile Mills Limited</u>

STATEMENT OF FINANCIAL POSITION

AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
ASSETS			
Non Current Assets			
Property, plant and equipment	5	22,214,635,273	17,648,962,766
Investment property	6	174,038,000	162,687,000
Intangible assets	7	37,931,636	10,544,228
Investments in associates	8	2,073,750,746	5,538,760,850
Long term deposits	9	53,854,135	53,814,135
		24,554,209,790	23,414,768,979
Current Assets			
Stores, spares and loose tools	10	843,263,574	1,357,140,105
Stock in trade	11	16,830,488,745	17,736,240,320
Trade debts	12	6,724,162,180	6,144,970,571
Loans and advances	13	1,058,282,487	925,347,505
Other receivables	14	487,649,414	256,095,983
Short term investments	15	28,771,225	24,795,100
Tax refunds due from the Government	16	1,068,250,317	1,476,972,686
Cash and bank balances	17	31,957,577	34,613,661
		27,072,825,519	27,956,175,931
Assets classified as held for sale	18	3,406,102,791	-
		55,033,138,100	51,370,944,910
EQUITY AND LIABILITIES			
Share Capital and Reserves			
Authorized share capital:			
50,000,000 (2023: 30,000,000) ordinary shares of Rs. 10 each		500,000,000	300,000,000
Issued, subscribed and paid up capital	19	300,000,000	300,000,000
Reserves (2023: Restated)		11,416,991,792	11,064,821,269
Revaluation surplus on property, plant and equipment (2023: Restated)	20	5,688,116,205	2,389,847,221
Shareholders' equity		17,405,107,997	13,754,668,490
Non Current Liabilities			
Long term finances	21	8,375,153,095	9,063,680,537
Lease liabilities	22	22,049,514	29,870,840
Deferred liabilities	23	805,017,769	585,511,779
		9,202,220,378	9,679,063,156
Current Liabilities			
Trade and other payables	24	7,481,900,251	6,350,162,198
Unclaimed dividend		3,680,032	3,699,840
Contract liabilities	25	84,879,145	126,477,024
Accrued mark up	26	1,183,191,316	1,220,860,266
Current portion of non-current liabilities	27	2,173,210,286	1,811,821,166
Short term borrowings	28	16,421,864,632	17,654,509,982
Provision for taxation	29	1,077,084,063	769,682,788
		28,425,809,725	27,937,213,264
Contingencies and Commitments	30	-	-
		55,033,138,100	51,370,944,910

STATEMENT OF PROFIT OR LOSS

FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees (Restated)
Sales	31	66,583,767,005	54,627,481,688
Cost of sales	32	(56,855,235,797)	(46,919,000,225)
Gross Profit		9,728,531,208	7,708,481,463
Operating Expenses			
Distribution costs	33	(1,681,786,859)	(1,262,574,605)
Administrative expenses	34	(1,200,833,197)	(1,159,403,842)
		(2,882,620,056)	(2,421,978,447)
Operating Profit		6,845,911,152	5,286,503,016
Finance cost	35	(5,631,381,235)	(3,952,955,522)
Other operating expenses	36	(398,045,195)	(234,471,307)
Other income	37	117,491,225	227,354,192
Share of net profit of associate	8	437,160,247	598,203,352
		(5,474,774,958)	(3,361,869,285)
Profit before Levy and Taxation		1,371,136,194	1,924,633,731
Levy / final taxation	38	(895,789,009)	(663,451,391)
Profit before Taxation		475,347,185	1,261,182,340
Taxation	38	(225,810,594)	(59,233,533)
Net Profit for the Year		249,536,591	1,201,948,807
Earnings per Share - Basic and Diluted	39	8.32	40.06

The annexed notes from 1 to 51 form an integral part of these financial statements.

23.Masood Textile Mills Limited

STATEMENT OF FINANCIAL POSITION

AS AT 30 JUNE 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital			
1200 000 000 (2023: 1200 000 000) ordinary shares of Rupees 10 each		12,000,000	12,000,000
60 000 000 (2023: 60 000 000) preference shares of Rupees 10 each		600,000	600,000
		12,600,000	12,600,000
Issued, subscribed and paid up share capital	3	950,000	950,000
Reserves			
Capital reserves			
Share premium	4.1	1,375,000	1,375,000
Redemption fund	4.2	128,333	128,333
Capital contribution	4.3	2,000,000	2,000,000
Surplus on revaluation of freehold land	4.4	3,501,438	3,574,318
		7,004,771	7,077,651
Revenue reserves	5	8,726,842	9,187,819
Total reserves		15,731,613	16,265,470
Total equity		16,681,613	17,215,470
LIABILITIES			
NON-CURRENT LIABILITIES			
Long term financing	6	1,563,984	2,356,062
Lease liabilities	7	91,577	11,438
Staff retirement gratuity	8	2,108,467	1,722,219
		3,764,028	4,089,719
CURRENT LIABILITIES			
Trade and other payables	9	10,357,152	9,875,309
Unclaimed dividend		8,938	8,944
Accrued mark-up	10	818,018	787,782
Short term borrowings	11	22,154,929	20,807,236
Current portion of non-current liabilities	12	1,364,707	1,905,616
Provision for taxation and levy - net	21	2,357	-
		34,706,101	32,984,887
TOTAL LIABILITIES		38,470,129	37,074,606
CONTINGENCIES AND COMMITMENTS	13		
TOTAL EQUITY AND LIABILITIES		55,151,742	54,290,076

STATEMENT OF FINANCIAL POSITION

AS AT 30 JUNE 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	14	17,246,533	15,343,727
Right-of-use assets	15	107,965	58,605
Long term advances	16	10,076	17,174
Long term security deposits		36,731	75,560
		17,401,305	15,495,066
CURRENT ASSETS			
Stores, spare parts and loose tools	17	3,684,606	3,936,547
Stock in trade	18	16,037,907	12,703,259
Trade debts	19	14,121,535	16,726,515
Loans and advances	20	601,703	744,733
Advance income tax and levy - net	21	-	110,484
Short term deposits and prepayments	22	337,249	298,453
Other receivables	23	2,699,557	3,252,398
Short term investment	24	10,192	8,630
Cash and bank balances	25	257,688	1,013,991
		37,750,437	38,795,010
TOTAL ASSETS		55,151,742	54,290,076

STATEMENT OF PROFIT OR LOSS

FOR THE YEAR ENDED 30 JUNE 2024

	NOTE	2024 (RUPEES IN THOUSAND)	2023
REVENUE FROM CONTRACTS WITH CUSTOMERS	26	58,676,926	60,105,873
COST OF SALES	27	(49,151,388)	(52,017,778)
GROSS PROFIT		9,525,538	8,088,095
DISTRIBUTION COST	28	(3,020,812)	(3,815,010)
ADMINISTRATIVE EXPENSES	29	(1,162,792)	(1,234,004)
OTHER EXPENSES	30	(160,908)	(191,037)
OTHER INCOME	31	276,492	3,841,425
FINANCE COST	32	(4,999,501)	(3,198,821)
PROFIT BEFORE LEVY AND TAXATION		458,017	3,490,648
LEVY	211	(852,699)	(793,604)
(LOSS) / PROFIT BEFORE TAXATION		(394,682)	2,697,044
TAXATION	33	(75,348)	(45,855)
(LOSS) / PROFIT AFTER TAXATION		(470,030)	2,651,189
(LOSS) / EARNINGS PER SHARE - BASIC (RUPEES)	34	(7.95)	38.54
- DILUTED (RUPEES)	34	(7.30)	34.72

24.Premium Textile Mills Limited

Premium Textile Mills Limited

Statement of Financial Position
As at June 30, 2024

	Note	2024	2023
		Rupees	
ASSETS			
Non- current assets			
Property, plant and equipment	4	15,031,159,104	12,170,206,485
Intangible assets		-	18,221,220
Long term advances and deposits	5	4,247,719	31,937,719
		15,035,406,823	12,220,365,424
Current assets			
Stores and spares	6	726,402,673	569,409,130
Stock in trade	7	6,419,117,631	8,973,797,538
Trade debts - net	8	7,275,865,808	4,606,616,224
Tax refunds due from Government	9	363,458,252	81,050,422
Advances, deposits and other receivables	10	255,917,079	885,466,213
Cash and bank balances	11	463,588,885	712,197,857
		15,504,350,328	15,828,537,384
Total assets		30,539,757,151	28,048,902,808
EQUITY AND LIABILITIES			
Share capital and reserves			
Authorized capital			
7,000,000 (June 30, 2023: 7,000,000) ordinary shares of Rs. 10/- each		70,000,000	70,000,000
Issued, subscribed and paid-up capital	12	61,630,000	61,630,000
Capital reserve			
Surplus on revaluation of plant and electrical instruments	13	1,145,294,299	1,295,655,749
Revenue reserve			
Unappropriated profits		7,284,806,826	7,795,381,951
Total equity		8,491,731,125	9,152,667,700
LIABILITIES			
Non-current liabilities			
Long term financing - secured	14	7,286,238,600	5,903,407,449
Deferred liabilities	15	1,667,913,207	1,320,656,892
		8,954,151,807	7,224,064,341
Current liabilities			
Trade and other payables	16	2,259,553,858	2,133,599,183
Unclaimed dividend		10,448,093	9,770,976
Accrued markup	17	512,826,194	505,719,136
Short term borrowings - secured	18	9,079,025,121	8,136,883,241
Current maturity of government grant		192,068,879	149,417,152
Current maturity of Gas Infrastructure Development Cess		101,122,978	-
Current maturity of long term financing	14	938,829,096	736,781,079
		13,093,874,219	11,672,170,767
Contingencies and commitments	19		
Total equity and liabilities		30,539,757,151	28,048,902,808

The annexed notes from 1 to 38 form an integral part of these financial statements

Premium Textile Mills Limited

Statement of Profit or Loss
For the year ended June 30, 2024

	Note	2024	(Restated) 2023
		Rupees	
Sales - net	20	**27,075,690,885**	22,828,702,999
Cost of sales	21	**(23,336,143,317)**	(18,889,278,788)
Gross profit		**3,739,547,568**	3,939,424,211
Administrative expenses	22	**(573,458,130)**	(528,978,889)
Distribution costs	23	**(430,449,243)**	(297,397,271)
		(1,003,907,373)	(826,376,160)
Operating profit		**2,735,640,195**	3,113,048,051
Finance costs	24	**(3,071,059,168)**	(2,238,214,139)
Other income / (expenses) - net	25	**136,284,002**	622,838,811
		(2,934,775,166)	(1,615,375,328)
(Loss) / profit before levies and taxation		**(199,134,971)**	1,497,672,723
Levies	26	**(313,095,801)**	(455,100,677)
(Loss) / profit before taxation		**(512,230,772)**	1,042,572,046
Taxation	27	**70,936,082**	71,294
(Loss) / profit after taxation		**(441,294,690)**	1,042,643,340
(Loss) / earnings per share - basic and diluted	28	**(71.60)**	169.18

The annexed notes from 1 to 38 form an integral part of these financial statements.

Chief Executive Officer **Director** **Chief Financial Officer**

25.Quetta Textile Mills Limited

QUETTA TEXTILE MILLS LIMITED

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	30th June, 2024 Rupees	30th June, 2023 Rupees
ASSETS			
NON CURRENT ASSETS			
Property, plant and equipment	5	10,256,360,220	10,440,680,485
Long term deposits	6	60,669,433	51,861,020
		10,317,029,653	10,492,541,505
CURRENT ASSETS			
Stores and Spares & Loose Tools	7	593,969,373	593,315,735
Stock in trade	8	2,909,414,624	2,947,751,349
Trade debts	9	147,901,796	129,818,043
Other financial assets	10	118,007,492	124,153,680
Advances, deposits, prepayments and other receivable	11	64,669,931	72,512,536
Income Tax And Sales Tax Refundable	12	691,935,076	637,449,082
Cash and bank balances	13	5,779,998	13,235,499
		4,531,678,290	4,518,235,924
		14,848,707,943	**15,010,777,429**
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized capital			
20,000,000 (June 30, 2023: 20,000,000) ordinary shares of Rs. 10 each		200,000,000	200,000,000
15,000,000 (June 30, 2023: 15,000,000) preference shares of Rs. 10 each		150,000,000	150,000,000
		350,000,000	350,000,000
Issued, subscribed and paid-up capital	14	130,000,000.00	130,000,000
Reserves	15	(4,177,398,396)	(3,534,069,054)
Loan from directors and others	16	212,728,470	212,728,470
Revaluation surplus on property, plant and equipment	17	7,104,771,535	7,178,781,469
		3,270,101,609	3,987,440,885
NON CURRENT LIABILITIES			
Long term finances	18	582,183,564	517,683,564
Redeemable capital - Sukuk	19	-	-
Liabilities against assets subject to finance lease	20	-	-
Deferred liabilities	21	32,048,417	88,573,620
		614,231,981	606,257,184
CURRENT LIABILITIES			
Trade and other payables	22	6,016,193,661	5,330,839,250
Accrued mark-up	23	1,036,252,984	1,036,252,984
Short term borrowings	24	1,743,205,264	1,954,496,425
Loan from directors and others	25	109,066,357	109,066,357
Current portion of:			
Long term finances	18	1,399,006,210	1,314,704,383
Redeemable capital - Sukuk	19	611,335,643	611,335,643
Liabilities against assets subject to finance lease	20	12,516,552	18,288,552
Unclaimed dividend		36,467	36,467
Provision for taxation		36,761,215	42,059,299
		10,964,374,353	10,417,079,360
CONTINGENCIES AND COMMITMENTS	26	-	-
		14,848,707,943	**15,010,777,429**

The annexed notes form an integral part of these financial statements.

QUETTA TEXTILE MILLS LIMITED

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	30th June, 2024 Rupees	30th June, 2023 Rupees
Sales	27	888,780,269	3,392,968,326
Cost of sales	28	(1,534,686,686)	(4,371,024,010)
Gross (Loss)		(645,906,417)	(978,055,684)
Other income	29	31,036,056	173,599,160
		(614,870,361)	(804,456,524)
Distribution cost	30	(4,496,983)	(10,761,650)
Administrative expenses	31	(47,495,113)	(91,278,291)
Other operating expenses	32	(17,832,266)	(3,810,397)
Finance cost	33	(7,809,182)	(32,318,741)
		(77,633,544)	(138,169,079)
(Loss) before Levies and Taxation		(692,503,905)	(942,625,603)
Levies	34	(11,095,142)	(42,062,996)
(Loss) before Taxation		(703,599,047)	(984,688,599)
Taxation		(251,919)	(379,642)
(Loss) for the year		**(703,850,966)**	**(985,068,241)**
(Loss) per share - basic and diluted	35	**(54.14)**	**(75.77)**

The annexed notes form an integral part of these financial statements.

Chief Executive — Director — Chief Financial Officer

<u>26.Ruby Textile Mills Limited</u>

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

ASSETS	Notes	2024 Rupees	2023 Rupees
NON-CURRENT ASSETS			
Property, plant and equipment & CWIP	4	902,793,832	931,131,964
Long term deposits	5	1,303,945	1,303,945
		904,097,777	932,435,909
CURRENT ASSETS			
Stores, spare parts and loose tools	6	-	-
Stock-in-trade	7	-	-
Trade debts	8	10,848,426	17,737,426
Advances and prepayments	9	3,946,206	6,310,764
Due from Government	10	11,266,727	8,296,745
Cash and bank balances	11	116,756	638,678
		26,178,115	32,983,612
TOTAL ASSETS		930,275,892	965,419,521
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital		700,000,000	700,000,000
Issued, subscribed and paid up share capital	12	522,144,000	522,144,000
Accumulated losses		(922,125,325)	(887,128,572)
Surplus on revaluation of property, plant and equipment	13	416,866,781	425,271,805
Loan from sponsors and other related parties	14	688,003,209	653,309,709
		704,888,665	713,596,942
NON-CURRENT LIABILITIES			
Long term financing from others	15	59,062,500	79,477,250
Long term security deposits	16	1,791,660	7,731,660
Deferred liabilities	17	19,394,796	29,404,308
		80,248,956	116,613,218
CURRENT LIABILITIES			
Trade and other payables	18	78,181,586	78,088,715
Accrued markup	19	13,326,870	11,755,993
Unclaimed dividend	20	402,570	402,570
Current & overdue portion of long term loans	21	53,227,246	44,962,083
Provision for taxation	22	-	-
		145,138,271	135,209,361
TOTAL LIABILITIES		225,387,227	251,822,579
CONTINGENCIES AND COMMITMENTS	23	-	-
TOTAL EQUITY AND LIABILITIES		930,275,892	965,419,521

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Notes	2024 Rupees	2023 Rupees
Turnover - net	24	-	12,298,560
Cost of sales	25	-	(109,328,917)
Gross loss		-	**(97,030,357)**
Administrative and general expenses	26	(64,109,176)	(28,904,094)
Other income/ (Expenses)	27	13,028,906	60,859,629
		(51,080,270)	**31,955,535**
Loss before finance cost		**(51,080,270)**	**(65,074,822)**
Finance cost	28	(3,066,048)	(4,325,260)
Loss before taxation		**(54,146,318)**	**(69,400,082)**
Taxation	29	8,901,374	9,128,702
Loss after taxation for the year		**(45,244,944)**	**(60,271,380)**
Earnings per share - basic and diluted	30	**(0.87)**	**(1.15)**

The annexd notes from 1 to 42 form an integral part of these financial statements.

27.Saif Textile Mills Limited

STATEMENT OF FINANCIAL POSITION

As at June 30, 2024

	Note	2024	2023
		-------- Rupees in '000	--------
Equity and Liabilities			
Share Capital and Reserves			
Authorised capital			
30,000,000 ordinary shares of Rs.10 each		300,000	300,000
Issued, subscribed and paid-up capital	4	264,129	264,129
Reserves	5	265,867	265,867
Unappropriated profit		1,144,442	1,036,356
Surplus on revaluation of property, plant and equipment	6	2,474,112	2,578,834
Total Shareholders' equity		4,148,550	4,145,186
Non-current Liabilities			
Long term financing	7	1,294,619	611,987
Deferred income - government grant	8	8,603	14,336
Long term deposits	9	14,233	19,351
Staff retirement benefits - gratuity	10	226,139	230,624
Deferred taxation	11	759,930	643,634
		2,303,524	1,519,932
Current Liabilities			
Trade and other payables	12	1,201,169	752,256
Contract liabilities	13	78,358	108,940
Unpaid dividend		473	477
Unclaimed dividend		8,586	8,591
Accrued mark-up and interest	14	430,154	414,485
Short term borrowings	15	5,567,518	5,929,231
Current portion of non-current liabilities	16	403,814	581,714
Provision for tax levies	17	152,189	145,877
		7,842,261	7,941,571
		10,145,785	9,461,503
Contingencies and Commitments	18		
		14,294,335	13,606,689

STATEMENT OF FINANCIAL POSITION

As at June 30, 2024

	Note	2024	2023
		Rupees in '000	
Assets			
Non-current Assets			
Property, plant and equipment	19	7,923,952	8,305,579
Long term investments	20	14,886	14,886
Long term loans	21	2,688	23,320
Long term deposits		30,570	35,241
		7,972,096	8,379,026
Current Assets			
Stores, spare parts and loose tools	22	299,718	378,151
Stock-in-trade	23	3,675,635	2,793,847
Trade debts	24	1,801,804	1,526,627
Loans and advances	25	18,549	62,658
Short term prepayments	26	1,907	8,053
Other receivables	27	51,258	74,854
Deposit for shares	28	0	0
Prepaid tax levies		4,951	2,811
Taxation	29	336,433	359,433
Tax refunds due from Government	30	111,261	5,034
Cash and bank balances	31	20,723	16,195
		6,322,239	5,227,663

28.Sapphire Textile Mills Limited

STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2024

	Note	2024 Rupees	2023 Rupees
Assets			
Non current assets			
Property, plant and equipment	5	25,066,182,723	23,645,498,180
Investment property	6	168,394,648	31,750,000
Long-term investments	8	16,201,206,623	14,430,299,029
Long-term loans and advances	9	56,168,867	247,836,567
Deferred tax assets	26	175,222,497	-
Long-term deposits	10	92,390,956	90,960,692
		41,759,565,314	38,446,344,468
Current assets			
Stores, spares and loose tools	11	693,108,108	606,426,292
Stock in trade	12	24,533,274,861	23,033,836,137
Trade debts	13	8,938,814,406	6,613,608,124
Loans and advances	14	163,741,461	138,757,698
Trade deposits and short term prepayments	15	1,015,000	18,014,999
Other receivables	16	1,287,506,274	1,210,135,511
Short-term investments	17	4,251,400,468	1,364,735,401
Tax refunds due from Government	18	1,057,328,166	3,870,665,895
Cash and bank balances	19	330,173,801	413,088,085
		41,256,362,545	37,269,268,132
Total assets		83,015,927,859	75,715,612,600
Equity and Liabilities			
Share capital and reserves			
Authorised share capital			
35,000,000 ordinary shares of Rs.10 each		350,000,000	350,000,000
Issued, subscribed and paid-up capital	20	216,897,910	216,897,910
Reserves	21	36,699,955,373	28,021,556,474
Total equity		36,916,853,283	28,238,454,384
Non current liabilities			
Long-term loans and other payables	22	16,285,617,462	17,232,965,804
Lease liabilities	23	21,801,671	42,078,523
Deferred income - Government grant	24	231,865,017	301,695,117
Staff retirement benefit - gratuity	25	694,238,165	470,793,864
		17,233,522,315	18,047,533,308
Current liabilities			
Trade and other payables	27	7,369,596,779	6,894,050,098
Contract liabilities	28	2,157,678,658	1,724,443,253
Accrued mark-up	29	790,101,417	1,201,060,662
Short-term borrowings	30	14,475,916,892	15,989,756,607
Current portion of long-term liabilities	31	4,070,224,745	3,618,531,938
Unclaimed dividend		2,033,780	1,782,350
		28,865,552,261	29,429,624,908
Total liabilities		46,099,074,576	47,477,158,216
Contingencies and commitments	32		
Total equity and liabilities		83,015,927,859	75,715,612,600

The annexed notes form an integral part of these financial statements.

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 30 JUNE 2024

	Note	2024 Rupees	2023 Rupees (Restated)
Net turnover	33	82,399,261,523	72,837,269,483
Cost of sales	34	(71,336,288,178)	(62,467,585,565)
Gross profit		11,062,973,345	10,369,683,918
Distribution cost	35	(2,538,894,357)	(2,383,299,141)
Administrative expenses	36	(936,583,883)	(755,307,456)
Other operating expenses	37	(242,518,087)	(300,144,054)
Other income	38	5,895,059,537	2,453,960,838
Profit from operations		13,240,036,555	9,384,894,105
Finance cost	39	(6,395,038,280)	(4,683,561,253)
Profit before revenue tax income tax and levy		6,844,998,275	4,701,332,852
Final taxes - levy	40	(1,695,626,977)	(1,252,135,870)
Profit before income tax		5,149,371,298	3,449,196,982
Income tax expense	40	24,365,409	(158,024,309)
Profit for the year		5,173,736,707	3,291,172,673
Earnings per share - basic and diluted	41	238.53	151.74

The annexed notes form an integral part of these financial statements.

STATEMENT OF FINANCIAL POSITION AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
CAPITAL AND LIABILITIES			
Share Capital and Reserves			
Authorized share capital			
20,000,000 (2023: 20,000,000) ordinary shares of Rs. 10 each		200,000,000	200,000,000
Issued, subscribed and paid up capital	5	137,875,670	137,875,670
Share premium reserve		18,676,816	18,676,816
Accumulated loss		(318,533,836)	(233,221,606)
Surplus on revaluation of property, plant and equipment	6	1,073,333,474	1,086,794,560
		911,352,124	1,010,125,440
Non Current Liabilities			
Long term financing	7	19,213,153	26,294,691
Post employment benefit obligations	8	24,354,001	21,668,309
Deferred tax liability	9	45,915,029	53,992,892
		89,482,183	101,955,892
Current Liabilities			
Trade and other payables	10	404,136,999	278,144,159
Unclaimed dividends		232,987	232,987
Unpaid dividends		683,629	683,629
Short term borrowings	11	26,720,000	26,720,000
Current portion of long term financing	7	11,750,000	15,749,980
Accrued markup		8,782,300	4,916,506
Provision for taxation	12	16,766,470	13,145,037
		469,072,385	339,592,298
Contingencies and Commitments	13	-	-
Total Equity and Liabilities		1,469,906,692	1,451,673,630
ASSETS			
Non Current Assets			
Property, plant and equipment	14	1,284,419,194	1,317,923,851
Long term deposits	15	23,564,083	19,367,023
		1,307,983,277	1,337,290,874
Current Assets			
Stores and spares	16	3,569,118	4,003,153
Stock in trade	17	65,567,338	59,791,184
Trade debts	18	3,239,253	2,196,115
Advances and prepayments	19	65,199,860	29,208,799
Cash and bank balances	20	24,347,846	19,183,505
		161,923,415	114,382,756
Total Assets		1,469,906,692	1,451,673,630

STATEMENT OF PROFIT OR LOSS ACCOUNT
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees (Restated)
Revenue	21	1,341,317,598	1,051,602,974
Cost of sales	22	(1,376,556,469)	(1,161,445,018)
Gross Loss		(35,238,871)	(109,842,044)
Operating expenses:			
- Distribution cost	23	(9,069,761)	(7,385,834)
- Administrative expenses	24	(34,700,190)	(35,177,828)
		(43,769,951)	(42,563,662)
Operating Loss		(79,008,822)	(152,405,706)
Finance cost	25	(12,262,287)	(12,371,386)
Other operating expenses	26	(1,579,670)	(852,500)
Other income	27	131,266	8,258,846
		(13,710,691)	(4,965,040)
Loss before Levy / Taxation		(92,719,513)	(157,370,746)
Levy	28	(16,766,470)	(13,287,162)
		(109,485,983)	(170,657,908)
Loss before Income Tax			
Income tax	29	8,841,956	12,739,476
Net Loss for the Year		(100,644,027)	(157,918,432)
Loss per Share - Basic and Diluted	30	(7.30)	(11.45)

The annexed notes from 1 to 41 form an integral part of these financial statements.

30.Shadab Textile Mills Limited

STATEMENT OF FINANCIAL POSITION

	NOTE	2024 (RUPEES IN THOUSAND)	2023
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorised share capital 40 million (2023: 40 million) Ordinary shares of Rs.10/- each.		400,000	400,000
Issued, subscribed and paid-up share capital	6	166,000	166,000
Capital reserves	7	204,000	204,000
Revenue reserves		808,024	709,558
Equity contributions from sponsors	8	434,373	373,103
TOTAL EQUITY		1,612,397	1,452,661
NON - CURRENT LIABILITIES			
Long term loans	9	203,686	264,001
Lease liabilities	10	950	10,039
Deferred liabilities	11	20,252	104,918
		224,888	378,958
CURRENT LIABILITIES			
Trade and other payables	12	439,461	364,736
Unclaimed dividend		673	673
Accrued mark-up	13	23,648	23,144
Short term borrowings	14	617,777	475,264
Current portion of long term liabilities	15	78,422	78,850
Provision for taxation		91,777	75,025
		1,251,758	1,017,692
CONTINGENCIES AND COMMITMENTS	16	-	-
TOTAL EQUITY & LIABILITIES		3,089,043	2,849,311

The annexed notes form an integral part of these financial statements.

AS AT JUNE 30, 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
ASSETS			
NON - CURRENT ASSETS			
Property, plant and equipment	17	**1,384,065**	1,428,625
Intangible Assets	18	**987**	-
Right of use assets	19	**26,230**	32,788
Long term deposits	20	**2,348**	2,434
		1,413,630	1,463,847
CURRENT ASSETS			
Stores, spares and loose tools	21	**143,781**	179,838
Stock in trade	22	**796,765**	577,799
Trade debts	23	**322,808**	373,940
Loans and advances	24	**108,250**	61,878
Trade deposits and prepayments	25	**130,840**	70,701
Other receivables	26	**144,103**	108,800
Cash and bank balances	27	**28,866**	12,508
		1,675,413	1,385,464
TOTAL ASSETS		**3,089,043**	2,849,311

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
Sales - net	28	7,280,768	5,962,782
Cost of sales	29	6,881,703	5,779,130
GROSS PROFIT		399,065	183,652
Administrative and general expenses	30	153,660	140,023
Selling and distribution expenses	31	391	2,089
		154,051	142,112
OPERATING PROFIT		245,014	41,540
Finance costs	32	133,911	137,046
Other charges	33	36,030	-
		75,073	(95,506)
Other income	34	39,834	2,933
PROFIT / (LOSS) BEFORE LEVIES AND TAXATION		114,907	(92,573)
Minimum Tax	35	(57,971)	(12,891)
PROFIT / (LOSS) BEFORE TAXATION		56,936	(105,464)
Taxation	36	41,530	(2.278)
PROFIT / (LOSS) AFTER TAXATION		98,466	(107,742)
BASIC AND DILUTED EARNING / (LOSS) PER SHARE-(RUPEES)	39	5.93	(6.49)

The annexed notes form an integral part of these financial statements.

31.Shahtaj Textile Mills Limited

SHAHTAJ TEXTILE

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	June 30, 2024	June 30, 2023
		(Rupees in '000)	
EQUITY AND LIABILITIES			
Share capital and reserves			
Authorized share capital			
10,000,000 ordinary shares of Rs. 10 each		100,000	100,000
Issued, subscribed and paid-up capital	5	96,600	96,600
Revenue reserves		1,489,820	1,493,776
Surplus on revaluation of plant and machinery	6	205,822	197,980
Total equity		1,792,242	1,788,356
LIABILITIES			
Non-current liabilities			
Long-term finance	7	714,003	870,496
Deferred liabilities	8	103,367	167,101
		817,370	1,037,597
Current liabilities			
Trade and other payables	9	858,972	916,203
Unclaimed dividend		40,418	35,550
Interest accrued	10	50,215	51,396
Short-term borrowings	11	749,873	819,815
Current portion of long-term finance	7	141,580	81,548
		1,841,058	1,904,512
Contingencies and Commitments	12		
Total equity and liabilities		4,450,670	4,730,465

	Note	June 30, 2024	June 30, 2023
		(Rupees in '000)	
ASSETS			
Non-current assets			
Property, plant and equipment	13	1,862,143	1,632,173
Long-term loans	14	260	443
Long-term deposits	15	34,434	33,138
		1,896,837	1,665,754
Current assets			
Stores, spares and loose tools	16	65,446	79,171
Stock-in-trade	17	1,112,302	1,253,199
Trade debts	18	1,067,253	1,082,001
Loans and advance	19	17,018	3,073
Trade deposits and prepayments	20	3,105	289,870
Prepaid assets		49,612	56,560
Other receivables	21	6,818	7,061
Short term investment	22	38,000	-
Sales tax refundable		159,916	251,190
Cash and bank balances	23	34,363	42,586
		2,553,833	3,064,711
Total assets		4,450,670	4,730,465

SHAHTAJ TEXTILE

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	June 30, 2024	June 30, 2023
		(Rupees in '000)	
Sales - net	24	7,953,428	8,085,182
Cost of goods sold	25	(7,280,119)	(7,444,245)
Gross profit		673,309	640,937
Distribution expenses	26	(110,720)	(102,928)
Administrative expenses	27	(150,405)	(142,133)
Other operating expenses	28	(40,906)	(20,102)
Finance cost	29	(318,005)	(214,342)
		(620,036)	(479,505)
		53,273	161,432
Other income	30	35,204	75,723
Profit before levies & taxes		88,477	237,155
Levies	31	(95,537)	(100,073)
(Loss) / profit before taxation		(7,060)	137,082
Taxation	31	34,252	15,936
Profit after taxation		27,192	153,018
		Rupees	
Earnings per share - basic and diluted	32	2.81	15.84

The annexed notes from 1 to 46 form an integral part of these financial statements.

<u>32.Shams Textile Mills Limited</u>

STATEMENT OF FINANCIAL POSITION

AS AT JUNE 30, 2024

	Note	2024	2023
		(Rupees in thousand)	
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorised share capital			
25,000,000 (2023: 25,000,000) ordinary shares of Rupees 10 each		250,000	250,000
Issued, subscribed and paid-up share capital	4	86,400	86,400
Reserves	5	844,918	857,301
Total equity		931,318	943,701
LIABILITIES			
NON-CURRENT LIABILITIES			
Gas Infrastructure Development Cess (GIDC) payable	6	-	-
CURRENT LIABILITIES			
Trade and other payables	7	1,147,211	1,363,923
Accrued mark-up	8	18,478	4,959
Short term borrowings	9	405,206	108,298
Current portion of GIDC payable	6	31,226	31,226
Unclaimed dividend		4,622	4,622
Taxation and levy payable - net	10	9,409	1,356
		1,616,152	1,514,384
Total liabilities		1,616,152	1,514,384
CONTINGENCIES AND COMMITMENTS	11	-	-
TOTAL EQUITY AND LIABILITIES		2,547,470	2,458,085

The annexed notes form an integral part of these financial statements.

	Note	2024	2023
		(Rupees in thousand)	
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	12	765,738	719,628
Long term investments	13	66,662	45,150
Long term security deposits	14	25,522	7,736
Deferred income tax asset - net	15	-	-
		857,922	772,514
CURRENT ASSETS			
Stores and spare parts	16	86,310	92,730
Stock-in-trade	17	443,121	629,506
Trade debts	18	781,629	536,089
Advances	19	12,232	2,361
Other receivables	20	13,021	32,813
Sales tax refundable		294,222	366,336
Cash and bank balances	21	59,013	25,736
		1,689,548	1,685,571
TOTAL ASSETS		2,547,470	2,458,085

SHAMS TEXTILE MILLS LIMITED

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024	2023
		(Rupees in thousand)	
REVENUE FROM CONTRACTS WITH CUSTOMERS	22	6,916,185	3,309,014
COST OF SALES	23	(6,645,451)	(3,363,623)
GROSS PROFIT / (LOSS)		270,734	(54,609)
DISTRIBUTION COST	24	(60,871)	(36,846)
ADMINISTRATIVE EXPENSES	25	(123,368)	(116,296)
OTHER EXPENSES	26	(33,049)	(3,928)
		(217,288)	(157,070)
		53,446	(211,679)
OTHER INCOME	27	89,787	114,621
PROFIT / (LOSS) FROM OPERATIONS		143,233	(97,058)
FINANCE COST	28	(90,503)	(10,658)
PROFIT / (LOSS) BEFORE LEVY AND TAXATION		52,730	(107,716)
LEVY	29	(81,686)	(45,576)
LOSS BEFORE TAXATION		(28,956)	(153,292)
TAXATION	30	(4,939)	-
LOSS AFTER TAXATION		(33,895)	(153,292)
LOSS PER SHARE - BASIC AND DILUTED (RUPEES)	31	(3.92)	(17.74)

The annexed notes form an integral part of these financial statements.

33.Sunrays Textile Mills Limited

UNCONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT JUNE 30, 2024

	Note	2024	2023
		---------- Rupees ----------	
ASSETS			
Non-current assets			
Property, plant and equipment	6	**7,583,547,948**	7,162,221,848
Investment property	7	**-**	2,342,055
Long term investment	8	**190,850,000**	190,850,000
Long term advances	9	**86,968,155**	174,181,019
Long term deposits		**6,991,200**	6,991,200
		7,868,357,303	7,536,586,122
Current assets			
Stores and spares	10	**247,706,284**	109,838,500
Stock in trade	11	**2,395,400,226**	2,251,843,475
Trade debts	12	**3,068,459,274**	1,181,300,477
Loans and advances	13	**102,153,113**	109,281,940
Advance taxes	14	**185,868,153**	164,021,250
Trade deposits	15	**21,896,388**	21,139,226
Other receivables	16	**12,869,513**	56,468,715
Other financial assets	17	**531,794,041**	313,588,655
Sales tax refundable		**773,149,601**	560,413,914
Income tax refundable		**123,732,845**	51,532,339
Cash and bank balances	18	**83,986,195**	45,402,621
		7,547,015,633	4,864,831,112
Total assets		**15,415,372,936**	12,401,417,234
EQUITY AND LIABILITIES			
Share capital and reserves			
Issued, subscribed and paid-up capital	19	**207,000,000**	207,000,000
Share premium		**3,600,000**	3,600,000
Surplus on revaluation of property, plant and equipment	20	**1,536,985,734**	1,983,349,881
Reserves	21	**6,112,000,000**	612,000,000
Unappropriated profit		**343,840,993**	5,543,302,217
		8,203,426,727	8,349,252,098
Non-current liabilities			
Long term financing	22	**2,707,707,420**	2,753,804,609
Deferred taxation	23	**369,173,962**	-
Deferred liabilities	24	**115,514,664**	18,390,994
		3,192,396,046	2,772,195,603
Current liabilities			
Trade and other payables	25	**976,285,148**	599,193,175
Accrued markup	26	**175,788,524**	133,652,081
Short term borrowings	27	**2,285,390,105**	191,100,843
Current portion of long term financing	22	**223,944,846**	164,308,301
Unclaimed dividend		**22,523,062**	24,201,201
Provision for taxation	28	**335,618,478**	167,513,932
		4,019,550,163	1,279,969,533
Contingencies and commitments	29		
Total equity and liabilities		**15,415,372,936**	12,401,417,234

The annexed notes from 1 to 51 form an integral part of these unconsolidated financial statements.

UNCONSOLIDATED STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024	2023
		------------- Rupees -------------	
Revenue from contracts with customers	30	**20,148,888,456**	9,459,221,677
Cost of sales	31	**(18,544,262,066)**	(8,829,380,566)
Gross profit		**1,604,626,390**	629,841,111
Distribution cost	32	**(200,511,914)**	(132,691,481)
Administrative expenses	33	**(311,256,220)**	(274,847,117)
Other expenses	34	**(51,655,749)**	(31,721,634)
Finance cost	35	**(1,023,046,345)**	(124,129,325)
Other income	36	**464,793,625**	349,439,442
		(1,121,676,603)	(213,950,115)
Profit before final taxes,revenue taxes and income tax		**482,949,787**	415,890,996
Final taxes	37	**1,325,666**	(80,766,347)
Profit before revenue taxes and income tax		**484,275,453**	335,124,649
Revenue taxes	38	**(254,899,826)**	(11,399,832)
Profit before income tax		**229,375,627**	323,724,816
Income tax	39	**(52,181,844)**	(35,907,821)
Profit for the year		**177,193,783**	287,816,995
Earnings per share - basic and diluted	40	**8.56**	13.90

The annexed notes from 1 to 51 form an integral part of these unconsolidated financial statements.

34.Shahzad Textile Mills Limited

STATEMENT OF FINANCIAL POSITION

	Note	2024 Rupees	2023 Rupees
EQUITY AND LIABILITIES			
Share Capital and Reserves			
Authorized share capital: 40,000,000 (2023: 40,000,000) ordinary shares of Rs. 10 each		400,000,000	400,000,000
Issued, subscribed and paid up capital	5	179,713,720	179,713,720
Reserves	6	1,902,233,795	1,993,253,457
Surplus on revaluation of property, plant and equipment	7	1,244,680,240	838,080,271
		3,326,627,755	3,011,047,448
Non Current Liabilities			
Long term financing	8	221,437,467	298,517,844
Deferred tax liability	9	440,547,106	389,707,075
		661,984,573	688,224,919
Current Liabilities			
Trade and other payables	10	718,364,264	740,814,562
Unclaimed dividends		146,294	146,294
Unpaid dividends		199,348	199,348
Accrued mark up		35,003,816	33,575,493
Current portion of non-current liabilities	11	183,350,763	181,674,043
Short term borrowings	12	809,338,431	387,470,715
Provision for taxation	13	134,922,150	101,800,664
		1,881,325,066	1,445,681,119
Contingencies and Commitments	14	-	-
		5,869,937,394	5,144,953,486

AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
ASSETS			
Non Current Assets			
Property, plant and equipment	15	2,791,240,812	2,476,370,428
Investment property	16	108,150,000	93,730,000
Investment in associate	17	916,777,204	858,690,134
Long term deposits	18	3,847,448	3,847,448
		3,820,015,464	3,432,638,010
Current Assets			
Stores and spares	19	183,932,570	175,445,621
Stock in trade	20	755,307,391	688,626,810
Trade debts	21	301,813,054	235,241,695
Advances, deposits, prepayments and other receivables	22	205,693,866	189,699,924
Short term investments	23	36,566,313	35,563,313
Tax refunds due from the Government	24	357,458,586	319,291,484
Cash and bank balances	25	209,150,150	68,446,629
		2,049,921,930	1,712,315,476
		5,869,937,394	5,144,953,486

STATEMENT OF PROFIT OR LOSS

FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees (Restated)
Sales	26	11,014,646,483	8,398,630,158
Cost of sales	27	(10,497,180,486)	(8,164,265,071)
Gross Profit		517,465,997	234,365,087
Operating Expenses			
Selling and distribution costs	28	(145,037,796)	(147,292,473)
Administrative expenses	29	(286,615,705)	(254,814,766)
		(431,653,501)	(402,107,239)
Operating Profit / (Loss)		85,812,496	(167,742,152)
Finance cost	30	(192,537,238)	(135,900,125)
Other operating expenses	31	(16,667,437)	(67,283,477)
Other income	32	138,859,631	138,756,936
Share of net profit of associate	17	66,986,400	44,293,650
		(3,358,644)	(20,133,016)
Profit / (Loss) before Levy and Taxation		82,453,852	(187,875,168)
Levy / final taxation	33	(134,922,150)	(78,540,502)
Loss before Taxation		(52,468,298)	(266,415,670)
Taxation	33	(46,314,680)	(2,824,262)
Net Loss for the Year		(98,782,978)	(269,239,932)
Loss per Share - Basic and Diluted	34	(5.50)	(14.98)

The annexed notes from 1 to 46 form an integral part of these financial statements.

35.Tata Textile Mills Limited

STATEMENT OF FINANCIAL POSITION

AS AT JUNE 30, 2024

	Note	2024	2023
		Rupees in '000	
Assets			
Non-current assets			
Property, plant and equipment	6	21,410,599	21,367,677
Intangible assets	7	9,422	13,223
Long term deposits		4,727	4,596
		21,424,748	21,385,496
Current assets			
Stores, spares and loose tools	8	590,873	398,162
Stock in trade	9	9,152,912	13,593,083
Trade debts	10	6,939,535	6,634,797
Loans and advances	11	82,790	487,387
Short term prepayments		22,890	13,726
Other receivables		170,617	83,632
Other financial assets	12	4,538,018	2,118,712
Taxation	13	728,858	794,937
Sales tax		394,589	439,070
Cash and bank balances	14	348,326	252,781
		22,969,408	24,816,287
Total assets		44,394,156	46,201,783
EQUITY AND LIABILITIES			
Share capital and reserves			
Share capital	15	559,936	559,936
General reserve		2,805,996	2,805,996
Unappropriated profits		7,083,799	7,537,077
Surplus on revaluation of operating fixed assets - net of tax	17	10,482,983	10,476,205
		20,932,714	21,379,214
Non-current liabilities			
Long term finance	18	3,187,320	2,051,708
Deferred liabilities	19	1,162,496	1,360,596
		4,349,816	3,412,304
Current liabilities			
Trade and other payables	20	3,003,524	5,354,612
Interest / mark up accrued	21	674,826	570,882
Short term borrowings	22	13,142,724	14,013,800
Current portion of long term finances	18	1,255,468	774,430
Unclaimed dividend		24,380	21,438
Provision for income and revenue taxes		1,010,704	675,103
		19,111,626	21,410,265
Total equity and liabilities		44,394,156	46,201,783
Contingencies and commitments	23		

The annexed notes from 1 to 46 form an integral part of these financial statements.

STATEMENT OF PROFIT OR LOSS

FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024	2023
		Rupees in '000	
Revenue from contract with customers - net	24	45,823,700	34,910,638
Cost of goods sold	25	(42,486,472)	(30,665,517)
Gross profit		3,337,228	4,245,121
Distribution cost	26	(488,492)	(379,078)
Administrative expenses	27	(592,794)	(665,664)
Other operating expenses	28	(61,560)	(179,299)
Finance cost - net	29	(4,497,410)	(2,704,662)
		(5,640,256)	(3,928,703)
Other income - net	30	2,578,686	392,153
Profit before final taxes, revenue taxes and income tax		275,658	708,571
Final taxes	31	(417,928)	(286,034)
(Loss) / profit before revenue taxes and income tax		(142,270)	422,537
Revenue taxes	32	(316,602)	(236,771)
(Loss) / profit before income tax		(458,872)	185,766
Income tax - net	33	(95,039)	74,759
(Loss) / profit for the year		(553,911)	260,525
		Rupees	
(Loss) / earnings per share - basic and diluted	34	(9.89)	4.65

The annexed notes from 1 to 46 form an integral part of these financial statements.

ZAHIDJEE TEXTILE MILLS LIMITED
STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
NON - CURRENT ASSETS			
Property, plant and equipment	3	15,641,316,550	13,608,051,037
Long term security deposits	4	8,475,784	20,475,784
		15,649,792,334	13,628,526,821
CURRENT ASSETS			
Stores, spares and loose tools	5	353,192,697	330,043,463
Stock in trade	6	3,986,474,536	4,388,063,736
Trade debts	7	3,797,606,090	3,765,446,396
Loans, advances and deposit	8	470,481,790	404,384,206
Prepayments	9	250,457,366	265,112,883
Other receivables	10	36,044,992	46,547,194
Short term investment	11	159,864,144	100,660,852
Tax refunds due from Government	12	497,580,340	212,142,170
Cash and bank balances	13	4,139,123,929	3,682,132,733
		13,690,825,884	13,194,533,634
CURRENT LIABILITIES			
Trade and other payables	14	2,665,346,383	2,059,707,731
Interest / mark up payable	15	246,729,036	92,636,667
Short term borrowings	16	3,009,412,776	3,047,299,701
Unclaimed dividend		13,070,334	9,313,318
Current portion of long term finance	17	858,822,983	706,279,169
Provision for taxation - income tax	33	823,305,828	468,315,445
		7,616,687,340	6,383,552,031
		21,723,930,878	20,439,508,424
NON - CURRENT LIABILITIES			
Long term finance	17	4,580,845,170	3,353,601,788
Deferred liability			
Staff retirement gratuity	18	-	21,985,109
Deferred taxation	19	1,130,940,629	1,301,530,462
		5,711,785,799	4,677,117,359
CONTINGENCIES AND COMMITMENTS	20	-	-
Net worth		16,012,145,079	15,762,391,065
Represented by :			
Share capital	21	1,914,210,990	1,914,210,990
Capital reserves			
Merger reserve		366,258,513	366,258,513
Surplus on revaluation of property, plant and equipment	22	3,491,794,897	3,884,399,416
Revenue reserves	23	10,239,880,679	9,597,522,146
		16,012,145,079	15,762,391,065
		16,012,145,079	15,762,391,065

ZAHIDJEE TEXTILE MILLS LIMITED
STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees Restated
Sales	24	37,741,817,075	32,317,373,245
Cost of sales	25	35,909,014,698	29,706,204,512
Gross profit		1,832,802,377	2,611,168,733
Trading profit	26	28,464,350	80,253,444
Other income	27	1,072,937,260	470,431,583
		2,934,203,987	3,161,853,760
Distribution cost	28	301,902,408	372,039,505
Administrative expenses	29	250,239,902	234,183,669
Other operating expenses	30	67,075,786	142,796,587
Finance cost	31	1,484,845,499	815,546,474
		2,104,063,595	1,564,566,235
Profit for the year before Levies and income tax		830,140,392	1,597,287,525
Levies	32	237,879,980	291,904,535
Profit for the year before taxation		592,260,412	1,305,382,990
Provision for taxation	33	(42,811,500)	92,008,328
Profit for the year		635,071,912	1,213,374,662
Earnings per share - Basic and diluted	34	3.32	6.34

The annexed notes from 1 to 42 form an integral part of these financial statements.

37.Zephyr Textile Mills Limited

STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2024

	Note	June 30, 2024 (Rupees)	June 30, 2023 (Rupees)
ASSETS			
NON CURRENT ASSETS			
Property, plant and equipment			
Operating fixed assets	8	2,674,565,278	2,420,908,614
Right of use asset	9	94,484,672	110,024,981
Capital work in progress	10	55,238,714	75,202,086
		2,824,288,664	2,606,135,681
Intangible assets	11	1,508,050	2,716,222
Long term deposits	12	25,325,624	25,602,294
		2,851,122,338	2,634,454,197
CURRENT ASSETS			
Stores, spares and loose tools	13	222,237,433	261,019,771
Stock in trade	14	1,539,271,888	1,456,787,939
Loans and advances	15	139,590,974	80,868,194
Trade debts	16	557,808,008	557,182,004
Trade deposits and prepayments	17	12,927,175	13,516,245
Tax refunds due from Government	18	167,568,980	521,469,078
Taxation / levy-net	19	2,248,840	-
Other receivables	20	100,734,730	85,275,159
Short term investments	21	48,802,438	107,975,933
Cash and bank balances	22	57,800,455	156,348,980
		2,848,990,921	3,240,443,303
TOTAL ASSETS		5,700,113,259	5,874,897,500
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital	23.1	625,000,000	625,000,000
Capital reserves			
Issued, subscribed and paid up share capital	23.2	594,287,290	594,287,290
Surplus on revaluation of property, plant and equipment	24	486,755,448	574,060,494
Revenue reserves			
Accumulated profit		1,493,865,963	1,361,643,813
		2,574,908,701	2,529,991,597
NON CURRENT LIABILITIES			
Long term financing	25	54,489,583	64,111,427
Deferred liabilities	26	213,791,826	227,434,587
Lease liabilities	27	-	21,388,890
Deferred grant	28	2,063,301	2,954,065
		270,344,710	315,888,969
CURRENT LIABILITIES			
Trade and other payables	29	1,412,617,994	1,602,937,009
Contract liabilities	30	9,964,970	17,880,030
Mark-up accrued	31	27,384,882	52,271,856
Short term borrowings	32	1,371,160,751	1,312,657,119
Taxation / levy-net	19	-	7,486,163
Unclaimed dividend		829,907	829,907
Current portion of long term liabilities	33	32,901,344	34,954,850
		2,854,859,848	3,029,016,934
TOTAL EQUITY AND LIABILITIES		5,700,113,259	5,874,897,500
CONTINGENCIES AND COMMITMENTS	34		

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED JUNE 30, 2024

	Note	June 30, 2024 (Rupees)	June 30, 2023 (Rupees) (Restated)
Sales - net	35	8,393,875,256	8,103,079,029
Cost of sales	36	(7,497,207,983)	(6,881,450,217)
Gross profit		896,667,273	1,221,628,812
Distribution cost	37	(488,680,100)	(439,382,872)
Administrative expenses	38	(131,185,622)	(115,719,473)
Other operating expense	39	(84,472,649)	(269,878,742)
Other income	40	252,116,327	163,586,404
		(452,222,044)	(661,394,683)
Operating profit		444,445,229	560,234,129
Finance costs	41	(293,003,323)	(189,581,100)
Profit before taxation and levy		151,441,906	370,653,029
Levy	42	(91,692,484)	(64,205,508)
Profit before income tax		59,749,422	306,447,521
Taxation	42	(14,095,776)	(68,489,080)
Profit after taxation		45,653,646	237,958,441
Earnings per share - basic and diluted (Rupees)	43	0.77	4.00

The annexed notes from 1 to 61 form an integral part of these financial statements.

38.Ellcot Spinning Mills Limited

STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2024

	Note	30-Jun-24	30-Jun-23
		Rupees	*Rupees*
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital	7	**400,000,000**	400,000,000
Issued share capital	8	**109,500,000**	109,500,000
Capital reserve	9	**18,837,447**	(77,201,726)
Retained earnings		**4,082,994,471**	3,988,289,232
TOTAL EQUITY		**4,211,331,918**	4,020,587,506
LIABILITIES			
NON-CURRENT LIABILITIES			
Long term finances	10	**3,440,775,886**	3,983,206,232
Employees retirement benefits	11	**210,938,548**	171,603,423
Deferred taxation	12	**156,856,138**	199,113,489
Deferred grant	13	**232,227,511**	302,675,484
		4,040,798,083	4,656,598,628
CURRENT LIABILITIES			
Trade and other payables	14	**1,125,269,321**	1,099,365,617
Unclaimed dividend		**8,141,187**	7,688,093
Accrued interest/profit	15	**82,763,408**	110,490,652
Short term borrowings	16	**147,508,995**	402,824,470
Current taxation	17	**38,690,458**	73,674,160
Current portion of non-current liabilities	18	**613,178,302**	462,997,611
		2,015,551,671	2,157,040,603
TOTAL LIABILITIES		**6,056,349,754**	6,813,639,231
CONTINGENCIES AND COMMITMENTS	19		
TOTAL EQUITY AND LIABILITIES		**10,267,681,672**	10,834,226,737

The annexed notes from 1 to 56 form an integral part of these financial statements.

NAGINA
NAGINA GROUP

STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2024

	Note	30-Jun-24	30-Jun-23
		Rupees	*Rupees*
ASSETS			
NON-CURRENT ASSETS			
Fixed assets	20	**4,843,948,424**	5,353,824,895
Long term deposits	21	**7,090,700**	7,090,700
		4,851,039,124	5,360,915,595
CURRENT ASSETS			
Stores and spares		**123,797,155**	147,500,214
Stock in trade	22	**1,936,694,440**	3,027,293,503
Trade receivables	23	**1,073,868,958**	945,283,223
Advances, deposits, prepayments and other receivables	24	**930,328,183**	861,007,038
Other financial assets	25	**1,104,644,600**	184,707,493
Tax refunds due from government	26	**133,799,736**	162,197,944
Bank balances	27	**113,509,476**	145,321,727
		5,416,642,548	5,473,311,142

NAGINA
NAGINA GROUP

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 30 JUNE 2024

	Note	30-Jun-24	30-Jun-23
		Rupees	*Rupees*
Revenue from contracts with customers - *net*	28	**15,510,705,255**	12,224,217,632
Cost of sales	29	**(14,463,574,110)**	(11,182,168,469)
Gross profit		**1,047,131,145**	1,042,049,163
Selling and distribution expenses	30	**(105,861,804)**	(125,913,766)
Administrative expenses	31	**(226,604,525)**	(216,715,668)
Other expenses	32	**(2,866,180)**	(1,200,000)
		(335,332,509)	(343,829,434)
Impairment (allowance)/reversals for expected credit losses	44.1.6	**(628,408)**	23,190,130
		711,170,228	721,409,859
Other income	33	**89,384,163**	81,959,108
Operating profit		**800,554,391**	803,368,967
Finance cost	34	**(480,928,981)**	(188,912,663)
Profit before statutory levies and taxation		**319,625,410**	614,456,304
Provision for statutory levies	35	**(167,181,535)**	(190,501,418)
Profit before taxation		**152,443,875**	423,954,886
Provision for taxation	36	**536,044**	(4,219,796)
Profit after taxation		**152,979,919**	419,735,090
Earnings per share - *basic and diluted*	37	**13.97**	38.33

The annexed notes from 1 to 56 form an integral part of these financial statements.

39.Faisal Spinning Mills Limited

Faisal Spinning Mills Limited

Statement of Financial Position
As at June 30, 2024

EQUITY AND LIABILITIES	Note	June 30, 2024 PKR	June 30, 2023 Restated PKR	June 30, 2022 Restated PKR
SHARE CAPITAL AND RESERVES				
Authorized capital				
12,000,000 (2023: 12,000,000) ordinary shares of PKR 10 each		120,000,000	120,000,000	120,000,000
Issued, subscribed and paid up capital	6	100,000,000	100,000,000	100,000,000
Reserves	7	11,312,047,267	12,843,890,414	11,603,522,389
Loan from directors and sponsors	8	1,072,718,600	1,072,718,600	937,781,000
		12,484,765,867	14,016,609,014	12,641,303,389
NON CURRENT LIABILITIES				
Long term financing - secured	9	3,518,351,068	4,019,675,982	4,632,023,289
Employees retirement benefits	10	523,158,797	395,311,495	279,196,638
Deferred taxation	11	219,266,073	270,058,919	250,836,741
Deferred government grant	12	78,304,326	103,090,128	130,363,502
		4,339,080,264	4,788,136,524	5,292,420,170
CURRENT LIABILITIES				
Trade and other payables	13	4,609,261,606	4,520,278,022	3,755,979,081
Unclaimed dividend	14	19,460,365	18,325,851	16,262,328
Accrued markup / interest	15	203,105,617	416,282,045	59,739,714
Short term borrowings - secured	16	9,244,461,651	10,260,976,667	4,872,154,197
Current portion of non current liabilities	17	789,892,529	726,102,556	615,010,224
		14,866,181,768	15,941,965,141	9,319,145,544
CONTINGENCIES AND COMMITMENTS	18	-	-	-
TOTAL EQUITY AND LIABILITIES		31,690,027,899	34,746,710,679	27,252,869,103

ASSETS	Note	June 30, 2024 PKR	June 30, 2023 Restated PKR	June 30, 2022 Restated PKR
NON CURRENT ASSETS				
Property, plant and equipment	19	10,072,944,353	10,117,690,255	10,256,372,692
Long term investment	20	1,473,665,420	1,812,284,390	1,684,136,537
Long term deposits	21	36,424,217	31,189,580	27,532,315
		11,583,033,990	11,961,164,225	11,968,041,544
CURRENT ASSETS				
Stores, spare parts and loose tools	22	973,061,588	741,495,000	451,133,609
Stock in trade	23	12,339,666,757	15,327,363,107	5,537,520,571
Trade debts	24	4,088,867,198	3,693,493,152	3,259,091,468
Loans and advances	25	153,968,696	183,321,157	189,066,437
Trade deposits and prepayments	26	422,174,330	431,245,292	333,171,706
Other receivables	27	44,437,540	96,401,357	34,982,109
Income tax refundable	28	572,896,986	408,225,866	53,170,097
Sales tax refundable	29	936,509,067	1,324,147,128	984,175,231
Cash and bank balances	30	575,411,747	579,854,395	4,442,516,331
		20,106,993,909	22,785,546,454	15,284,827,559
TOTAL ASSETS		31,690,027,899	34,746,710,679	27,252,869,103

The annexed notes from 1 to 53 form an integral part of these financial statements.

Chief Executive | Director | Chief Financial Officer

Faisal Spinning Mills Limited

Statement of Profit or Loss
For the Year Ended June 30, 2024

	Note	June 30, 2024	June 30, 2023 Restated
		PKR	PKR
Sales - Net	31	45,029,600,571	37,672,807,610
Cost of sales	32	(42,288,491,572)	(33,110,576,747)
Gross profit		2,741,108,999	4,562,230,863
Other income	33	139,714,667	453,100,553
		2,880,823,666	5,015,331,416
Distribution cost	34	(1,463,591,179)	(1,605,961,445)
Administrative expenses	35	(527,296,363)	(423,508,171)
Other operating expenses	36	(46,921,853)	(115,125,932)
Finance cost	37	(1,608,042,214)	(1,267,154,365)
		(3,645,851,609)	(3,411,749,913)
		(765,027,943)	1,603,581,503
Share of (loss) / profit from associated undertaking		(315,451,214)	170,283,670
(Loss) / Profit before levies and taxation		(1,080,479,157)	1,773,865,173
Levies	38.1	(440,136,401)	(383,155,294)
(Loss) / Profit before taxation		(1,520,615,558)	1,390,709,879
Taxation	38.2	136,844,164	98,186,308
(Loss) / Profit after taxation		(1,383,771,394)	1,488,896,187
(Loss) / Earnings per share - basic and diluted	39	(138.38)	148.89

The annexed notes from 1 to 53 form an integral part of these financial statements.

<u>40.Ideal Spinning Mills Limited</u>

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital			
20 000 000 (2023: 20 000 000) ordinary shares of Rupees 10 each		200,000	200,000
Issued, subscribed and paid up share capital 9 920 000 (2023: 9 920 000) ordinary shares of Rupees 10 each fully paid in cash		99,200	99,200
Sponsors' loans	3	241,800	241,800
Capital reserves			
Equity portion of shareholders' loans		183,291	183,291
Surplus on revaluation of freehold land	4	360,555	235,857
		543,846	419,148
(Accumulated loss) / unappropriated profit		(278,321)	43,841
Total equity		606,525	803,989
LIABILITIES			
NON-CURRENT LIABILITIES			
Long term financing	5	70,000	153,518
Staff retirement gratuity	6	16,549	120,777
		86,549	274,295
CURRENT LIABILITIES			
Trade and other payables	7	854,186	956,431
Unclaimed dividend		2,599	2,801
Accrued mark up	8	28,568	46,126
Short term borrowings	9	1,610,813	1,439,323
Current portion of long term financing	5	91,543	35,000
		2,587,709	2,479,681
TOTAL LIABILITIES		2,674,258	2,753,976
CONTINGENCIES AND COMMITMENTS	10		
TOTAL EQUITY AND LIABILITIES		3,280,783	3,557,965

The annexed notes form an integral part of these financial statements.

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	11	1,704,424	1,662,377
Intangible assets	12	864	2,659
Long term loans	13	-	47
Long term deposits and prepayments	14	2,122	1,907
Deferred income tax asset	15	104,120	-
		1,811,530	1,666,990
CURRENT ASSETS			
Stores, spare parts and loose tools	16	102,607	133,997
Stock-in-trade	17	685,338	947,375
Trade debts	18	227,534	367,611
Loans and advances	19	17,677	20,348
Short term deposit and prepayments	20	939	331
Advance income tax and levy - net	21	23,290	31,453
Other receivables	22	315,506	318,872
Cash and bank balances	23	96,362	70,988
		1,469,253	1,890,975
TOTAL ASSETS		3,280,783	3,557,965

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 30 JUNE 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
REVENUE FROM CONTRACTS WITH CUSTOMERS	24	5,559,463	6,859,842
COST OF SALES	25	(5,351,493)	(6,668,837)
GROSS PROFIT		207,970	191,005
DISTRIBUTION COST	26	(112,587)	(193,006)
ADMINISTRATIVE EXPENSES	27	(302,575)	(347,547)
OTHER EXPENSES	28	(5,935)	(4,190)
OTHER INCOME	29	35,757	52,339
FINANCE COST	30	(179,559)	(283,699)
LOSS BEFORE TAXATION AND LEVY		(356,929)	(585,098)
LEVY	31	(69,463)	(78,152)
LOSS BEFORE TAXATION		(426,392)	(663,250)
TAXATION	32	104,152	109,180
LOSS AFTER TAXATION		(322,240)	(554,070)
LOSS PER SHARE - BASIC AND DILUTED (RUPEES)	33	(32.48)	(55.85)

The annexed notes form an integral part of these financial statements.

41.J.K. Spinning Mills Limited

As at June 30, 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital			
200 000 000 (2023: 200 000 000) ordinary ordinary shares of Rs.10/- each		2,000,000	2,000,000
Issued, subscribed and paid up share capital	3	1,023,175	1,023,175
Reserves			
Capital reserves			
Merger reserve		289,636	289,636
Premium on issue of right shares	4.1	60,904	60,904
Surplus on revaluation of freehold land		597,419	597,419
		947,959	947,959
Revenue reserve - unappropriated profit		11,523,847	10,517,336
Total reserves		12,471,806	11,465,295
TOTAL EQUITY		13,494,981	12,488,470
LIABILITIES			
NON-CURRENT LIABILITIES			
Long term financing	5	2,741,448	3,142,272
Lease liabilities	6	37,677	46,474
Deferred income - Government grant	7	252,209	367,952
		3,031,334	3,556,698
CURRENT LIABILITIES			
Trade and other payables	8	2,887,196	2,332,900
Accrued mark-up	9	355,641	411,628
Short term borrowings	10	9,763,274	7,860,721
Unclaimed dividend		749	783
Current portion of non-current liabilities	11	919,687	862,382
Provision for taxation and levy - net	12	112,149	-
		14,038,696	11,468,414
TOTAL LIABILITIES		17,070,030	15,025,112
CONTINGENCIES AND COMMITMENTS	13		
TOTAL EQUITY AND LIABILITIES		30,565,011	27,513,582

Statement of Financial Position

As at June 30, 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	14	11,290,876	11,664,607
Right-of-use assets	15	59,102	73,877
Long term investment	16	-	-
Long term deposits	17	1,081	24,281
		11,351,059	11,762,765
CURRENT ASSETS			
Stores, spare parts and loose tools	18	324,899	283,957
Stock-in-trade	19	10,674,019	8,489,011
Trade debts	20	4,293,691	4,009,764
Advances	21	103,179	108,903
Short term deposits and prepayment	22	53,659	22,010
Other receivables	23	184,088	55,201
Sales tax refundable	24	2,940,152	2,293,891
Advance income tax and levy - net	12	-	94,089
Short term investments	25	21,609	21,755
Cash and bank balances	26	618,656	372,236
		19,213,952	15,750,817

Statement of Profit or Loss

For the Year ended June 30, 2024

	NOTE	2024	2023
		(RUPEES IN THOUSAND)	
Revenue from contracts with customers	27	41,816,395	36,128,679
Cost of sales	28	(36,174,349)	(31,342,388)
Gross profit		5,642,046	4,786,291
Distribution cost	29	(1,316,123)	(1,146,835)
Administrative expenses	30	(583,482)	(505,016)
Other expenses	31	(118,464)	(321,701)
		(2,018,069)	(1,973,552)
		3,623,977	2,812,739
Other income	32	424,702	105,381
Profit from operations		4,048,679	2,918,120
Finance cost	33	(2,407,236)	(955,976)
Profit before taxation and levy		1,641,443	1,962,144
Levy	12.1	(634,932)	(392,171)
Profit before taxation		1,006,511	1,569,973
Taxation	34	-	250,126
Profit after taxation		1,006,511	1,820,099
Earnings per share - basic and diluted (rupees)	35	9.84	17.79

The annexed notes form an integral part of these financial statements.

42.Jubilee Spinning Mills Limited

JUBILEE SPINNING & WEAVING MILLS LIMITED
STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2024

	Note	2024 Rupees	2023 Rupees
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	3	160,148,236	100,216,550
Investment properties	4	865,589,617	728,696,748
Long-term investments	5	6,464,511	7,737,739
Long-term loans	6	1,385,890	1,199,390
Long-term deposits	7	11,182,740	11,182,740
		1,044,770,994	849,033,167
CURRENT ASSETS			
Trade debts	8	28,539,049	26,169,678
Loans and advances	9	23,084,714	23,073,214
Other receivables	10	80,773,106	80,271,522
Advance income tax and prepaid levy - net	22	19,804,357	-
Cash and bank balances	11	1,243,226	5,061,052
		153,444,452	134,575,466
		1,198,215,446	983,608,633
EQUITY AND LIABILITIES			
SHARE CAPITAL AND RESERVES			
Authorized share capital			
34,000,000 (2022: 34,000,000) ordinary shares of Rupees 10 each		340,000,000	340,000,000
Issued, subscribed and paid-up share capital	12	324,912,050	324,912,050
Revenue reserves			
General reserves		51,012,000	51,012,000
Accumulated loss		(59,981,516)	(244,986,106)
Capital reserves			
Fair value reserve on 'fair value through other comprehensive income' - investments	13	4,360,137	5,460,975
Revaluation surplus on property, plant and equipment	14	680,258,339	665,892,407
Total equity		1,000,561,010	802,291,326
LIABILITIES			
NON-CURRENT LIABILITIES			
Long-term financing	15	-	-
Deferred income tax liability	16	11,495,094	11,420,996
Employees' retirement benefits	18	1,600,867	1,526,243
		13,095,961	12,947,239
CURRENT LIABILITIES			
Trade and other payables	19	99,188,245	96,227,048
Current portion of long-term financing	15	2,525,212	2,525,212
Short-term financing	20	72,338,596	27,338,596
Provision	21	9,928,940	9,928,940
Unclaimed dividend		577,482	577,482
Provision for taxation and levy payable - net	22	-	31,772,770
		184,558,475	168,370,048
TOTAL LIABILITIES		197,654,436	181,317,287
CONTINGENCIES AND COMMITMENTS	23		
TOTAL EQUITY AND LIABILITIES		1,198,215,446	983,608,613

The annexed notes from 1 to 35 form an integral part of these financial statements.

JUBILEE SPINNING & WEAVING MILLS LIMITED
STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 30 JUNE 2024

	Note	2024 Rupees	2023 Rupees
Revenue from contracts with customers	24	10,940,060	5,337,933
Cost of revenue	25	(7,501,044)	(3,321,540)
Gross profit		3,439,016	2,016,393
Administrative and general expenses	26	(66,637,861)	(65,049,641)
Other income	27	209,497,563	149,557,946
Profit from operations		146,298,718	86,524,698
Finance cost		(34,226)	(242,860)
Profit before levy and income tax		146,264,492	86,281,838
Levy	28	(1,593,176)	(14,667,912)
Profit before income tax		144,671,316	71,613,926
Income tax expense		39,683,369	-
Profit after income tax		184,354,685	71,613,926
Earnings per share - basic and diluted	29	5.67	2.20

The annexed notes from 1 to 35 form an integral part of these financial statements.

43.Reliance Cotton Spinning Mills Limited

UNCONSOLIDATED STATEMENT OF FINANCIAL POSITION

AS AT JUNE 30, 2024

	Note	2024 Rupees	2023 Rupees
Assets			
Non current assets			
Property, plant and equipment	4	4,151,998,699	3,591,288,186
Long term investments	5	715,964,376	518,127,246
Long term advances and deposits		9,887,690	8,987,690
Deferred taxation	18	67,949,917	-
		4,945,800,682	4,118,403,122
Current assets			
Stores, spare parts and loose tools	6	65,071,820	74,977,863
Stock-in-trade	7	5,338,704,058	6,203,133,931
Trade debts	8	1,876,069,280	2,012,865,224
Loans and advances	9	90,863,597	32,906,723
Short term deposits and prepayments	10	1,003,023	4,559,315
Short term investments	11	23,731,750	14,088,516
Other receivables	12	173,602,022	149,220,766
Tax refunds due from Government	13	440,618,474	575,764,159
Cash and bank balances	14	242,057,392	197,752,154
		8,251,721,416	9,265,268,651
Total assets		13,197,522,098	13,383,671,773
Equity and Liabilities			
Share capital and reserves			
Authorised capital			
12,000,000 ordinary shares of Rs.10 each		120,000,000	120,000,000
Issued, subscribed and paid-up capital	15	102,920,000	102,920,000
Reserves		135,516,734	127,503,013
Unappropriated profit		7,931,591,126	6,803,308,914
Total equity		8,170,027,860	7,033,731,927
Non current liabilities			
Long term liabilities	16	1,406,786,986	1,640,499,005
Staff retirement benefit - gratuity	17	172,166,761	113,293,444
Deferred taxation	18	-	28,921,440
		1,578,953,747	1,782,713,889
Current liabilities			
Trade and other payables	19	1,273,368,343	1,567,481,110
Contract liabilities		28,786,532	64,937,119
Accrued mark-up / interest	20	56,150,323	94,526,249
Short term borrowings	21	1,497,168,386	2,331,143,302
Current portion of long term liabilities	22	332,044,816	325,244,097
Unclaimed dividend		861,089	801,640
Provision for income tax and levies		260,161,002	183,092,440
		3,448,540,491	4,567,225,957
Total liabilities		5,027,494,238	6,349,939,846
Contingencies and commitments	23		
Total equity and liabilities		13,197,522,098	13,383,671,773

UNCONSOLIDATED STATEMENT OF PROFIT OR LOSS

FOR THE YEAR ENDED JUNE 30, 2024

	Note	2024 Rupees	(Restated) 2023 Rupees
Sales	24	14,645,976,383	11,048,839,608
Cost of sales	25	(12,278,480,474)	(9,343,384,100)
Gross profit		2,367,495,909	1,705,455,508
Distribution cost	26	(163,094,853)	(166,399,764)
Administrative expenses	27	(207,019,212)	(187,053,686)
Other income	28	156,618,976	79,381,470
Other expenses	29	(63,792,172)	(75,794,016)
Profit from operations		2,090,208,648	1,355,589,512
Finance cost	30	(786,108,601)	(350,942,396)
Profit before revenue tax and income tax		1,304,100,047	1,004,647,116
Final taxes – levy	31	(197,427,695)	(155,106,182)
Profit before income tax		1,106,672,352	849,540,934
Income tax	31	78,284,039	(10,431,017)
Profit for the year		1,184,956,391	839,109,917
Earnings per share – basic and diluted	32	115.13	81.53

The annexed notes form an integral part of these financial statements.