



EXAMINING THE INFLUENCE OF UPGRADING ON UPSCALING OF GLOBAL VALUE
CHAINS: A STUDY OF STAKEHOLDERS' PERCEPTIONS OF THE COFFEE INDUSTRY
IN UGANDA

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Abstract

EXAMINING THE INFLUENCE OF UPGRADING ON UPSCALING OF GLOBAL VALUE CHAINS: A STUDY OF STAKEHOLDERS' PERCEPTIONS OF THE COFFEE INDUSTRY IN UGANDA

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This study employs the Global Value Chain, Stakeholder and Attribution theories with the aim of exploring the influence of specific antecedents of upgrading on upscaling global value from a stakeholder's perspective of the coffee value chain in Uganda

To understand the upgrading phenomenon, the study adopted a Convergent Mixed-Method Approach to collect, analyse, and interpret the data for the complementarity of results. The study population consisted of 283 stakeholders from the coffee industry in Uganda. A sample of 166 was chosen using the Yamane formula for the quantitative data, while 15 was the sample for the qualitative data based on the saturation point. A Questionnaire and an Interview Guide were employed as data collection tools. The main antecedents of upgrading value chains in this study that influence favourable outcomes were Non-Governance Antecedents (Marketing Capability, Operational Functioning and GVC Composition) and Governance Antecedents (Internal, External, Horizontal, and Vertical Governance).

Findings revealed that Non-Governance Antecedents (Marketing Capabilities and GVC Composition) led to upgrading the coffee value chain in Uganda. Process Upgrading emerged as

the most common type of upgrading, while producers/farmers were the most influential stakeholders in upgrading. Process Upgrading was also the most influential in achieving favourable, sustainable outcomes in Uganda. More so, over 95% stakeholders agreed that the more favourable the antecedents of upgrading are, the more favourable the determinants and the more favourable the sustainable outcomes for upscaling. Lastly, economically sustainable outcomes were perceived as the prerequisite for upscaling.

This research contributes to existing theory through empirical testing, verified conceptualisation, and methodology by employing a multi-disciplinary approach and has practical implications for both the chain actors and policymakers. Future research suggestions are made based on this study's research design and sample size.

Keywords: Global Value chains, Upgrading, Upscaling, Coffee, Stakeholders' Perspective

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 my use of Grammarly to proofread my thesis. The prompts used included:
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Dedication

This thesis is dedicated to my family, husband Stanley and children, Jed and Pearl. I appreciate your unwavering support throughout my studies.

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I acknowledge all the people who supported me throughout my studies, most especially my family, both immediate and extended. Special thanks go to my supervisor, Dr. Ilias Vlachos, for his continuous guidance to the end. I also thank my God sent angel and friend, Dr. Buyiswa Mokhosi, for all the support. Trailing behind you at UNICAF University boosted my confidence and confirmed that I was on the right track. I also thank Mr. Steven Kataama, who, without his assistance, I would not have advanced to the end. Special thanks also go to my long-time friend, Angela Sera Juliet Kwizera, who consistently and unreservedly ensured that I was up to date on new developments in Uganda's coffee sector. Above all, I would like to thank God for always being there, even when I felt I was on a long journey all by myself.

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LIST OF ABBREVIATIONS

aBi – Agricultural Business Initiative

ACF – Agriculture Credit Facility

CICU – Coffee Investment Consortium Uganda

CQI – Coffee Quality Institute

EU - European Union

GCC – Global Commodity Chains

ICT – Information Communications Technologies

GDP – Gross Domestic Product

GPN – Global Production Networks

GVC – Global Value Chains

MAAIF – Ministry of Agriculture, Animal Industries and Fisheries

NAADS - National Agricultural Advisory Services

NACORI - National Coffee Research Institute

NUCAFE – National Union of Coffee Agribusiness and Farmers Association

NGO – Non-Governmental Organisations

OECD – Organisations for Economic Co-operation Development

PPP – Private Public Partnerships

SME – Small and Medium Size Enterprises

UCDA – Uganda Coffee Development Authority

UCF - Uganda Coffee Federation

UNCTAD – United Nations Trade and Development

USAID – United States Agency for International Development

CHAPTER I: INTRODUCTION

1.1 Introduction

With globalisation increasingly driving the global economy, value chains have continued to be dispersed across the globe leading to international competition and forcing firms and chain actors to upgrade (Gereffi, 2014). The dispersed value chains have led to global value chains (GVCs) that are networks between chain actors engaged in various activities responsible for a product from development to when it is available in the market to users or consumers (Gereffi & Fernandex - Stark, 2011). Countries participate in GVCs in both backward linkages where they import raw materials, and in outward linkages, where they produce for other countries. With the help of the GVC theory and framework, firms can determine how they can competitively position themselves in the global market (Gereffi & Lee, 2012). Two contrasting views on how firms capture value have dominated previous research: the top-down from a governance perspective and, most recently, the bottom-up from the upgrading view (Gereffi, 2014).

Earlier studies on GVCs have focused on governance and its influence on a firm's ability to learn, innovate, and upgrade from lead firms (Gereffi, Humphrey, & Sturgeon, 2005). However, subsequent studies shifted focus to other antecedents that influence strategies employed by firms to upgrade (Pietrobelli & Rabellotti, 2011). As Holste (2015) earlier observed, understanding firm capabilities to upgrade gives more insights into firm performance and existing variations. Upgrading only takes place when firms capture value (Gereffi, 2014). Questions on what firm strategies favour upgrading for sustainable outcomes and upscaling are increasingly emerging from firms/chain actors, and governments to pursue ways to increase their profit margins and adopt the best development strategies, respectively.

With reference to the Attribution Theory, this study uses the term favourable/favourability to refer to *firm strategies attributed to, appreciated, or perceived as a means or cause that leads to the desired outcome by the stakeholders*. The assumption is that the more a particular firm strategy is appreciated by stakeholders, the better the perception or, the higher the chances that the desired outcome is achieved. The implication is that they can perceive a particular antecedent to a particular positive or negative outcome; thus, favourability is a good perspective of a particular cause or strategy that indicates the course of action that will lead to that desired outcome.

The main focus of this study is upgrading global value chains as it is imperative to understand its antecedents, determinants, and outcomes. The main antecedents of upgrading value chains in this study that influence favourable /sustainable outcomes, and upscaling [see the proposed conceptual framework in Figure 1] are Non-Governance Antecedents (Marketing Capability, Operational Functioning, GVC Composition); and Governance Antecedents (Internal, External, Horizontal, and Vertical governance).

Favourable Non-Governance and Governance Antecedents for GVC upgrading lead to sustainable (economic, environmental and social) outcomes that can be upscaled (Islam & Polonsky, 2020). Linn (2012) earlier confirmed the interrelationship between sustainability and upscaling. Upscaling sustainability can be a development strategy for developing countries (Chandy & Linn, 2011). However, upscaling sustainability remains a big challenge, although sustainability initiatives are essential for transformations as they can lead to more sustainable paths that enhance the necessary transformational change for development (Lam, Horcea-Milcu, Fischer, Peukert, & Lang, 2020). Although scholars like Golini, De Marchi, Boffelli, and Kalchschmidt (2018) argued that economic upgrading leads to social upgrading, others like Oqubay and Ohno (2019) contended that its benefits rarely translate to social benefits. Salido and Bellhouse (2016) observed that a deeper understanding of the relationship between economic and social upgrading

is useful as it assists policymakers in making appropriate policies that will according to Taglioni and Winker (2016) benefit everyone through a more balanced distribution of value. Other researchers like Sen (2019) posit that for value chains to be socially beneficial, it is better to focus on lower-value activities on a large scale since more employment is created. The different views illustrate the complexity involved due to various actors that interact with the public and private sectors who have different incentives.

This study views upscaling, as defined by Linn (2012) as,

“Expanding, replicating, adapting and sustaining successful policies, programs or projects to reach a greater number of people; it is part of a broader process of innovation and learning”.

Upscaling may be horizontal, where there is an expansion of services or products in a particular location or other locations or vertical, where the expansion is from smaller to bigger institutions like provinces to countywide (Linn, 2012). Considering that developing economies like Uganda have the agriculture sector as the dominant sector, upscaling critical agricultural value chains like coffee can transform the entire country by decreasing poverty levels (Clever, 2017). Linn (2012) stipulated that upscaling of value chains may be driven by small-scale ideas that have been successful, the vision of leaders who think it is necessary, pressure from non-chain actors like the donor community, and availability of incentives to do so like demand for accountability from the public. Trade in the global economy is facilitated by more than 80% of global value chain activities, which create more value by transforming raw materials or inputs into outputs or finished products (Corley-Coulibaly, Kizu, Kühn, & Viegelahn, 2015). Although producing countries focus on low-value activities when participating in global value chains, they too can upgrade to high-value activities (Azadegan & Wagner, 2011). As Khan, Lew, and Sinkovics (2015) observed, GVC participation is crucial for developing economies as participants can increase their learning, competitiveness, and earnings.

Examining the influence of upgrading on upscaling is significant as it will enhance the existing literature and help better understand the constructs of upgrading global value chains, their antecedents, determinants, and outcomes. Previous literature will be enhanced by contributing to theory, methodology, and practical understanding of favourable upgrading strategies of global value chains, resulting in sustainable outcomes and upscaling.

A better understanding of the concept of upgrading value chains is critical as the insights will guide and help decision-makers know what leads to favourable outcomes while making it possible for firms to upscale their activities. However, considering the interdependence of GVCs, their upgrading has remained a big challenge as chain actors are exposed to risks like external shocks, inequalities in value distribution and limited learning capacities (Sturgeon & Memedovic, 2011). Although state policies may influence upgrading value chains (De Marchi & Alford, 2021), upgrading challenges are largely beyond the government's control since GVC participation springs from firms' choices (Marcato & Baltar, 2021).

It is worthwhile to empirically examine the antecedents of upgrading, their determinants, and outcomes based on stakeholder perceptions to understand how local firms can plan, cautiously craft, and implement upgrading strategies that will lead to favourable/sustainable outcomes. The next section states the research problem in this regard.

1.2. Statement of Research Problem

Global Value Chains and how upgrading can be promoted have continued to take centre stage in discussions on how countries, especially developing countries, can participate in a meaningful way that enhances economic development. Based on the GVC Theory, upgrading global value chains is a developmental strategy for inclusive growth and economic development (Holste, 2015).

However, although the GVC theory emphasises upgrading as a way to ‘climb the ladder’ and capture more value along the value chain, it is not clear how upgrading antecedents are influenced to yield sustainable outcomes that can be scaled up for a bigger positive impact. Dünhaupt and Herr (2020), Pahl and Timmer (2020), Tessmann (2020), and Lorenzen, Mudambi and Schotter (2020) observe that firms, especially those in developing countries, tend to get trapped in low technology and labour-intensive production processes that limit upgrading and inhibit local development. Ponte (2020) also confirms how lead firms tend to capture the value and postulates that economic upgrading is insufficient to warrant social upgrading. Inadequate value capture, inefficiencies, hostile neoliberalism, weak policies, and institutions are other notable antecedents that make it difficult for local firms to upgrade value chains (Syafrian, 2019). This has resulted in tensions between existing knowledge, like how upgrading antecedents, determinants and outcomes relate and influence each other, and what is practised from the stakeholders’ view (Islam & Polonsky, 2020).

Based on previous scholars, the GVC theory has mainly focused on the upgrading process as a means of capturing value as one moves to higher nodes of the value chain using a governance perspective, thus leaving a theoretical gap in understanding how Non-Governance Antecedents affect upgrading. There has been a lack of empirical research on the conceptualisation impact of upgrading GVCs and their determinants on outcomes (Islam & Polonsky, 2020). In the same vein, there have also been no models or studies that explain theory building in upgrading GVCs, as observed by Gereffi (2019). Similarly, Vogel, Mathé, Geitzenauer, Ndah, Sieber, Bonatti, and Lana (2020) observed limited empirical research on what facilitates upgrading in global value chains. Also, Islam and Polonsky (2020) further observed that there has been no clear explanation of the observed patterns of upgrading in the real world in practical terms. Pasquali (2021) later observed limited knowledge of the relationship between the upgrading antecedents and outcomes.

In addition, applying the Stakeholder Theory, there are scant studies that have examined GVC upgrading using stakeholders’ perceptions on what works. Based on existing studies, such as those by Vogel, Mathé, Geitzenauer, Ndah, Sieber, Bonatti, and Lana (2020), there is limited

attention to the lived experiences, challenges, and opportunities faced by chain actors. This lack of stakeholder-focused insight creates a disconnect between policy-driven upgrading initiatives and the real impact of upscaling in producer countries like Uganda. While Magala, Mangheni, and Zonal (2018) acknowledged that stakeholders may influence the upgrading process, they observed that their poor coordination and organisation are caused by their varying interests, resulting in different degrees of influence on the upgrading process. At the same time, the Attribution Theory stipulates that those perceptions on what works and does not work to achieve the desired outcomes are attributed to specific causes that are key in determining whether chain actors opt to upgrade or not. According to Marcato and Baltar (2021), there have been limited empirical studies of theoretical and systematic frameworks on GVCs, providing substantial causal explanations for upgrading. Additionally, although previous studies have posited that upgrading may be a tool for economic development, most studies have focused on the economic outcomes compared to the environmental and social sustainable outcomes, according to Pahl and Timmer (2020), which conflicts with the Stakeholder Theory that highlights the inclusivity of meeting all stakeholder needs. (Tapaninaho & Heikkinen, 2022).

More so, recent studies on the coffee value chain in Uganda have focused on coffee value addition earnings (Jun, 2020), intergrading forecasting model (Wang, Yu, Ho, & Le, 2021), experiential learning (Ochango, Dentoni, Lans & Trienekens, 2021), relationships between the coffee traders and smallholder growers (Peralta, Shupp, & Arslan, 2022), information asymmetries and farmer welfare outcomes (Arslan, Gregg, & Wollni, 2024), sustainability issues (Canwat, 2023), relationship between production and export coffee (Ategeka, 2023) and use of innovation platforms for experiential learning (Ochago, 2024). Stakeholders' perceptions, interpretations, needs, and interests are essential when considering what promotes a cause like GVC upgrading since it leads to higher chances of positive outcomes by enhancing the skill of orchestrating the

desired unique elements for favourable/sustainable outcomes (Freeman, Harrison & Wicks, 2007).

All in all, these highlighted gaps underscore the need for a study that explains the antecedents, as well as stakeholder perceptions, that determine the achievement of sustainable outcomes in global value chains in producing countries like Uganda, based on the GVC, Stakeholder, and Attribution Theories, as highlighted by Pasquali (2021). The favourability of upgrading GVCs is correlated to the extent to which sustainable outcomes are achieved, so understanding the relationships between the antecedents, determinants, and outcomes of upgrading GVCs and how they relate to each other will help measure systematically, tackle, and improve insufficiencies within firms to enhance their sustainable outcomes and upscaling strategies. This is the gap this study attempts to fill. The following section presents the purpose of the study, research aims and objectives.

1.3. Purpose of Study, Research Aims and Objectives

1.3.1 Purpose of Study

The purpose of this Convergent Mixed-method Study was to examine the influence of specific antecedents of upgrading on upscaling value chains from the stakeholders' point of view. The participants were both males and females aged between 18 and 70 years and considered to have an intellectually sound mind by the researcher. They were stakeholders representing the public sector, the private sector, and chain actors of the coffee value chain of Uganda. Persons considered to have an unsound mind did not meet the eligibility criteria to participate in the study. Those with a disability only participated in the study if they met the inclusion criteria.

1.3.2 Research Aims

The study aimed to examine the influence of upgrading on the upscaling of global value chains by investigating stakeholder perceptions of the coffee industry in Uganda. The study

identified and analysed the antecedents that favour upgrading value chains in developing countries like Uganda. It also validated the different types of value chain upgrading in the context of developing countries and also explored the key stakeholders in the context of the coffee industry in Uganda while understanding how they influenced the upgrading of the value chain. The study further examined antecedents that significantly influenced value chain upgrading, including the favourability of economic, environmental, and social outcomes. It further developed and empirically assessed a conceptual framework regarding the relationships among coffee value chain upgrading antecedents, determinants and outcomes, and investigated the main determinants of economic, environmental, and social outcomes of upgrading on upscaling.

1.3.3 Research Objectives

To examine upgrading global value chains, the objectives of the study were as follows.

- 1 To analyse the antecedents that facilitate value chain upgrading in the context of the coffee industry in Uganda.
- 2 To validate the different types of value chain upgrading in the context of developing countries.
- 3 To examine the key stakeholders in Uganda's coffee industry and assess their influence on value chain upgrading.
- 4 To examine which types of upgrading significantly influence value chain upgrading favourability on economic, environmental, and social outcomes.
- 5 To empirically develop a conceptual framework about the relationships of antecedents, determinants and outcomes of upgrading the coffee value chain.
- 6 To investigate the main determinants of economic, environmental, and social outcomes of upgrading on upscaling.

Despite the significant importance of upgrading global value chains, there has been limited empirical research on how antecedents should be chosen to achieve specific favourable outcomes for sustainable development and the upscaling of the value chain from a stakeholder's perspective. Understanding their perceptions sheds more light on what incentives for upgrading should be enhanced and promoted for sustainable outcomes.

Taking a prime interest in stakeholders' perceptions, needs, and interests into consideration when promoting a cause like upgrading leads to higher chances of positive outcomes (Freeman, Harrison & Wicks, 2007). Based on the existing literature on upgrading global value chains, there has not been much systematic research on the impact of upgrading global value chains from stakeholders' perceptions (Vogel, Mathé, Geitzenauer, Ndah, Sieber, Bonatti, & Lana, 2020). This study is the first to gather empirical evidence to prove that favourable upgrading of global value chains determines favourable sustainable outcomes and upscaling of value chains from a stakeholders' perspective. The following section states the nature and significance of this study.

1.4. Nature and Significance of Study

1.4.1. Nature of Study

This research employed both the interpretativist and positivism paradigms to address both contextual and textual issues, respectively of the subject area under Creswell and Inoue (2025). It took a Convergent Mixed Study Method approach to examine the study area understudied to validate, complement, and expand research findings, besides facilitating knowledge building and initiating the discovery of contradictions (Jalaluddin, Shiviji & Amarsi, 2025).

Given the nature of this area of study, stakeholders' perceptions in the coffee industry were assessed. Considering that most agricultural value chains in developing countries have the same characteristics, Uganda's coffee industry was chosen because its transformation in various ways would echo the improvements in other value chains striving to successfully compete locally on

both the broader agribusiness stage and the global market (Lee, Gereffi, & Beauvais, 2012). Value chains in developing countries are characterised by governance dominated by international traders, little control, quality determination by price, poor chain coordination and price determination based on volume not profit margins (Lee, Gereffi, & Beauvais, 2012). Performance improvement of key agricultural value chains such as coffee facilitates and accelerates the processes for sustainable outcomes and their upscaling (Clever, 2017; Islam & Polonsky, 2020).

A Convergent Mixed Design Data Collection method, which is collecting qualitative and quantitative data at the same time, analysing them separately, and merging or comparing the results, was employed in the study (Creswell & Clark, 2017). The data collection and analysis were based on concurrent triangulation, which serves complementary purposes in the research findings (Creswell & Clark, 2017). The research method relied on a pragmatic approach to exploit the strength of both the quantitative and qualitative research methods and limit the weaknesses of the other (Dawadi, Shrestha & Giri, 2021). This approach made it possible for the researcher to comprehend the findings from different viewpoints. Levin, Gray, Möllmann, and Stier (2021) referred to this process as the “Rashomon effect”.

Face-to-Face Interviews and Telephone Interviews were employed to collect qualitative data. In line with Saunders, Lewis and Thornhill (2023), the qualitative research included data from in-depth interviews with chain actors of the coffee value chain who were the key informants to check the instrument design and scale validity. It 1) extracted relevant information and facilitated a deeper understanding of the subject area of research; 2) reviewed the hypotheses and conceptual framework of the research; 3) validated questionnaire measures and 4) improved and enhanced the validity of findings and conclusions (Saunders et al., 2023). To help with the analysis process and code the information gathered from interviews, the Taguette software was used.

At the same time, a quantitative approach to complement the contextual view of the qualitative method that tried to understand behavior of the stakeholders and confirm the social phenomena facts was employed (Minichiello, Aroni, Timewell, & Alexander, 1990). It also examined whether a change in the collective variables was influenced by other variables, beyond validating the scalability of the data that were cleaned using a mixed-methodology approach (Shank & Brown, 2007). The content validity of the measurements of the qualitative instruments was validated to ensure representativeness by professional researchers who were recruited (Saunders et al., 2023). Paper-based and Online Questionnaires were employed to establish the facts on stakeholders' perceptions (chain actors and industry players) of the impact on upgrading the coffee value chain on upscaling in Uganda. To generate satisfactory properties appropriate to the distribution of responses, the Questionnaire based on the Six-Point Likert scale with a scale from (0) strongly disagree to (5) strongly agree was used. This Likert scale was used because it was simple and did not overwhelm the respondents as it offered less options. The use of Questionnaires enhanced the data collection procedures that employed the PSPP software for analysis.

The target population was 283. A representative sample of 15 for the qualitative method was determined based on the point of saturation, while the representative sample of 166 for the quantitative method was arrived at by using the Yamane formula. Based on the work of Ahmed (2024), the rigorousness and quality of a study was determined by ensuring credibility for accurate responses for the issues under study (Trochim & Donnelly, 2007), transferability for generalisation (Trochim & Donnelly, 2007), dependability for consistency Lim (2025) and confirmability for enhanced confidence (Lim et al., 2025).

The Cronbach's Alpha Reliability analysis was used to assess the reliability of the data, confirming its internal consistency and reliability. The study adopted the non-parametric tests for

data that did not meet the assumptions for parametric tests. The nature of the data was of ordinal scale measurement, guiding the researcher to use the frequencies of the data (Salkind & Frey, 2019). Taking the nature of research questions to establish the correlation between variables, the non-parametric test associations employed the Spearman's Order Correlation Test while the Pearson's Correlation Test was employed for data that was not ordinal in nature. The Simple Linear Regression was also run to extract more insights from the relationships between the variables. Demographic frequencies of gender, age, education level, marital status, employment status, and stakeholder activity were analysed to gain a broad understanding of the data. Frequencies were also run for all the responses to the research questions in the Questionnaire and these included perceptions on the main strategies of value addition, antecedents for upgrading, types of upgrading, stakeholders' influence on upgrading types of upgrading as determinants of sustainable outcomes and the sustainable outcomes for upscaling.

Ethical standards were upheld by ensuring that participants/respondents were adults (above 18 years of age), their consent for participation in the study was received, they understood the objectives and significance of the study, and observation of anonymity and confidentiality were upheld (Resnsik, 2011).

1.4.2. Significance of the Study

The results of this study will enhance the existing understanding of the research literature on upgrading global value chains by contributing to the theory, methodology, and practical knowledge of strategies for upgrading global value chains, as well as increasing awareness of the interconnectedness of the positive economic, social, and environmental impacts of upgrading value chains.

1.4.2.1 Contribution to Theory

This study contributed to theory in three ways, namely: it extended theory through empirical testing, verified conceptualisation and measurement of the constructs, and tested existing theory and generalisation.

This study contributes to the current literature on the antecedents of upgrading global value chains, their determinants, and potential outcomes. Closing the literature gaps was one of the essential contributions of this study as the findings were an extension of the existing theory. This research showed the relevant mechanisms underlying the associations between global value chains upgrading and upscaling in the Ugandan context. This study contributed to the current knowledge by building upon findings from previous studies.

Previous studies have identified the need for a model of value chain upgrading that examines both endogenous and exogenous drivers, calling for a more comprehensive understanding of upgrading as a concept (Holste, 2015). Although the recent study of Pasquali (2021) studied upgrading global value chains with the focus of understanding how it affects the chain actors, that is, the causal relationship links between market trajectories, upgrading, and governance, they did not examine the relationship between the upgrading, its dimensions, antecedents, impact, and outcomes. Islam and Polonsky (2020) observed the need to examine the relationships between firm strategies and upgrading global value chains. Although Islam and Polonsky (2020) contributed to theory building in the area of study, more antecedents like sustainability and Marketing Capability and their effects on upgrading were not studied. These were added to this chain of research by this study. It added complementary insights considering that the value chain upgrading trajectory is a dynamic and complex process that is not necessarily linear (Gereffi, 2019). Vogel et al. (2020) studied global value chains from the perspective of stakeholder perceptions, but did not focus on upgrading and its outcomes. Scuotto et al. (2020)

studied the repositioning of firm strategies, their antecedents, and consequences through the lens of lead firm/small and medium enterprises cooperation, while Pasquali (2021) focused on understanding how upgrading global value chains affects suppliers for consumers with different standards and preferences.

In addition, the study reactivated the research area of upgrading global value chains. Thus, added to the existing literature by testing the validity that stipulated the scope of influence of upgrading GVCs; and using Spearman's Order Correlation for the ordinal data and Pearson's Correlation for non-ordinal data, the constructs and their relationships with each other were tested, and the conceptual model was validated. More meaning was revealed from the Simple Linear Regressions run. It enhanced the understanding of the relationship between upgrading global value chains and their antecedents, determinants, and sustainable outcomes, as well as upscaling. More so, this study provided more understanding of research constructs and their operationalisation of the research concepts from the stakeholders' perceptions.

1.4.2.2 Contribution to Methodology

Based on the multi-disciplinary (mixed) approach employed, the study provided a holistic perspective. Further, it contributed to the upgrading of GVC Theory that has received attention from researchers like Gereffi (2018), who focused on governance perspective. The contribution provided a more comprehensive view based on empirical evidence of how upgrading global value chains determines sustainable outcomes for upscaling from the stakeholders' perspective.

1.4.2.3 Practicability

Findings have a number of constructive, practical effects that are beneficial to chain actors and other stakeholders, such as policymakers. This research suggested that chain actors should understand that upgrading global value chains is a multifaceted phenomenon. It is influenced by multiple antecedents like Non-Governance and Governance antecedents. The results of the study

can assist policymakers in ensuring that there are support mechanisms in the business environment to promote the upgrading of global value chains. Considering that this study identified and confirmed the critical antecedents to attain upgrading of value chains, policy-makers can to carefully orchestrate what contributes to upgrading of global value chains to achieve favourable outcomes. The findings also put chain actors in a better position to cautiously make informed decisions when strategising to climb the ladder of the value chain.

1.4.2.4 Enhancing awareness of the interconnectedness of economic, social and environmental positive outcomes of upgrading value chains

The understanding of how the positive outcomes of upgraded value chains benefit firms/chain actors, and governments from an economic, social, and environmental perspective by leading to a more sustainable coffee value chain ideal for economic development, is enhanced by this study. Economically, upgrading value chains promotes competitiveness, improves pricing, increases profit margins according to Piedra-Muñoz et al. (2016), and exports earnings (Hollweg, 2019). Socially, upgrading of value chains leads to value addition for stakeholders through an increase in profits, tax revenues, value for money, employment opportunities, and wage earnings (Hollweg, 2019), all critical for improving their well-being, especially those at the bottom of the wealth pyramid in the value chain. Environmentally, upgrading value chains creates value addition without depleting natural resources, such as water, soil, and fertility (De Marchi et al., 2019). Some recent studies have observed an increase of interest in environmental and social due diligence of GVCs by policymakers (Delera, 2021). Understanding the interconnectedness of the economic, social, and environmental impacts of upgrading value chains opens new insights for decision-makers on how they can tactfully create more sustainable value chains since some tradeoffs may be involved. For instance, the use of more mechanisation may increase efficiency and profit

margins, yet it might be less environmentally friendly or may reduce job creation for the poor in developing countries (Galanakis, 2018).

The area of study was worth investigating, considering the contributions mentioned above. Through the investigations on stakeholders' perceptions, tensions between the theory and practice on upgrading of value chains are harmonised. The next section states the research questions and the hypotheses of this study.

1.5. Research Questions and Hypotheses

1.5.1 Research Questions

This research is based on the following research question:

Research Question: What is the influence of specific antecedents of value chain upgrading on upscaling from the stakeholders' point of view?

The study will answer the above question by investigating the specific sub-research questions outlined below based on the literature gaps identified.

Research Question 1a: What antecedents favour upgrading value chains?

Research Question 1b: What are the different types/trajectories of value chain upgrading in the context of developing countries?

Research Question 1c: Who are the key stakeholders in the context of the coffee industry in Uganda, and how do they influence the upgrading of the value chain?

Research Question 1d: Which type of upgrading significantly influences value chain upgrading favourability on economic, environmental, and social outcomes.

Research Question 1e: How do the value chain upgrading antecedents, determinants, and outcomes relate to each other?

Research Question 1f: What are the main determinants of economic, environmental, and social outcomes of upgrading on upscaling?

1.5.2 Research Hypotheses

The hypotheses of the research questions are:

Hypothesis 1: The stakeholders' perceptions of an antecedent's favourability for upgrading are positively correlated to their favourability of attitudes towards upgrading.

Hypothesis 2: The stakeholders' perceptions of an antecedent's favourability for upgrading are positively correlated to their favourability of attitudes towards upgrading.

Hypothesis 3: The favourability of stakeholders' influence is positively correlated to the favourability of their attitudes towards achieving a type of upgrading.

Hypothesis 4: The stakeholders' perceptions of types of upgrading favourability is positively correlated with their favourability of perception on economic, environmental, and social outcomes.

Hypothesis 5: The stakeholders' favourability of value chain upgrading is positively correlated to their favourability of determinants and outcomes.

Hypothesis 6: The stakeholders' perceptions of economic, environmental, and social outcomes favourability are positively correlated to their favourability of attitudes towards upscaling.

The null hypotheses of the research questions are as follows:

Null Hypothesis 1: The stakeholders' perceptions of an antecedent's favourability for upgrading are negatively correlated to their favourability of attitudes towards upgrading.

Null Hypothesis 2: The stakeholders' perceptions of favourability of a specific type of upgrading are negatively correlated to their favourability of attitudes towards achieving desired outcomes.

Null Hypothesis 3: The favourability of stakeholders' influence is negatively correlated to the favourability of their attitudes towards achieving a type of upgrading.

Null Hypothesis 4: The stakeholders' perceptions of types of upgrading favourability is negatively correlated with their favourability of perception on economic, environmental, and social outcomes .

Null Hypothesis 5: The stakeholders' favourability of value chain upgrading is negatively correlated to their favourability of determinants and outcomes.

Null Hypothesis 6: The stakeholders' perceptions of economic, environmental, and social outcomes favourability are negatively correlated to their favourability of attitudes towards upscaling.

1.6. Proposed Organisation of Thesis

Chapter 1 presents Introduction, Statement of the Problem, Purpose of the Study, Research Aims and Objectives, Nature of the Study, Research Questions and Hypothesis.

Chapter 2 presents Literature Review, the Conceptual Framework, Field Industry Description, Background of Global Value Chains, Main Antecedents of Upgrading Value Chains, Value Addition and Global Value Chains, Stakeholder Analysis of the Coffee Industry in Uganda, Favourable/Sustainable Outcomes of Upgrading and Upscaling Sustainability Outcomes of Global Value Chains.

Chapter 3 presents the Research Method of the study that includes the Research Approach and Design, Population Sample of the Research Study, Materials/Instrumentation of the Research Tools, Operational Definition of the variables study procedures, Ethical Assurances and Data Collection and Analysis.

Chapter 4 presents the Trustworthiness of the Data, Results from the Quantitative Method, Results from the Qualitative Method and Evaluation of Findings and Connection with Literature.

Chapter 5 presents the Implications, Applications, Recommendation for Future Research and Conclusions.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This section presents the literature review of this study. According to Gupta, Melewar and Bourlakis (2010), conducting a literature review elucidates a deeper understanding of the topic under study and presents various assessments, acknowledges existing literature on the area under study, suggests a strategy to delve into the research problem and helps identify appropriate conclusions. A comprehensive literature review assists in critically analysing the conceptual model of upgrading global value chains and further facilitates the investigation of the research questions as presented in the previous chapter.

In this chapter, 2.2 presents the Conceptual Framework; 2.3 the Field Industry and Description; 2.4 the Background of Global Value Chains, 2.5 the Main Antecedents of upgrading value chains; 2.6 the Value Addition and Global Value Chains, 2.7 the Stakeholder Analysis of the Coffee Industry in Uganda; 2.8 Favourable/Sustainable Outcomes of Upgrading, 2.9 Upscaling Sustainability in Global Value Chains and finally 2.10 the Summary of the chapter. The following section presents the Conceptual Framework.

2.2 Conceptual Framework

This study attempts to address the question, “What is the influence of specific antecedents of value chain upgrading on upscaling from stakeholders’ point of view?”. The study examines the impact of specific antecedents of upgrading value chains on upscaling from a stakeholder’s perspective. The conceptual framework of the study is based on three theories from the literature, namely, the Global Value Chain Theory, the Stakeholder Theory and the Attribution Theory that the researcher uses to explain the relationships between different antecedents logically, hypothesise and make predictions, thus justifying the significance of the study based on a structure

(Lederman & Lederman, 2015; Osanloo & Grant, 2016). The Global Value Chain Theory was chosen as it helps explain the influences of upgrading and how value is captured in global value chains. At the same time, the Stakeholder Theory was useful in analysing the importance of stakeholders' interrelationships and how they influence the means of achieving specific objectives, according to Fernandez et al. (2023). The Attribution Theory, which is how people infer cause to results was also applied in this study as it was able to facilitate an in-depth understanding of the behaviours of stakeholders and why they engage in the activities they do based on their perceptions of outcomes. The conceptual framework serves not only as a guide on how the researcher will build onto the already existing knowledge, but is also valuable for testing the reliability of new findings from which new insights that provide implications practical for decision-makers can be identified (Andrews, 2007). According to Weiner (2010), causes or antecedents rationalise the outcomes based on the context. The assumption was that the more stakeholders appreciate a firm's strategy, the better the perception, and the higher the chances that the desired outcome will be achieved. The implication was that they perceived a particular antecedent to a particularly positive or negative outcome; thus, favourability refers to firm strategies attributed to, appreciated, or perceived as a means or cause that leads to the desired outcome by the stakeholders. In this study, the favourable antecedents of upgrading GVCs lead to a favourable impact, which later results in favourable outcomes, thus providing a comprehensive test to understand the different elements that form the upgrading of GVCs and influence the perceptions of stakeholders (industry players and chain actors).

The main concept of this study is the upgrading of global value chains. According to Gereffi (2013), pp 441 Upgrading refers to,

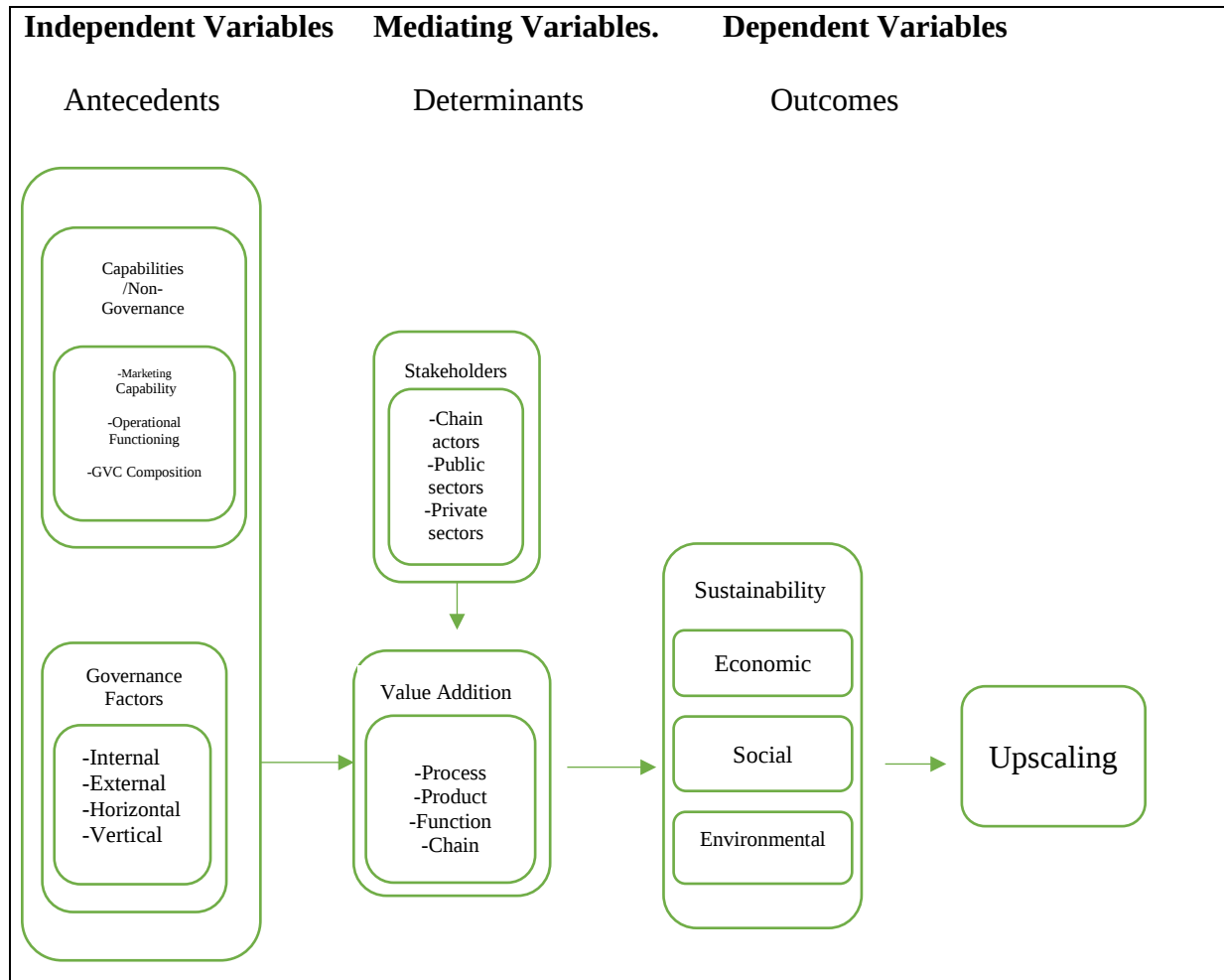
"the ability of a firm to move from low-value to relatively high-value activities in GVCs in global value chains".

Upgrading global value chains is vital, especially in producing countries' development trajectory, as it increases knowledge sharing and value capture necessary for enhanced competitiveness through national innovation systems (Horner & Nadvi, 2018). It is vital to nations, economies and individual firms/chain actors. Upgrading GVCs enhances the financial performance of chain actors, resulting in increased production and exports (Islam & Polonsky, 2020). Social upgrading in terms of employment, among others, is also realised according to Golini et al. (2018). Other benefits of upgrading include equitable distribution of value (Taglioni & Winker, 2016), all vital for economic development, although contended by some scholars like Oqubay and Ohno (2019). For developing countries, upgrading value chains is a sure route to capturing higher returns (Tanrattaphong, Hu & Gan, 2020).

The conceptual framework of this study identifies the independent variables as the antecedents of upgrading global value chains. These include non-governance/capability antecedents (Marketing Capability, Operational Functioning and GVC Composition) and Governance antecedents (Internal, External, Vertical and Horizontal governance). These are the preconditions that enable chain actors to upgrade their capabilities. The mediating variable is value addition measured by adopting process, product, functional and chain upgrading, which is supported by the GVC theory. As upgrading takes place, more value is captured. It is through the mediating variables that the antecedents change to notable improvements in the value chain. Improvements may be in terms of efficiency, product quality, advancing activities of higher value, or diversifying into new value chains. Based on the Stakeholder theory, these are influenced by different types of stakeholders, including chain actors and stakeholders from the public and private sectors, whose power influences determine whether upgrading takes place or not. The dependent variable is sustainable outcomes, and includes economic, social and environmental outcomes. The study views sustainable outcomes as a pathway towards achieving economic development when

upscaled. The way the variables interact with each other shows that strategies of upgrading can be scaled up for a bigger impact in development. Although the economically sustainable outcomes are often considered as the direct outcome, the conceptual framework highlights the environmental and social outcomes, thus showing upgrading as a tool for inclusive development. These are based on stakeholder perceptions of what they perceive as causes of the sustainable outcomes, thus the Attribution Theory.

The conceptual framework assumes that antecedents are either favourable or unfavourable, which determine whether upgrading will or will not occur. This will depend on how they are influenced by the stakeholders and which type of upgrading is adopted. If the influence is positive, then the desired outcomes are achieved. When the sustainable outcomes are achieved, then upscaling can take place. Mapping the relationships of the variables ensures that the data collection tools adequately cover the perceptions of the stakeholders in the upgrading process. The conceptual framework, drawn based on the research questions, suggests that while upgrading leads to upscaling, this largely depends on the perceptions of stakeholders in the Ugandan coffee chain, as they are the practitioners of the upgrading process. The conceptual framework incorporates the GVC, Stakeholder, and Attribution theories to assist in examining how upgrading contributes to the upscaling of sustainable outcomes and offers a structure for this study.

Figure 1*Conceptual Framework*

Source: The Researcher

2.3 Field Industry Description

The study examines the influence of upgrading on upscaling global value chains by investing in stakeholders' perceptions of the coffee industry in Uganda. It aims to add to existing knowledge of upgrading value chains by developing an exhaustive conceptual model of its influence on upscaling based on a literature review.

2.3.1 Antecedents, Determinants and Sustainability Outcomes

2.3.1.1 Antecedents

As indicated in Figure 1 above and based on the literature review, the researcher highlights the various antecedents of upgrading value chains that influence favourable sustainability outcomes (economic, environmental and social) and lead to upscaling. Please refer to the end of this section for the definitions of the key constructs used in this study.

Various scholars theorised that the main antecedents of upgrading value chains that influence sustainability outcomes for upscaling are Non-Governance antecedents that include Marketing Capability (Pasquali, 2021), Operational Functioning (Kano, 2018), global value chain composition (Kano, 2018); and Governance antecedents that include Internal Governance (Scuotto, Garcia-Perez, Nespoli, & Petruzzelli, 2020), and External Governance Scuotto, Garcia-Perez, Nespoli, & Petruzzelli (2020) and McWilliam, Kim, Mudambi & Nielsen (2019); Horizontal and Vertical Governance (Gereffi & Lee, 2016).

Based on the Attribution Theory, the conceptualisation of this study is that when the elements of upgrading or firm strategies are perceived as favourable by stakeholders, there are higher chances of desired outcomes being realised. The assumption is that the more stakeholders appreciate a particular firm strategy/trajectory/path, the better the perception or the higher the chances that the desired outcome will be achieved. When the strategy/trajectory/path is aligned with the stakeholder perceptions, there are higher chances of getting desired outcomes. The implication is that they can perceive a particular antecedent to a specific positive or negative outcome; thus, favourability is a good perspective of a particular cause or strategy that indicates the course of action that will lead to that desired outcome.

2.3.1.2 Determinants

The type of value addition determines upgrading. Humphrey and Schmitz (2002) theorised that there are four main types of value addition strategies firms can pursue, namely Process Upgrading when processes of production in firms are made more efficient; Product Upgrading when firms move to more complicated products; Functional Upgrading when firms move to segments with higher value addition in the chain and Chain Upgrading where firms can shift to activities with higher value by spreading into new sectors.

Based on the Stakeholder Theory, this study examines stakeholders' perceptions (chain actors, public and private sectors) on upgrading global value chains. The Stakeholder Theory is a widely used framework that emphasises the value creation, impact, and benefits for all stakeholders (Tapaninaho & Heikkinen, 2022). According to the Stakeholder Theory, stakeholders' opinions are critical in successfully achieving intended goals and promoting transparency between firms and the various stakeholders, all useful for sustainability and attaining a good public image (Freeman, 1994).

2.3.1.3 Sustainability Outcomes

The study focuses on upgrading, viewed as favourable sustainable economic, social, and environmental outcomes that are eventually upscaled for greater impact.

Economic sustainability outcomes include value distribution (Kano, 2018), supplier internationalisation, (McWilliam, Kim, Mudambi & Nielsen, 2019), Innovation (Di Simone, Petracci & Piva, 2022), export intensity, production growth (Islam & Polonsky, 2020), and financial performance (Brancati, Brancati & Mareca, 2015). Social sustainability outcomes include division of labor/employment and labor conditions (McWilliam, Kim, Mudambi & Nielsen, 2019), competence (Pietrobelli & Rabellotti, 2011), knowledge transfer (McWilliam, Kim, Mudambi & Nielsen, 2019) and employee wellbeing (Toussaint, Cabanelas, & Muñoz-Deñas, 2021).

Environmental sustainability outcomes include regional and economic development/socio-economic outcomes, reduced waste due to reverse logistics (Nikolaou, Evangelinos & Allan (2011) and knowledge spillover (McWilliam, Kim, Mudambi & Nielsen, 2019).

Economic sustainability upgrading has a causal relationship with social sustainability upgrading and positively determines productivity growth (upscaling) (Pahl & Timmer, 2020). Economic upgrading is crucial for enhancing the financial performance of chain actors and promoting social upgrading in terms of employment (Islam & Polonsky, 2020). Although scholars like Golini, De Marchi, Boffelli, and Kalchschmidt (2018) argued that economic upgrading leads to social upgrading, others like Oqubay and Ohno (2019) theorised that its benefits rarely translate to social benefits. Also, Dünhaupt and Herr (2020), Pahl and Timmer (2020), Tessmann (2020), and Lorenzen, Mudambi and Schotter (2020) theorised that firms, especially those in producing countries get trapped in low technology and labor-intensive production processes that limit upgrading and inhibit local development.

Ponte (2020) also agrees with these theories that lead firms in global value chains to capture value for themselves, limiting interaction between the business environment and the local innovation systems where knowledge transfers and learning occur and are ideal conditions for upgrading processes to sprout. This conceptual framework is the basis on which the research questions of this study are formulated and the literature review structured. In finding the answers to the research questions, previous theories will be confirmed, and new insights in the study area will be derived, thus building on the existing theory.

2.3.2 Definitions of Key Terms

Favourability – refers to firm strategies/trajectories/paths that give the best outcome. They are attributed to or appreciated or perceived as a means or cause to the desired outcome by the stakeholders.

Sustainability – refers to a framework of three interrelated pillars, namely economic, environmental, and social, that are anchored on balancing trade-offs uniformly favourable goals so that systems can operate on their own for long periods (Di Simone, Petracci & Piva, 2022).

Marketing Capability – refers to "integrative processes designed to apply the firm's collective knowledge, skills, and resources to the market-related needs of the business, enabling the business to add value to its goods and services meet competitive demand (Mitrega, 2020).

Operational Functioning – refers to the social mechanisms employed by the chain actors with the aim of efficiency to sustain the value chain by limiting costs amongst partners (Williamson, 1996) and concurrently increasing capability development (Teece, 2014).

GVC Composition – refers to the various networks with different qualities of relationships that intermediate the flow of information (McDermott & Corredoira, 2010).

Governance refers to control and its mechanisms/configurations/coordination, which can be in different types namely market, modular, relational, captive or hierarchical (De Marchi, Di Maria & Ponte, 2014).

Internal Governance – refers to the linkages within the value chain, that is, between actors like buyers and suppliers in the private sector at different stages of the value chain (Keane, 2012).

External Governance – refers to the relations between chain actors and external institutions like governments, international organisations, non-governmental organisations, trade unions, and civil society (Keane & te Velde, 2008).

Horizontal Governance – refers to "locality-based coordination of the economic and social relations between cluster firms as well as institutions within and beyond the cluster." Gereffi & Lee (2016).

Vertical Governance – refers to governance that "links a series of buyers and suppliers in different countries, each of which adds values toward the final product" Gereffi & Lee (2016).

Value Addition – refers to improving techniques of production and the quality of products (Lee & Gereffi (2015) or the ability to change raw materials/inputs to outputs/finished products that have and create more value (Corley-Coulibaly, Kizu, Kühn, & Viegelahn, 2015).

Global Value Chains – refers to the various activities of a specific product that firms engage in from the beginning of their development to when they are available in the market for use or consumption (Gereffi & Fernandex - Stark, 2011).

Upgrading - refers to "the ability of a firm to grow the benefits and profits of its processes and products that come from being a participant in global value chains" (Giuliani, Pietrobelli & Rabellotti, 2005); (Gereffi, 2013).

Process Upgrading – refers to when production processes in firms are made more efficient, e.g., through more advanced technology (Humphrey & Schmitz, 2002).

Product Upgrading – is when firms "shift to more sophisticated, complex, or better quality products" (Morris & Staritz, 2014). This can, however, be the opposite, offering simple products with less sophistication to end consumers.

Functional Upgrading – refers to the "change in the activities performed by the supplier firm toward a higher value-added combination which includes not only manufacture but also services" (Rossi, 2013).

Chain Upgrading –refers to the process of moving to activities of higher value by spreading to new but similar businesses and improving brands of products and skills for marketing (Gereffi & Lee, 2016).

Economic Upgrading – refers to the "capacity of a firm to improve its competitiveness and profitability vis-à-vis other local and global actors" (Pasquali, 2021). This is also referred to as economic sustainability upgrading in this study.

Social Upgrading - refers to the rights and entitlement improvements of workers (social actors) that enhance their employment" (Barrientos, Gereffi, & Rossi, 2011). This is also referred to as social sustainability upgrading in this study.

Environmental Upgrading - Marchi, Maria and Micelli (2013) defined environmental upgrading as ,

"the process by which economic actors move towards a production system that avoids or reduces environmental damage from their products, processes or managerial systems."

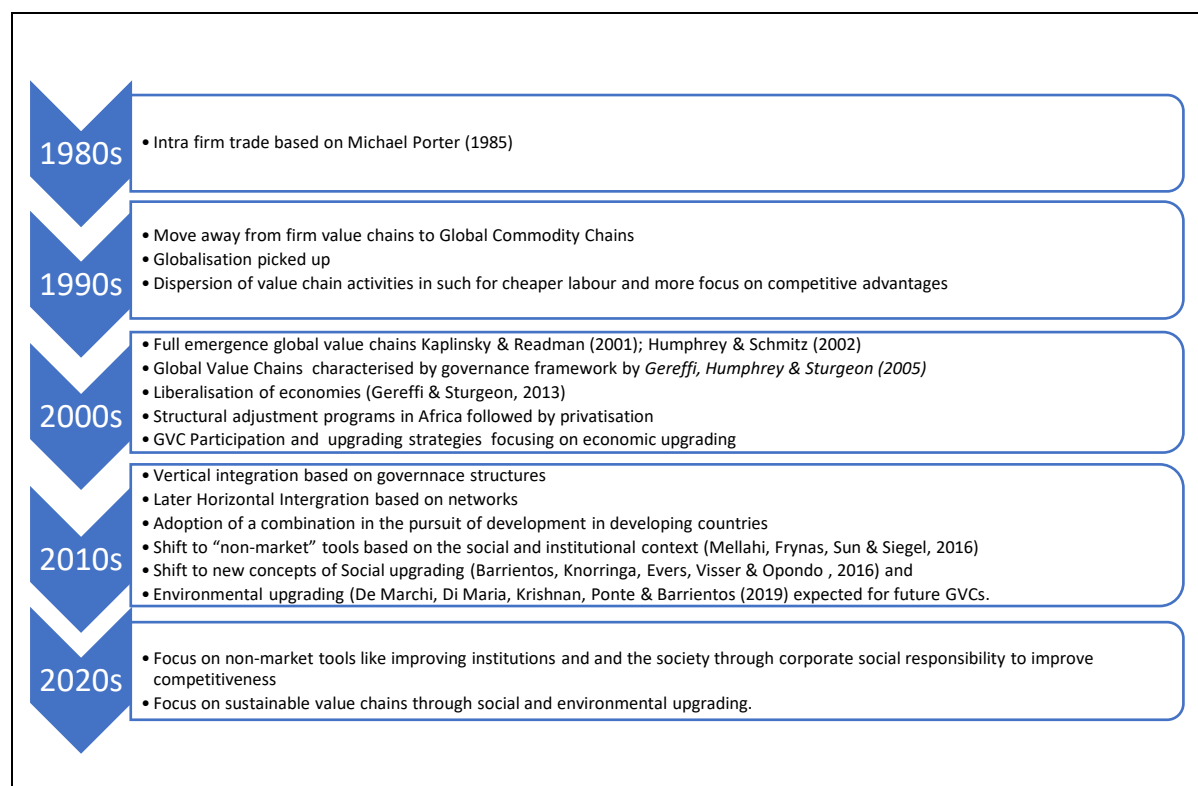
This is also referred to as environmental sustainability in this study.

Upscaling (Scaling Up) – refers to when value chains increase in scale or size due to the increased number of goods produced, processed, and sold" (Linn, 2012). It is the operational performance where if more is done and more advanced technology is used, more is produced (production growth).

2.4 Background of Global Value Chains

2.4.1 Historical Background of Global Value Chains

The following section presents the historical background of global value chains, upgrading and importance of global value chains, strategies for upgrading, and the comparison of farmgate, export, and consumer prices of Ugandan coffee. It also presents and discusses the GVC, Stakeholder and Attribution Theories used in this study.

Figure 2*Summary of Historical Background of Global Value Chains*

Source: The Researcher

Global value chains have continued to emerge because these activities are spread worldwide. The world economy structure witnessed significant changes that have been enhanced by globalisation and the neo-liberalism regime in the early 2000s (Gereffi & Sturgeon, 2013). The changes continue from the World Trade Organisation's intellectual property rights and agreements as protection for global firms (Kano, Tsang & Yeung, 2020). For instance, Kee and Tang (2015) highlight how China's membership in the World Trade Organisation and trade liberalisation helped the development of their global value chains. Globalisation led to increased exports and technology imports in China where trade with Africa increased more than ten times to 55 billion dollars in ten years (Van Dijk, 2012). The opportunity of reduced tariffs and transactional costs due to trade liberalisation presented itself to firms and enabled them to scale up (De Backer & Miroudot, 2013).

More so, countries continue to ensure incentives in the form of favourable regulatory reforms to attract foreign investments while foreign firms are looking for every opportunity to exploit the abundance of cheap labour to reduce production costs.

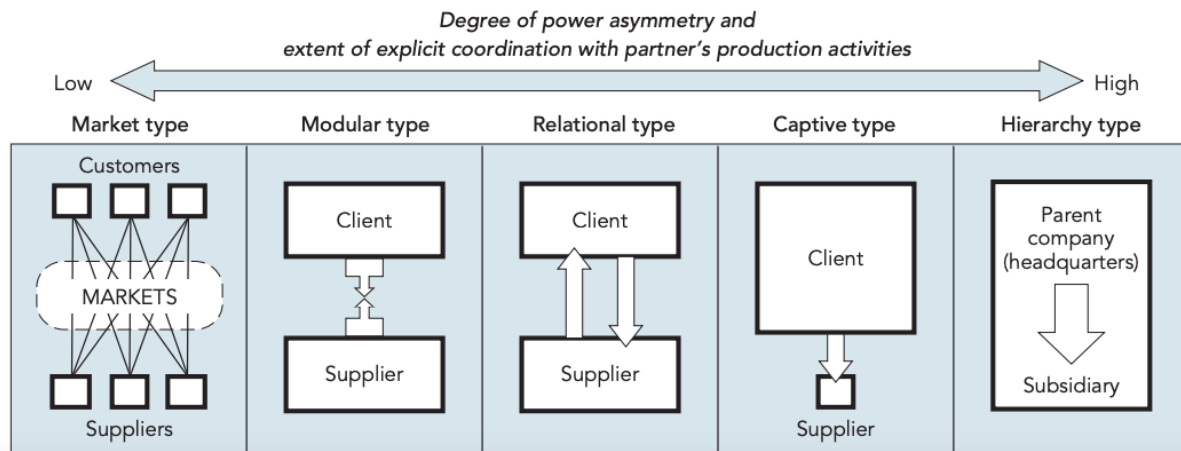
Changes in the global value chains have mainly included the transition from hierarchical organised global firms (total control via ownership) that focus on managing internal overseas investments to international lead firms called global value chains (GVCs) and controlled via contracts previously called global commodity chains (GCCs), global production networks (GPNs), or global factories (Kano, Tsang & Yeung, 2020). There have been concerns about how and when learning, innovating, and upgrading firms in GVCs take place, with the majority of scholars focusing on the GVC governance perspective (Gereffi, Humphrey & Sturgeon, 2005). Although the governance perspective currently dominates scholarly review, recent studies are shifting to the upgrading bottom-up view (Gereffi, 2014), where the focus is on other antecedents that influence strategies employed by firms to learn, innovate and upgrade (Pietrobelli & Rabellotti, 2011).

With increased globalisation, developing economies adopted new development strategies of GVC participation and upgrading, as illustrated by the “flying geese” model of economic development that describes how developing countries can catch up in development (Akamatsu, 1962). Instead, it is assumed that they specialise in niche segments of the value chain and move to activities of value addition. Based on these recent discoveries, GVCs are bound to evolve into intentionally desired outcomes where firms and governments can choose strategies that lead them to favourable outcomes and the best development strategies, respectively. The challenge, however, had been the difficulty of protecting their young industries that lack the capabilities to compete and tap into high-end activities. By understanding the antecedents, determinants, and outcomes of upgrading GVCs, this study will contribute to the latest insights in building more theory.

Previous developments have been extensively documented by GVC scholars of the global network such as Humphrey and Schmitz (2002); Gereffi, Humphrey and Sturgeon (2005); Gereffi and Lee (2012); and Barrientos, Gereffi and Rossi (2011), among others, who came up with a GVC framework. GVCs have five categories that show the governance structures and how they differ based on the relationships between chain actors or the stakeholders and the lead firms, as seen in 3 below.

Figure 3

Types of GVC Governance



Source: Gereffi, Humphrey & Sturgeon (2005)

The above framework also guides the understanding of the various chain actors' organisation, structure, and dynamics to source raw resources from locations with low prices (Gereffi, 2011). It further enables the understanding of how the forms of governance evolve as the industry develops and how the patterns of governance change from one phase to another (Gereffi, Humphrey & Sturgeon, 2005). The five categories of the global value chain governance suggested by Gereffi, Humphrey and Sturgeon (2005) are summarised in Table 1 below.

Table 1*Characteristics of Governance Structures*

Type of Value Chain Governance Structure	Characteristics
Markets	-Interactions within the GVC ultimately transient, with little or no formal coordination. -Switch cost to new members is low. -Simple transactions allowing the coordination of activities using the market price. -Easy transmission of information on product specifications. -Products are made with little input from buyers.
Modular	-Products made to customers/buyers' specification. -Producers/buyers have full responsibility for competencies like technology which keeps switching costs low. -More substantial relationships since there is more information flow between firms.
Relational	-Mutual dependency regulated through reputation and family ties, among others. -Firms still specify what it needs and controls the activities with the most value, so there is more control over the producer/supplier. -More differentiated products. -High costs of switching to new partners.
Captive	-Producers/suppliers depend on buyers. -High monitoring and control from lead firms who are powerful-Producers/suppliers relate to the buyers on their terms. -High costs of switching to new partners. -Lead firms invest in Product and Process Upgrading, which does not affect their core competence but improves GVC efficiency.

Hierarchy	-Classic governance structure as proposed by transaction cost theory (Williamson, 1986). -Has highly complex transactions amongst actors favouring the internalisation of activities. -Vertical integration with managerial control from lead firms. -Provide regular relationships like employment with guaranteed quality and improved capabilities. -Social benefits that are less tangible. -Tradeoffs between economic and social upgrading.
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Source: Gereffi, Humphrey & Sturgeon (2005)

Following was another broad chain of research that focused on value distribution (value appropriation) and viewed it as the concept of a value chain that involves cross-border and inter-firm network activities of chain actors involved from the product's conception to the end of life (Gereffi & Fernandez-Stark (2016). The GVC framework makes it possible to holistically analyse the value chain both from the top-down (governance perspective with a focus on lead firms driving the chain activities) and the bottom-up (upgrading perspective that looks at strategies that chain actors can use to position themselves better) on the international market (Gereffi & Fernandez-Stark, 2016).

As illustrated in the GVC governance structure above, hierarchical governance is characterised by vertical integration with managerial control from lead firms (Gereffi, Humphrey & Sturgeon, 2005). Lead firms use their power to influence value and knowledge distribution (Humphrey & Schmitz, 2002). Previously, information flow between lead firms and producers in value chains was viewed as mechanisms through which upgrading would occur (Gereffi, 1999). However, it was later observed that lead firms got their raw materials from global locations where they were cheap and took the upper hand in putting standards in place to make higher profits for the finished products (Frederick & Gereffi, 2009). In agreement with Dünhaupt and Herr (2020), Pahl and Timmer (2020), Tessmann (2020), and Lorenzen, Mudambi and Schotter (2020), it is without a doubt that the way GVCs have evolved, especially where the governance perspective has not favoured producers in developing countries. Dünhaupt and Herr (2020) argued that whereas GVC participation presents opportunities for developing countries to industrialise, catching up is not guaranteed with the developed countries in terms of Gross Domestic Product (GDP) per capita. From their study of four case studies (automobile, garment, electronic, and Information Technology sectors) in six countries, they observed that developing countries remain

trapped in activities that have low value with no significant functional and inter-sectoral upgrading in any of them. The automobile industry was concentrated in developed countries, while the garment industry was mainly in developing countries and concluded that developing countries needed horizontal and vertical integration to catch up. Dünhaupt and Herr (2020) provide evidence that from the 1960s to date, the GDP per capita of African countries and Asian countries such as India, Pakistan, and Bangladesh has persisted below 10% of United States per capita GDP, Latin American countries have maintained levels as low as 40% and lower. Pahl and Timmer (2020), in their study on the long-run effects of participation in GVCs between 1970 and 2008, found strong evidence for productivity growth in the formal manufacturing sector and weak industrialisation from exporting through GVCs in developing countries. They observed no evidence of employment and a more significant gap. Tessmann (2020) observed little evidence that buyer-supplier connections enhance upgrading. The study instead found that these interactions reinforced the dominance of lead firms in a study that investigated the assumption that buyer-supplier interactions enhance upgrading in the cashew nut industry in Ivory Coast. Also, Lorenzen, Mudambi, and Schotter (2020) observed that the local interactions had been replaced with international ones that fueled the rise of multinational activities, as was evidenced by global city regions since high-end activities were in main cities leaving out those in the local cities. They further posit that local entrepreneurial development can alleviate the costs of having multinational activity concentrations in the prominent city core locations.

Based on the definition by Kaplinsky and Moris (2000), sustainable global value chains have therefore remained a big challenge since raw produce is transformed into finished products in a way that is only profitable to some and, in many cases, depletes natural resources. The GVC Governance Framework suggests that the upgrading process will be easier as the GVC evolves from hierarchical to market structures. A deeper comprehension of upgrading GVCs and its benefit

for all is thus of keen interest to chain actors/firms and governments, especially in developing countries like Uganda.

Although globalisation and neo-liberalism which Harvey (2005) described free market capitalism with minimum state intervention, has facilitated the development of GVCs since the 1990s, the dynamics of supply and demand, the changes in policies, both national and international, and technological innovations all influence upgrading processes. Gereffi (2014) observed that an economy upgrades when its firms strategise on upgrading to be competitive. Overall, Bamber, Fernandez-Stark and Taglioni (2020), and Miroudot (2020) posit that GVCs are likely to be more resilient in their transformation because the COVID-19 pandemic has reinforced the sustainability agenda, technology advancement, and economic nationalism. Despite the challenges of unprecedented GVC downsizing, the pandemic has presented opportunities that will result in a paradigm shift in GVC development (Zhan, Bolwijn, Casella, & Santos-Paulino, 2020). GVC upgrading is not an exception.

2.4.2 Upgrading of Global Value Chains

Previous scholars posit that upgrading GVCs is a multifaceted process that seeks economic gains like more competitiveness, profits, and social benefits like better work conditions and employment (Barrientos, Gereffi, & Rossi, 2011). Upgrading, which can either be by firms/chain actors or countries as a whole, refers to *"the capacity of a firm/economy to increase the benefits and profits of its products and processes that come from being a participant in global value chains"* (Gereffi, 2013). Although producing economies participate in the global value chains, the lead firms specialise in activities that fetch higher profit margins (Humphrey & Schmitz, 2002). However, some scholars like Ponte and Ewert (2009) defined upgrading as *'any trajectory or strategy that is likely to yield a positive impact on developing country firms'* and argued that it is much broader. In support of their broader definition, Whitfield & Staritz (2019) stated that it

encompasses downgrading features, diversification, and climbing up in the equivalent or contrasting value chains. Tian, Dietzenbacher and Jong-A-Pin (2019) identified several upgrading indicators, including growth in labour productivity, capital compensation, capital intensity, exports, export share, export unit value; employment skill intensity of employment; labour exports of high-skills.

This definition of upgrading suggests that it may be different even in the same industry or geo-location, indicating that firms have the power to orchestrate their upgrading paths (Sako & Zylberberg, 2019). For this reason, the popular theories of upgrading that focus on lead firms have been criticised for their inability to fully exhaust firms' agency (De Marchi & Di Maria, 2019). A few notable studies, like Holste (2015), who from his study on local firms in Taiwan and the business model perspective, confirmed that internal firm decisions on upgrading were more effective than external factors. Zhang and Gallagher (2016), in their study on firms in the solar energy industry in China, observed a mix of upgrading strategies first through the acquisition of technology and later vertical integration. Others like Hansen, Fold and Hansen (2016) illustrated how a local firm dealing in biomass power became a lead firm through various strategic investments in their study in China.

2.4.3 Importance of Upgrading

Understanding the upgrading of value chains is important because it is a key indicator of how a country is performing economically. It is important to nations/economies and individual firms/chain actors. Upgrading, particularly economic upgrading, leads to social upgrading (Golini, De Marchi, Boffelli, & Kalchschmidt, 2018), which leads to social benefits like employment. It also enhances the financial performance of the chain actors, leading to increased production and exports (Islam & Polonsky, 2020).

As was observed by Tagloini and Winker (2016), to nations or economies, upgrading of GVCs facilitates the equitable distribution of value. According to Salido and Bellhouse, (2016), this ultimately benefits everyone and leads to economic development, although contended by scholars like Oqubay & Ohno (2019). For developing countries, upgrading value chains is a sure route to capturing higher returns (Tanrattaphong, Hu, & Gan (2020). Lorenzen, Mudambi and Schotter (2020) confirm that, whereas these global interactions in value chains enhance international connectedness through global orchestration to becoming a knowledge economy, it impairs and undermines local connectedness and upgrading in producing countries. However, developing countries like Uganda can maximise benefits from GVC participation mainly through Process and Product Upgrading by increasing their control of the value chains (Trienekens & van Dijk, 2012).

2.4.4 Strategies for Upgrading

Trienekens and van Dijk (2012) observed four pathways for upgrading. Of these pathways to upgrading, this research applies value addition as a pathway for upgrading.

i) Value-addition

Most GVC scholars have focused on upgrading by value addition in four main types by Humphrey and Schmitz (2002) which firms can pursue: namely, Process Upgrading, when processes of production in firms are made more efficient; Product Upgrading, when firms move to more complicated products; Functional Upgrading, when firms move to segments with higher value addition in the chain and chain upgrading, where firms can shift to activities with higher value by spreading into new sectors. Developing countries can quickly achieve some success in product and Process Upgrading since they do not require the acquisition of new skills or knowledge and mainly need capital and equipment which they can access through vertical and horizontal linkages from lead firms and suppliers, respectively (Trienekens, 2011). On the other

hand, Functional Upgrading was observed to be in mainly developed countries following evidence in the Brazilian Shoe Industry that improved quality and limited growth due to horizontal collaboration and functional improvements (Schmitz (1999). Functional Upgrading is more difficult for developing countries to achieve as it requires more value addition and more complex activities, mainly focusing on higher-value-added activities like branding, marketing and design (Morrison, Pietrobelli & Rabellotti, 2008). More competition and stringent entry barriers for firms make it harder for developing countries (Pietrobelli & Rabellotti, 2006). Functional Upgrading close to Chain Upgrading has no significant changes in the firm, but the same value chain is relocated to a new geographical jurisdiction, most times for an end market that is less demanding (Morrison, Pietrobelli & Rabellotti, 2008). The most complex type of upgrading and the biggest challenge for developing countries is the intersectoral that requires using functional capabilities in new sectors, demands for high-end knowledge of the product and market, and thus has the highest operational costs, risks yet with the most returns in terms of value (Humphrey and Schmitz, 2002).

Overall, Bamber, Fernandez-Stark and Taglioni (2020), and Miroudot (2020) posit that GVCs are likely to be more resilient in their transformation because the COVID-19 pandemic has reinforced the sustainability agenda, technology advancement, and economic nationalism. Despite the challenges of unprecedented GVC downsizing, the pandemic has presented opportunities that will result in a paradigm shift in GVC development (Zhan, Bolwijn, Casella, & Santos-Paulino, 2020). GVC upgrading is not an exception.

ii) Market Access

Horizontal relationships like collaborations in marketing, buying production inputs, sharing facilities, and vertical relationships aimed at the right market through specific strategic

channels are considered the primary means of accessing markets (Fisman & Khanna, 2004), whereas horizontal relationships may be producer associations (Roy & Thorat, 2008).

Business associations in India illustrated upgrading through market access where infrastructure costs were shared, skilled workers rotated to different locations, and collectively enjoyed tax reductions, although it is often difficult to enter new market channels (Fisman & Khanna, 2004). Defined by market standards in order to access the markets, producers often find them as a high bar to achieve. When achieved, upgrading is still not guaranteed, as observed in the cashew nut industry in India because the buyers preferred lower costs (Tander & Van Tilburg, 2007).

iii) Suitable Structures of Governance

Upgrading opportunities can be through developing more integrated governance structures through formal contracts with other companies or inter-firm relations that set agreed certifications and standards (Williamson, 1999). As evidenced by the study of Mesquita & Lazzarrini (2008), where survey data of furniture Small and Medium Enterprises (SMEs) in Argentina were used, due to weak institutions, there were no complete contracts since actors in developing countries preferred relational contracts based on trust from which they shared knowledge and technology. It was observed that vertical ties yielded manufacturing productivity along the supply chain, and horizontal ties enabled access to collective resources and product innovation. These collective efficiencies, in turn, serve as competitive currencies for SMEs to access global markets. These are also illustrated in cluster upgrading, where firms benefited from innovation within the same industry as was witnessed in Latin America (Trienekens & van Dijk, 2012). Collaborations between private and public often support these efficiencies through research.

iv) Partnerships.

Upgrading through partnerships can either be between the private and sector actors or between chain and non-chain actors by complementing each other, as was evidenced in the comparative, longitudinal analysis study of the wine industry in Argentina where the government supported farmers through research and training (McDermott, 2007). It was further observed that the government provided supportive regulations and policies, negotiated for easy market access, provided physical and knowledge infrastructure, and provided a stable political environment. In contrast, the private partners provided standards and streamlined Vertical and Horizontal Governance mechanisms. However, it was observed that it is not guaranteed to achieve upgrading through partnerships, as was observed from in-depth interviews by Hanna & Walsch (2008). The study further revealed that broker networks were not as useful to companies as was expected since they mainly emphasised reducing costs and enhancing business processes, yet firms that developed their networks concentrated on coordinating skills and leveraging market opportunities in collaborations instead.

Kaplinsky (2010), in his study on how value chain analysis can be used to disconnect economic and distribution activities, argues that the focus should be on how GVC participation is done to result in sustainable growth and not simply participate. Kaplinsky observes that although many have benefited from globalisation, there is remarkable inequality within countries. Kaplinsky further asserts that focusing on rent dynamics in GVCs, governance, and transnational features can change the narrative. Kaplinsky (2010) presented other means of upgrading in developing countries. These included improving the efficiency of internal operations, strengthening linkages between firms/ enhancing interfirm linkages, and innovating new and diversifying activities conducted within the firm. The study concluded that identifying key policy actions by the private and public actors could positively influence the outcome distributions. The policy actions included

coordination of policies between different government agencies since the value chain analysis is multifaced, rent and its institutional determinants that influence the behavior of groups in firms, including non-chain actors and their institutions like research institutions.

Roy and Thorat (2008) also observed that marketing in foreign markets, technical assistance, inputs, and market information play a significant role in upgrading processes in developing countries. This was evidenced in their study in the Mahagrapes horticulture industry, where India failed to comply with the required food safety standards. On the contrary, the farmer cooperatives were successful through private-public partnerships, indicating that scaling up was a reachable option.

2.4.5 Overview of Coffee Industry in Uganda

2.4.5.1 Coffee Industry in Uganda

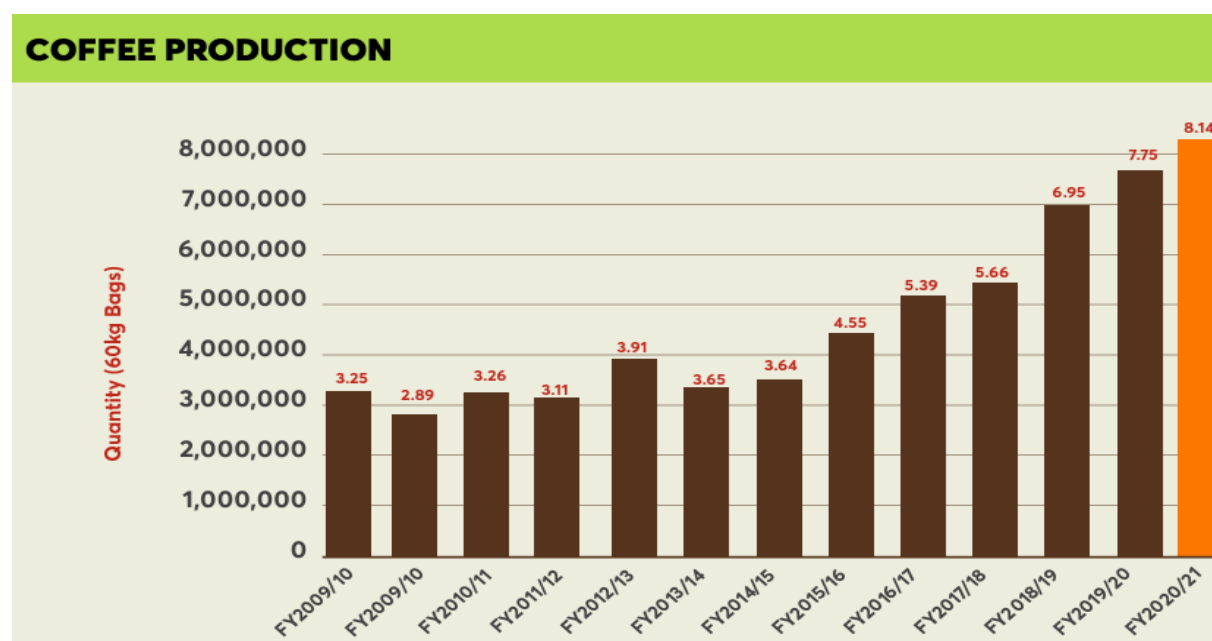
The study was on the coffee industry in Uganda. While the coffee industry remains a key sector of Uganda's economy, tensions exist between theoretical knowledge and practical application, and there is limited understanding of what works and what does not. Little is known on how upgrading occurs and its influence on upscaling. Coffee was introduced in Uganda during the British Colonial period as a cash crop in the early 1900s and has continued to offer various income generating activities to many Uganda households. However, the British introduced Uganda to the global market as a supplier of raw coffee produce, which has continued to shape the earnings from its GVC participation and, ultimately, the development course. To date, 95% of the coffee produced is exported as green beans, accounting for only 10% of retail value (UCDA, 2024). According to UCDA (2024), Uganda produces two types of coffee: Arabic coffee and Robusta coffee. Over 85% of the produced coffee is from small holder farms with an average size between 0.5 to 3.5 hectares. It is estimated that 1.8 million households of Uganda's population are involved in coffee-related production activities, contributing to nearly 30% of the export earnings (UCDA,

2024). Uganda is among the top-producing countries in the world where it ranks 7th and 2nd in Africa, according to World Population Review (2024).

In recent years, the quality of coffee has dramatically improved, and this has led to better prices. For instance, according to the Coffee Quality Institute (CQI), the quality of Ugandan coffee produced ranked 3rd in the global market, improving its reputation (Bean-Poet, 2020). Also, the production volume has continued to increase in the last decade. For instance, according to a publication, Uganda Coffee Then & Now, by UCDA (2024), coffee production is now at 8.1 million bags of 60kgs. In 2021, 6.77 million bags of value US\$ 718.57 million were produced, compared to 5.49 million bags valued at US\$ 520.01 million in 2020 (see Figure 4 below).

Figure 4

Coffee Production Trends in Uganda



Source: Adopted from Uganda Coffee Then and Now, by UCDA (2024)

The New Vision of September 5, 2024, revealed that based on a Financial Performance Report for agricultural exports, export earnings had increased by 9.2%, with coffee being the leading contributor valued at \$ 210.44 million. It was also observed that the Middle East was the largest destination for Ugandan coffee, accounting for 30% of the produce. According to the Permanent Secretary at the MAAIF (2024), these improvements are attributed to effective regulation by the UCDA, better sustainable production and agronomic practices, seed quality, and water management, all leading to increase in production and price. In addition, a Uganda Export Promotions top official highlighted that the improvements were due to interventions over the past years in terms of infrastructure, better market access, capacity building, participation in trade events and export readiness and assessment programs. He added that exporters understand international trade procedures and requirements better. In addition, the MAAIF (2024) attributed the recent production improvement of being the highest in the last three decades to the effective regulatory oversight by UCDA and the overall tremendous support of government. According to the New Vision (2024), the Government of Uganda, through the UCDA, is currently supporting the construction of a modern industrial park in partnership with Inspire Africa Coffee Processing Factory in western Uganda, which will focus on value addition to the produced coffee in the country. Uganda, which is aiming at exporting 20 million coffee bags of coffee by 2030, is also investing in the Coffee Investment Consortium Uganda (CICU) with the anticipation that its efforts will result in an increase in export revenue, employment and farm gate prices. Government commitment to continuous improvement is also seen in its effort to create a favourable governance framework through the National Coffee Policy and Uganda Coffee Act 2021, whose objectives are to enhance production, research, extension of services, farmers' organisations, reinforce industry frameworks, add value, and enhance local consumption (UCDA, 2024). The Government of Uganda is also partnering with several organisations, such as NACORI, NAADS, and UCF, to

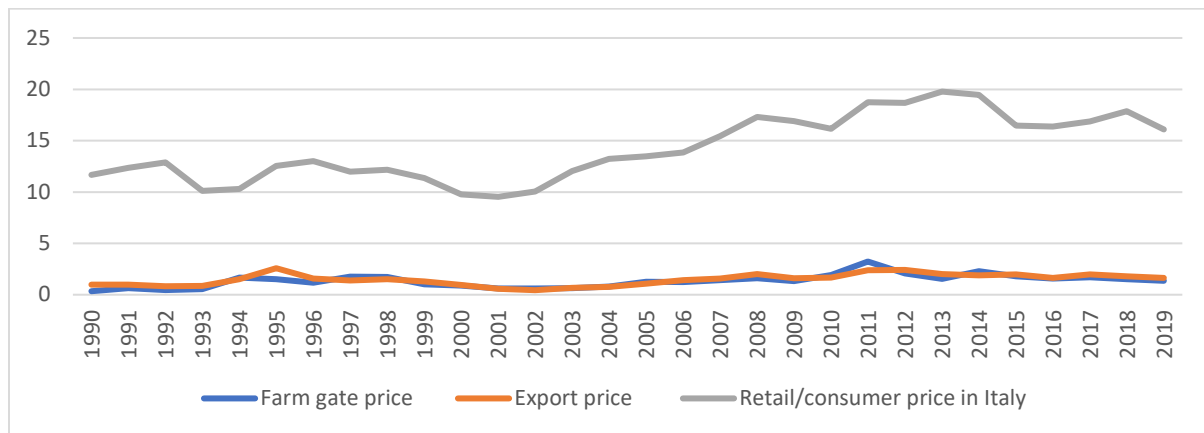
achieve these objectives. However, according to the New Vision, in October 2024, the government proposed a coffee bill proposing to transfer UCDA back to the MAAIF. Although the majority of Parliament voted in favour of the proposal, there has been considerable debate among the stakeholders of the coffee sector. Some stakeholders argue that the bill contradicted the global best practices since all the top coffee producers such as Brazil, Vietnam, Columbia, Honduras, Peru, India, Ethiopia, and Kenya have regulatory bodies, which would force the Ministry to re-initiate accreditation processes, and negatively impact the coffee industry. The proponents of the bill on the other hand argued that dissolving UCDA would reduce redundancy and streamline efforts while boosting agricultural productivity. Most stakeholder engagements have argued that UCDA has been instrumental in the coffee sector and that disbanding it would have negative consequences. Instead, they recommended that the process be spread out over five years.

2.4.5.2 Comparison of Farm Gate, Export and Retail/Consumer Coffee Prices

Figure 5 below illustrates insights regarding the farm gate, export, and consumer prices for Uganda coffee. A review suggests that, on average, farm-gate and local export prices in Uganda are \$ 1.34 and \$ 1.46 USD/kg, respectively. Conversely, the consumer price of coffee in Italy, one of the major importers of Ugandan coffee, reveals an average of 14.22USD/kg. The value explains the price difference added that reflects the profit margins fetched.

Figure 5

Comparison of Farm Gate, Export and Retail/Consumer Prices of Uganda Coffee (USD/Kg) 1990 - 2019



Source: International Coffee Organisation (2022)

Considering the importance and multifaceted nature of the upgrading process and the need for firms to successfully strategise on how to upgrade, it is worth understanding the various antecedents, determinants, and sustainable outcomes for upscaling of upgrading global value chains from stakeholders' perceptions. No study has attempted to do so. This study attempts to fill this gap.

2.4.6 Barriers to Upgrading

According to Casella, Bolwijn, Moran, and Kanemoto (2019), countries that benefit more from GVC participation are those that buy primary products and add value through upgrading activities to them, thus, most developing countries have more forward linkages than backwards linkages in their involvement. Although Lee and Mao (2020) observed the positive effects of competition, it remains stiff and ruthless for developing countries and their value chains on the global scene. Despite the various barriers to upgrading global value chains (see Table 2 below), the value chain of upgrading, especially in developing countries, contributes to economic growth through the linkages that act as learning avenues (Epede & Wang, 2022).

Table 2*Barriers of Upgrading GVCs*

	Barriers/Challenges	Studies
1	Lack of strong policies and institutions, government legislation and regulations	Murphy, 2007); Trienekens (2011); Soejachmoen (2016); Thoburn & Natsuda (2018)a; Syafrian (2019); De Marchi & Alford (2021); African Union Commission/OECD, 2022),
2	Inability of women to own land and sell their produce on their own rights	Barrientos (2014)
3	Lack of resources and inaccessibility to credit and finance	Barrientos (2014); Fernandez-Stark, Bamber, Gereffi (2012)
4	Limited value capture	Aswicahyono (2000); Natsuda, Otsuka, & Thoburn (2015); Syafrian (2019)
5	Inefficiency	Syafrian (2019) Doner & Wad (2014), Matsumoto (2006)
6	Neo-Liberal Regime	Horner (2014); Thoburn & Natsuda (2018)b ; Yang (2013); Syafrian (2019)
7	Lack of adequately skilled technicians and specialists	Diansambu (2020)
8	Disconnection with the global economy	Newman, Page, Rand, Shimeles, Söderbom, & Tarp (2020)
9	High trade costs and weak competitiveness	De Melo & Twum (2020)
10	Factor conditions like structural challenges, lack of physical infrastructure, human knowledge and technology	Giuliani, Pietrobelli & Rabellotti (2005); Trienekens (2011)
11	Too much local regulation or lack of appropriate governance structures	Trienekens & van Dijk (2012)
12	Inaccessibility and lack of employee training	Fernandez-Stark, Bamber, Gereffi (2012)
13	Inaccessibility to new markets	Trienekens (2011); Fernandez-Stark, Bamber, Gereffi (2012)

Source: Researcher

2.4.7 Global Value Chain Theory and its Application

This study is grounded in the Global Value Chain Theory, which posits that production economic activities are sequential and spread across different locations, with each node of the chain adding value until it reaches the consumer (Gereffi & Fernandex - Stark, 2011). The theory also states that while production stages are fragmented globally, governance structures are managed by lead firms as they control the power dynamics of chain actors that often affect upgrading processes in producing countries (Lima & Lee, 2023). Value addition occurs when the chain actors climb the value chain through different means, namely process, product, functional and Chain Upgrading (Lee & Gereffi, 2015). As they advance to a higher level of the chain, more profits are earned. The theory further highlights that advancement to higher nodes of the chain with more value can be a tool for economic development, although this is not obvious (Tanrattanaphong, Hu, & Gan, 2020). There are often technological limitations to upgrading, as was observed in a study by Whitfield et al. (2020) in the apparel and floriculture sectors.

The Global Value Chain Theory is applied to this study, which offers a lens through which the coffee value chain of Uganda can be analysed by examining the different types of global participants across the chain. Secondly, one of the main ideas of the theory is the upgrading and its means, a phenomenon on which this study focuses. The theory also focuses on the various interactions and relationships among the different participants that affect the upscaling processes key to increasing the social impact of development. The study further emphasises stakeholder perceptions, considering that the theory highlights the different participants/chain actors, each with different interests and perceptions on upgrading. The theory applies to this study in that it assists researchers and practitioners in analysing the different interests and stakeholder perceptions on upgrading and how it is scaled up for development, by explaining how the Ugandan coffee value chain is positioned in the global market.

The theory, however, has some limitations. The theory that climbing up the ladder leads to increased value capture, which translates to economic development, does not always happen (Oqubay & Ohno, 2019). In addition, because lead firms control the power dynamics in the value chains, chain actors, such as farmers engaged in activities at the bottom, often have little influence on upgrading processes (Wedig, 2019). An illustration of this is that coffee prices, quality and certifications are determined by the final consumers. The theory also tends to assume that the means of upgrading are a 'one-size-fits-all' approach, which may not be the case due to the unique circumstances of different localities, such as institutional pressures (DeBerge, 2024). The Global Value Chain Theory further assumes that the structures of governance in the value chain are static, yet they are constantly changing (Pushp & Ahmed, 2024). Furthermore, the influence and control of lead firms as stressed by the theory may not always be so with the emergence of cooperatives, and the association of chain actors and the bottom of the coffee value chain (Kano, 2018). Despite the above-mentioned limitations of the Global Value Chain Theory, its relevance to the study is observed in the findings from the focus of analysis, that is, stakeholder perceptions on how upgrading takes place in the real world.

2.4.8 Stakeholder Theory and its Application

Freeman, Harrison, and Wicks (2007) theorised that stakeholders are "individuals, groups, and organisations interested in processes and outcomes of the firm and upon whom the firm depends for the achievement of its goals." According to Freeman (1984), stakeholders include customers, suppliers, local communities, financial institutions, and government agencies, among others, whose needs must be addressed if a firm is sustainable. The Stakeholder Theory is a widely used framework that emphasises the value creation, impact, and benefits for all stakeholders (Tapaninaho & Heikkinen, 2022).

The Stakeholder Theory is applied to this study because stakeholders' opinions are instrumental in successfully achieving any intended goal, as was observed by Freeman (1994). The Stakeholder Theory facilitated the analysis of multi stakeholder interactions characterised with interests that compete and complement each other that influence upgrading process based on the observation of Barro (2009). Barro (2009) found a positive correlation between firm strategies and supportive attitudes/behaviors from its stakeholders in support of Freeman's earlier assertions. These were evidenced in Barro's study, where models for two types of stakeholder management strategies were developed. It was observed that the lower stakeholder trust is, the more aggressive firms tend to be when dealing with their business partners.

The Stakeholder Theory highlights the importance their inter-relationships of stakeholders and how they influence strategy in accomplishing specific objectives (Fernandez De Arroyabe Fernandez, Ozdemir, Sena, & Gupta, 2023). Barro (2009) also observed that when there is interdependence and trust among business partners, they tend to have the urge to collaborate for their benefit, resulting in adopting collective strategies. Likewise, Wittke (2014), in a study that focused on the major decision stages of the supply chain and based on the evaluation of how the Stakeholder Theory impacts the decision-making processes, highlighted the critical role of being an intersection between stakeholders and the decision-making processes in the supply chain.

Stakeholder Theory promotes transparency between firms and various stakeholders which benefits sustainability and enhances good public image (Freeman, 1994). According to Clarke and Boersma (2015), Stakeholder Theory recognises the influence of the different stakeholder groups, the firms' responsibilities, and the legitimacy issues that disclose their motivations. They further noted that it offers guidance on prioritising and managing the different needs and expectations of the various stakeholder groups.

The Stakeholder Theory approach facilitates the incorporation of sustainable dimensions and offers a holistic view of economics and a more sustainable view, including the social and environmental supply chain aspects (Gold & Schleper, 2017). For instance, Clarke and Boersma (2017), in their study where they used the Apple case study, observed that despite the corporate success, it had failed to address the environmental and social issues like employment - an illustration of institutional failure from which they concluded that stakeholder pressures shape its legitimacy as they are a powerful weapon to achieve social and economic change. In agreement, Freeman, Wittke, Clarke and Boersma (2017) emphasise the role of multi-stakeholder initiatives to air out stakeholder concerns. The Stakeholder Theory promotes the triple bottom line concept that goes beyond promoting the financial interests of the shareholders to promoting and addressing social and environmental issues (Elkington (1998). In addition, from its application, the nature of relations in firms is highlighted, which helps understand the various relationships between each type of stakeholder and the firm (Antonacopoulou & Meric, 2005).

Kalibwani et al. (2018) observed that stakeholders play an essential role in driving the upgrading process of value chains like creating knowledge in addition to driving innovation (Linn, 2012). They further observed that different value chain stakeholders do not influence or contribute equally to a cause due to their different interests and incentives. For instance, stakeholders in the public sector may have economic development as their incentive to drive the upgrading of the value chains, while the stakeholders in the private sector may be incentivised by maximisation of profit margins (Holste, 2015). In addition, the stakeholders' perceptions of how the upgrading is achieved affect their commitment to the agents (Thorpe, 2018). Several attributes can influence stakeholders' capability to perceive a cause, like upgrading global value chains as leading to a negative or positive outcome. Mitchell (1997) theorised attributes to be power, legitimacy, and

urgency; Scholes and Clitterbuck (1998) theorised influence, impact, and alliance; and Murrat-Wbster and Simon (2006) power, interest, and attitude.

Whereas Antonacopoulou and Meric (2005) in their study of systematic critique of Stakeholder Theory did not disregard the fact that it is an ideology focused on relationships and interdependencies highlighted that it does not meet the test of scientific rigor, they suggested that it cannot be considered a science but an ideological product because it is based on descriptive aspects and takes a normative method resulting in ethical concern (Pesqueux & Damak-Ayadi (2003).

The fundamentals of Stakeholder Theory are opposed by the Shareholder Theory in capitalism (see Table 3 below) and recognises the shareholders as the most important stakeholders (Friedman, 1970). According to Friedman (1970), firms are only obliged to make a profit and ensure positive economic growth for the shareholders as he remarked that businesses only have one social responsibility, which is to use their resources for increased profits as long as it complies with the rules of the game in a transparent, fraud-free and competitive manner.

Table 3

Comparison of Stakeholder and Shareholder Theory

Shareholder Theory	Stakeholder Theory
Focuses on shareholder interests	Focuses on all stakeholder interests
Profit maximisation for shareholders is the main goal	Balancing the interests of all types of stakeholders is the main goal
A narrower view that firms are not responsible for social and development aspects of society	A more holistic approach that emphasises social and environmental impacts of a firm besides making profits

Adapted from Freeman (1984) and Friedman (1970)

Rodrik (2008) supported Friedman's theory of maximising profit and linked it to growth and several benefits, as reflected in his remark where he said that economic growth is the best

occurrence that has enabled societies to improve, including those at the bottom of the wealth pyramid.

Several scholars have supported his assertion in their work. For instance, Adams (2003) argued that poverty was reduced with increased economic growth, as observed in a cross-country study, where a 10% average income increase led to a 20%-30% reduction in poverty. From their study on the effect of economic growth on the poor in Mozambique, Arndt, James, and Simler (2006) also observed poverty reductions of 4.3% caused by a 1% increase in income levels. Glewwe and Jacoby (2004), from their study in Vietnam between 1993 and 1998, observed a positive effect on human development; a 6% annual increase in growth led to a 7% in household income which caused an increase 8% increase in school enrollment in high school. Health is another area that is said to improve with increased economic growth. Bhalotra (2006) observed that India experienced a reduced infant mortality rate of 5-7% with an increase of 10% in GDP.

Despite the highlighted positives above, Rodrik (2008) further argued that these are often enhanced with appropriate policies and favourable antecedents like industrial policies. For instance, he notes that most jobs created in developing countries are informal jobs that do not require any skills, as was evidenced in Latin America, where 60 % of the jobs created in the 1990s were on a small scale, by sole workers offering domestic services.

Also, pursuing the Shareholder Theory, especially in the era of capitalism, has led to economic growth whose benefits have not trickled down to everyone, as illustrated by the insignificant economic transformation in Africa where limited technologies, insufficient meaningful job creation, low standards of living, with low productivity and the majority of populations engaged in low-income activities in the larger part of Africa (Anzu, 2013).

Chenery, Robinson, Syrquin, and Feder (1986) argued that there was no structural transformation where people moved from lower to higher productivity employment between the

1980s and 1990s. In their study, Page and Shimeles (2015) observed a weak correlation between economic growth and poverty reduction, as illustrated in the low employment outcomes in the fastest-growing economies in Africa. Friedman's position on the Shareholder Theory overlooks the challenge of addressing the social aspects of society.

2.4.9 Attribution Theory and its Application

The Attribution Theory, which is how people perceive or infer the causes of an outcome (Kelley & Michela, 1980), is applied to this study. As Weiner (1985) conceptualised, the Attribution Theory explains the emotional and motivational implications of success or failure in a task. Weiner (1985) highlighted three dimensions of Attribution Theory which include: i) The locus of causality, which explains the perceived cause and whether it is internal or external ii) Controllability, where individuals perceive whether they have control or not of the cause. iii) Stability ascertains if the ones' perceptions of the causes are over time or not.

Based on the Attribution Theory, human beings tend to investigate why certain events happen the way they do and, after that, motivate their occurrences based on the information they have acquired (Kelley & Michela, 1980). Campbell (1988) argued that developing an interest in something is propelled by actors and the extent of their determination to transform the information and knowledge they have. Understanding causes or antecedents help rationalise the results of events based on the context (Weiner, 2010).

The Attribution Theory is applied to this study because it is beneficial in explaining the performance of events and, in this case, the coffee value chain. It facilitates deeper understanding and insights into the behaviours of chain actors and why they engage in their activities by assigning causes and events with external and internal attributes (Heider, 2013). If practitioners and policymakers can influence chain actors to make more internal attributes, their actions and

behaviors can be influenced toward achieving desired outcomes in the future (Roesch & Amirkham, 1997).

In addition, the flexibility and improvements of the supply chain are enriched when chain actors share information. This was confirmed by Youn, Hwang, and Yang (2012) in their study on 74 steel firms in Korea that employed the Attribution and Transaction Cost Theory and examined four settings of information-sharing. Their study observed that there are higher chances of self-service bias or attribution error occurring when information is provided. It was also observed that there must be mutual trust between the chain actors for the transferred information to be beneficial and of high quality. Similarly, in their study, which used surveys on a sample of 220 entrepreneurs in Japan to investigate how ascriptions of failure affect perceptions of learning, Yamakawa and Cardon (2014) also observed that when failure is unstable with internal causes, the perception of learning is more similar when it is stable and external.

The Attribution Theory aids in linking the consequences of motivations and emotions from particular experiences (Weiner, 1985). It facilitates users in learning from their failures. This was evidenced by the study of Jenkins (2012), who observed that individuals who believe they are a cause of failure are less motivated to try again in a specific venture. He further explains that such individuals are not open to learning because of negative emotions. On the other hand, if the causes are believed to be external, their self-esteem is protected.

Timmer and Kaufmann (2019) reveal different views on behavioral reactions in response to responsibility attributions, like the possibility of managing success when there is a fit between dark personality traits and firm actions. In their study, they used the neo-configurational method of Fuzzy Set Qualitative Comparative Analysis (fsQCA) and observed that dark personality traits conceived as socially aversive assist in dealing with adverse supply chain events in combination with cross-functionally integrated bridging. On the other hand, they observed that the lack of dark

personality traits is beneficial because there is a combination of cross-functionally integrated buffering.

The Attribution Theory, however, has some limitations. Based on a study by Aarts (2006), it is mechanistic and assumes that people are rational and think logically and systematically, contrary to the attribution error that illustrates that their perceptions change according to the motivating factors.

Although the Attribution Theory may be useful in forming objectives, the motivation cannot be influenced since it is based on one's perceptions which often differ from external observers, making it difficult to measure. In addition, the Attribution Theory does not tackle the social and historical factors on which the attributions of a cause may be based, as was observed by Aarts (2006) in a qualitative study that illustrated how language influenced the attribution process.

Based on the Attribution Theory, the term favourable in this study refers to strategies undertaken by firms that are attributed to, appreciated, or perceived as an antecedent or cause that leads to the desired outcome by the stakeholders. The more a firm strategy is valued or appreciated by stakeholders, the better the perception or the more the chances of achieving the desired outcome. This implies that they perceive a particular cause or antecedent to a positive or negative outcome. The favourable causes or antecedents of upgrading GVCs result in a favourable impact, leading to favourable outcomes that offer a comprehensive test to understand the different elements that form GVC upgrading and influence the perceptions of stakeholders (industry players and chain actors). The following section presents the main antecedents of upgrading value chains used in this study.

2.5 Main Antecedents of Upgrading Global Value Chains

This section presents the main antecedents of upgrading global value chains. Although global value chain participation has often been argued as a sure way of upgrading, various scholars present different antecedents of upgrading value chains that influence favourable outcomes for

upscaling. The antecedents are in two categories: capabilities/non-governance and governance antecedents. Fagerberg, Lundvall and Srholec (2018) stipulate that upgrading depends on their capabilities. The antecedents in the category of capabilities or non-governance category include Marketing Capability (Pasquali, 2021), Operational Functioning (Kano, 2018), and Global Value Chain Composition (Kano, 2018). The antecedents in the governance category include Internal Governance (Scuotto, Garcia-Perez, Nespoli, & Petruzzelli, 2020), External Governance (Scuotto, Garcia-Perez, Nespoli, & Petruzzelli, 2020) and McWilliam, Kim, Mudambi & Nielsen (2019), Horizontal Governance and Vertical Governance (Gereffi & Lee, 2016). These illustrate the ongoing debate on what antecedents facilitate upgrading global value chains. Khan (2019), and Islam and Polonsky (2020) posit that there is limited empirical research on the conceptualisation of upgrading global value chains and their impact on the outcomes.

2.5.1 Non-Governance/Capabilities Antecedents

This section presents the non-governance antecedents in this study.

2.5.1.1 Marketing Capability

Inan and Kop (2018) define Marketing Capability as “the ability of an organisation to understand and fulfill customers’ needs at the right time, place, and cost”. The importance of Marketing Capability is increasingly gaining centre stage in international business, and global value chains are not an exception (Cortez & Hidalgo, 2022). Hui and Zhou (2003) earlier observed the importance of Marketing Capability as an antecedent in successful upgrading in their study that examined differential effects of manufacturing country information on attitudes and product beliefs that had various levels of brand equity (Hui & Zhou, 2003). The study findings indicated that when the brand origin and the manufacturing country are non-reputable, there is no effect on the beliefs and attitudes of the product. When the manufacturing country has a less reputable image, there are adverse effects on belief and attitude. Marketing Capability was viewed as critical

in linking firms and their performance, according to an interview with Bob Lurie, which discussed what Marketing Capability consisted of and how it was developed within a firm (Morgan, 2019). It was also seen as a means of achieving sustainable competitive advantage in a study by Vorhies and Morgan (2005), where benchmarking was highlighted as a learning mechanism when used as a management tool to identify and enhance valuable marketing capabilities. In their study, where they employed Structural Equation Modeling (SEM), the findings showed that the identified eight marketing capabilities (Pricing, Product Development, Distribution Capabilities, Marketing Capabilities, Selling, Market Information Management, Marketing Planning, and Marketing Implementation) were correlated to a superior business performance characterised by customer satisfaction, market effectiveness, and profitability. However, some scholarship link it to outcomes of performance in terms of value addition (Wiles, Morgan & Rego 2012), the extent to which intended strategies are achieved (Spyropoulou, Katsikeas, Skarmeas, & Morgan (2018), scaling of efficient and effective activities and their accomplishments (Anderson, Chandy & Zia 2018) and traction for investor perception (Feng, Morgan, and Rego 2019), among others.

Several other scholars linked Marketing Capabilities to improved performance. Marketing Capabilities improved performance by highlighting its role as a market sensor in developing international export market strategies (Morgan, Katsikeas, & Vorhies, 2012). Their multi-industry study, that *used* manufacturing firms' data in export marketing and the dynamic capabilities theory examined what led to their international competitiveness and observed that the effective implementation of a planned export marketing strategy contributes to the export market and financial performance. Mithas, Ramasubbu and Sambamurthy (2011) also highlighted the role of Marketing Capability as a means of strengthening competence in their study that developed a conceptual model linking IT-enabled information management capability to three critical firm capabilities, namely: customer management; process management, and performance management

that acted as the link to firm performance. Mithas, Ramasubbu, and Sambamurthy (2011) employed a data set from a group of businesses that used a performance model based on the Baldrige Criteria. Their observation was that the information management capability plays a vital role in developing capabilities that positively influence measures of firm effectiveness for firm performance. In addition, a study by Merrilees, Rundle-Thiele and Lye (2011) that used the resource based-view to link Marketing Capabilities and performance in 367 SME Australian firms observed that branding and innovation had a significant positive effect. Trainor, Rapp, Beitelspacher and Schillewaert (2011) recognised Marketing Capability as a tool for e-marketing through social media and how it helps retain and keep customers satisfied. In their study that used a survey of 522 firms in Belgium that integrated e-Marketing, a positive influence on firm performance was observed through improvements in customer retention and satisfaction. Wong and Merrilees (2008) also observed improved firm performance with solid marketing capabilities of high brand orientation in their quantitative study that used samples from more than 400 firms. Their findings indicated a very strong positive correlation between brand orientation and brand performance, strengthening the competitive advantage in the long run and enhancing a firm's capability to compete overseas (Wong & Merrilees, 2005).

Existing literature on global value chains has focused on economic aspects that foster upgrading with minimal attention to Marketing Capabilities that help firms survive competitively through upgrading on the global market (Eng & Spickett-Jones, 2009). Eng and Spickett-Jones (2009) observed the limited scholarly research on the influence of Marketing Capabilities as a result of activities that require higher skills and value addition at the firm level on upgrading and performance. Even then, attention has been on the manufacturing industry.

2.5.1.2 Operational Functioning

Chain Actors also strategically identify partners with whom they can have business relations that will offer maximum economic benefit and improve efficiency. Strategic partners enable the orchestrating firms to limit the risk of capital loss and strengthen their ability to invest in upgrading processes and new developments (Forsgren, 2016). However, it is challenging for the orchestrating firms to completely control the globally located partners participating and facilitating value creation processes in the global value chains (Kano, 2018). Katz and Allen (1982) observed the risk of strategically choosing a specific partner by highlighting the possibility of obstructing innovation through groupthink.

Orchestrating firms that invest in network-based relational capital directly correlate with performance outcomes (Forsgren, 2016). He further observed that such capital offers several benefits to firms like reinforcing innovation efforts, facilitating the accessibility of strategic resources and tacit knowledge, and protecting against bounded reliability that reduces contracting costs and increases specialisation. One way through which orchestrating firms can invest in the relational capital of their GVC is by determining common relational norms by imitating identity-based standards and norms in clusters that have developed naturally (Kano, 2018). However, Kano and Verbeke (2015) observe how discord in identity-based standards is commonplace. Alford (2020); and Pasquali, Krishnan, and Alford (2021) also stipulated that the opportunities of producers to upgrade in value chains are inhibited when orchestrating/leading firms govern and control the outsourcing of value-added tasks and profit distribution, leading to costly transactions and contractual engagements that are not beneficial.

The other way orchestrating firms can invest in relational capital is by reinforcing their reputation internationally as market leaders (Kano, 2018). It encourages dependence on each other and enhances mutual commitment amongst partners (Dhanaraj & Parkhe, 2006). Gereffi,

Humphrey and Sturgeon (2005) observed that orchestrating firms do not influence their partners through distinct coordination processes but through reputation and leadership, which are not easy to copy. However, it may not be easy for network members to nurture capabilities in social relations (Doz, Olk, & Ring, 2000). In addition, it is costly for firms to pursue new opportunities since network members mainly interact with the orchestrating firm and not amongst themselves (Forsgren, 2016).

More so, when more firms collaborate with the orchestrating firm in the evaluation process, costs of unreliability increase for the partners in the GVCs since bad performance is easily disclosed and penalised (Landes & Posner, 1987). Such systems with multilateral feedback improve capabilities as there is an easy flow of information, and partners have no option but to abide by international standards (Kano, 2018). However, since different GVC partners may be operating in different environments with different social networks of suppliers, it is challenging to have robust performance benchmarks suitable for all (Yamin, 2011).

2.5.1.3 Global Value Chain Composition

GVCs are the backbone of the global economy, forming 96% of the global trade of suppliers and their business partners being passages of knowledge (Bisztray & Poitiers, 2022). Cano-Kollmann, Cantwell, Hannigan, Mudambi and Song (2016), however, observed the paucity of studies on how innovation and knowledge are transferred between the orchestrating firm and the GVC actors. The orchestrating firm is usually a well-established multinational company that centrally relies on knowledge capabilities that are vertical in nature (Mudambi, 2008). It holds the central position in the GVC, where it is the architect of the social network and determines the participants (Doz, Olk, & Ring, 2000), strategic leader (Rugman, & Verbeke, 1992), caretaker to ensure effectiveness (Snow, Miles, & Coleman, 1992) and a value distributor (Dhanaraj & Parkhe, 2006) of the GVC social network.

Given the vital role the social linkages play in transferring knowledge, Kano (2018) argues that the efficiency of GVCs can be improved through social mechanisms of enhancing coordination to address information asymmetries, limit complexities and foster the flow of technical and administrative knowledge. Other means of improving their efficiency that he highlights are limiting the risks caused by deficient efforts from partners, avoiding misappropriation of knowledge and ensuring proper alignment of objectives and results, and enhancing improvement and new capability development through joint managerial interaction.

In addition, as Rugman and Verbeke (2003), and McDermott and Corredoira (2010) highlighted, the orchestrating firms carefully choose partners that are not chain actors from whom they leverage their upgrading abilities, and they enhance their knowledge acquisition. However, it is difficult to intentionally establish and maintain a universal strategic map for all partners since they are in different locations there is increased dependability on each other (Kano, 2018). The following section presents the governance antecedents.

2.5.2 Governance Antecedents

Besides, the non-governance antecedents presented above are the governance antecedents presented in this section. As extracted from the definition of governance by Gereffi (1994) and Coe & Yeung (2015), McWilliam, Kim, Mudambi and Nielsen (2019), *governance* is defined as the organisation that involves coordinating relationships of GVC partners and the control of those relationships through institutions and regulations whose dynamics critically determine the outcomes of upgrading GVCs. As presented and discussed in the section below, governance can be Internal, External, Horizontal, or Vertical.

2.5.2.1 Internal Governance

Internal Governance facilitates the linkages within the value chain, that is, between actors like buyers and suppliers in the private sector at different value chain stages (Keane, 2012). Internal

Governance is often producer-driven and thus led by producers engaged in governance strategies like cost reduction and environmental aspects with the aim of capturing maximum profits in the value chain. Internal Governance is characterised by an interdependent network system-like type of coordination and control that sometimes overlaps and contradicts the functions of other chain actors. There are aspects of Internal Governance mechanisms in firms that influence upgrading. These are often producer-driven as they involve supplier capabilities, private governance that includes regulations and standardisation within the chain, partnerships, and alliances (McWilliam, Kim, Mudambi, & Nielsen, 2019).

GVC firm participation is viewed as a means to becoming competitive and a guide to how firms can efficiently utilise their internal resources (Siba & Gebreeyesus, 2017). Islam and Polonsky (2020) observed that it is difficult to analytically measure upgrading levels in firms and thus the economic development of countries in the existing scholarship, so the findings of their study highlighted the importance of the manufacturing capabilities of suppliers to all levels of upgrading. Pasquali (2021) posits that the market trajectory influences upgrading, as the quality of final products varies across different standards and consumer preferences, depending on profit levels, the accessibility of raw materials, and firm size. He further highlighted that the quality and value addition are higher for products exported to developed countries than to developing countries or when developing countries export to other developing countries.

Earlier on, Humphrey and Schmitz (2000) observed that in the market-based type of value chain governance, there is less collaboration and almost no control of the suppliers or producers from the buyers or consumers since the risks are minimal and the buyers usually have a good reputation of being able to meet the standard requirements. When the buyers have a good reputation, they have no choice but to ensure that they maintain it. In addition, they argued that under the network type of Internal Governance, there is no dominance of control from the buyer

or consumers from developed countries on the producers in developing countries since they, in most cases, have similar level capabilities in terms of technology, skill, and knowledge (Humphrey & Schmitz, 2000). In agreement, Pasquali (2021) further noted that quasi-hierarchy exists where buyers or consumers in developed countries, to a significant extent, control the suppliers in terms of setting standards on what type of product to expect because they generally do not trust their capabilities. In turn, this forces the suppliers to produce to their expectations which in turn motivates and encourages them to innovate and upgrade, making the costs of coordination worthwhile. As was highlighted by Keesing and Lall (2011), buyers in quasi-hierarchy relationships monitor the producers and, in many instances, assist the buyers in upgrading since the required standards are often non-existent and operational in their jurisdictions. On the other hand, buyers or retailers in developed countries tend to fully and directly control the operations of the producers in developing countries under the hierarchy type of Internal Governance (Pasquali (2021). Such control over external partners determines their interactions with the external operating environment (Benito, Petersen, & Welch, 2019).

A number of factors affect Internal Governance, considering how strategies and dynamics of capitalism determine the nature of governance in GVCs (Yeung & Coe, 2015). McWilliam, Kim, Mudambi and Nielsen (2019) observe other internal antecedents of governance like transnational complexity, capabilities of suppliers, and strategies like specialisation, alliances, private governance and outsourcing taken by chain actors to the reasons firms are engaged in activities in the global economy. McWilliam, Kim, Mudambi, and Nielsen (2019) argue that firm-related antecedents of governance, which can either be internal or external, illustrate how endogenic characteristics are influenced or can influence GVC governance and later its outcomes like upgrading as a result of improved efficiencies in their transactions. They further posit that there is an interdependence amongst these efficiency-related transactions calling for firms to

strategically utilise their capabilities and available resources in the best way possible. As Buckley (2009) earlier observed, orchestrating or leading firms focus on suppliers with the highest capabilities, which is a critical determinant in deciding what activities to outsource, thus complex transactions. Mola, Russo, Giangreco and Rossignoli (2017) further highlighted how the application of modern technology, like the use of digital platforms, influences their performance by positioning them to make outsourcing decisions that either enhance or hinder knowledge transfer capabilities necessary for upgrading.

In addition, Scuotto, Garcia-Perez, Nespoli, and Petruzzelli (2020) observed the role of innovation strategies taken by firms to use external routes to the market from which they can specialise and upgrade along the global value chain as a result of the technology dynamic capabilities and knowledge they acquire from the lead firms.

2.5.2.2 External Governance

External Governance is yet another set of elements that determine whether upgrading takes place or not. External Governance refers to the relations between chain actors and external institutions like governments, international organisations, non-governmental organisations, trade unions, and civil society (Keane & te Velde, 2008). External Governance is important because the institutional framework essentially enhances or constrains firms' strategies to upgrade (Paquali, 2021). McWilliam, Kim, Mudambi and Nielsen (2019) observed how institutional factors affect firm decisions on which jurisdictions they can operate. Formal institutions like the state play a big role as a regulator by putting in place policies and regulations that chain actors adhere to and the level to which they should partner with non-state actors like the private sector (Alford & Phillips, 2018). Such partnerships, often referred to as public-private partnerships (PPPs), are collaborative mutual arrangements (Kernaghan, 1993) that are instrumental in upgrading value chains (Thorpe, 2018). They facilitate the division of labor and sharing of human and financial capital (Vieira &

Hartwich, 2002), and the exploitation of each partner's comparative advantage (Van de Meer, 2002) reduces the costs of transactions.

Altenburg (2006) also deduced that other External Governance elements that facilitate upgrading are the structure of the market and patterns of consumption. The observation by Pasquali (2021) and Lund, Manyika, Woetzel, Bughin, and Krishnan (2019) that producers in developing countries tend to acquire more skills and knowledge capabilities that enable growth when they collaborate within their regional value chains is in agreement with Altenburg. In addition to the formal institutions are the informal institutions in the environment within which the value chains operate and are shaped by the existing informal rules like culture, values, and norms, all of which influence the attitudes of the producing firms (Boquiren, 2010). In addition, non-government organisations (NGOs) also often control certification systems to which producing firms/suppliers must subscribe (Tran, Bailey, Wilson & Phillips, 2013).

McWilliam, Kim, Mudambi and Nielsen (2019) argue that it is the dynamics that exist between their abilities and comparative advantages of the different locations that all the above elements that demonstrate largely determine the offshore and control strategies which influence transaction costs and capabilities of producers to upgrade. When the External Governance of value chains interacts with the formal institutions in the international environment, the upgrading dynamics are often more complex because of more chain actors in various locations. However, different value chains have different ways they interact with the institutions. For instance, non-export value chains do not have to conform to the regulations and quality standards, unlike the producer-driven ones that are often organised by the lead firms in a market that is oligopolistic (Gereffi, 1994).

2.5.2.3 Horizontal Governance

Gereffi and Lee (2016) define Horizontal Governance as the “*locality-based coordination of the economic and social relations between cluster firms as well as institutions within and beyond the cluster.*” They highlight the vital role played by governance in upgrading. Gereffi and Lee (2016) further explain that Horizontal Governance includes private governance, like codes of conduct and best practices, public governance, which supports social and private governance by authorising them as long as they are aligned with the government regulations, and social governance from corporate social responsibility demands, civil society and NGOs.

Private governance regulates transactions between chain actors and partners not within their value chain (Gereffi & Lee, 2016). It aims to attain communal competence, as firms and chain actors are typically small in producing countries, enabling them to support one another by sharing information that helps them improve their operations and collectively address upgrading challenges (Lund-Thomsen & Pillay, 2012). Such communal activities are implemented through local civil societies like associations, cooperatives, and the national institutions that support them. Through regional local collective initiatives, firms can strengthen their bargaining power required to negotiate with the demands of the orchestrating lead firms to ensure that those benefit them economically, socially, and environmentally and support their upgrading efforts (Gereffi & Lee, 2016). However, Lund-Thomsen and Lindgreen (2014) contend that only the chain actors participating in GVCs benefit. On the other hand, public governance is implemented by governments through formal regulations like labour laws, industrial policies that hinder or encourage the upgrading of GVCs, and bilateral or multilateral trade agreements that enforce international requirements (Gereffi & Lee, 2016). Although international requirements like standards are often superior to national ones, they are more challenging to implement.

Lastly, social governance is by the civil society like labor unions and non-governmental organisations and largely depends on support from private governance through regulations for better working conditions and other initiatives by different stakeholders (Gereffi & Lee, 2016). It should be noted that producers or smallholders in the value chains play an important role in value chains, especially in developing countries (Ferris, Robbins, Best, Seville, Buxton, Shriver, & Wei, 2014). Their participation in the value chain enhances the sharing of local knowledge and learning, minimises transaction costs, and is instrumental in motivating the private sector (Poulton, Dorward, & Kydd, 2010). However, state support is required for their role to have a positive effect as they often have no or lack bargaining power. State support may be in the form of favourable procurement policies that encourage procurement from smallholders (Hazell & Rahman, 2014).

2.5.2.4 Vertical Governance

Gereffi and Lee (2016) define Vertical Governance as that which,

“operates along the value chain, linking a series of buyers and suppliers in different countries, each of which adds values toward the final product”.

As a unit of analysis, Vertical Governance, shows how orchestrating/leading firms using their control mechanisms spread the profits and risks that directly affect upgrading initiatives. In Vertical Governance, orchestrating/leading firms are linked to first-tier firms at the local level. However, Lund-Thomsen and Pillay (2012) point out that the local/cluster firms often face a challenge of conflicting demands between the buyers in the global market that what to leverage locations with low costs and high-quality standards.

Vertical Governance is managed and controlled by lead firms in charge of the relationships, like information sharing and employment, with guaranteed superior quality and improved capabilities, although social benefits are less tangible (Gereffi, Humphrey & Sturgeon, 2005). Although Horizontal and Vertical Governance can be applied simultaneously to encourage

upgrading, Neilson and Pritchard (2011) observe situations where tensions occur, like when lead firms try to ensure good labour standards by prohibiting child labour. However, it is viewed as an opportunity for training in Horizontal Governance . In concurrence, Pasquali (2021) also observes that producers' capabilities to upgrade are not only through Vertical Governance but also depend on the institutional setup that influences the decisions and strategies firms make. Although Lee & Gereffi (2015) linked GVC to upgrading and economic development as was observed by Dünhaupt and Herr (2022) they argued that considering that control in Vertical Governance tends to be captive, industrial policies are a stronger means for upgrading since rent-seeking of lead firms increases as a result of more GVC participation and initiatives at firm cluster level that increase rent-seeking. The following section presents value addition and global value chains.

2.6 Value Addition and Global Value Chains

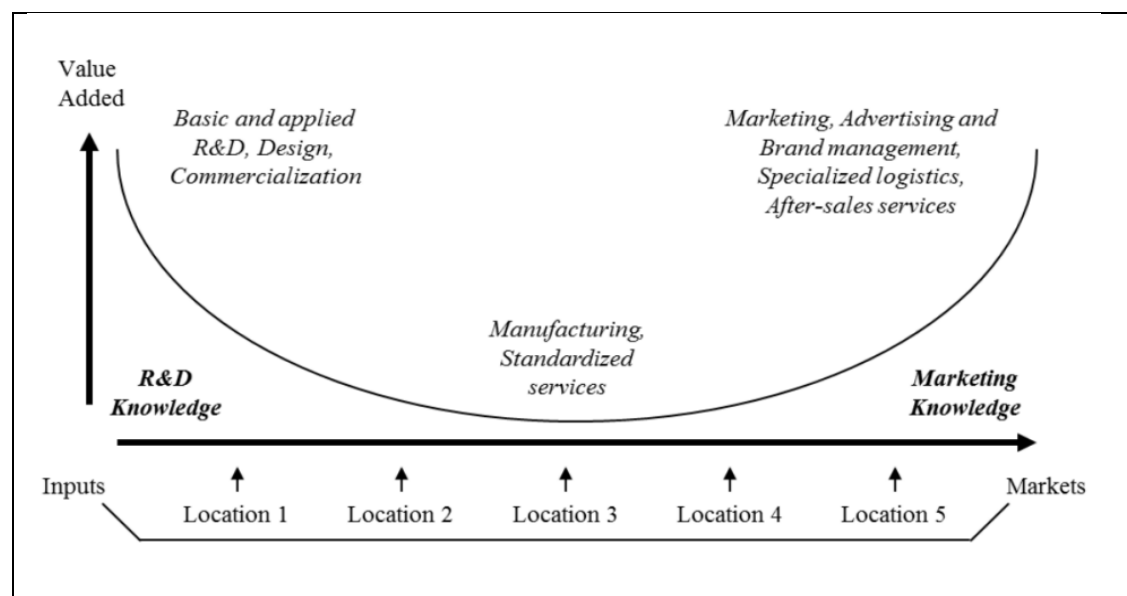
According to Armando, Azevedo, Fischmann, and Pereira (2016), local firms aspire to engage in value-addition activities in their chains to reap higher profit margins. Value Addition demands that firms constantly learn, innovate, and adopt new activities to produce more advanced products with more sophisticated processes (Kadarusman & Nadvi, 2013). Armando, Azevedo, Fischmann and Pereira (2016) refer to this move and process as upgrading value chains.

Mudambi (2008) illustrated Value Addition during the upgrading process using the “Smile Curve,” as proposed by Stan Shih, founder of Acer in Taiwan (see the Smile Curve in Figure 6 below). The Smile Curve shows that Value Addition is spread along the value chain. The Smile Curve shows that the middle section reflects activities of low value-addition where barriers to entry and competition are low because of the low price (Pietrobelli & Rabellotti, 2011). The implication is that firms that fall in this section of the curve should have incentives to upgrade either side, upstream or downstream, where there is higher competition and entry barriers (Mudambi, 2008). Evidence of the Smile Curve was observed from the Organisations for Economic Co-operation

and Development (OECD) AMNE Data (2016) used by Meng (2022) in his study analysing the US-China Trade Conflicts. It was observed that Information and Communication Technologies (ICT) exporting activities in 2016 from China firms took the largest part of the value-addition but got very little value-addition per unit of exports, causing them to be at the low end of the curve. A similar observation was seen from the iPhone's supply chain again in China, where an inverted Smile Curve was seen when foreign-owned ICT domestic firms in the US took a bigger part of the value-addition ratio and maximally used transitional inputs from other firms (Xing & Detert, 2010). Meng's overall revelation is that China is continuously upgrading and replacing other value chains.

Figure 6

The Smile Curve



Source: The Smile Curve Adopted from the work of Mudambi (2008)

Upgrading opportunities depend on the value chain type in which the suppliers or producers operate (Staritz, Gereffi & Cattaneo (2011. Pasquali (2021), however, argues that value addition is more when producers in developing countries export to developed countries than to developing countries. Tian, Dietzenbacher and Jong-A-Pin (2022) observe that not all countries benefit from

GVC participation since backward linkages are more of a source of upgrading for producers in developing countries than developed countries. Different types of upgrading arise depending on the governance structures that determines the power relations (Gereffi & Lee, 2016).

Kaplinsky and Readman (2001) and Humphrey and Schmitz (2002) earlier identified four main upgrading types: Process, Product, Functional and Chain Upgrading. They argue that the differences in the upgrading types result from varying amounts of knowledge flow caused by power relation influences that vary in the value chain. However, Murakami and Ōtsuka (2019) observe that GVC scholarship focuses on governance and upgrading, and neglects that the categorisation of GVC governance as static and the possibility that firms can evolve from captive to relational relationships. They instead concentrate on firm productivity. In line with this, Staritz, Gereffi and Cattaneo (2011) earlier observed that the upgrading trajectory is not linear as local firms can jump some stages when positioning themselves better in the value chain. Similarly, Ponte and Ewert (2009) previously viewed the classification as ambiguous since some activities like food standardisation could be placed in product or Process Upgrading and advocated for more comprehensive research on upgrading possibilities for agro-food value chains.

In addition to the four strategies of upgrading by Humphrey and Schmitz (2002), Morris, Staritz and Barnes (2011) proposed another type, '*Local Upgrading*,' that arises from ownership patterns, the extent to which firms are embedded, and their market is diversified. They define it as "*local skill and capability development and spillovers to the local economy.*" Dunn, Sebstad, Batzdorff, and Parsons (2006) also suggest another type of upgrading, '*Channel Upgrading*,' that involves entering multiple new markets (local, regional and international) with the same product to manage risk effectively through market diversification from which they acquire advanced capabilities to upscale. They argue that Channel Upgrading should be a reaction to dynamic market conditions like changes in consumer preferences, prices, and markets. Bamber, Fernandez-Stark,

Gereffi, and Guinn (2014) also suggested other types of upgrading, namely, ‘Entry into the national, regional, and global value chain upgrading’; ‘Backward linkage upgrading,’ where local firms supply to companies that used to import their inputs; and ‘End-market upgrading’ where local firms that are already participating in a global value chain transition to another chain or market that has new standards and certifications or demands for upscaling at a reasonable price. In addition, other forms of upgrading worth mentioning are producing larger volumes irrespective of the quality, compliance with existing standards and certifications, logistics delivery, and attractive pay for the products (Ponte, 2008). This study will focus on the four main strategies of value addition by Humphrey and Schmitz (2002), as discussed below.

2.6.1 Process Value-Added (Process Upgrading)

Process Upgrading refers to when production processes in firms are made more efficient or changing inputs into outputs more efficiently with the application of more sophisticated technology (Humphrey & Schmitz, 2002). Indicators of Process Upgrading include growth of labour productivity (Taglioni & Winkler, 2016), capital compensation (Milberg & Winkler, 2011), and capital intensity (Barrientos, Gereffi, & Rossi, (2011). For instance, higher efficiency may be achieved by the introduction of automation, which is a result of labour being substituted for capital. Likewise, Dunn, Sebstad, Batzdorff and Parsons (2006) expounded that what facilitates Process Upgrading is when local firms put effort into reducing costs per unit production so that more production can be done in less time. However, Ponte and Ewert (2009) condemned their definition by arguing that it does not recognise better practices that enable local forms to improve or sustain their position in value chains. They further elucidate that buyer-driven markets need compliance with standards or even certification, which limits producers since they cannot keep up with investment demands, economies of scale, and compliance costs. Most recently, Oliveira, Fleury

and Fleury (2021) asserted that Process Upgrading involved improved worker skills, efficiency, management practices, technological and innovative financing strategies.

Pietrobelli and Rabellotti (2011) explored how the upgrading possibilities relate to each other together with various learning mechanisms embedded in innovation systems of local and regional settings. They observe that scholarly literature has not focused on the important role of inter-firm and intra-firm relations as a medium for transferring global knowledge and information. However, although other scholars like Gereffi (1999) stressed how the interaction between producing local firms and global buyers facilitates Process Upgrading activities like improving the design, marketing, and several other competencies, others like Tejada, Francisco and Joaqui (2010) argued that the opportunities for upgrading are limited to Process and Product Upgrading. This was evidenced in their quantitative study, where a number of case studies of Spanish SMEs in the Tourism Industry were analysed to identify any patterns between upgrading and governance. In this study, it was observed that only Process and Product Upgrading took place.

Pietrobelli and Rabellotti (2011) also observed that different governance forms have different learning processes and innovation systems allow all actors to benefit because they are not linear and GVC Internal Governance keeps changing all the time as the dynamic innovation systems influence it. Developing countries can quickly achieve some success in Product and Process Upgrading since they do not require the acquisition of new tasks or knowledge and mainly need capital and equipment, which they can access through vertical and horizontal linkages from lead firms and suppliers, respectively (Humphrey & Schmitz, 2002); (Trienekens, 2011).

2.6.2 Product Value-Added (Product Upgrading)

Product Upgrading refers to firms moving to more complicated products or product lines with more sophisticated value-addition processes (Humphrey & Schmitz, 2002). They explain that Product Upgrading is often accelerated in quasi-hierarchical chains though slower in market-based

relationships where the orchestrating/lead firms are not influential in chain actor strategies. Product Upgrading occurs when innovative products are introduced or when the current products are improved faster than the products in competition (Tian, Dietzenbacher & Jong-A-Pin, 2019). Some indicators suggested by Kaplinsky and Readman (2005) include the increase in export growth and share. They further observed that when the two are achieved, growth is reflected in the increase of export unit value, which is Product Upgrading.

In agreement with the definition of Humphrey and Schmitz (2002) above, Ponte (2008) explained that Product Upgrading involves raising customer value by improving product quality which is often motivated by the dynamic preferences of customers, global trade regimes, and business strategies. Evidence was observed in his four-case study of the wine, flower, coffee, and fish industries, where he found that if buyer-driven value chains by actors in the North were left unchecked, trading interactions would worsen poverty. On the contrary, the trading interactions positively affected poverty when the buyer-driven chain actors in the North were involved less. However, Ponte and Ewert (2009) later observed that Product Upgrading should be viewed from the value addition aspect and the effects on product quality. They further argued that Product Upgrading should include effects on product quality that do not necessarily mean higher value-added, such as forward contracts. They also argued that rewards should be based on volume and considered product strategies that can make better prices attractive to producers but do not improve the product.

Other researchers like Banga (2022) have observed that the role of digitalisation on Product Upgrading should be addressed and confirmed that firms that have adopted it produce more hi-tech and complex products than those that have not. Deng and Zhu (2022) also highlighted the vital role of technology adoption. However, they argue that producers often reduce investments in innovation and match with the dynamic GVC technological evolution due to their dependence on

contractual arrangements with the lead firms, often characterised by an imbalance of power. Close to the role of technology were the observations of Oliveira, Fleury and Fleury (2021), who, in their study on multiple case studies focused on SMEs in developed countries limited by resources, asserted that the higher the digitalisation in firm activities, the higher the chances for SMEs to increase their autonomy in deciding what works and does not work in the upgrading strategies. They further explained that this not only minimised asset specificity in firms by making knowledge more modular and dynamic but also caused SME independence to address the power relations that constrained their upgrading capabilities. Several other factors affect Product Upgrading.

Piermartini and Rubínová (2014), in their research and development industry study where patent data from 29 countries for the period 2000-2008 was used, observed how globalisation is a means through which technological spillovers move from one country to the other. They further asserted that the spillovers increase the intensity of the GVCs interaction leading to Product Upgrading due to increased accessibility to cheaper inputs with better quality.

Upgrading possibilities largely depend on the governance structure in the value chains (Golini, De Marchi, Boffelli, & Kalchschmidt (2018). Pla-Barber, Villar, and Narula (2021) discussed the effect of the COVID-19 pandemic on GVCs, highlighting how it served as a catalyst for the resilience of value chains at the regional level and impacted governance structures, subsequently affecting upgrading trajectories. Pla-Barber, Villar and Narula (2021) further explained that the COVID-19 pandemic led to the regionalisation of activities that have shortened the GVCs due to the return of activities previously outsourced to other countries, a term they called reshoring. The implication of regionalisation has led to restructuring the governance structures that enhance upgrading as the lead firms (Javorcik, 2020). Barrientos, Knorringa, Evers, Visser, and Opondo (2016), in their case study of expanding supermarkets in the Southern and Eastern regions of Africa, observed mixed outcomes in the regionalisation with some upgrading possibilities for

suppliers that had better skills and diversified their activities while there was downgrading in others, in the horticulture industry. However, some scholars like Bonadio, Huo, Levchenko, and Pandalai-Nayar (2020) thought otherwise by arguing that relying on non-foreign inputs increases reliance on local inputs, which can also be affected by pandemics. Their position from their simulation analysis quantified the COVID-19 impacts and found that foreign lockdowns accounted for a third of GDP reductions. Also, it has been noted that regionalisation and the move to self-sufficiency in other parts of the world, like China led to increased geopolitical tensions, evidenced by the increase in trade interventions in recent times (Evenett & Fritz, 2020). For instance, Evenett and Fritz (2020) note that compared to previous years, about 1,800 restrictive interventions were introduced and imposed in 2020.

Another mechanism that should be mentioned is servitisation and its impact on Product Upgrading. Baines et al. (2009) defined *servitisation* as the increased reliance on services in various activities in the value chain; for instance, product-based companies slowly moving to service-based companies by offering services with more value addition. Gölgeci, Gligor, Lacka, and Raja (2021), in their study, which used a multi-level conceptual framework from cross-disciplinary literature, argued that servitisation initiates the process that forms new structures that enhance collaboration within GVCs. They further assert that these new structures lead to relational governance mechanisms and increased dependence on domestic chain actors, which facilitate the upgrading processes. In addition, Du and Agbola (2022), in their study on the manufacturing industry in China, which investigated the effect of servicification on GVC upgrading, confirmed that. In contrast, foreign servicification deteriorated, total and domestic servicification improved the positioning of the manufacturing GVC through better capital intensity, foreign direct investment, and more supportive institutions. However, some scholars like Zhang and Banerji (2017) identified some challenges that come along with servitisation. These include difficulty in

changing organisational structure like internal structures and culture, the business model to incorporate a service strategy, development process that changes the idea from intangible to a tangible deliverable, developing and management of a new customer base and managing the different risks associated with the change.

2.6.3 Function Improvement Value-Added (Functional Upgrading)

Functional Upgrading refers to when firms move into new functions or segments to increase their skills by taking up functions with more value addition, and activities mainly take place where there are market-based relationships (Humphrey & Schmitz, 2002). The market-based relationships are characterised by chain coordination. Much as Functional Upgrading is the most desirable to achieve, it is very challenging. Indicators of Functional Upgrading include an increased number of skilled workers and the skill intensity of exports (Barrientos, Gereffi, & Rossi, 2011). For instance, Functional Upgrading happens when a firm moves from assembling to more intangible activities, fully producing and developing its product design and brands, which are reflected in the increased number of highly skilled workers and skill intensity.

In agreement, Sato and Fujita (2009) observe that Functional Upgrading occurs when local firms increase their capabilities from producing to pre and post-production activities. Compared to Process and Product Upgrading, it is more difficult for firms to enter these increased capabilities and skill sets, so the market is more concentrated, resulting in higher returns and more competitiveness (Pietrobelli & Rabellotti, 2006). However, Ponte and Ewert (2009) argue that some activities that would conventionally be considered downgrading, like upscaling products of lower value, should be included.

Morrison, Pietrobelli and Rabellotti (2008) noted that Functional Upgrading is similar to Chain, but the same value chain is relocated to a new geographical jurisdiction, most times for a less demanding end market. They further noted that Functional Upgrading is more difficult for

developing countries to achieve as it requires more value addition and more complex activities, mainly focusing on higher-value-added activities like branding, marketing, and design (Morrison, Pietrobelli & Rabellotti, 2008). Competition and stringent entry barriers for firms make it harder for developing countries (Pietrobelli & Rabellotti, 2006). Murakami and Ōtsuka (2019) also note that Functional Upgrading is enhanced in symmetric relational value chains because local producers have management capabilities and stronger bargaining power for more beneficial tasks in the value chain against the lead firm. They state that Functional Upgrading does not flourish in captive relationships with orchestrating/lead firms. Staritz, Gereffi and Cattaneo (2011) assert that, unlike Functional Upgrading, orchestrating/lead firms can be a supportive force for Process and Product Upgrading for more efficiency and higher quality production despite the firm capabilities and operating environment differences. They further posit that Functional Upgrading is only enhanced when local firms do not intrude on primary competencies like marketing, branding, and design that reap high returns and entry barriers such as design, branding, and marketing (Staritz, Gereffi & Cattaneo, 2011).

2.6.4 Supply Chain Improvement Value-Added (Chain Upgrading)

Humphrey and Schmitz (2002) posit that supply chain upgrading, sometimes called Chain upgrading, occurs when firms horizontally shift to new product lines with a higher value or by applying competencies acquired in a specific chain in a new sector. They further clarify that Chain Upgrading demands that several upgrading strategies occur concurrently or in progression to successfully enter new industry sectors. Chain Upgrading involves breaking down processes and distributing them into other industries or changing the production mix to produce products with more value (Tian, Dietzenbacher & Jong-A-Pin 2019). Some researchers, such as Yu (2012), have proposed the sectoral composition of national exports as a measure for Chain Upgrading, along with gross domestic product (GDP), as indicators for Functional Upgrading.

Chain Upgrading allows local firms to transition towards activities and sectors with more value addition (Zakic, Bozilovic & Sijakovic, 2018). However, Chain Upgrading is the most complex strategy of upgrading, and developing countries find it most challenging as it uses functional capabilities in new sectors, demands high-end knowledge of the product and market, and has the highest operational costs and risks yet though with most returns in terms of value (Humphrey & Schmitz, 2002).

Likewise, Navas-Aleman (2011) postulated that functional skills are necessary to advance to a market with fewer actors. In her study on the effect of operating in several value chains for upgrading in Brazil in the furniture and footwear industries, it was observed that while activities for exports for US buyers were going on, footwear firms in Brazil were engaged in manufacturing, designing, and branding their footwear products in their local market. Navas-Aleman (2011) further noted that the interactions in the two value chains helped local producers advance their functional capabilities. Furthermore, from the study, it was observed that whereas the vertical linkages did not enhance upgrading in the footwear industry, the local producers tapped into the enabling environment through which they enriched their design, marketing, and brands.

Although Chain Upgrading is the most difficult for local firms as they are often producers or suppliers of buyers beyond their borders of the buyer countries, Lamote and Colovic (2018) assert that expanding to international markets could increase the possibilities of upgrading. In agreement, Trienekens (2011) earlier stated that, besides other non-technical innovations, horizontal value chain innovations, such as the social network structure and management structure of a value chain, facilitate Functional Upgrading, as it mainly occurs through horizontal mechanisms. Horizontal mechanisms take place amongst chain actors at the same level, like interactions with Producers/Farmers or Processors, Cooperatives that also interact with other stages of the supply chain vertically. Trienekens (2011) further explains that the network formed

as a result of horizontal and vertical interactions of the actors form a network that is dependent on a channel that closes the gap between suppliers and the market, leading to a channel for products and services for specific markets. However, Ponte and Ewert (2009), and Hansen, Fold and Hansen (2016) observed the possibility of firms not necessarily following the above-predefined upgrading strategies. For instance, Gibbon (2008) suggested that firms can engage in functional downgrading, focusing on low-quality products for increased sales. The following section discusses the stakeholders and Stakeholder Analysis of the coffee industry in Uganda.

2.7 Stakeholder Analysis of the Coffee Industry in Uganda

Freeman, Harrison and Wicks (2007) define stakeholders as,

“Individuals, groups, and organisations interested in processes and outcomes of the firm and upon whom the firm depends for the achievement of its goals”.

According to the Uganda Coffee Development Authority (UCDA) 2019 Annual Report, the stakeholders in Uganda’s coffee industry of Uganda include chain actors (Producers/Farmers, Processors Exporters, Export Grading Companies, and Roasters), the public sector (Government Ministries and Agencies, Local Governments, Public Research Institutions) and the private sector (International/Development Agencies like The United States Agency for International Development (USAID), Agriculture Business Initiative (aBi) Development, European Union (EU), media coffee unions, cooperatives and associations, Private Research Institutions, Consulting Firms, and Financial Institutions). Stakeholders play an essential role in upgrading as their perceptions of how it is achieved affect their commitment to the agents (Thorpe, 2018). Stakeholders drive the process of upgrading value chains (Kakuru et al. (2018). Other scholars like Linn (2012), however, have stressed their role in creating knowledge and driving innovation and their unequal influence and contribution to a cause due to their different interests/incentives like

maximisation of profits for firms, secure employment for workers, taxes for governments, and money's worth from consumers.

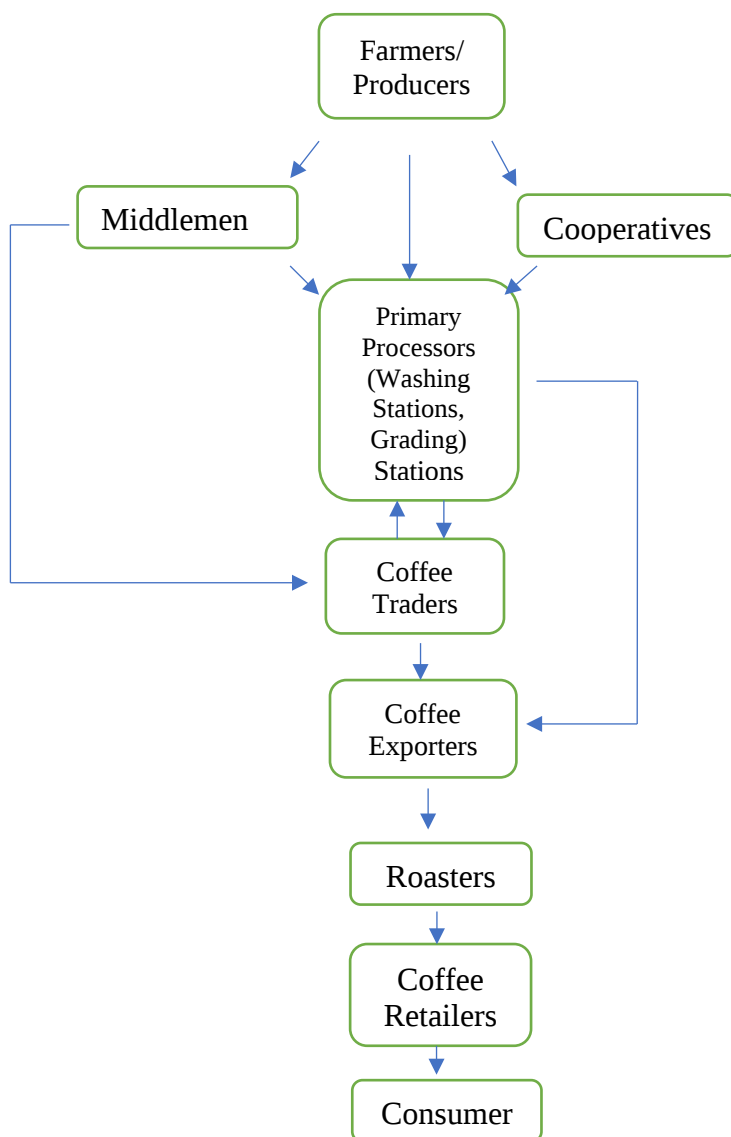
Actors' perceptions trigger (Geels, 2007) or hinder transitions in value chains (Rotmans, Kemp & Van Asselt (2001). Magala, Mangheni and Zonal (2018) have argued that it is due to weak multistakeholder organisation. Holste (2015) earlier acknowledged that the variations are due to the different incentives and outcomes stakeholders have, as those in the public sector may be interested in economic development, employment, taxes returns, while those from the private sector may be interested in maximising economic benefits. Several attributes that influence stakeholders' capability to perceive a cause as leading to a negative or positive outcome were observed and confirmed as power, legitimacy, and urgency (Raha, Hajdini & Windsperger, 2021). These attributes guided a deeper understanding of the stakeholder perceptions of the research area.

Benn, Abratt and O'Leary (2016) classified stakeholders into two main categories, namely: primary stakeholders who are directly affected by specific goals that cannot be achieved without them, are the priority beneficiaries, and whose success depends on their interest; and secondary stakeholders who are mainly intermediaries that affect or are affected by specific goals or a course of action indirectly. They further observed that the latter are not dependent on the goal to be achieved but can disrupt it, while the former are highly dependent on each other and possess power that influences strategic decisions. Walters and Helman (2020) add that whereas primary stakeholders have direct transactional relationships and influence a strategic direction of a cause, secondary stakeholders do not. Although the Uganda Coffee Development Authority [UCDA] Annual Report (2020) classifies the coffee industry stakeholders into primary (Customers, Buyers, Producers, and the Public Sector) and secondary (Cooperatives, some Government Agencies, Trade Unions), it also recognises and categorises the coffee value chain into three main groups namely the Coffee Chain Actors, Public and Private Sector Actors.

2.7.1 Chain Actors

2.7.1.1 Coffee Value Chain Actors

Stein and Barron (2017) define value chain actors as “those directly involved in value chain activities.” According to the UCDA 2020 Annual Report, the stakeholders in Uganda’s coffee industry of Uganda include chain actors, namely Producers/Farmers represented by the umbrella National coffee farmers’ organisation – National Union of Coffee Agribusiness and Farmers Association (NUCAFE) composed of different unions and associations, primary processors (washing and grading stations), Exporters, Export Grading Companies, Roasters, Coffee Retailers and Consumers (see Figure 7 below). Understanding the coffee value chain actors as stakeholders is essential for upgrading the value chain since other stakeholders or enabling partners will know what to do to yield favourable sustainable outcomes.

Figure 7*Coffee Value Chain Actors in Uganda*

Source: Researcher

2.7.2.2 Public Sector Stakeholders

According to the UCDA Annual Report (2020), the main public sector actors include Government Ministries and Agencies, Local Governments, and Public Research Institutions. They are mainly engaged in creating enabling conditions for the value chain (Ingram & Oosterkamp

(2014). In agreement, Alford and Phillips (2018) observed that public sector actors like State Agencies and Public Research Institutions play an essential role as regulators and facilitators and are responsible for stakeholder engagement, where they encourage all stakeholders to work towards favourable outcomes of upgrading. Government agencies play different roles in value chains. They can be facilitators that help them cope with the global economy through tax incentives, regulators where they measure firm activities by setting standards, producers through state-owned firms, or even buyers through state purchases (Horner, 2017).

Stakeholder Analysis guides the government in strategic planning and decision-making by understanding the nature, perceptions, and attitudes of its stakeholders through stakeholder engagement activities, such as information gathering, which reveals insights into possible collaborations, conflicts, and opportunities (Brugha & Varvasovszky, 2000).

2.7.2.3 Private Sector

The private sector actors include International/Development Agencies, Development and Partners, Coffee Unions, Cooperatives and Associations, Private Research Institutions, Consulting Firms, and Financial Institutions supporting coffee businesses [(UCDA) Annual Report (2020)]. Ingram and Oosterkamp (2014) observed that private-sector actors enable collaborations between firms and public-sector actors. Liverpool-Tasie, Wineman, Young, Tambo, Vargas, Reardon and Celestin (2020) posit that informal interactions with private sector actors address market failures by facilitating information flow and offering beneficial complementary services to producers leading to increased production and technology adoption. However, de De Oliveira, Dantas and Soares (2021) argued that sometimes stakeholders refrain from freely sharing information because they are not incentivised and fear losing their competitive advantage. Rautakorpi (2021) suggested that the actors' conflicting needs negatively affect the extent to which they are transparent with information and suggested fair trade as a solution.

Private sector actors also coordinate sources of resources like social investors and philanthropists, and development partners with firms besides applying market-based approaches that address governance gaps, market failures, and poor business practices (Nelson, 2010). Glorya and Nugraha (2019) also observed that the private sector actors play an important role in value chains through different initiatives leading to increased productivity. They further highlight that whereas public sector actors' initiatives in value chains are often inefficient and have limited information, initiatives from private sector actors are more tailored to local needs, though on a smaller scale. Glorya & Nugraha (2019) suggest partnerships between the public and private sectors to reach more farmers and gain more localised industry-specific knowledge. Some private sector actors like development partners and multinational trading companies have partnered with those from the public sector and, through private regulation and certification, are increasing transaction costs in value chains causing farm-gate prices to drop (Neilson, 2008). Diaz Rios (2013) also observed that private sector initiatives had gained more traction with multinationals than local governments promoting private governance, which is unsuitable for upgrading value chains.

2.7.2 Stakeholder Analysis of the Coffee Industry in Uganda

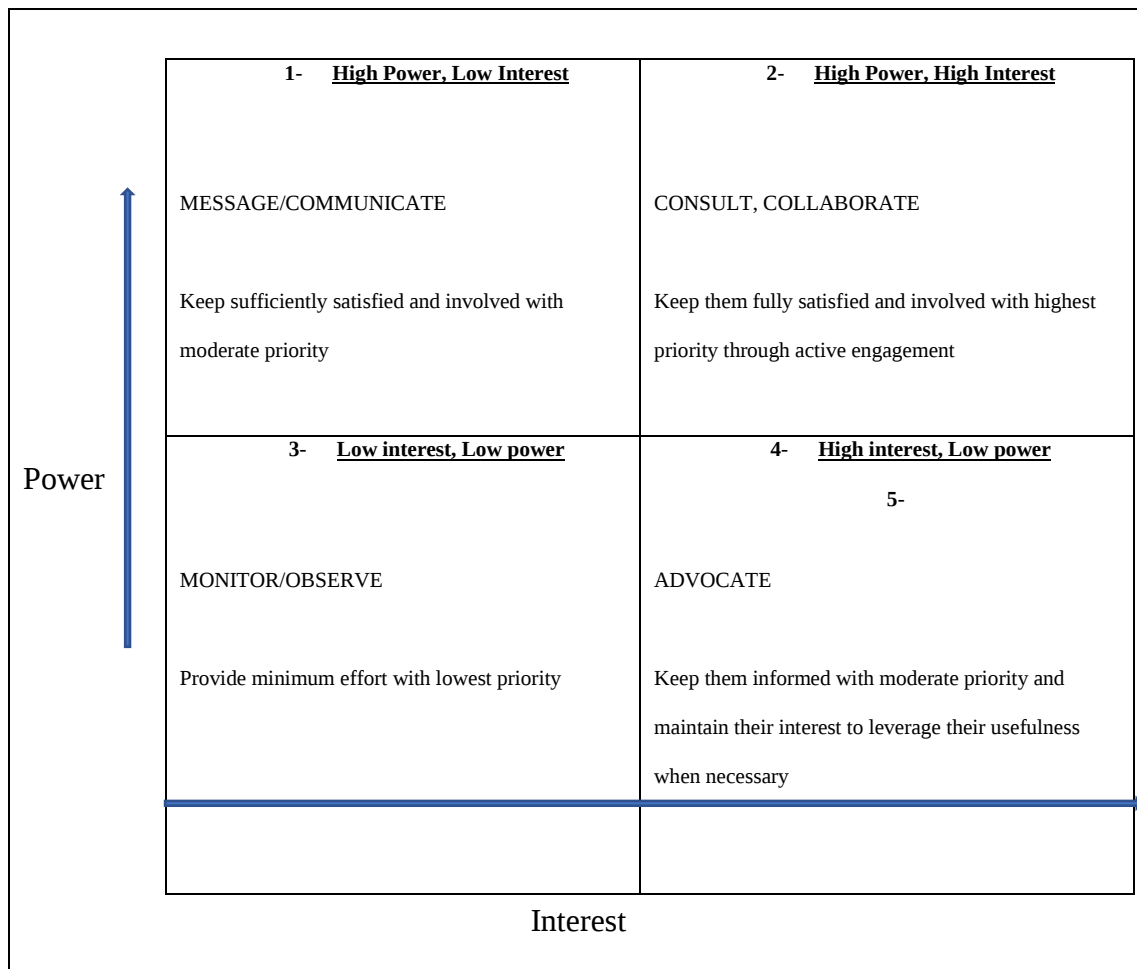
Stakeholder Analysis is a process that involves identifying stakeholders, analysing their relationships, and categorising them (Reed, Graves, Dandy, Posthumus, Hubacek, Morris, & Stringer (2009). Varvasovszky and Brugha (2000) defined Stakeholder Analysis as a means for generating knowledge and information on stakeholders to understand their behaviour, intentions, interrelations, and interests and assess the influence and resources they contribute to decision-making processes. They further assert that Stakeholder Analysis is to help determine the importance of stakeholders based on their prioritisation. Stakeholder Analysis in this research is important because their perceptions determine and influence the upgrading trajectory of global

value chains which, in the long run, affect the outcomes. It helps identify the stakeholders that affect the coffee value chain most in achieving positive or negative impacts from upgrading, as they can enhance or block the impact of its activities. Slabá (2016) observed that Stakeholder Analysis involves identifying stakeholders' influence, interest, position, interrelationships, and priorities.

Mendelow (1991) earlier came up with a grid, 'The Mendelow's Power-Interest grid' that uses the level of power (influence) and interest (importance) of stakeholders as a means of determining the extent of the influence on a particular course of action (Moldogaziev & Resh, 2016). Since different stakeholders' power and interest levels vary, they are mapped on a grid to understand them better (Mendelow, 1991). Slabá (2016) referred to this process as 'Stakeholder Mapping' which is a tool used in Stakeholder Analysis that assists decision makers in making informed decisions. Based on Mendelow's Power/Interest Grid (Mendelow, 1991) [see Figure 8], Stakeholder Analysis of the coffee value chain of Uganda would be as below.

Figure 8

Stakeholder Analysis using the Mendelow's Power/Interest Grid



Adapted from the work of Mendelow (1991)

According to Mendelow (1991), the following were suggested based on his grid of categorising stakeholders.

- Category 1 Stakeholders: They have high power and low interest and must be communicated to and kept sufficiently satisfied and involved with moderate priority. These stakeholders do not indicate any interest in a course of action but should be kept happy since they can influence if they choose to. A good relationship with them should be maintained.

- Category 2 Stakeholders: They have high power and interest, and firms must consult and collaborate with them. They should also be fully satisfied and involved with the highest priority through active stakeholder engagements since they have the most interest and power to achieve a specific goal.
 - Category 3 Stakeholders: They have low interest and power and should be monitored with minimum effort and priority regarding communication and updates.
 - Category 4 Stakeholders: They have high interest and low power and are usually moderately informed and prioritised enough to maintain their interest and leverage their use when necessary.
- Ahen (2017) observed that marginalised low-income earners have no voice and ability to influence decision-makers or firms (Greenwood & Van Buren III, 2010). Mitchell, Agle, and Wood (1997) highlighted that the stakeholders with low power largely depend on other stakeholders. Civera, De Colle and Casalegno (2019) argued that low-power stakeholders in power could increase their power through more effective stakeholder engagement interventions. However, considering stakeholders' levels of power and interest are constantly changing due to changing circumstances, Mendelow (1991) suggested that Stakeholder Analysis be conducted regularly.

Besides Mendelow (1991), who suggested power and interest as matrixes, grids to map the stakeholder attributes that influence stakeholders' capability to perceive a cause as leading to a negative or positive outcome. Mitchell, Agle and Wood (1997) also highlighted power in addition to urgency and legitimacy. However, Mitchell, Agle, and Wood were criticised by Derry (2012), who asserted that low-power stakeholders would be neglected if power, legitimacy, and urgency were applied. Pfeffer and Salancik (2003) earlier observed the importance of low-power stakeholders, considering that they possess important information crucial in making appropriate decisions.

Other factors include support, vested expectations, necessities, expectations of direction, proximity, value, and action (Bourne & Walker, 2006). In addition, Scholes and Clitterbuck (1998) earlier suggested impact, influence, and alliance, while Murray-Wbster and Simon (2006) highlighted power, interest, and attitude. Vogel et al. (2020) focused on global value chains and stakeholder perceptions but did not focus on upgrading and its outcomes. They observed that systematic studies on the outcomes of upgrading from the perspective of stakeholder perceptions were still lacking (Vogel et al., 2020). In addition, Marcato and Baltar (2021) noted that there is a paucity of empirical studies and theoretical and systematic frameworks on GVCs with substantial causal explanations. The following section presents the favourable/sustainable outcomes of upgrading.

2.8 Favourable/Sustainable Outcomes of Upgrading

Upgrading global value chains leads to favourable/sustainable outcomes. As was viewed by Di Simone, Petracci and Piva (2022), sustainability is a framework of three interrelated pillars, namely economic, environmental, and social. They further posit that sustainability is anchored on balancing three trade-offs uniformly to achieve favourable goals, which Sarkis, Helms and Hervani (2010) referred to as the “Triple Bottom Line.” According to Brown, Hanson, Liverman, and Merideth (1987), the economic aspects deal with the issues that economic growth is responsible for in a sustainable society; the environmental elements are related to continuous productive functions of ecosystems and protection of natural resources like biological diversity; and the social aspect to the satisfaction of basic needs of humanity and their wellbeing. This study uses the sustainability framework to categorise the outcomes of upgrading that lead to upscaling global value chains. Some studies, like White (2001), acknowledge that it is challenging to balance the three aspects since they are often treated differently. For instance, some studies, like Lehtonen ((2004), observed that firms tend to focus on social elements least, while Hummel and Schlick

(2016) pointed out that most attention is on the economic and environmental pillars. Others like Girón, Kazemikhasragh, Cicchiello and Panetti (2021) highlighted that because firms spend finances constantly seeking appropriate business strategies to have a competitive advantage over their competitors on the global scene, there is a dominance of economic over environmental and social sustainability. However, Krishnan (2017), in a study on sustainable coffee production, asserts that for production to be sustainable, environmentally friendly agricultural practices that ultimately lead to economic sustainability in terms of higher profit margins must be employed.

2.8.1 Economic Sustainability Upgrading

Economic Upgrading is considered to improve products more efficiently or move to activities requiring higher skills (Pietrobelli & Rabellotti, 2006). Pasquali (2021) defines Economic Upgrading as a "*capacity of a firm to improve its competitiveness and profitability vis-à-vis other local and global actors.*" It has sometimes been called "Industrial Upgrading" (Tian, Dietzenbacher, & Jong-A-Pin, 2019). A desirable or favourable outcome guarantees sustainable growth and survival (Di Simone, Petracchi, & Piva, 2022). Economic upgrading is promoted through different means, like institutions and industry associations (Doner & Schneider, 2000). Sturgeon (2003) also argued that the collective efforts of small firms give them opportunities to share skilled labour, information, infrastructure, and tacit knowledge, which enhances production efficiency. Others like Lund-Thomsen & Lindgreen (2014) highlighted the importance of industry clusters in enhancing economic upgrading through economies of scale that arise from local collective efforts to solve everyday challenges. Likewise, Taglioni and Winkler (2016) recognised economic upgrading with increased competitiveness in products, activities, and sectors with higher value and further suggested the main pathways to be forward linkages, backward linkages, spillover of technologies, acquisition of skills through training and its demand, and the least scale achievements.

Several previous scholars have suggested various ways of measuring Economic Upgrading, with one of the earliest being price per unit and market share to reflect competitiveness using input trade data from the European Union between 1989 and 2002 in the global furniture industry (Kaplinsky & Readman, 2005). To them, the emphasis was on the results instead of the rate at which the inputs were converted to outputs. Other measurements submitted were market shares and unit values for exports from a study of four value chains of apparel, mobile phones, agro foods, and tourism between 1990 and 2009 using data from global institutions (Bernhardt & Milberg, 2011). In addition, Taglioni and Winkler (2016) proposed increasing the domestic value added in gross exports, value added at the domestic level, and productivity. However, Bamber, Fernandez-Stark, Gereffi and Guinn (2014) observe that one challenge with Economic Upgrading is identifying conditions within which developing and developed countries' firms can move to more advanced forms of full package integrated manufacturing with low costs and unskilled labour.

2.8.1.1 Economic Sustainability Upgrading Outcomes

These include:

2.8.1.1.1 Value Distribution

Through social mechanisms by lead firms resulting in increased efficiency, Kano (2018) observed that equitable value distribution or value appropriation is one of the critical economic outcomes of upgrading global value chains, where all chain actors get a fair share of profits or value added. In contrast to the vertical interactions in the GVCs, Kano (2018) argued that these social mechanisms operate through improved knowledge flows, more robust management practices, and proper alignment of information to ensure consistency. Dhanaraj and Parkhe (2006), in agreement with Kano (2018), observed that to achieve equitable value distribution where knowledge can be transferred through formal systems from lead firms, producing firms have to improve their capabilities. They argued that partners' loyalty increases when a lead firm with a

good reputation promotes a shared interrelationship with producing firms with strong capabilities. Other means of achieving equitable value distribution is developing international networks that enhance better coordination and enable the members to enjoy the collective benefits of sharing knowledge and information (Yaqub, 2009).

Although Nachum (2021) acknowledges that achieving equitable value distributions is possible, he stresses that they are usually distorted due to the global governance and dispersion of the value chains that hinder the effectiveness of regulations from addressing the distortions. Nachum (2021) further argues that value chain participants, through their interaction and reliance on each other, have the power to manage and enhance economic or social gains. Anner (2022), from a study in the apparel sector in India, on the other hand, posits that institutional transformation can facilitate equitable value distributions in GVCs by having robust binding agreements and collective bargaining mechanisms. It was further observed in the same study that during the COVID-19 pandemic, value distribution was worse due to disruptions in the GVC, where many employees lost their jobs due to the cancellation of transactions.

2.8.1.1.2 Supplier Internationalisation

Supplier Internationalisation is another economic outcome cited by McWilliam, Kim, Mudambi and Nielsen (2019). Johanson and Vahlne (1977) earlier defined *Supplier Internationalisation* as a process where supplier or producer firms increase their presence on the international market with time. This is similar to market orientation, where producer firms engage in a set of processes and routines that equip them with capabilities to produce, internalise, disseminate and respond to information from their external environment. According to Kohli and Jaworski (1990), this is contrary to production orientation, where producers try to produce quality products or reduce costs but lack access to markets as observed by Kotler and Armstrong, 1(994). Supplier internationalisation increase in their vertical linkages with lead firms depends on

the dynamics of the supply chains, the financial status and ability of its technological capabilities (Mao & Yang (2024).

According to Gereffi (2001), producer-driven GVCs usually face entry barriers since they need more capital and technology-based skills sustained by economies of scale. Ivarsson and Alvstam (2011) argued that producers tap into the technological support of lead firms to develop their operations and capabilities in general. On the other hand, Vlachos and Gutnik (2016), in their study where they used a multi-case survey in Austria, examined horizontal small and medium-sized company collaborations in supply food chain exports that employed electronic platforms and observed that the electronic platforms facilitated virtual partnerships helping them find niche foreign markets and enhance their export sales. Fouji and Hoque (2021), from a qualitative study on the garment industry in Bangladesh, observed that suppliers or producers internationalise their local brands when they work with leading global brands. As a result, it helps them improve their production abilities, enter new markets and strategise for future market trends.

2.8.1.1.3 Innovation

Di Simone, Petracci and Piva (2022) observed a positive correlation in their investigation of how innovation and economic sustainability relate. McWilliam, Kim, Mudambi, and Nielsen (2019) also observed, in their study, that innovation is an outcome of Economic Upgrading in GVCs when governance is favourable for transferring the necessary knowledge required for improved capabilities.

As Kano (2018) noted, innovation is transferred from the lead firms to the supplier/producer firms. From their qualitative longitudinal study, some researchers like Vivek, Richey and Dalela (2009) observed that relational governance and a resource-based view of the firm are essential in explaining offshoring relationships. They asserted that with time, focus on building and strengthening their capabilities, attributed production offshoring to innovation since

it allows lead firms to release inputs that are diverted to various activities in research and development. Perri, Scalera, and Mudambi (2017) observed the benefits of dispersed research and development activities in their study on innovation networks in emerging markets, particularly the functions that individual-motivated networks play, especially in research institutions. In line with this, Tzabba and Vestal (2015) argued that dispersing research and development activities increases the international sources of useful information and knowledge. Their study, which investigated social mechanisms that result in innovation, observed that the better the research and development team relate, the stronger the effect of being in different locations. On the other hand, Pisano and Shih (2012) advocated collaborative, collective research and development to sustain innovation. Similarly, Scalera, Perri and Hannigan (2018) observed a positive correlation between international knowledge connectedness and a firm's scope of innovations and further argued that separating research and development activities can limit innovation and complicate the innovation systems since firms rely on each other.

Overall, considering the different views, recent studies like those of Ambos, Brandl, Perri, Scalera, and Van Assche (2021) have delved more into innovation and GVCs and observed that there has been a paradigm shift from 'linear and closed' to 'interactive and closed' and lastly to 'interactive and open.' Hakkanson and Nobel (1993) earlier observed that innovation is centralised with an internal firm network in central research and development activities. These later evolved to interactive and closed innovation, where there was a decentralised organisational structure with strong internal networks located in various innovation centres, including their subsidiaries, as was observed by Cantwell and Mudambi (2005). Later, these changed to interactive, and one innovation was the organisational structure, which is still decentralised, with internal and external firm networks in several locations, with various sources of innovation. Ambos, Brandl, Perri, Scalera, and Van Assche (2021) further note that literature on interactive and open are mainly

based on global knowledge sourcing, GVCs governance, and production-innovation co-location through which differences in organisation, G networks, opportunities, and innovation activities.

GVC governance literature presents the supplier organisation type as a vertical network and argues that linkages between lead and supplier firms are a source of information required for innovation (Sako & Zylberberg, 2019). On the other hand, the global knowledge-sourcing literature, such as Andersson, Dasí, Mudambi, and Pedersen (2016), focuses on the supplier for the organisation type and vertical networks. They further argue that networks are a valuable source of knowledge from diverse sources, leading to innovation. The co-location of innovation literature like Pisano and Shih (2012) has 'lead firms' as the organisation type with vertical networks that focus on technology infrastructure to argue that dispersed research and development activities release resources but limit innovation.

2.8.1.1.4 Export Intensity

Islam and Polonsky (2020) defined *Export Intensity* as the total percentage of a firm's exports based on the total production. In their study of validating Economic Upgrading scales in value chains, where they evaluated the performance of apparel supplier firms in Bangladesh, they found a positive correlation with upgrading. In contrast, Chain Upgrading showed a negative correlation, whereas Process Upgrading showed no relation. However, a strong positive correlation was observed between Functional Upgrading and Export Intensity. These observations were in agreement with Azadegan and Wagner (2011), who, in their study on the effects of Economic/Industrial Upgrading on innovation performance, asserted that export intensity largely depends on exploitative innovations and demand from buyers. In addition, they argued that this was because the producers engaged with product and Process Upgrading mainly focused on production activities with low transaction costs. On the contrary, Navas-Alemán (2011) postulates that Functional Upgrading enables producers to tap into the industry market knowledge that

facilities an increase in exports in the long run while reducing Chain Upgrading since producers focus on strengthening their brand names and Marketing Capabilities. He further elaborates that whereas exporting is an example of Economic Upgrading, it is often limited to the value chain activity with the lowest value. From the comparative research study in Brazil in the furniture and footwear industries, Navas-Aleman (2011) observed that domestic and regional value chains present much stronger opportunities to producers and can simultaneously participate in many other value chains. In a study to measure Economic Upgrading, Dietzenbacher and Jong-A-Pin (2019) observed that although 'export intensity' is an economic outcome worth considering, it often indicates a biased impression of the trade benefits and suggested indicators based on value-added exports.

However, in a study on governance, upgrading, and local policy network aspects in Indonesian apparel SMEs engaged in backwards participation to raise their competitiveness, Nugroho (2022) observed that SMEs acquire foreign inputs through the internet, which ultimately increases their export performance and cross-border e-commerce transactions. In a similar industry in China, Frederick and Gereffi (2011) observed that one of the main drivers for Export Intensity was end market diversification enabled by interventions like regional trade agreements often lacking from producer countries in the Global South. Barrientos et al. (2016) confirmed possibilities for opportunities for 'strategic diversification' that open up opportunities for Economic and Social Upgrading through suppliers and employees that are more skilled.

2.8.1.1.5 Financial Performance

Various scholars have observed that Financial Performance is another outcome of economic upgrading. Brancati et al. (2015), in their investigation of the effect of a firm's innovativeness and upgrading activities in Italian firms, observed a positive correlation between Performance, Productivity, and Export Intensity, which they attributed to knowledge transfer in

chain interconnected firms. Van Holt, Delaroche, Atz, and Eckerle (2021) also posited that sustainable practices increased chain actors' Financial Performance. Whereas sustainability of value chains enhanced Financial Performance by opening new revenue opportunities as a result of new sources of income from efficiencies, accessibility to new markets that boost competitiveness, and reduced costs, sustainability in value chains remains challenging because of the difficulty of cooperating with other chain actors out of their control (Van Holt, Delaroche, Atz, & Eckerle, 2021). In addition, some scholars, such as Brandi (2017) have argued that sustainability in global value chains may be a panacea for economic growth that does not benefit all. Like Ponte (2020), others have argued that chain actors in the Global North tend to leverage sustainability benefits, such as value capture, at the expense of their counterparts in the Global South, thereby creating new inequalities.

Based on the fact that the unique characteristics of producer regions affect the extent to which they benefit from GVC participation, Kummritz, Taglioni and Winkler (2017), using two databases from developing and developed countries, investigated what policies were favourable for Economic Upgrading. They found that integrating GVC upgrading increases value addition that boosts financial performance, as illustrated by the 10 per cent increase in foreign presence and the 9 per cent increase in local firm productivity in upstream sectors.

In a study by Ghomari (2020), which developed and analysed firm competitiveness in Algeria using exploratory factor analysis, confirmatory analysis, and structural equation models, it was confirmed that a positive correlation exists between upgrading and a firm's performance and competitiveness.

Islam and Polonsky (2020) studied Economic Upgrading measurements and how it enhances the Financial Performance of chain actors. In their quest to address the knowledge scarcity of firms and how they can systematically measure and address firm-level upgrading

necessary to enhance firm performance, they developed and validated upgrading measures from a database of senior executives in Bangladeshi apparel supplier firms. They observed that the capabilities of producers are critical to upgrading and lead to Financial Performance, although their influences on the producer's Export Intensity vary.

2.8.1.1.6 Production Growth

Economic Upgrading has a positive influence on Productivity Growth (Pahl & Timmer, 2020); (Islam & Polonsky, 2020). Likewise, Hoque (2021), in a study on how buyer interventions influence Danish garment suppliers' productivity and production capabilities, confirmed that buyer intervention improved and increased their production. Relatedly, Alfaro-Urena, Manelici, and Vasquez (2019), in their study on the effects of becoming a supplier to foreign companies and using inter-firm tax data on transactions in Costa Rica, observed a 20% increase in production. They confirmed that the growth arose from the increased acquisition of new global buyers with more reliable relationships with their buyers, improved management practices, and a good reputation.

Based on the 'Environmental Kuznets Curve,' often used to illustrate the correlation between economic development and environmental impact, Mohan, Thyagarajan and Muller (2020) contend that contrary to standard approaches, economic sustainability should emphasise monetary, environmental damages instead of the amount of carbon dioxide emitted, and suggested the measure of Growth Development Product growth adjusted for environmental damages. Their study provides evidence that carbon dioxide emissions were 15 tons per capita from an income of \$70,000, while the environmental damages in economic terms were \$130,000 per capita.

2.8.2 Environmental Sustainability Upgrading

Marchi, Maria, and Micelli (2013) defined Environmental Upgrading as the process by which economic chain actors move towards production and management processes that minimally

damage the environment. It minimises the environmental damage of firm activities during production to maintain ecosystems in the present and future (Lazano, 2015). Similarly, Krishnan (2017) and De Marchi, Di Maria, Krishnan, and Ponte (2019) posit that Environmental Upgrading is when firms reduce the adverse environmental effects.

De Marchi et al. (2019) came up with three types of environmental sustainability upgrading: i) Process Environmental Upgrading, which involves investing in technology to improve efficiency and minimise environmental degradation; ii) Product Environmental Upgrading, which involves using sustainable inputs to extend product life or negative environmental impact during the use; iii) Organisational Environmental Upgrading where firms employ better management and organisational processes like complying with environmental standards to prevent or minimise adverse effects on the environment. Della, Borini, and Avrichir (2020), in their study on how a firm's value chains relate to Environmental Sustainability upgrading, found that the dispersion of value chain activities also dispersed environmental concerns and effects.

2.8.2.1 Environmental Sustainability Upgrading Outcomes

These include:

2.8.2.1.1 Regional and Economic Development/Socio-Economic Outcomes

Although De Marchi and Di Maria (2019) observed the critical role of buyers while investigating the role of producers in Environmental Sustainability Upgrading, they confirmed that producers could leverage it to enhance competitiveness, value addition, and economic development. Ghauri and Yamin (2009) argued that GVC participation and upgrading lead to economic development resulting from the host countries' capital and technical know-how spillovers.

As was observed by McWilliam et al. (2019), most scholars who have recognised and explored outcomes of upgrading global value chains to be economic development did so from an interdisciplinary aspect with different theories based on institutions, clusters, and social networks. For instance, Gereffi et al. (2001) focused on clusters and how the way their contextual aspects are integrated with the global system affects their economic development. Others, such as Buckley (2009), from a longitudinal perspective within a Coasean framework, focused on ownership and local policies, observing how governance dynamics affect the trajectories of GVCs. Buckley further highlighted that producing countries are limited to labour-intensive activities in the value chains.

Yang and Coe (2009), in a study on transborder investment in Taiwan regions, observed that economic development varies depending on how human, technological capabilities, local institutions, and GVCs interact. They stress that understanding these complex dynamics are essential in understanding and determining how best to address economic development issues.

From examining GVC dynamics and their impact on socio-economic development in developing countries, Lee and Gereffi (2015) observed unequal economic advancement and even minimal advancement with the most established producers/suppliers. They, however, asserted that this was at the expense of the social downgrading and further highlighted the promotion of private-public partnerships for more effective private standards like CSR to attain social upgrading. The observed few advantages were more beneficial to rising firms with positive outcomes through the adjustment of end markets. Likewise, Kummritz, Taglioni, and Winkler (2017) find integration in GVCs to increase the value-addition in industries, especially when participation is upstream. They also observed the importance of country-specific characteristics and policies for trade integration.

2.8.2.1.2 Knowledge Spillover

Scholars like Baldwin (2018) have affirmed that there is knowledge transfer that takes place when firms interact globally. As they interact and utilise clean technology in their innovation activities, they achieve higher profit margins (Colombelli & Quatraro, 2019), in addition to the positive externalities of knowledge spillovers from clean technology (Marin, 2014). Other studies provided evidence of knowledge spillovers in GVCs, like Bilir and Morales (2020), who conducted an investigation with a panel of U.S. multinationals between 1989 and 2008 to measure returns on investment to understand how innovation takes place between buyer firms in the U.S. and their global producer partners. They observed that buyer firms increased their technology and performance by 20% when they diversified their operational jurisdictions.

Likewise, Blalock and Gertler (2008), in their study, where a dataset panel in the manufacturing industry in Indonesia was used for evaluating technology diffusion from buyer firms and the effect on competition and welfare of the producer country confirmed with their industry-level evidence spillovers in productivity, competitiveness, reduced cost prices from buyer firms to producer/supplier firms from global new entrants. Although some scholars like Farole and Winkler (2014) argued that there are no strong arguments for spillovers as an environmental outcome for GVC participation and upgrading, others like McWilliam, Kim, Mudambi and Nielsen (2019) contended that producing countries, through the use of foreign knowledge, enhances labour productivity and ultimately enjoy spillover effects.

Tajoli and Felice (2018), in their study, where they used a global input-output database for spillover variables to scientifically test how innovation performance that was proxied by capital and GVC spillovers, relates to each other, observed a positive correlation that indicated that the transfer of technology from developed to developing countries. Based on an International Monetary Fund Report (2018), the acquisition of foreign knowledge led to a 0.4 % increase in

labour productivity growth from 1995 to 2003 and then increased again to 0.7%, almost doubling between 2004 and 2014, which is evidence of GVC growth and knowledge-intensive. (Aslam, Eugster, Ho, Jaumotte, Osorio-Buitron & Piazza, 2018). However, earlier, Gereffi and Lee (2016) argued that since upgrading GVCs mainly includes bottom-up approaches to improve performance, it is not obvious that Economic Upgrading will lead to spillover effects. Instead, as Barrientos, Gereffi, and Rossi (2011) observed, the GVC bottom-up approaches aim to understand under what circumstances, such as governance structures, are appropriate for favourable outcomes.

2.8.2.1.3 Reduced Waste due to Reverse Logistics

Nikolaou, Evangelinos and Allan (2011), in their study on reverse logistics engineering sustainability evaluation, also argued that Firm Performance is related to economic sustainability and presented several sustainability indicators that included sales of reuse, resalable and recyclables, cost of returned materials, and subsidies associated with reversing logistics were critical in enhancing environmental sustainability. Through reverse engineering, firms minimise their environmental effects. Coelho, Castro, and Gobbo Jr (2011) asserted that the environmental effect of a reverse logistics system could be evaluated using metrics such as energy use, carbon dioxide emissions, water pollution, and urban traffic. In the long run, firms increase their profitability.

2.8.3 Social Sustainability Upgrading

Social Sustainability Upgrading is when firms ensure that they manage and continuously improve their impacts on people. Barrientos, Gereffi, & Rossi (2011) defined Social Upgrading as,

"the process of improving wages, working conditions, the rights, entitlements of workers as social actors all to enhance the quality of their employment."

Social Upgrading covers the long-term living standard benefits of labour conditions like the working environment and how much employees are paid for their work (Milberg & Winkler

(2011). Locke (2013) observed that the private governance path, which involves relying on multinational cooperation to promote good working conditions often led by public regulation. He observed that although the responsibility to ensure good working conditions was conventionally the state's role, it was inadequate. There is also the labour-centred path where labour unions demand better working conditions and employment terms (O'Rourke, 2006). Lund-Thomsen and Lindgreen (2014), from their study, analyse criticism of compliance-based models and suggest that the CSR-driven path determined by codes of conduct set by international buyers privately improves working conditions. However, they argue that power relations in GVCs may not be changed. The challenge is owed to the producers' varying social, economic, and cultural circumstances. The lead firms do not understand how they negatively influence the adoption and compliance with global social standards (Lund-Thomsen & Lindgreen, 2014). In addition, they further suggested the multi-stakeholder trajectory where private actors like industry cooperatives and associations take the lead in initiating social upgrading. However, Lund-Thomsen and Lindgreen (2014) observed more positive effects on working conditions due to private codes of conduct compared to employees' right to actively participate in trade unions and collective bargaining. This was similar to Rossi (2013), who had earlier observed the means under which working conditions in GVCs could improve as the measurable standards of welfare, like employment, working conditions, and less quantifiable aspects like enabling rights of enablement and freedom to associate with different causes, like collective bargaining. This was later confirmed by Jindra, Hatani, Steger, and Hiemer (2019). Gereffi and Lee (2016) pointed out the market-driven path where producers are forced to upgrade the working environment when goods are produced based on higher standards. However, they observed the need for more studies on the type of regulations (national or transnational) and Social Upgrading.

From their study in the textile and clothing industry, where a modified fuzzy ISM method was used to highlight barriers to social sustainability, Shaw, Majumdar and Govindan (2022) observed that lack of consumer awareness followed by weak implementation of government regulation was the top on the list. However, recent scholars like Kano, Narula and Surdu (2022) observed other eventualities like the coronavirus pandemic in enhancing Social Upgrading since knowledge sharing and cooperation amongst stakeholders had been reinforced. They emphasise that producers' robust risk management capabilities are now a more dominant element of upgrading than efficiency.

2.8.3.2 Social Sustainable Upgrading Outcomes

Several paths or elements that facilitate society to be socially comfortable lead to Social Sustainable Upgrading (Murphy, 2012). Social Sustainability Upgrading outcomes include:

2.8.3.2.1 Division of Labour/Employment and Working Conditions

According to Islam and Polonsky (2020), economic sustainability upgrading enhances supplier firms' performance and creates employment opportunities. Ballet, Bazin, and Mahieu (2020) argued that social sustainability encompasses enhancing employee work-related conditions, social values, and community relations. Sarkis, Helms and Hervani (2010), in their study that compiled practical and international evidence, focused on addressing the gap in social sustainability by investigating reverse logistics and highlighted several indicators like human resources, employment opportunities, health and safety at work, and human capital. In addition, Nikolaou, Evangelinos, and Allan (2011) added stakeholders as a key performance indicator.

According to a study by UNCTAD (2014) in Bangladesh, Brazil, Egypt, Kenya, Lesotho, Mauritius, and other countries integrated into various GVCs, the outcomes of GVCs on social development were positively correlated with new employment opportunities. The report further revealed that although GVC participation and upgrading also open up opportunities for women in

formal employment, many often miss the opportunity when they lack advanced technical skills. In a study by Nadvi and Raj-Reichert (2015) on opportunities and challenges of sustainable GVCs where they used interviews and observation in Ghana, it was concluded that firm reputation depended on networks that were characterised by informal producer networks and contracts with institutional and cultural influences that comprised the GVC compliance requirements. These, together with the environmental interactions, also affected economic firm performance positively or negatively. Nadvi and Raj-Reichert (2015) proposed a more collaborative and bottom-up approach to address these challenges.

However, McWilliam et al., (2019) observed that working conditions are largely affected by the governance dynamics within GVCs that often determine the local strategies firms take based on external international pressures. On the other hand, Alford (2020) argues that public-private partnerships are necessary and influence the extent to which social benefits like employment are attained. In a study that used a modified Lewis Model and examined why the creation of jobs in developing countries varied from country to country in the manufacturing sector, Sen (2019) concluded that there are positive effects of GVC upgrading on employment. However, labour intensity has adverse effects when the number of unskilled labourers increases. Whereas human capital had a positive effect via labour intensity, labour regulations had no effect (Sen, 2019). Like Sen (2019), Rodrik (2018) argues that newly acquired technologies constrain the performance of producer economies as they are inclined to high-level skills and capabilities often lacking in these regions. Rodrik (2018) further asserts that it is difficult to reap the benefits of employment as an outcome of GVC participation and upgrading in producer countries because the level of technology mismatches the technological skills and capabilities since it is not possible to substitute their low unskilled labour for factors of production like advanced technological skills, which are lacking. Consequently, employment growth opportunities do not materialise to the extent anticipated, as a

10-year econometric study found that GVC participation is no panacea for employment in producing countries (Rodrik, 2018).

2.8.3.2.2 Knowledge Transfer

The interaction of firms in the Global North and South offers opportunities through which knowledge, like technology know-how, is transferred (World Bank, 2019; McWilliam, et al., 2019). Knowledge transfer opportunities occur when producing countries directly interact with foreign firms' technology (Baldwin, 2018). In another study by Jiang, Keller, Qiu and Ridley (2018), where data from foreign investors in China was used to analyse the dynamics and economics of global partnerships in firms in China, it was observed that technological transfers, productivity, and backwards and forward spill advantages increased the more they engaged in more global partnerships and ventures. Alfaro-Urena, Manelici and Vasquez (2019) also argue that producer firms in the South, through their interaction with the buyer firms in the North, can enhance their productivity through increased demand and technological capabilities. Belso-Martínez (2015), in their analysis of the impact of firm resources, intra-cluster relations, and governance dynamics on knowledge transfer between buyer firms and their global affiliates in the footwear industry in Spain, confirmed that structures of governance affected the extent of knowledge transfer.

Transfer of knowledge in GVCs can either be horizontal or vertical. Previous studies, like Antras (2005), focused on horizontal knowledge transfer with incomplete contracts. Sampson (2022), in a study on vertical technological transfers with exclusive contracts, observed that there were more opportunities for knowledge transfer with the horizontal transfer of knowledge with incomplete contracts in inclusive value chains because of the social efficiency that exists with imitation risk. Inclusive value chains leverage imitation and encourage the diffusion of knowledge in producer clusters. In contrast, exclusive value chains view imitation as risky and have strong

intellectual property rights of technological knowledge that limit the transfer of knowledge (Sampson, 2022). It was concluded that when knowledge transfer is through imitation, there are default conflicts between the knowledge owners and the imitators. However, when it takes place in the GVC environment, there are mutual social benefits for all participants.

2.8.3.2.3 Competence

For producer firms to enhance their competitiveness, they have to learn, innovate and upgrade their GVCs (Pietrobelli & Rabellotti, 2011). Dzhengiz and Niesten (2020), in their study on environmental competencies for environmental sustainability upgrading, found that firm managers who acquire external knowledge through GVC interaction acquire environmental competencies that enable them to assimilate, transform, exploit and develop environmental abilities, which have a positive impact on the environment.

With evidence from garments and electronics export industries in Indonesia, the increased competitiveness illustrated by the global brands is a result of GVC engagement, despite the challenging demands of timely delivery, high quality of products, and working/labour conditions show that prospects of learning and acquiring new abilities to reinforce their competence (Kadarusman & Nadvi, 2013). Although this is true, Kadarusman and Nadvi (2013) further argue that governance arrangements often limit the autonomy of producer firms.

In addition, Armando, Azevedo, Fischmann, and Pereira (2016), in a study that used various case studies of 8 firms in the technology industry in Brazil, observed that GVC upgrading does not necessarily lead to favourable outcomes for producing firms. They elaborated that their capacity to compete in the global market is marginalised by the business choices and strategies that should ideally enhance their learning and innovative abilities. In their study based on a single-case study in the aquaculture industry, Malindretos, Vlachos, Manikas, and Chatzimanolakis (2016) focused on how sustainability can be measured in order to produce and deliver more fish

to the market in an efficient manner. They observed that reengineering the supply chain and implementing best practices enhances sustainability, leading to improved competitiveness on the global market due to cost reductions from increased margins and better prices, reduced carbon footprint in the environment, and increased production.

2.8.3.2.4 Employee Well-being

Toussaint, Cabanelas, and Muñoz-Dueñas (2021) argued that social sustainability went beyond employee-related conditions to employee's well-being like the quality of life, food safety, cultural features, and vulnerable communities, among others. Abid, Ahmed, Elahi and Ilyas (2020) contend that the employee's well-being or thriving at work is a factor of social sustainability and define it as the interconnection of learning and vitality. In their study, where data from a two-wave lagged design was employed from 804 employees in various sectors, it was observed that workplace civility and thriving at work played an essential role in explaining the relationship between fairness perception and subjective employee well-being. Using the Analytical-Hierarchy-Process (AHP) methodology, Al Marzouqi, Khan, and Hussain (2019), in their study that aimed to identify the impact of employee social sustainability in the United Arab Emirates (UAE) industry, it was observed that, in contrast, management support emerged as the highest priority and the reward system the least. McGuinn, Fries-Tersch, Jones and Crepaldi (2020) presented the end of poverty, healthy lives, inclusive and equitable societies, quality of education, gender equality, inclusive economic growth, reduction of inequality, and peaceful societies, all sustainable development goals 3, 4, 5, 8, 10 and 11, respectively, as critical elements that contribute to the well-being of humanity for social sustainability.

2.8.3.3 Interrelationship between Economic and Social Sustainability Upgrading

GVC studies in the early 2000s focused on power relation issues, how firms in producing countries were often captives of the lead firm, and, given the prevailing circumstances, explored

possible strategies to economically upgrade (Schmitz, 2006). However, subsequent studies like those of Bernhardt and Pollak (2016) focused on social upgrading and how the work standards affected working conditions, and others still, like those of Neilson, Wright and Aklmawati (2018), on their interactions between social upgrading and economic upgrading.

Initial scholarly literature on economic upgrading indicated that lead firms were willing to help producers upgrade in different aspects, that is, Product, Process, Chain, and Functional Upgrading (Tokatli, 2012). This was followed by other types of upgrading, such as Chain Upgrading, which involved transitioning to value chains that were more demanding (Blažek, 2015), and Relational Upgrading, where firms enhanced their positioning through improved skills (Krishnan, 2017). These studies were conducted by Gereffi and Lee (2016), Milberg and Winkler (2013), and Bernhardt and Pollak (2016), all on the interrelationships between Economic and Social Upgrading. Milberg and Winkler observed that upgrading had previously been mainly viewed in economic terms, and little was known as to what it meant in terms of the well-being of people, like their working conditions, earnings, economic and human rights, among others. Through an investigation of how Economic and Social Upgrading are measured using different economic theories, they began to understand how wages were important in their relationship. Based on Institutional Theory, it was observed that wage levels were determined by social institutions such as trade unions (Milberg & Winkler, 2011). Staritz, Gereffi and Cattaneo (2011) also argued that knowledge is scarce on how Economic and Social Upgrading depend on each other. Although Gereffi and Lee (2016) studied how GVC governance affects economic and social upgrading, they too highlighted the need to examine further how their trajectories can be accelerated.

A significant number of recent scholarly literature on the relationship between Economic and Social Upgrading highlights the role of lead firms in enhancing producers' upgrading

possibilities through the governance structures they leverage (Humphrey, 2020). Using econometrics backed by a qualitative analysis, Pahl and Timmer (2020) observed a causal relationship between Economic and Social Upgrading. In their study on many countries conducted between 1970 and 2008, they found a positive correlation between GVC participation characterised by economic upgrading and labour productivity growth, unlike employment growth. Lund-Thomsen (2020) suggests that social upgrading, like labour productivity, is constrained by the governance structures orchestrated by the lead firms. Bird and Soundararajan (2020) observe how lead firms shift the transaction costs of compliance to the producers/suppliers in the value chains.

However, some scholars like Munir, Ayaz, Levy and Willmott (2018) argued that Economic Upgrading could lead to social downgrading. They added that the process is not necessarily linear. Others still have argued that the occurrence of Social Upgrading as a result of Economic Upgrading depends on many other factors. Gereffi and Lee (2016) observed that governance structures play an essential role in the mechanisms for Economic Upgrading to lead to Social Upgrading. For instance, Gereffi and Lee (2016) observed that public actors, such as State Agencies, are taking on a more central role in improving the well-being of their people. In contrast, Pipkin (2011) highlighted the influence of the local context. Similarly, in their study of four value chains, although Bernhardt and Milberg (2011) posit that Economic Upgrading does not always lead to Social Upgrading, they observed a positive correlation in the tourism sector.

Barrientos, Gereffi and Rossi (2011) ; and Oqubay and Ohno (2019) also argue that social gains do not necessarily lead to economic gains. Dünhaupt and Herr (2020), Pahl and Timmer (2020), Tessmann (2020), and Lorenzen, Mudambi and Schotter (2020) theorised that firms, especially those in producing countries, focus on low technology and labor-intensive production activities due to their limited capabilities that limit upgrading and local development. Ponte (2020)

expounded that lead firms in global value chains tend to capture value for themselves, limiting interaction between the business environment and the local innovation systems where learning and knowledge transfers are necessary for upgrading. The fact that Economic Upgrading does not necessarily lead to Social Upgrading highlights the critical role of the state and policymakers in ensuring that the benefits or outcomes of Economic Upgrading trickle down to those at the bottom of the wealth pyramid and transform their lives socially (Marcato & Baltar, 2021). Although Gereffi and Lee (2016) agree that Economic and Social Upgrading of value chains interact to some extent, they observe that they sometimes displace each other and acknowledge more studies on how the two can be promoted, especially in producing countries.

2.9 Upscaling Sustainability in Global Value Chains

The previous section presented the economic, environmental, and social sustainability upgrading outcomes in GVCs. This section presents the upscaling of those favourable/sustainability outcomes in GVCs to increase the impact.

Sustainability and upscaling are interrelated because if there is no sustainability in the value chains, there is nothing to upscale unless the facts that negatively affect sustainability are directly addressed (Linn, 2012). Upscaling sustainability is necessary for developing countries as a goal and strategic means for development (Chandy & Linn, 2011). Upscaling sustainability remains a big challenge, although sustainability initiatives are essential for transformations as they can lead to more sustainable paths that enhance the necessary transformational change for development (Lam, Horcea-Milcu, Fischer, Peukert, & Lang, 2020).

Upscaling in this study may be horizontal or vertical. Linn (2012) defines it as,

"Expanding, replicating, adapting and sustaining successful policies, programs or projects to reach a greater number of people; it is part of a broader process of innovation and learning".

According to Hartmann (2012), upscaling can either be functional scaling up, where primary products transition to products with higher value addition, or increasing the number of goods produced, processed, and taken to the market. Some researchers like Lam, Horcea-Milcu, Fischer, Peukert and Lang (2020) have suggested other means of upscaling sustainability that they referred to as 'amplification,' in three categories, namely: i) amplifying within (increasing the speed of the impact) ii) amplifying out (increasing the impact with more involvement of people and more locations) and iii) amplifying beyond (by scaling up to higher institutions or scaling deep) by changing how the impact is created.

Sauehaft and Jonestone (2012) highlight the importance of adopting sustainable practices at the beginning of the supply chain if upscaling is to take place. Lin (2012) observed that the main drivers for upscaling include the presence of a successful model at a small scale, a vision of the necessity to upscale, external catalysts, and incentives from actors. Once sustainability practices in GVCs have been implemented, the big challenge is to upscale in order to reap maximum benefits. Lamboll et al. (2015) observed that challenges usually exist due to the conflict between the urgent need for development and achieving sustainability goals. Hartmann (2012) highlighted that challenges of upscaling included limited infrastructure, inaccessibility to financing and markets, lack of appropriate technical knowledge, and capacity to deliver a sufficient quantity of products at the required quality.

A study by Clark and Hobbs (2018) examining quality assurance as a remedy for the challenges of upscaling initiatives in Sub-Saharan supply chains identified the main challenges of upscaling as sourcing due to inconsistent markets and grading systems resulting from limited information, market size, and consumer trust. Yang and Cooke (2020), in their thematic analysis that used an online market research database, observed that feeding materials, production capacity,

expertise and knowledge, new product development, and regulatory uncertainty were the main hindrances to upscaling sustainable production.

However, Linn (2012) stipulated that upscaling of value chains may be driven by small-scale ideas that have been successful. He added that other driving factors are the vision of leaders who think it is necessary, pressure from non-chain actors like the donor community, and the availability of incentives to do so, like demand for accountability from the public. Lin (2012) also highlights the importance of an enabling environment like policies and legal framework, finances, reliable market, institutional support, and political will to scale up. For upscaling to take place successfully, collaborative efforts of critical actors like the private, public, and civil society sectors are necessary (Lambin, Kim, Leape, & Lee, 2020). Successful upscaling requires continuous efforts from the key actors. Likewise, Clark and Hobbs (2018) suggested that quality assurance enforced by key stakeholders would address the challenges of upscaling best practices in supply chains. Lam et al. (2020), in their study on sustainability transformations, argued that sustainability transformations should be understood based on societal changes driven by local actors.

2.9.1 Economic Sustainability Outcomes and Upscaling

Economic gains or growth were earlier perceived as a solution to poverty and important to the well-being of people in terms of financial performance, employment opportunities, exports, and profit maximisation (Islam & Polonsky, 2020). Artiach, Lee, Nelson and Walker (2010), in their study where they used the stakeholder framework, investigated the motivations for investing in sustainability principles in US firms and observed a positive correlation between economic sustainability and growth or corporate innovation. These results, as was observed by Shen, Tang and Zhang (2016) in their study on 3,315 publicly listed firms in the US, confirmed that innovating and upgrading firms improved their Financial Performance and engaged more in social responsibility activities. Islam and Polonsky (2020) also affirmed that Economic Upgrading

enhances Financial Performance, Employment Opportunities, and Exports. Hartmann (2012) observed that Economic Upgrading or the drive for profit maximisation drives upscaling. Hartmann (2012) further explains that upscaling value chains are affected since they operate in a dynamic environment where the dependency on market accessibility and demand elasticity change due to changes in technology, labor costs, markets, and demand.

However, the perception of economic growth and improved well-being was later opposed by scholars like Du Pisani (2006). In the same light, Steffen et al (2015) observed a conflict between economic and environmental sustainability that whereas agricultural supply chains are the leading tools for eradicating poverty and preventing hunger faced by 10 billion people by hunger through economic sustainability, agricultural developments together with human pressures are contributing to the rise of environmental degradation.

Augenstein et al. (2020) point to economic sustainability initiating the risk for loss of identity when scaled up due to the scaling aversion dilemma, that is, increasing social sustainability innovations for broader impact. More so, some scholars like Smith, Fressoli and Thomas (2014) observed that local actors in bottom-up approaches usually do not have the motivation to upscale because they are more interested in solutions for their current circumstances than expected benefits in the long run.

2.9.2 Environmental Sustainability Outcomes and Upscaling

Ong, Lee, Teh and Magsi (2019), in their study that investigated the relationship amongst environmental performance, innovation, and financial performance of manufacturing Malaysian firms certified by ISO 14001 EMS confirmed economic benefits as firms with environmental innovations have a competitive advantage that enhances their legitimacy and brand growth. Although like Hartmann (2012), Lamboll et al. (2015) observe that upscaling is often market-led or economic in nature, they further argued that interventions from the public sector and civil

societies are vital in ensuring that the disadvantaged social groups like the producers positively benefit from the effects. de Sousa Jabbour et al. (2018) confirmed that income generation and employment creation positively influenced environmental sustainability. Even though scaling up sustainability is a guiding framework to a qualitative shift of structural transformation in society through economic sustainability, the transitions conflict with the evolution of societal change that negatively affects the environment (Augenstein, Bachmann, Egermann, Hermelingmeier, Hilger, Jaeger-Erben & von Wirth, 2020).

2.9.3 Social Sustainability Outcomes and Upscaling

Culturally and socially accepting the social dimension of sustainability in value chains is social sustainability (Filippi & Chapdaniel, 2021). In their study, de Sousa Jabbour et al (2018) illustrated that knowledge enhancement and absorption capacity, the Industry 4.0 paradigm, and relevant technology were all essential in improving income levels and creating new employment opportunities, thus leading to social sustainability. Upscaling this acceptability of how social sustainability is achieved is a daunting task, and there are often conflicts (Garetti & Taisch, 2012). It involves upscaling several areas like employee work-related conditions, social values, and community relations, as highlighted by Ballet, Bazin, and Mahieu (2020). Toussaint, Cabanelas and Muñoz-Dueñas (2021) argued that social sustainability is not limited to only employee-related conditions like labour rights and working conditions but includes the employee's well-being like the quality of life, the safety of food, cultural features, vulnerable communities, among others.

In addition, Hartmann (2012) asserts that it is challenging to quantify social measures in value chains because they are dynamic and have various influences. Hartmann (2012) further suggested that the focus should be on the program objectives like income improvement or employment since value chains mainly benefit the larger firms because of the governance structures that often marginalise the poor producers. In their study, de Sousa Jabbour et al. (2018)

illustrated that knowledge enhancement and absorption capacity, the Industry 4.0 paradigm, and relevant technology were all essential in improving income levels and creating new employment opportunities. Hartmann (2012) observed that it is not obvious that productivity growth translates to employment opportunities in the long run when upscaled or scaled up because the correlation often changes to negative in developing countries as manufacturing capabilities improve with the introduction of automation. Rockström et al. (2017) argues that a paradigm shift is needed for upscaling to meet human needs while developing the capabilities to deal with climate change issues that arise. Due to the multifaceted nature of social sustainability, the commitment of all actors is required for successful upscaling (Toussaint, Cabanelas, & Muñoz-Dueñas, 2021).

2.10 Chapter Summary

This chapter has presented the Conceptual Framework; the Field Industry and Description; the Background of Global Value Chains, the Main Antecedents of upgrading value chains; the Value Addition and Global Value Chains, the Stakeholder Analysis of the Coffee Industry in Uganda; Favourable/Sustainable Outcomes of Upgrading, and the Upscaling Sustainability in Global Value Chains.

Recent scholarly studies on upgrading GVCs have indicated the need to examine how upgrading trajectories can be accelerated (Gereffi & Lee, 2016). No models or studies explain the theory building in upgrading GVCs, as observed by Gereffi (2019). Also, although McWilliam, Kim, Mudambi, and Nielsen (2019) attempted to examine the antecedents, impact, and outcomes of upgrading GVCs, they did not investigate the relationship between sustainability upgrading and upscaling. In addition, others focused on the lack of scientific research on conceptualisation and the influence of upgrading and its determinants on outcomes (Khan, 2019; Islam & Polonsky, 2020). No study has been systematically conducted on upgrading from the perspective of stakeholder perceptions (Vogel et al. (2020) . Also, there is no clear explanation of the observed

patterns of upgrading in the real world in practical terms (Islam & Polonsky, 2020). Moreover, there is a need to understand the antecedents, determinants, and outcomes of upgrading and how they interact with one another (Pasquali, 2021). Further still, there are limited empirical studies of a theoretical and systematic framework on GVCs with substantial causal explanations (Marcato & Baltar, 2021).

The literature on sustainability transformations mainly focuses on developed countries (Lam, Hinz, Lang, Tengö, Wehrden & Martín-López, 2020). Recent studies like Scoones et al. (2020) highlighted the divergences in developing countries. In addition, sustainability views focusing on developed countries may not be applicable to the environment of developing countries (Pereira, Karpouzoglou, Doshi, & Frantzeskaki, 2015). Examining the upscaling processes helps understand what is needed in specific environments and facilitates more meaningful interventions (Wiek & Lang, 2016). Using stakeholders' perspectives in the coffee value chain of Uganda, this study confirms previous observations made by various scholars on the upgrading of value chains and continues the debate on how sustainability as a favourable outcome of upgrading can be upscaled.

Considering the importance and multifaceted nature of the upgrading process and for firms to successfully strategise on how to upgrade, it is worth understanding the various antecedents, impacts, and favourable/sustainability outcomes of upgrading global value chains from stakeholders' perceptions. No study has attempted to do so. This study attempts to fill this gap.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This section presents and justifies the research methods and data collection used in this study. Research methodology refers to the methods, procedures, and systems applied in the study to examine, assess, and interpret the research data (Kumar, 2019). The research method and design were used in the inquiry process to discover, understand, and modify current facts (Alhadeff-Jones, 2013). On the other hand, the process of data collection, and analysis facilitated the interpretation of the research findings in relation to existing knowledge and the thinking of other scholars, thus making it possible for the contribution of this study to be observed. The research methods, design, and data collected were also valuable for substantiating the hypotheses by facilitating the systematic investigation to get solutions to the problems and, in this study the limited upgrading in global value chains in developing countries.

The perceptions of key stakeholders of the coffee industry in Uganda were investigated to explain the impact of upgrading global value chains on upscaling. Stakeholders' perceptions are vital in determining what promotes upgrading as it enhances favourable or sustainable outcomes (Freeman, Harrison & Wicks, 2007).

The study sought answers to a problem. Since limited upgrading remains prevalent in developing countries, the study aimed providing a further investigation for in-depth insights that would be instrumental in producing new knowledge on global value chain dynamics. Understanding the relationships between the antecedents, impact, and outcomes of upgrading GVCs from a stakeholders' point of view and how they relate to each other will help measure systematically, tackle, and improve insufficiencies within firms to enhance their favourable outcomes and upscaling strategies.

The methodological and analytical practices assisted the researcher in reaching or unveiling a clear understanding of a particular phenomenon and ascertaining the reality from the research questions and techniques applied to collect and confirm the findings. Although some practices and tools are interpretivism or positivism, the methods applied were not associated with each of their assumptions. Differences can be based on ontology, the reality or nature of existence (Ylönen & Aven (2023).

Darby, Fugate and Murray (2019) defined the interpretive method as a qualitative research method that seeks meaning from human practices. In other words, it is when researchers are interested in how humans understand and ascribe meaning to their social worlds, like contexts and experiences based on the ontological philosophical assumptions, that is, the nature of human or social reality (Alharahsheh & Pius, 2020). Epistemology is whether and how that reality can be known or by providing a clear connection between the study and what is being studied as the assumption that humans cannot be separated from what they know (Saunders et al., 2023).

On the other hand, the positivist method emphasises objectivity and causal inference, thus based on the philosophical stance natural science observed from the reality within society that enables generalisations (Alharahsheh & Pius, 2020). These generalisations are focused on data and are not influenced by human interpretation (Saunders et al., 2023). Ontologically, the researcher views social entities as similar to physical objects and natural phenomena. At the same time, epistemologically, the focus is on discovering facts and regular phenomena that are observed and can be measured, leading to credible and meaningful data used to identify causal correlations for generalisation (Alharahsheh & Pius, 2020).

The study adopts pragmatism as its research philosophy, leveraging the strengths of each to offset, overcome, and limit the weaknesses of the other (Dawadi, Shrestha & Giri, 2021). This approach facilitates the comprehension of the same phenomenon from different viewpoints. This

process is often referred to as the “Rashomon effect,” which Levin, Gray, Möllmann, and Stier (2021) defined as,

“The existence of multiple plausible but conflicting perceptions about the causes and underlying consequences of an urgent conservation challenge”.

Understanding the complex research problem requires both quantitative and qualitative approaches to ensure it is adequately addressed.

In order to address the research questions and validate the research model empirically, this chapter included 3.2, which presents the Research Approach and Design; 3.3, which presents the Population and Sample of the Research; 3.4 which presents the Materials/Instrumentation of research tools; 3.5 that presents the Operational Definition of Variables; 3.6 that presents the Study Procedures, 3.7 that presents the Ethical Assurances 3.8 that presents the Data Collection Summary of the Section and 3.9 the Summary of the chapter. The following section presents the Research Approach and Design.

3.2 Research Approach and Design

This study employs an abductive research approach where both deductive/positivist and inductive/interpretive approaches are applied to extract empirical evidence from the data. The approach tests hypotheses while extracting key information from the stakeholders’ lived experiences. Despite the different paradigms of the two research methods, as highlighted in Table 4, the quantitative and qualitative methods exploit their strengths (Creswell & Inoue, 2025). The study employed a combination of interpretive and positivist approaches, as observed by English and Nielsen (2022), and as a result, the following were achieved.

1. Risks of giving misleading evidence and theories due to misinterpretation of social phenomena by positivists were minimised.

2. More areas of creative inquiry with unique research designs and data analysis methods that differ from traditional positivist or interpretive research processes were revealed.
3. The role of the theory and research produced through clear descriptions of each method was demystified.
4. The research report was more impactful and memorable due to the creative inquiries, detailed descriptions, and enhanced experiences.

The study adopted a Convergent Mixed Study Method that simultaneously applied the quantitative and qualitative approaches to verify and complement the research findings (Creswell & Inoue, 2025). The qualitative method studied the human interaction, which is with in the coffee stakeholders in this study, by trying to understand their perceptions, what they do, say, or feel as the variables were nominal scales and not easily quantifiable (Di Pofi, 2002). Since the variables of the qualitative method were nominal scales and not quantifiable, their perceptions were collected and analysed to understand the research issue. For an in-depth investigation in this study, the Uganda's coffee value chain was used (Yin, 2009) as it was considered to aid the comprehension, interpretation, and analysis of matching empirical identified patterns and events. The study falls under the agriculture sector in Uganda, as it is a classic example of a developing country that offers insight into holistic value chains in developing countries in general.

Simultaneously, in this study, the quantitative method quantified the variations in upgrading the global value chain phenomenon; it tested and scrutinised the relationship variables collectively, thus revealing objectivity (Di Pofi, 2002). Although some studies have previously criticised the mixed/triangulation approach for the possibility of contradictions such as lack of clear, standardised guidelines: inadequate direction and implementation of data analysis; an increase of time, costs and logistics and lack of universal application as observed by Dawadi, Shrestha and Giri (2021), this study employed the hybrid or triangulation approach because of its

multidimensional approach since the research problem was complex. The researcher perceived this as the research method that best suits the research problem.

According to Cresswell and Inoue (2025) both methodologies in this study involved using research designs, data collection techniques, data analysis, and inference methods for in-depth, the extensiveness of understanding and confirmation. Various data sources and methods like interviews (Face-to-Face Structured and Structured Telephone Interviews) and Self-Administered Questionnaires (Paper-based and Online Questionnaires) were employed in the same study. Joint interpretation of data was conducted by identifying where data converged and diverged with each other. The Convergent Mixed Study Method was employed because of its various benefits over the traditional method of solely using the qualitative or quantitative method, as outlined in Table 4 below.

Table 4*Advantages of Mixed Study Approach*

Advantages of Mixed Study Approach	Source
Validation: Useful for validation and credibility of research findings since different methodologies employed in single research facilitate verification leading to more confidence, reliability, and acceptance of the findings.	Oranga (2025) Honorene (2017)
Stimulation of compatibility between qualitative and quantitative method: Exploits the advantages of onemethod, which counters the weakness of the other.	Oranga (2025)
Complementary purposes: Elaborates increases in value and clarifies findings at the interpretation stage to enhance interpretability and meaning by exploiting the strengths of one approach while limiting the weaknesses of the other. The unique differences for each approach contribute extra information to the research process.	Creswell & Inoue (2025); Wiseman & Anderson (2025)
Streamlines contradictions: Facilitates knowledge building by streamlining contradictions and evaluating inconsistencies/addressing paradoxes resulting from the different data sources/perspectives; evaluates the contending theories and develops richer data for developing new theories.	Jalaluddin, Shiviji & Amarsi (2025), Creswell & Inoue (2025).
Continuity of research: The findings of one research approach can be used as the beginning of the next research method as one research approach is often the primary to the other, thus superseding the debates between qualitative and quantitative approaches.	Bryman (2021)
Ease in estimating measurements: Makes it easier to estimate any estimates of underlying measurements in the research.	Oranga (2025)

Limitation of research errors: Errors are easily identified, easing the process of measuring and addressing them more appropriately, which is useful when choosing the best data collection methods and uncertainty and personal bias.	Oranga (2025)
Eases understanding of complex concepts and issues: Helps understand multifaceted concepts and issues that are usually complex and controversial in research through deeper comprehension, innovation, significance, and accuracy. It offers a holistic approach to understanding. For example, while qualitative interview tools are particularistic and specific in their approach, Questionnaires as quantitative tools are expansionistic.	Takona (2024)

Source: Compiled by the Researcher

3.3 Population and Sample of the Research Study

3.3.1 Population Size

The target population for this study were stakeholders of the coffee industry in Uganda. The researcher used their judgment to select the population size, as it provided the desired information for the study's objectives (Kumar, 2019). Under the National Coffee Act 2021 of Uganda, all coffee value chain actors are expected to register with the Uganda Coffee Development Authority (UCDA), the regulatory authority for the coffee industry. For this study, the Uganda Coffee Directory (2022) of the UCDA, in collaboration with the Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF), was used as a reliable source for stakeholders in Uganda's coffee industry.

3.3.2 Description of Population/Target Size

The population size of 283 stakeholders was composed of three categories of stakeholders, namely, the coffee value chain actors, the public sector, and the private sector, for this study as per the Coffee Directory (2022). The coffee value chain actors included Farmers represented by farmer unions, groups and associations, Coffee Primary Processors, Coffee Exporters, and Coffee Roasters. The public sector stakeholders included Public Research Institutions and State Agencies. The private sector stakeholders included Private Research Institutions, Development Organisations, Consultancy Firms, Business Development Service Providers, Financial Institutions, Transporters, Shippers, Logistics, and Warehousing.

The chosen population was suitable for the study to respond to the research problem because they were considered to be information-rich cases and knowledgeable about the favourable determinants and outcomes of upgrading the coffee value chain due to their involvement in different economic activities along the value chain.

3.3.3 Characteristics of Population Size

The chosen population/target size has distinct characteristics. They were as follows:

- Only respondents and participants with a sound mind were recruited to participate in the study. Those with mental challenges or disabilities were excused from the study.
- Only respondents and participants who were able to provide informed consent participated in the study.
- The researcher of this study, the principal investigator, and her co-investigator or supervisor had no relationship with the intended respondents and participants.
- Respondents and participants were those who understood the objectives and significance of the study.

3.3.4 Sample Size

Although the researcher acknowledged that a consensus would have been ideal for the study population of 283 since it was heterogeneous in nature, the size was within a manageable range, and would have minimised errors in determining the sample, a sample was determined due to reasons such as resource limitations in terms of time and logistics, like finance.

3.3.4.1 Recruitment of Sample Size

The researcher contacted the UCDA to confirm the physical addresses, phone numbers, and emails. The researcher emailed each potential participant and requested their participation in filling in the Questionnaires, which were complemented with Online Questionnaires. Face-to-Face Interviews, complemented with Telephone Interviews, were also conducted. The researcher accessed the intended respondents and participants with the help of a Gatekeeper Letter provided by the school to gain access to them from the coffee value chain actors, private and public institutions.

3.3.4.2 Sampling Procedures

Considering that this study was a mixed study, both quantitative and qualitative research procedures were employed.

3.3.4.2.1 Sampling Procedure for the Quantitative method.

The researcher employed Yamane's formula (Yamane, 1967), which confirmed the statistical significance and the representative sample of the study, as seen below.

Yamane's formula is given by: $n = N / (1 + N*(e)^2)$

Where:

n = sample size

N = population

E = margin of error

$N = 283$ (based on the number of the chain actors from the Uganda Coffee Directory (2022))

$e = 0.05$ (confidence interval implying that alpha is the marginal error of 5% leading to 95% confidence that the sample's mean will not differ so much from the population's mean). However, depending on the quality of the Questionnaire, the margin of error may change to 90% (0.1) or 99% (0.01).

Based on the 283 stakeholders from the Ugandan Coffee Directory 2022, the ideal sample size is:

$$n = 283 / (1 + 283*(0.05)^2)$$

$$n = 165.73 \text{ approximately } 166$$

The above sample identified had a high confidence interval between the standard level, which showed the extent of uncertainty on the expected results and confirms a high probability that similar results could be reached if the study were conducted again. In addition, which was due to the high standard of significance. It was descriptive, evaluated whether the research findings

could show a pattern, and did not depend on whether the data relationship was based on the accurate population (Cohen, 1977). This study's p-value was 0.05, indicating that the null hypothesis could be rejected. All this confirmed that the sample's power was high enough to guide the determination of a sample size that would minimise sampling errors, thus making the study's findings reliable.

The sample of 166 respondents for the quantitative methodology was drawn from the population size of 283 using a probability sampling technique. Although the researcher acknowledged that the study population of the Uganda's value chain stakeholders was heterogenous and treating it otherwise would possibly not incorporate the different experiences and detailed perceptions of upgrading from the different subgroups, the study applied the Simple Random Sampling technique instead of the ideal Stratified Sampling technique for several reasons.

- The study treated all stakeholders of the coffee value chain of Uganda as a homogenous group, irrespective of their position in the value chain, since the focus of the study was upgrading the entire value chain, covering the needs and perceptions across the sector.
- The attention of this study was on systemic issues that affect upgrading of the entire value chain and the stakeholders in the same way.
- The Simple Random Sampling technique enabled the researcher to conduct a simplified analysis since there was limited time, allowing trends and challenges to be highlighted and offered a broad overview that was satisfactory for an initial assessment of upgrading the coffee value chain in Uganda, which would act as a baseline study for future research (Saunders et al., 2023).

Using the Random Sampling technique, the identified target size of target population members all had the same chances of being picked as a sample, ensuring that the results reflected what the results would be if the target population was chosen (Beins & McCarthy, 2017).

3.3.4.2.1.1 Reliability and Validity

A Cronbach's Alpha reliability test was conducted (see Table 9 for results in Chapter 4) to test the reliability of the research instrument. In addition, validity was further ensured through a pilot study to test the research instruments, namely, the Questionnaire and Interview. This included a pilot study conducted from April 12th to 19th, 2023, during which 10 Questionnaires were completed by respondents who did not participate in the main data collection process. The Interview Guide was also piloted to test the instrument for collecting qualitative data, as it had not been used before. Both respondents and the participant confirmed that the questions were clear, covered the main issues and were consistent with the administrative procedures.

According to Kimberlin and Winterstein (2008), reliability is the "estimates that evaluate the stability of measures." Gray (2004) also described reliability as the extent to which a scale of measurement can produce the same results if the measurement is conducted again. It thus focuses on replication under occasions, conditions, and tools measuring the same thing (Drost, 2011). Test retests, internal consistency, and alternative methods are ways to assess reliability. On the other hand, validity refers to the extent to which a scale can measure what it is intended to measure by testing the situation and approaches employed for effective execution (Drost, 2011). Reliability and validity are essential components of the quality of a measuring instrument (Kimberlin & Winterstein, 2008). The higher the quality, the higher the credibility and acceptability of research findings (Burns, 1999).

For the enhancement of this study, validity determines its quality and acceptability (Kimberlin & Winterstein, 2008). When studies have inaccurate inferences from the data in the

form of samples that are not representative, the validity of the findings is compromised, resulting in low statistical power. As Myors, Murphy, and Wolach (2014) noted, if samples have low statistical power, there is a high chance that the study may make erroneous deductions. The standard power is 0.8 based on Lipsey (1990).

3.3.4.2.2 Sampling Procedure for the Qualitative Research Method

The sample size for the qualitative method is chosen purposively, which entirely depends on the researcher's judgment (Kumar, 2019). The study examined the influence of upgrading global value chains with a focus on developing countries where the participants are stakeholders in the coffee value chain in Uganda. The coffee industry in Uganda is a case study in which multiple data sources were used.

The Coffee Value Chain is a dynamic social construct, and the non-probability sampling method is best employed, as no generalisation of the research findings is needed (Saunders et al., 2023). This method assisted in identifying participants with similar specific characteristics and who were information-rich cases (Nyimbili & Nyimbili, 2024). It was also the best way to get responses from critical correspondents and collect the required data that addressed the research questions at hand, as it minimised the challenges of non-response from participants (Saunders et al., 2023).

The final sample size of 15, which was within the range between 5 and 50, as was suggested by Dworkin (2012) for the qualitative method of this study, was determined by the data saturation point, which also depended on the diversity of the situation (Kumar, 2019). The researcher interviewed the participants referred by those already interviewed to ensure the participation of those mainly considered knowledgeable. The qualitative method in this study emphasised attaining a point of information saturation, as observed by Etikan, Musa, and Alkassim (2016). The point of

data saturation occurs when there are increasing instances of the same codes and no new ones, indicating that the data have no new information during the coding process (Urquhart, 2022).

3.3.4.2.2.1 Trustworthiness

Based on Ahmed (2024), the rigorousness of a study depended on the extent of the following indicators below.

1. **Transferability:** The findings of this study can be generalised or replicated in other value chains in Uganda and other countries if the details and processes adopted in the research process are strictly followed (Lim et al., 2025). The researcher achieved this by describing the setting within which the research was carried out.
2. **Dependability:** Like reliability in the quantitative method, this study confirms in that similar findings would be observed if the study is conducted again using the exact research process (Lim, 2025). Full documentation of the research process, debriefing, audit trails and a mixed research method were employed to ensure dependability (Lim et al., 2022). Participants were protected, and the coding stages were rigorous.
3. **Credibility:** Considering that this research explored the perceptions, beliefs, and experiences of the stakeholders in the coffee industry, this study is reliable since they were ideal in determining the study finding that reflected their opinions accurately (Lim et al., 2025). Credibility was achieved through triangulation and debriefing of participants. The implication is that the stronger their credibility, the higher the trustworthiness of the research findings.
4. **Confirmability:** Also, like reliability, the researcher followed an exact research process in order to establish confirmability (Lim et al, 2025). Confirmability was achieved through a detailed transcription of the interview.

3.3.5 Demographics of the Sample Size

The demographics of the representative/sample size included gender (male or female), age, between 18 and 70, level of education running from primary education to post-doctorate level, marital status, employment status, and main coffee value chain activity (Farmers, Primary Processors, Coffee Traders/Exporters Grading Companies, and Coffee Roasters).

3.3.6 Constructs Measured

The constructs measured in this research were the antecedents, determinants and sustainable outcomes of upgrading the coffee value chain in Uganda.

3.3.7 Coding Themes

Thematic Analysis of raw qualitative data was conducted to ensure reliability and validity by extracting meaning from the identified patterns and themes (Flick, 2022). Measurements that rely on judgments, such as the qualitative method in this research, required consistency of the researcher to ensure reliability since it is often complicated by human nature (Haq et al., 2023). In order to minimize or eliminate coding errors, the researcher continuously verified the data and offered guidance on when to continue, pause, or amend the research process to attain the desired reliability, validity, and rigor. To minimise random errors, the researcher standardised the circumstances under which the measurements were conducted and ensured adequate samples based on saturation. With rigor, data from the responses and narrations of stakeholders was categorised (Ahmed, 2024). The analysis was done in a manner that was systematic and exhaustive in order to retrieve scientific meaning from the diverse, varied range of evidence (Flick, 2022).

The raw data from the interviews were transcribed and cleaned. After that, themes were developed and used for coding by developing concepts into manageable categories to condense, analyse and extract new insights (Liebenberg et al., 2020). The analysis involved identifying, examining, and reporting patterns that facilitated the interpretation of the raw data (Flick, 2022).

Based on the description earlier highlighted by Flick (2022), the process included identifying preconceived codes, familiarisation, theory-driven coding, review, and data-driven coding revision, searching of themes, review of themes, and compilation of a report. The next session covers Materials/Instrumentation of Research Tools used in this study.

3.4 Instrumentation of Research Tools

Research tools or instruments were the means through which information was collected in a study (Kumar, 2019). Since this study employed the Convergent Mixed or Triangulation Approach, qualitative and quantitative data collection methods were used to collect the necessary data concurrently within the same time frame (Creswell & Clark, 2017). Data were merged, analysed separately, and the results compared. In order to exploit the strengths of both qualitative and quantitative data, the former was considered the primary data, supported by the latter. The approach was pragmatic, as it highlighted the usefulness of the knowledge revealed and the practical application of the findings, supported by convergent evidence and complementary insights. Fifteen (15) participants for the qualitative data were a subset of the one hundred and fifty-one (151) respondents for the quantitative data. Tools to collect both the quantitative and qualitative data, that is, the Questionnaire and Interview Guide, were prepared, consent collected and data collected during the same period to address the time constraint the researcher was facing. Since the goal was to integrate the study's interpretations, the different sizes were ideal, as the quantitative data were used for generalisations, while the qualitative data were used for in-depth understanding and cross-validation. Data were collected from various sources, including Questionnaires and Interviews, as the researcher intended to triangulate and corroborate the findings. This was to enrich the understanding of the issues and reveal new insights as they complemented each other by minimising the limitations of each other while providing extra information to the research process (Creswell & Inoue, 2025).

3.4.1 Qualitative Data Collection Method

The qualitative data were collected using an Interview guide in which nine (9) Telephone and six (6) Face-to-Face Interviews were conducted following procedures, as suggested by Creswell and Clark (2017). These included:

1. The researcher determined the sampling procedures by identifying the coffee industry as the primary source of in-depth information for the study and selecting stakeholders purposively as participants. Fifteen (15) Interviews were conducted to achieve saturation (Creswell & Poth, 2017).
2. Participants were recruited after obtaining permission the Ministry of Agriculture, Animal Industry and Fisheries of Uganda. Following receipt of the Gatekeepers' Letter, all participants were briefed on the study's objectives, the significance, and the extent of the risk involved for the protection of their rights. They were also reminded that they had the right not to participate if they chose to. Following this, participants signed the consent forms.
3. The researcher identified the data sources. These included employing structured open-ended Interviews.
4. Data were systematically collected and recorded (Creswell, 2015) with the help of an interview protocol that kept the data collection process and reflected open-ended questions in the conducted Interview (please see Appendix 6). Data were recorded electronically thereafter transcribed.
5. Administering the procedures included details of how, who, when, and what in the data collection process. Other details addressed included the time for participant recruitment, ensuring sufficient resources for recording, ethical considerations, and minimising bias.

The following data collection methods were used.

3.4.1.1 Face-to-Face Interviews

This study employed structured Face-to-Face Interviews. According to Cohen, Manion and Morrison (2013), Face-to-Face Interviews are *data collection tools that enable a range of sensory avenues, such as verbal, non-verbal, spoken, and hearing, to be used*. Participants' stories reveal different aspects of their human experiences (Jacob & Furgerson, 2012). Interview questions were read, and responses were recorded. There were several reasons why Face-to-Face Interviews were applied to this study, according to Saunders et al. (2023). They:

- Enable the researcher to collect information aligned with the research objectives.
- Ease the process of data collection, comparison, and analysis, and enable the researcher to use themes and sub-themes when semi-structured.
- Help test the hypothesis, assisting in proposing a new hypothesis and providing further insights into the variables in the study and their relationships with one another.
- Are appropriate for studies with many types of participants. This study involved interviews with various stakeholders from different perspectives in the coffee industry. To accommodate their unique perspectives and discuss the complex issues of the research problem at hand, Face-to-Face Interviews were deemed the most appropriate tool.
- Are suitable for complex studies, as the researcher can plan, prepare, and explain the study to participants beforehand (Kumar, 2019).
- Allow participants to seek clarity, thus providing more articulate responses and gathering more in-depth information, which can also be supplemented by non-verbal communication, such as gestures.

To address anticipated challenges of subjectivity, the researcher:

- Carefully planned all logistics required beforehand by putting aside the required resources to meet the costs incurred in the field comfortably.
- Tried as much as possible to be a non-judgmental facilitator and manager by being a good learner and listener to provide a positive experience for the interviewees while addressing the anticipated challenge of subjectivity.
- Prepared a project management plan for better time management during the data collection process, considering that interviews tend to be time-consuming. The researcher prepared an interview schedule before the interview was conducted. Additionally, to minimise the time spent on the interviewing process, the researcher prepared Interview Guides that included non-leading, clear, simple, and open-ended questions to collect relevant data.
- Observed ethical considerations to minimise and prevent any disruptions during the interview process.
- Conducted a systematic analysis where multiple coding for quality results was used.

3.4.1.2 Telephone Interviews

Telephone Interviews were employed to complement the Face-to-Face Interviews since the costs of logistics were higher, and there may be bias based on appearance. According to Irvine (2010), Telephone Interviews are a qualitative data collection tool used for their advantages, such as eliminating the need to travel, which reduces both the cost and the time spent conducting the interviews. In addition, Irvine (2010) also observed that Telephone Interviews are more formal and enable participants to respond anonymously from their comfort zone. Out of the fifteen (15) Interviews that were conducted, six (6) were Face-to-Face Interviews, while nine (9) were Telephone Interviews. The limitations of Telephone Interviews, such as the inability to establish rapport or to convey non-verbal cues (Irvine, 2010), were complemented by the Face-to-Face Interviews. The researcher acknowledged the scepticism about the legitimacy of the qualitative

approach that questions its validity and reliability (Bryant, 2011). In order to address this, Self-Administered Questionnaires as a quantitative data collection method were also employed in the study. The quantitative data collection method to address the limitations of the qualitative data collection method is elaborated in the next section.

3.4.2 Quantitative Data Collection Method

Quantitative data collection involves collecting data in numerical form and analysing it with statistical methods (Cresswell & Clark, 2017). Quantitative data was chosen for various reasons. These included:

- Objectivity, since the data were systematically collected and could be verified.
- Generalizability, where the conclusions were generalised to a larger population and thus were appropriate for studies with many participants.
- Precision that enabled clarity in measurements and units of analysis.
- Ability to test hypotheses for a better understanding of variable relationships.
- Comparison that was instrumental in pattern identification.
- Result replicability given its numerical nature.
- Providing key information instrumental in the decision-making process based on empirical evidence.

The following quantitative data collection procedure was followed based on Creswell and Clark (2017).

1. The Coffee Industry in Uganda was identified as the site of the study, and the respondents were its stakeholders.
2. Required permissions to companies and organisations in the study sites were sought and granted with a Gate Keeper letter following approval of the proposed study from the UREC

Committee. The strategy for recruiting respondents involved contacting all stakeholders listed in the Uganda Coffee Directory (2022), compiled by the MAAIF and the UCDA.

3. The data sources were from the responses of participants. Based on the study's research questions, the researcher developed a questionnaire and distributed it to 166 stakeholders in the Ugandan coffee industry.
4. The quantifiable records were the variables of the antecedents, determinants, and outcomes of upgrading global value chains that were coded. The instruments used were Online and Paper-based Questionnaires, each comprising 13 questions. Most of them had subsections. The first section of the Questionnaire, questions 1-6, covered demographic information, while the remaining questions, 7-13, were Likert-scale items in which respondents indicated the extent to which they agreed or disagreed with the statements.
5. The coded data were then fed into the PSPP software.

The quantitative data tool employed in this study was a Self-Administered Questionnaire used to collect data, facilitate the measurement of variables, and establish relationships between them. All respondents responded to identical questions in a predetermined order (Robson, 2011). The Questionnaires were completed in paper form and online, with 125 and 26 respondents, respectively. This study employed Self-Administered Questionnaires because of the advantages highlighted below.

- The researcher investigated and explained the cause-and-effect relationships and how the different variables relate.
- As Earl (2010) observed, the researcher administered Self-Administered Questionnaires to contact more participants, increase objectivity and accuracy, enable replication, and minimise personal bias. Berk and Ray (1982) defined bias as *the "favour or disfavour of one particular population compared to another."*

- Self-Administered Questionnaires enabled the researcher to test the relationship between different types of variables (Creswell, 2002).
- They also required less skill or formalities to collect data with Questionnaires than Interviews (Jankowicz, 2005).
- The study involved respondents from different occupations in the coffee industry. Questionnaires complemented Interviews (Saunders et al., 2023)
- In addition, the researcher, like Kumar (2019), observed and acknowledged that the nature of the study included some information that respondents were reluctant to express through interviews. In such a scenario, the use of Questionnaires was appropriate.
- More so, Self-Administered Questionnaires as a data collection method are cost-effective and convenient (Kumar, 2019).

The researcher acknowledged that it was challenging to access all the participants. Based on the respondents' preferences, Online Questionnaires were used to collect the data as a complementary tool. The researcher employed Online Questionnaires due to several advantages. These included the ability to get information in real-time, scalability because of the higher chances of reaching a wider audience, cost-effectiveness, participants' ability to respond at their comfort, ease of standardising the questions that allowed easy comparability based on when and where the data were collected and ease of the researcher to manage the target audience (Saunders et al., 2023).

3.5 Operational Definition of Variables

3.5.1 Strategies for Upgrading the Coffee Value Chain

Variable 1: Value Addition

The Value Addition variable in this research refers to learning, innovating, and adopting technological improvements of production for better quality and more advanced products (Lee &

Gereffi (2015). Alternatively, it is the capability to transform raw materials/inputs into outputs/finished products of greater value (Corley-Coulibaly, Kizu, Kühn, & Viegelahn, 2015). This variable was measured during data analysis based on the responses from the Questionnaire the respondents completed. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses of the survey items and presented in a table.

Variable 2: Market Access

The Market Access variable in this research refers to the horizontal and vertical relationships like buying production inputs collectively or sharing processing facilities and value chains in producing countries, decreasing their dependency on their buyers in the developed regions, respectively, through which firms aim to concentrate on their ideal market channels. (Trienekens & van Dijk, 2012). This variable was measured during data analysis based on the responses from the Questionnaire the respondents completed. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses of the survey items and presented in a table.

Variable 3: Integrated Governance Structures

The Integrated Governance Structures variable in this research refers to when firms establish interfirm, local, and foreign firm collaborations based on standardisation and certification through long-term contracts (Williamson, 1999). This variable was measured during data analysis

based on the responses from the Questionnaire the respondents completed. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3= agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses of the survey items and presented in a table.

Variable 4: Public Private Partnerships

The Public Private Partnership variable in this research refers to cooperation or collaboration between agencies in the government and non-government sectors where non-chain actors provide support in terms of technology, education, politics, or organisation (Trienekens & van Dijk, 2012). This variable was measured during data analysis based on the responses from the Questionnaire the respondents completed. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses of the survey items and presented in a table.

3.5.2 Independent Variables: Antecedents that Favour Upgrading

Variable 5: Marketing Capability

The Marketing Capability variable in this research refers to a firm's ability to apply collective knowledge, resources, and abilities to market needs to enhance value addition to address the competitive demands (Inan & Kop, 2018) . This variable was measured during data analysis based on the responses from the Questionnaire the respondents completed. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned

codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 6: Operational Functioning

The Operational Functioning variable in this research refers to when chain actors employ social mechanisms with the aim of improving efficiency and developing capabilities with their partners (Williamson, 1999); (Teece, 2014). This variable was measured during data analysis based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 7: Global Value Chain Composition

The Global Value Chain Composition in this research refers to different networks with various qualities of relationships that intermediate the flow of information within the value chain (McDermott & Corredoira, 2010). This variable was measured during data analysis based on the responses from the Questionnaire the respondents completed. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution to the responses of the survey items and presented in a table.

Variable 8: Internal Governance

The Internal Governance variable in this research refers to linkages at different stages within the value chain amongst actors like buyers and suppliers in the private sector (Keane, 2012). This variable was measured during data analysis based on the responses from the Questionnaire the respondents completed. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 9: External Governance

The External Governance variable in this research refers to chain actor relationships with external institutions like governments, international organisations, non-governmental organisations, trade unions, and civil society (Keane & te Velde, 2008). This variable was measured during data analysis based on the responses from the Questionnaire the respondents completed. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 10: Horizontal Governance

The Horizontal Governance variable in this research refers to the economic and social relations coordination activities between cluster firms and institutions within and beyond the cluster that is locality-based (Gereffi & Lee, 2016). This variable was measured during data analysis based on the responses from the Questionnaire the respondents completed. Using a

Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 11: Vertical Governance

Vertical GVC Governance refers to governance that *"links a series of buyers and suppliers in different countries, each of which adds value toward the final product"* Gereffi & Lee (2016). It is the links in different countries that connect the buyers and suppliers that add value to the final products (Gereffi & Lee, 2016). This variable was measured during data analysis based on the responses received from the Questionnaire completed by the respondents. It was treated as an ordinal variable and the different categories under it were assigned codes of 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

3.5.3 Intervening Variables: Types of Value Chain Upgrading

Variable 12: Process Upgrading

The Process Upgrading variable in this research refers to when firm production processes are made more efficient using more advanced technology (Humphrey & Schmitz, 2002). During data analysis, the measurement of this variable was based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately,

5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 13: Product Upgrading

The Product Upgrading variable in this research refers to when firms shift or move to products that are more sophisticated, complex, or of better quality (Morris & Staritz, 2014). During data analysis, the measurement of this variable was based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 14: Functional Upgrading

The Functional Upgrading variable in this research refers to when supplier firms change their activities towards those of a higher value-added combination which, besides manufactured products, also include services (Rossi, 2013). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 15: Chain Upgrading

The Chain Upgrading variable in this research refers to when firms move to activities of higher value by extending to new but similar businesses with improvements in brands of the product and marketing skills (Gereffi & Lee, 2016). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution to the responses to the survey items and presented in a table.

3.5.4 Intervening Variables: Stakeholders

3.5.4.1 Public Sector

Variable 16: State Agencies

The State Agencies variable in this research refers to organisations in Uganda that are permanent or semi-permanent and responsible for overseeing the administration of the coffee sector. During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution to the responses of the survey items and presented in a table.

Variable 17: Public Research Institutions

The Public Research Institutions variable in this research refers to research bodies that the Ugandan government finances to meet institutional objectives focused on improving or developing the coffee sector. During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

3.5.4.2 Private Sector Stakeholders

Variable 18: Coffee Unions/Cooperatives

The Coffee Unions/Cooperatives variable in this research refers to organisations of producers or farmers that centralise their activities to maximise benefits like stronger price negotiations, more access to resources, services, processing facilities, business opportunities, and training, among others. During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 19: Development Partners

The Development Partners variable in this research refers to non-government organisations, international organisations, social enterprises, and community-based organisations that focus on facilitating knowledge transfer, institutional capacity, and directing resources to develop the Ugandan coffee sector. During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 20: Research Private Institutions

The Research Private Institutions variable in this research refers to research bodies not financed by the Ugandan government, whose focus was on conducting research activities to improve the coffee sector in Uganda. During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 21: Consultancy Firms

The Consultancy Firms variable in this research refers to companies made of coffee experts that give professional advice or guidance on market positioning, consumer trend analysis, and

product mix opportunities, among others, to the coffee chain actors. During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0= disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 22: Financial Institutions

The Financial Institution variable in this research refers to companies that assist coffee chain actors by facilitating monetary transactions like soft loans to improve their capabilities. During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 23: Relationship of Antecedents, Determinants and Outcomes

The relationship of antecedents, determinants, and outcomes in this research refers to the extent to which respondents agree that favourable antecedents are positively influenced to lead to favourable or positive sustainable outcomes. During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw

data by using descriptive statistics showing the frequency distribution to the responses of the survey items and presented in a table.

3.5.5 Dependent Variable: Sustainable Upgrading Outcomes

3.5.5.1 Economic Outcomes

Variable 24: Value Distribution/Value Appropriateness

The Value Distribution/Value Appropriateness variable in this research refers to when chain actors can enjoy a fair distribution of profits or value addition through better management practices and improved knowledge flow via formal systems from lead firms which enable them to improve their capabilities (Kano, 2018). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution to the responses of the survey items and presented in a table.

Variable 25: Supplier Internationalisation

The Supplier Internationalisation variable in this research refers to processes where supplier or producer firms increase their presence on the international market with time (Johanson & Vahlne, 2017). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive

statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 26: Innovation

The Innovation variable in this research refers to improved capabilities that arise from knowledge transfer from lead firms to producer firms (McWilliam, Kim, Mudambi & Nielsen, 2019). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 27: Export Intensity

The Export Intensity variable in this research refers to the percentage of firm exports relative to total production (Islam & Polonsky, 2020). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution to the responses of the survey items and presented in a table.

Variable 28: Financial Performance

The Financial Performance variable in this research refers to the financial health of the coffee firm, determined by how best its assets are utilised to generate profits. During data analysis,

the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 29: Production Growth

The Production Growth variable in this research refers to when firms have the capability of producing more (Islam & Polonsky, 2020). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution to the responses of the survey items and presented in a table.

3.5.5.2 Environment Outcomes

Variable 30: Regional and Economic Development

The Regional and Economic Development variable in this research refers to the extent to which firms can leverage environmental sustainability upgrading to enhance competitiveness and value addition through spillovers of host countries' capital and technical know-how (Ghauri & Yamin, 2009). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree

moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 31: Knowledge Spillover

The Knowledge Spillover variable in this research refers to knowledge transfers that occur when firms socially interact with global companies (Baldwin, 2018). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable. The different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 32: Reduced Waste

The Reduced Waste variable in this research refers to the use of reverse engineering, such as sales of reuse, resalable, and recyclables, cost of returned materials, and subsidies associated with reverse logistics (Nikolaou, Evangelinos & Allan, 2011). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0= disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

3.5.5.3 Social Outcomes

Variable 33: Division of Labour

The Division of Labour variable in this research refers to the enhancement of supplier firms' performance by creating employment opportunities and concentrating on what they have mastered (Islam & Polonsky, 2020). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 34: Competence

The Competence variable in this research refers to the ability to innovate and adopt new, more efficient production processes to improve competitiveness (Pietrobelli & Rabellotti, 2011). During data analysis, the measurements were based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

Variable 35: Employee Wellbeing

The Employee well-being variable in this research refers to improved quality of life (Toussaint, Cabanelas, & Muñoz-Dueñas, 2021). During data analysis, the measurements were

based on the responses received from the Questionnaire completed by the respondents. Using a Likert-type scale, this variable was treated as an ordinal variable, and the different categories were assigned codes as follows: 0=disagree strongly, 1=disagree moderately, 2=disagree slightly, 3=agree slightly, 4=agree moderately, 5=agree strongly. The scores were derived from the raw data by using descriptive statistics showing the frequency distribution of the responses to the survey items and presented in a table.

The next section highlights the study procedures.

3.6 Study Procedures

Approval for data collection was granted to the researcher by the UREC Committee on April 11, 2023. Following approval, the researcher conducted a pilot study. The exercise confirmed that the Questionnaire was reliable and valid following consistency in the administrative procedures. The respondents raised no significant challenges, except for question 11, which needed clarification for some respondents. The researcher had to restructure the question. Following the amendment to the Questionnaire, the main data collection process started on 20th April, 2023, and ended 13th June 2023.

The researcher handled the issues of anonymity and confidentiality with utmost caution, given that the respondents/participants were human subjects. In order to ensure anonymity, their identities were kept anonymous throughout the data collection procedures. In addition, data were collected and analysed physically. For the online responses, no IP addresses were collected, and only a few demographic variables were used. For confidentiality, data from interviews and Questionnaires were confidentially handled by storing them under a key and a locked safe place. Identifying numbers were used for recorded interviews. They were also encrypted and stored on external hard drives. To reinforce the efforts for confidentiality, passwords were also used, and the researcher's computer was switched off when it was not in use. All filled-in Questionnaires will

be permanently destroyed by shredding, and soft copies permanently deleted after three years of completing the study. No potential risks, psychological harm, and ethical issues associated were identified with the research study.

Two sets of data were collected, these data from the Questionnaires and Interviews. These were employed concurrently, considering that the researcher was facing a challenge of time and limited resources for the data collection process. Questionnaires completed via paper handouts were one hundred and twenty-five (125). Twenty six (26) Questionnaires were completed online via internet. Data were collected from stakeholders of the coffee industry in Uganda. Altogether, 151 Questionnaires were filled with a response rate of Questionnaires 91%. See Table 5 below for details.

Table 5*Response Rate for Quantitative Data*

Respondents	Target Population	Sample	Actual	Actual (Online)	Actual (In - Person)
Chain Actors					
Coffee Farmers/Producers	94	55	49	8	41
Primary Processors	13	8	8	3	5
Coffee Exporters/Traders, Grading/Secondary Processing Companies	109	64	62	11	51
Coffee Roasters	15	9	8	4	4
Total	231	136	127	26	101
Public Sector					
State Agencies	8	4	4	0	4
Public Research Institutions	2	1	1	0	1
Private Sector					
Coffee Unions	4	2	2	0	2
Development Partners	4	2	2	0	2
Private Research Institutions	14	10	5	0	5
Consulting Firms	8	4	4	0	4
Finance Institutions	3	2	2	0	2
Transporters, Shippers, Logistics, Warehousing, and Collateral management	9	5	4	0	4
Total	52	30	24	0	24
Grand Total	283	166	151	26	125

On the other hand, 15 Interviews were conducted based on the saturation point. Of these, 9 were Telephone Interviews, while 6 were Face-to-Face Interviews (See Table 6 below for details). The Interviewees were coffee stakeholders from the public and private sectors, as per the Coffee Directory (2022), who were considered knowledgeable about the entire value chain. The public sector stakeholders included Public Research Institutions and State Agencies. The private sector stakeholders included Private Research Institutions, Development Organisations, Consultancy Firms and Business Development Service Providers, Financial Institutions and Transporters, Shippers, Logistics, Warehousing, and Collateral Management.

Table 6

Response Rate for Qualitative Data

Participants	Sample based on Saturation Point	
	Actual (Telephone Interview)	Actual (Face-to-Face Interviews)
Public Sector		
State Agencies	1	0
Public Research Institutions	1	0
Private Sector		
Coffee Unions	2	2
Development Partners	0	1
Private Research Institutions	1	0
Consulting Firms	2	3
Finance Institutions	1	0
Transporters, Shippers, Logistics, Warehousing, and Collateral Management	1	0
Total Interviews conducted	9	6

3.7 Ethical Assurances

The researcher had complete control of the entire selection and was aware that there may be bias and subjectivity in the qualitative aspect of this study (Saunders et al., 2023). Subjectivity in this study was addressed by ensuring that ethical measures were taken to counter the ethical dilemmas of subjectivity. For confirmation of reliability, ethical obligations employed in this study included debriefing participants, ensuring consent forms were completed, protecting participants, and ensuring confidentiality. By voluntarily signing consent forms, all respondents and participants indicated that they agreed to participate in the study and fully understood what they were getting into (Saunders et al., 2023). The researcher also debriefed the participants to help them process their emotions and thoughts (Ancarani et al., 2025). As Saunders et al. (2023) observed, the physical and psychological safety of participants was ensured by avoiding overzealous interview questions that could potentially stress participants or embarrass them. In addition, participants were informed that they had the right not to respond to questions that made them feel uncomfortable (United Kingdom Statistics Authority, 2022). The research proposal, design, and data collection tools were initially approved by the researcher's supervisor. Approval by the UNICAF UREC Committee, which granted the researcher permission to proceed with the data collection phase, was later secured.

As an extra effort to address ethical assurances, the role of the researcher in ensuring ethical conduct was taken seriously throughout the research process. Whereas committees like Institutional Ethical Committees, like the UREC committee, set ethical standards, applying these standards were the researcher's full responsibility (Cumyn, Ouellet, Côté, Francoeur & St-Onge, 2019).

The researcher ensured honesty in data reporting, transparency in sharing research findings, objectivity in data analysis and interpretation, integrity through consistency, responsible

publication to enrich the research body rather than just personal career, and protection of participants and respect for laws (Shamoo & Resnik, 2015). Also, any form of conflict of interest and discriminatory treatment based on sex, ethnicity, and race was avoided.

3.8 Data Analysis

Considering that this is a Convergent Study, both quantitative and qualitative methods were employed for data analysis concurrently.

3.8.1 Data Analysis for the Quantitative Strand

The primary constructs for the topic under study, the research questions, and the hypotheses included the antecedents, the determinants, and the outcomes of upgrading global value chains. Please refer to section 3.5 for the operational definition of the study and a detailed description of each variable, including how they were collected and measured using the Likert Scale.

This study's predictors or independent variables were the antecedents of upgrading global value chains, while the criterion or dependent variable was sustainable outcomes. These assisted the researcher in determining variables responsible for the variations in the criterion or dependent variable when establishing the relationships and how they affect each other. All data collected was aligned with the research question, hypotheses, and study design. The results provided evidence for the hypotheses. All questions were grouped based on themes and presented a coherent view of the stakeholder perceptions rather than describing the Questionnaire findings.

Using the PSPP software, data were cleaned, and raw data were converted to a form that was analysed for interpretation. To begin with, the researcher confirmed credibility and transferability by ensuring rigorousness and quality of the study (Lim et al., 2025), dependability by consistency Lim (2025) and confirmability by confidence (Lim et al., 2025). To assess reliability, the researcher conducted a Cronbach's Alpha analysis to assess the internal consistency

and reliability of the quantitative data. The ordinal scale measurement guided the researcher to use data frequencies (Salkind & Frey, 2019).

Demographic frequencies of the Gender, Age, Education Level, Marital Status, Employment Status and Stakeholder Activity were then run to get a broad picture of the data. Next, based on the research questions, the correlations between variables were run. The non-parametric test associations employed Spearman's Order Correlation Test and Pearson's Correlation Test for data that was not ordinal in nature. They were as follows:

- a) Spearman's Order Correlation for the interdependency of antecedents and types of upgrading
- b) Spearman's Order Correlation for interdependency between means/types of upgrading and sustainable outcomes
- c) Pearson's Correlation between Stakeholders' influence, and types of upgrading
- d) Spearman's Order Correlation between types of upgrading as determinants and sustainable outcomes
- e) Spearman's Order Correlation on antecedents, determinants and sustainable outcomes for upscaling
- f) Spearman's Order Correlation between sustainable outcomes and upscaling

The Simple Linear Regression was also run for each of the correlations for more insights into how the variables interacted with each other. Table 7 below shows the mappings of instrumentation materials to the research questions.

Table 7*Mappings of Instrumentation/Materials of Research Questions*

Research Question	Variables	No. of items	Measurements where:	References
			0= disagree strongly, 1=disagree moderately, 2=disagree slightly, 3= agree slightly, 4=agree moderately,5=agree strongly	
a) What antecedents favour upgrading value chains?	Non-Governance Antecedents Governance Antecedents	7	Non-Governance Antecedents: -Marketing Capability -Operational Functioning -GVC Composition Governance Antecedents: -Internal Governance -External Governance -Horizontal Governance -Vertical Governance	(Gereffi (2019); (Islam & Polonsky, (2020); Vogel, Mathé, Geitzenauer, Ndah, Sieber, Bonatti, & Lana (2020)
b) What are the different types/trajectories of value chain upgrading in the context of developing countries?	Strategies of Upgrading	4	-Process Upgrading -Product Upgrading -Functional Upgrading -Chain Upgrading	Islam & Polonsky (2020)

c) Who are the key stakeholders in the context of the coffee industry in Uganda, and how do they influence the upgrading of the value chain?	Stakeholders	8	Public Sector (State Agencies, Public research) Private Sector: (Coffee Unions, Development, Partners, Research, Private Institutions, Financial Institutions, Consulting Firms, Transporters, Shippers, Logistics, Warehousing and Collateral Management)	Magala, Mangheni, & Zonal (2018).
d) What are the main determinants of value chain upgrading favourability on economic, environmental and social outcomes?	Determinants	4	-Process Upgrading -Product Upgrading -Functional Upgrading -Chain Upgrading	Lam et al (2020); Scoones et al (2020); Marcato & Baltar (2021)
e) How do value chain upgrading antecedents, determinants, and outcomes relate to each other?	Relationship Perception	1	Disagree/Agree	Pasquali (2021)
f) What are the main determinants of economic, environmental and social outcomes of upgrading on upscaling?	-Economics Sustainability Outcomes -Environmental Sustainability Outcomes -Social Sustainability Outcomes	11	Economic: -Value Distribution -Innovation -Export Intensity -Financial Performance -Production Growth Environment: -Regional and economic development -Knowledge spill over -Reduced Waste	McWilliam, Kim, Mudambi & Nielsen (2019); Golgeci, Makhmadshoev & Demirbag (2021).

			Social: -Division of Labour -Competence -Employee Wellbeing	
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Source: The Researcher

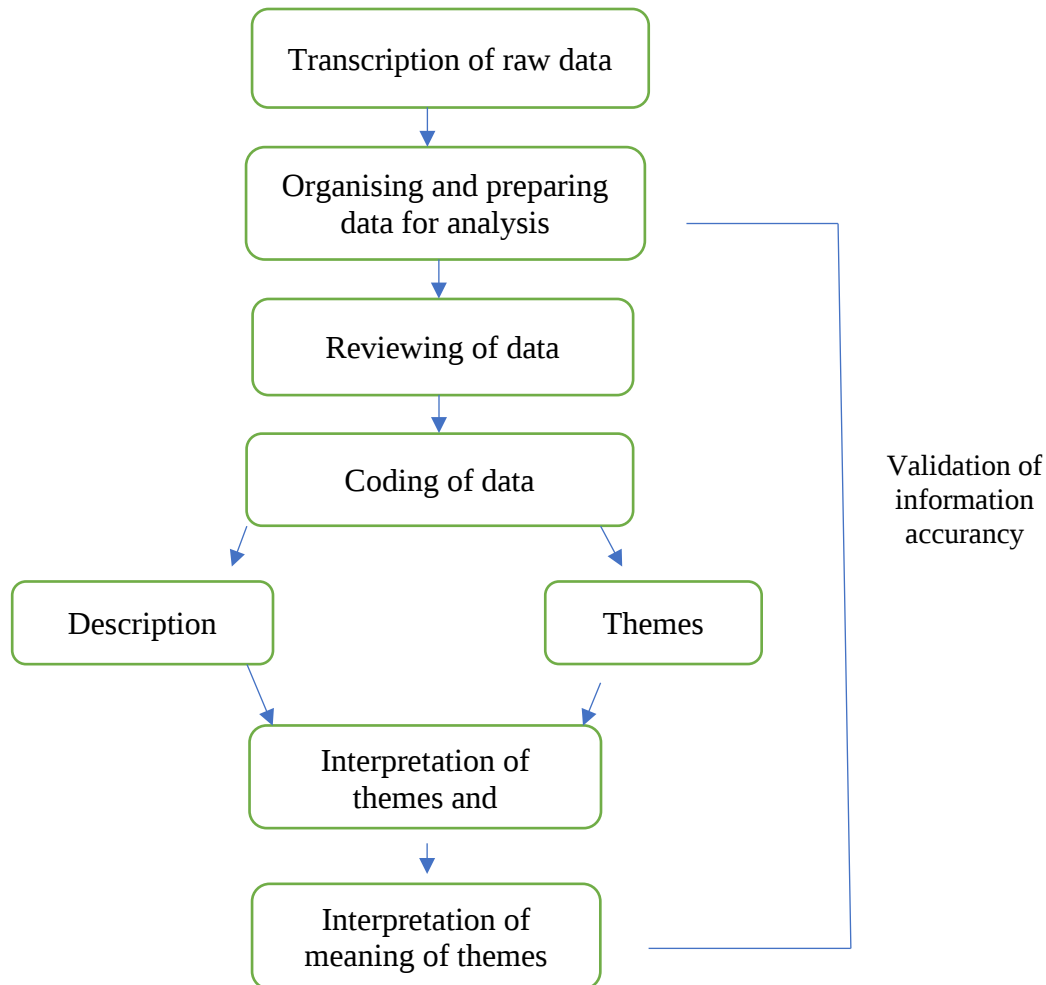
3.8.2 Data Analysis for the Qualitative Strand

The qualitative data analysis (see steps in Figure 9 below) in this research was based on the work of Creswell and Clark (2017) and takes the Inductive Approach. Considering that the researcher experienced a challenge of time and resource limitation, participants of the qualitative research were part of the quantitative respondents, and the research responses were integrated for comparisons in terms of similarities and disparities.

The Thematic Analysis Approach, as defined by Braun and Clarke (2006), is the process of categorising, analysing, and recording patterns in the collected data. Based on this, the qualitative data were processed and analysed as follows:

- i) The raw data from the interviews were prepared for analysis by transcribing the recordings using the Otter Software and organised for further processing.
- ii) The researcher then read through the transcribed notes to get a general appreciation of the information and reflected on its implications by looking for tone, depth, and credibility. The Taguette Software was used to process the qualitative data.
- iii) The coding process was done next, which is organising the information into sections before any meaning is retrieved (Rossman & Rallis, 2011). The type of codes used for this study was based on the participants' perspectives (Bogdan & Bilden, 1992). In line with Tesch (1990), a systematic process was employed to analyse the textual data by carefully reading through, coming up with different topics and clustering them to form categories with descriptive titles, abbreviating each category with alphabetic codes, and recoding where necessary. Since this is a new study, a traditional approach that allowed the codes to emerge as the data is being analysed was taken.

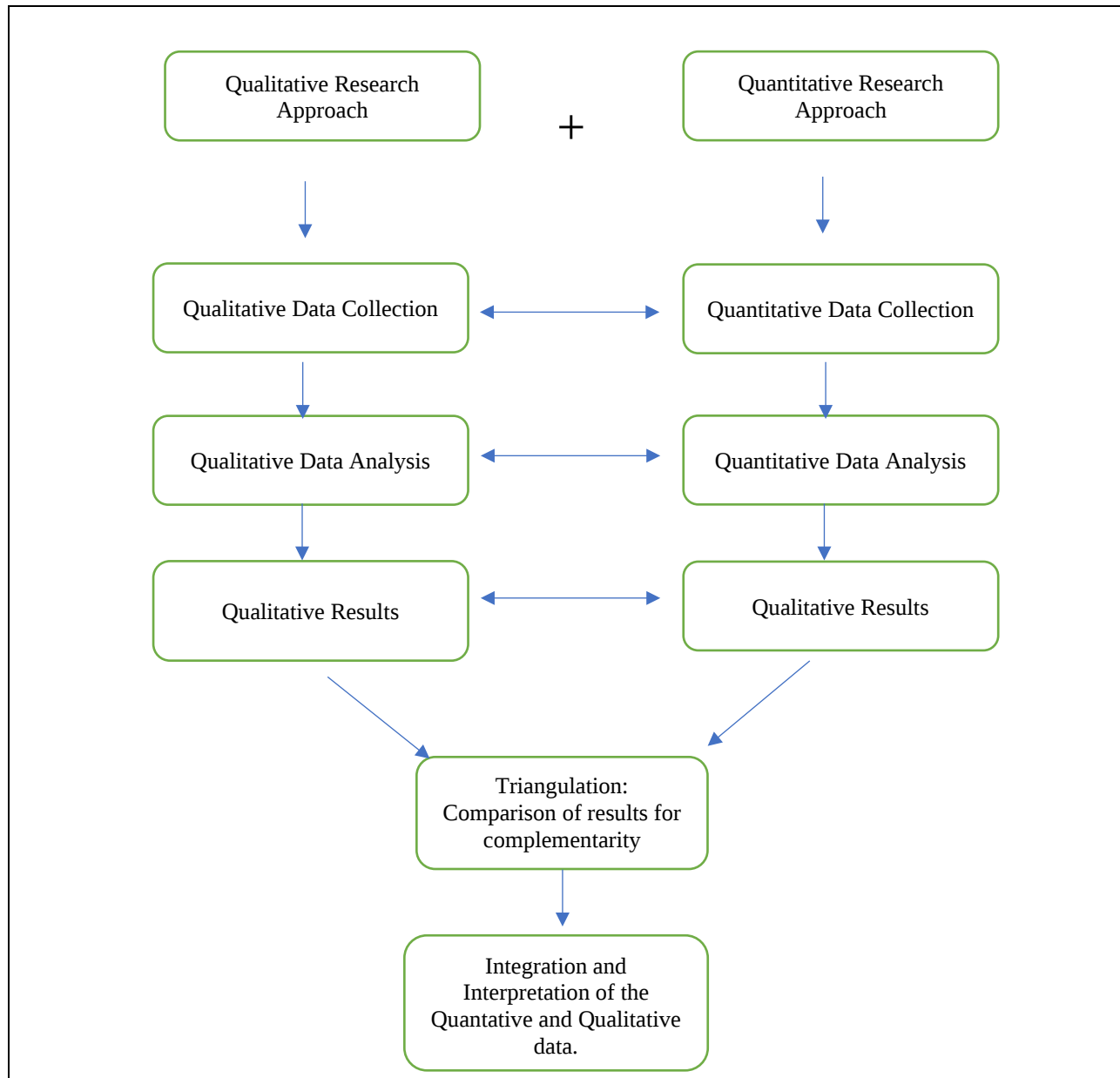
- iv) A description of the setting for the participants and themes to guide the main findings was created for analysis. The developed themes reflected participants' perspectives and were supported by different quotations, from which a complex analysis emerged.
- v) The researcher determined how the qualitative narrative represented the themes. This study used a narrative passage to present the analysis' findings, including detailed discussion subthemes, precise illustrations, different perspectives, and participants' quotations from the main themes. Tables were also used to support the discussions.
- vi) Lastly, the themes were interpreted, meaning was derived from the researcher's interpretation, and comparisons were made with new questions emerging for future research. The interpretations also called for action agendas for reform and change. Thus, interpretation in qualitative research took many forms, adapted to different types of designs, and was flexible in conveying personal, research-based, and action meanings.

Figure 9*Steps to Qualitative Data Analysis*

Adopted from the work of Creswell and Clark (2017)

3.8.3 Triangulation Method

This study employed Convergent and Concurrent Triangulation because the integration of the qualitative and quantitative data strengthens each other by one approach addressing the weaknesses of the other, providing more insights that help understand the data better, providing the evidence for deductions, and strengthening the validity of the findings (Creswell & Clark, 2017). The diagram below (see Figure 10) summarises the process that was taken.

Figure 10*Summary of the Triangulation Process*

Adopted from Creswell and Inoue (2025).

3.9 Chapter Summary

This chapter presented the Research Approach and Design, the Population and Sample of the Research Study, Research Tools, the definition of the Variables, Study Procedures, and Data

Collection and Analysis. The Research Approach and Design used was a Convergent Mixed Study Method. The study employed the abductive research approach and adopted pragmatism as its research philosophy. It employed an interpretivist/deductive and an inductive/positivist research design for the qualitative and quantitative research methods. The Population Size and Sample of the Study were 283 and 166, respectively, for the quantitative data collection. From the same population, the qualitative sample was 15, based on point of saturation. The Research Tools employed were Questionnaires and Interviews. The operational definitions of the variables were provided in 3.5. The research design and data collection process involved determining appropriate procedures, getting institutional permission to recruit participants, identifying data sources, recording data, and several administrative procedures (Creswell & Clark, 2017). The Data Collection and Analysis process involved transcribing the interviews, coding them to create themes, and interpreting them using Taguette to extract meaning for the qualitative approach. For the quantitative approach, the data analysis process involved running non-parametric and parametric tests to determine the relationships amongst the variables with the use of the PSPP Software.

CHAPTER 4: ANALYSIS AND INTERPRETATION

4.0 Introduction

Based on the hypotheses and research questions of the study, this chapter presents the trustworthiness of the data and the findings of a Convergent Mixed Study Method where data were concurrently collected using quantitative and qualitative research methods using Questionnaires and interviews conducted between 20th April and 13, June 2023. These were administered to the stakeholders of Uganda's coffee industry, comprised of coffee chain actors, the public sector and private sector stakeholders registered in the Uganda Coffee Directory (2022) of the Uganda Coffee Development Authority (UCDA). For the Questionnaires, from a target population of 283, 166 were distributed and 151 returned, yielding a response rate of 91%. According to Morton, Bandara, Robinson, & Carr (2012), this response rate is considered high and acceptable. For the interviews within the same target population, 15 were conducted until point of saturation (see details in Table 8 below).

Table 8*Details of Interviewees*

Interviewee	Gender	Age	Education	Marital Status	Employment Status	Stakeholder Status	Date of Interview	Mode of Interview	Time	Duration
1	Male	29-38	Masters Level	Married	Professional Employee (Lawyer, Doctor, Teacher, etc)	Private Research Institution	20/04/23	Telephone	4.00 pm	1 hr 2 minutes
2	Male	39-48	Bachelors/ Undergraduate Level	Married	Top Executive or Manager	Development Partner	24/04/23	Face-to-Face	3.20 pm	1 hr 8 minutes
3	Male	29-38	Bachelors/ Undergraduate Level	Single	Owner of a Company/Business	Coffee Union/Association	24/04/23	Telephone	6.30 pm	41 minutes
4	Female	29-38	Bachelors/ Undergraduate Level	Married	Top Executive or Manager	Consulting Firm	28/04/23	Face-to-Face	2.00 pm	55 minutes
5	Male	29-38	Bachelors/ Undergraduate Level	Married	Professional Employee (Lawyer, Doctor, Teacher, etc)	State Agency	28/04/23	Telephone	4.30 pm	50 minutes
6	Female	39-48	Bachelors/ Undergraduate Level	Married	Owner of a Company/Business	Transporters, Shippers, Logistics, Warehousing and Collateral Management	29/04/23	Telephone	11.00 am	1 hr 02 minutes
7	Male	18-28	Uganda Certificate of Education (O-Levels)	Single	Other	Coffee Union	03/05/23	Telephone	10.30 am	32 minutes
8	Male	29-38	Trade school	Married	Other	Consulting Firm	04/04/23	Face-to-Face	4.30 pm	33 minutes

9	Male	18-28	Diploma	Single	Professional Employee (Lawyer, Doctor, Teacher, etc)	Public Research Institution	16/05/23	Telephone	4.00 pm	49 minutes
10	Female	39-48	Masters Level	Married	Owner of a Company/Business	Consulting Firm	22/05/23	Telephone	3.00 pm	53 minutes
11	Male	59-70	Masters Level	Married	Top Executive or Manager	Coffee Union/Association	25/05/23	Face-to-Face	3.00pm	1 hr 33 minutes
12	Male	39-48	Masters Level	Married	Top Executive or Manager	Coffee Union/Association	03/06/23	Face-to-Face	11.00 pm	1 hr 8 minutes
13	Male	49-58	Masters Level	Single	Professional Employee (Lawyer, Doctor, Teacher, etc)	Consulting Firm	07/06/23	Face-to-Face	4.20 pm	50 minutes
14	Male	39-48	Masters Level	Married	Professional Employee (Lawyer, Doctor, Teacher, etc)	Consulting Firm	8/06/23	Telephone	2.00 pm	42 minutes
15	Male	29-38	Bachelors/ Undergraduate Level	Married	Owner of a Company/Business	Finance Institution	13/06/23	Telephone	5.10 pm	58 minutes

4.1 Trustworthiness of Data

The researcher acknowledged the possibility of bias and, to increase the trustworthiness of the qualitative data in the study, triangulation was used (Creswell & Inoue, 2025). The extent of trustfulness in the study was determined by addressing issues of validity and reliability (Lim, 2025). The following indicators were used to determine the rigorousness and quality of a study as was highlighted by Ahmed (2024).

-Credibility

The researcher ensured the study's credibility by exploring the perceptions, opinions, and experiences of coffee industry stakeholders in Uganda, who were considered ideal for providing accurate responses to the issues under study (Lim et al., 2025). Based on the study context and preferences of the participants, credibility was checked by member-checking, which involved reviewing transcripts for clarification, discussing findings through debriefing to confirm if the findings accurately reflected their perspectives and interpretations with the participants and sharing the draft results to confirm that there were no misunderstandings (Lim et al., 2025). To enhance member checking, the researcher was open to receiving feedback, planning, and ensuring adequate time for revisions. The researcher also ensured confidentiality and transparency on the use of their feedback (Resnik & Elliott, 2016). Member checking strengthened the confirmation and validity of the research findings by providing greater confidence and trust in the research (Stahl & King, 2020).

-Transferability

The researcher ensured transferability which implied that if a similar research process was adopted in future, the study findings could be replicated in wider populations and generalised to many other value chains in Uganda and countries as well (Lim et al., 2025)). Transferability was

achieved by confirming that the findings accurately reflected participants' opinions and by describing in detail the research setting in which the study was conducted (Lim, 2025).

-Dependability

According to Lim (2025), dependability is the extent to which research findings are consistent, reliable, and stable in a research process. This study confirmed the dependability of similar results, which would be observed if the study were conducted again using the exact research process and several interrelating methods (Lim et al., 2022). Dependability in this study was ensured by using two sources of data for validity (Questionnaires and Interviews) through cross-examination and comparison of findings, which facilitated consistency and minimised personal biases (Lim, 2025). The researcher also conducted debriefing for valuable reflective insights and enhanced rigour, and continually examined their personality for transparency and reduced bias during data interpretation (Lim, 2025). In addition, an audit trail was maintained throughout the process, documenting decisions made when data were collected, analysed, and interpreted (Koch, 1994). Overall, dependability enhanced confidence in the findings in addition to the robustness, impactfulness, and value of the study.

- Confirmability

The researcher followed the same process throughout the study to establish confirmability (Trochim & Donnelly, 2007). Confirmability was achieved through a detailed transcription of the Interview and through the recognition of the researcher's assumptions and beliefs in objective reality and minimal involvement in the natural setting of the participants (Bogdan & Biklen, 2003). The researcher also highlighted the alternative opinions of participants, which enhanced confidence in the research findings.

4.1.1 Methodological Shortcomings

This researcher acknowledged the limitations of the employed methodology to enhance trustworthiness. Although it employed concurrent triangulation that integrated qualitative and quantitative data for complementarity to address the weaknesses of the other, get more in-depth insights for a better understanding of the data, evidence-based deductions, and strong validity of the findings (Creswell & Clark, 2017), the application of the mixed methodology may have influenced the interpretation since there was a possibility of inconsistencies in foundational issues resulting from different values, interests, and principles (Ivankova & Plano Clark, 2018). The study acknowledges that the quality of the study may have been affected by these conflicts in conceptualisation and operationalisation in the way they raised areas of inquiry in current issues, as was argued by Fàbregues, Escalante-Barrios, Molina-Azorin, Hong, and Verd (2021). To address this issue, the researcher acknowledged the divergent views of researchers depending on their respective disciplines to avoid confusion by future researchers with little experience (Ivankova & Plano Clark, 2018).

4.1.2 Assumptions of Statistics

4.1.2.1 Reliability Assumptions

The reliability test of all the data was conducted with Cronbach's Alpha Reliability Analysis to confirm the internal consistency and reliability of the data for the quantitative method, and the results showed that the data set was reliable, as seen in Table 9 below. The measurement range was from 0 to 1, where a higher or closer to 1 implied the more reliable it was. All data met the generally acceptable Internal Consistency standard of 0.7, as Fraenkel & Wallen (2022) observed, except for one data set on upgrading types, which was 0.63 and accepted with caution. In this study, while a Cronbach Alpha between 0.6 and 0.7 is viewed as questionable (Johnson, 2025), others like Hussey et al. (2023) argued that a Cronbach Alpha below 0.7 can be considered acceptable with caution in rare circumstances. In line with this, this study accepted 0.63 for several

reasons. To begin with, there is the context of the study. The researcher acknowledged that stakeholders view upgrading differently depending on the level at which they operate in the value chain. The coffee value chain has different nodes, and each of these has the Process, Product, Functional and Chain Upgrading. This implies that the data set was diverse and heterogeneous in nature, which lowers the Cronbach Alpha based on the observations of Boonyaratana et al. (2021). Secondly, the study cautiously accepted a Cronbach's alpha of 0.63, as it is exploratory in nature and employs a new instrument, in line with Johnson's (2025) argument. In addition, Vveinhardt and Gulbovaite (2018) argued that it may be acceptable if the Questionnaire, which was used as the quantitative data collection tool, was based on participants' attitudes, feelings and experience. Accordingly, this study was based on participants' perceptions towards upgrading of the coffee value chain in Uganda. Furthermore, the researcher observed that although previous studies, such as Mendoza, Stafford, and Stauffer (2000), focused on internal factors that affect the internal consistency of data, others, like Ursachi, Horodnic, and Zait (2015), observed external factors and posited that a Cronbach alpha of 0.6-0.7 may be acceptable

. The external factors that affect the internal consistency for these types of upgrading in this study include buyer-supplier power dynamics (Gereffi, 2011), political instability (Lin, 2012), market dynamics Pasquali (2021) and global competition (Vorhies & Morgan, 2005). Lastly, the researcher cautiously accepted the Cronbach's Alpha between 0.6 and 0.7, considering that the study was a mixed study, thus the interpretation of results was complemented with the qualitative findings to reduce the reliability doubt.

Table 9*Cronbach's Alpha Reliability Test Results*

	Number of items	Cronbach's Alpha	Internal Consistency
Antecedents favouring upgrading	7	0.84	Good
Means or types of Upgrading	4	0.63	Acceptable with caution
Stakeholders in the coffee value chain	7	0.74	Acceptable
Determinants of Value Chain favourability for sustainable outcomes	4	0.77	Acceptable
Sustainable Outcomes	6 (Economical)	0.80	Good
	3 (Environmental)	0.82	Good
	3 (Social)	0.85	Good

4.1.2.2 Non-Parametric Tests

This study adopted non-parametric tests because the data primarily did not meet the assumptions for parametric tests, given their ordinal nature, prompting the researcher to use the data frequencies instead (Salkind & Frey, 2019). According to Ghosh, Burns, Prager, Zhang, and Hui (2018), ordinal data from the Likert scale is usually not normally distributed. The researcher observed that most of the data did not meet the set assumption requirements for normality, as noted by Khatun (2021), and opted to conduct non-parametric tests to test the hypothesis in this study. Based on the nature of the research questions to establish the correlation between variables, the non-parametric test employed in this study was Spearman's Order Correlation Test. For data that did not meet the non-parametric tests, a parametric test, Pearson's Correlation Test, was used.

4.1.2.2.1 Spearman's Order Correlation Test Assumptions

The study employed Spearman's Order Correlation test to determine the correlation coefficient, which guided the understanding of how the variables correlated with each other, as they were not normally distributed (Salkind & Frey, 2019). The data did not meet the assumptions for conducting a simple t-test using parametric tests. Data were also ordinal scale in nature as confirmed by the Likert scale of measurement from 0, 1, 2, 3, 4 and 5 representing Agree Strongly, Agree Moderately, Agree Slightly, Disagree Slightly, Disagree Moderately and Disagree Strongly, respectively. Since there was no neutral option on the scale, respondents were encouraged to give more thoughtful responses inclined to agree or disagree, making the results easier to interpret. In line with Lindstrom (2010), data were not normally distributed. The scatter plots, kurtosis and skewness were largely skewed, as summarised in Table 10. According to Hair, Hult, Ringle and Sarstedt (2022), skewness and kurtosis values beyond -2 and $+2$ are not normally distributed.

Table 10

Results for Kurtosis and Skewness Test

Variables	Kurtosis	S.E. Kurt	Skewness	S.E. Skewness
Non-Governance Antecedents	4.11	0.39	-1.78	0.20
Governance Antecedents	2.95	0.39	-1.40	0.20
Process Upgrading as a means of Value Addition	3.70	0.39	-1.90	0.20
Product Upgrading as a means of Value Addition	2.48	0.39	-1.56	0.20
Functional Upgrading as a means of Value Addition	0.36*	0.39	-1.02	0.20
Chain Upgrading as a means of Value Addition	1.45*	0.39	-1.08	0.20
Influencing role of Public Stakeholders	0.74*	0.39	-1.03	0.20
Influencing role of Private Stakeholders	1.38*	0.39	-1.02	0.20

Process Upgrading as an influence to Sustainable Outcomes	4.82	0.39	-1.88	0.20
Product Upgrading as an influence to Sustainable Outcomes	3.74	0.39	-1.71	0.20
Functional Upgrading as an influence to Sustainable Outcomes	0.03*	0.39	-0.78	0.20
Chain Upgrading as an influence to Sustainable Outcomes	1.92*	0.39	-1.20	0.20
Relationship Antecedents/ determinants /Outcomes	6.17	0.39	-1.99	0.20
Economic Sustainable Outcomes	4.29	0.39	-1.66	0.20
Environmentally Sustainable Outcomes	7.98	0.39	-2.53	0.20
Social Sustainable Outcomes	7.95	0.39	-2.53	0.20

4.1.3 Potential Weaknesses in Data Collection and Analysis

The researcher highlighted potential weaknesses in data collection and interpretation to reinforce the trustworthiness of the findings. These included:

4.1.3.1 Quality of the Data

The researcher followed best research practices by clearly defining the research process and the activities involved. These included defining the aim of the study, research questions, and objectives. The researcher also ensured that the Questionnaire was written in simple language that did not reflect personal opinions to prevent any misinterpretation. During data analysis, raw data were stored safely, cleaned, pre-processed, and analysed using reliable software, PSPP for the quantitative data and Taguette for the qualitative data.

4.1.3.2 Quantity of the Data

The researcher collected sufficient data to represent the study population's interests in the analysis accurately. Using Yamane's Formula, an adequate sample size of 166 was determined from a target population of 283. The point of saturation guided the sample of 15 for the interviews.

4.1.3.3 Methods of Data Analysis Employed

Trustworthiness was ensured based on the data type, research questions, and hypothesis. The researcher further validated the assumptions and parameters of the data analysis methods chosen, ensuring a balance between the variables. The quantitative method employed Spearman's Order Correlation Test for data that was not normally distributed and Pearson's Correlation Test for data that was normally distributed. Considering that the raw data was from a Questionnaire with Likert Scale questions, averages were first calculated before running Spearman's Order Correlation Test.

4.1.3.4 Interpretation of the Data

In order to ensure trustworthiness, the researcher ensured that biases were confirmed by carefully searching for evidence that encouraged preconceived beliefs while disregarding the contradictions during the interpretation of data. More so, the researcher ensured a systematic and consistent procedure that the trustworthiness while interpreting the data based on the work of Lim (2025) and this included studying the data for familiarity, journaling for code generation, keeping detailed notes for theme creation, referring to raw data for theme reviewal, documenting themes for defining the themes and member checking for report writing. The exhaustive and rigorous process increased the verification and credibility of the interpretation and analysis of the data (Nowell et al., 2017).

4.2 Results from the Quantitative Strand

The Questionnaire had 13 questions. The first six questions, questions 1 to 6, were demographic information for the participants, while the rest, questions 7 to 13, measured stakeholders' opinions on upgrading the coffee value chain using a Likert scale. Respondents ticked what they thought was appropriate based on their opinion, where 0 strongly disagreed, and 5 strongly agreed.

4.2.1 Demographic Findings of the Quantitative Data

The demographics of the sample were representative of the population, considering that it was chosen using simple random sampling, which allowed the possibility of every member of the population to be included in the sample. Based on the demographic findings of questions 1 to 6, a summary of the results is presented in Table 11 below. Respondents were divided into different categories to analyse all the questions. These included gender, age, education level, marital status, employment status and stakeholder chain activity.

- **Gender:** Question 1 was on Gender, where about three quarters were males and a quarter female, males with 74.8% and 25.2%, respectively.
- **Age:** Question 2 presented the age categories. 24.5% were aged 18-28, 37.7% were aged 29-38, 25.2% were aged 39-48, 8.6% were aged 49-58, and 4.0% were aged 59-70.
- **Education Level:** Question 3 asked respondents to indicate their education level. Most of the respondents, 43%, held at least a Bachelor's degree. Also, 19.9% had a Masters degree while only 1 had a PhD.
- **Marital Status:** Question 4 was on the respondents' marital status. 0.7% preferred not to say, 39.7% were single while 59.6% were married.
- **Employment Status:** Question 5 was on the employment status. Most of the respondents were owners of businesses/companies, followed by professional employees and top executives/managers with 40.4%, 18.5% and 17.9%, respectively.
- **Stakeholder Activity:** Question 6 asked respondents to indicate what type of stakeholder they were. Most of the respondents were Coffee Farmer/Producers, Coffee Trader/Exporter and Grading/Secondary Processing Companies with 32.5%, 26.5% and 14.6%, respectively.

Table 11*Demographic Information for Quantitative Data*

Item	Category	Frequency	Percentage
Gender	Female	38	25.2%
	Male	113	74.8%
Age	18-28	36	23.8%
	29-38	57	37.7%
	39-48	38	25.2%
	49-58	14	9.3%
	59-70	6	4.0%
Education	Prefer not to say	3	2.0%
	*Others	52	34.5%
	Bachelors/Undergraduate Level	65	43.0%
	Masters Level	30	19.9%
	PhD/Doctoral Level	1	0.7%
Marital Status	Prefer not to say	1	0.7%
	Single	60	39.7%
	Married	90	59.6%
Employment	Prefer not to say	2	1.3%
	Other	11	7.3%
	Housewife	5	3.3%
	Student	5	3.3%
	Retired	1	0.7%
	Office/Clerical Staff	7	4.6%
	Civil Servant	4	2.6%
	Professional Employee	28	18.5%
	Top Executive or Manager	27	17.9%
	Owner of a Company/Business	61	40.4%
Stakeholder Activity	Coffee Farmer/Producer	49	32.5%
	Primary Processor	8	5.3%
	Coffee Trader/Exporter	40	26.5%
	Grading/Secondary Processing Company	22	14.6%
	Coffee Roaster	8	5.3%
	State Agency	4	2.6%
	Public Research Institution	1	0.7%
	Coffee Union	2	1.3%
	Development Partner	2	1.3%

Private Research Institution	5	3.3%
Consulting Firm	4	2.6%
Finance Institution	2	1.3%
Transporters, Shippers, Logistics, Warehousing and Collateral Management	4	2.6%

*Others for the Education category included: Some Primary Education, Primary Leaving Exam, Uganda Certificate of Education (O-Levels), Uganda Advanced Certificate of Education (A-Levels), Diploma and Trade School.

Question 7 presented four main strategies or means of upgrading (Value Addition, Market Access, Appropriate Integrated Governance Structures and Private -Public Partnerships) and sought to find the extent to which respondents agreed that the listed strategies were effective in Uganda. From the results summarised in Table 12 below, the majority of the respondents appeared to ‘Agree Strongly’ that the listed strategies were effective in upgrading the coffee value chain with 64.2 4%, 62.3%, 33.1% and 39.7% for Value Addition, Market Access, Appropriate Interpreted Governance Structures and Public-Private Partnerships, respectively. The median for Value Addition and Market Access was 5, while it was 4 for Appropriate Integrated Governance Structures and Public-Private Partnerships. The mode for value addition, market access, and public-private partnerships was ‘Agreed Strongly’, while it was ‘Agreed Moderately’ for appropriate integrated governance structures.

Table 12

Means/Strategies of Value Addition

	0	1	2	3	4	5	Median	Mean	St.Dev	Mode
Value Addition	0.7%	2.0%	0%	11.9%	21.2%	64.2%	5	4.44	0.93	Agree Strongly
Market Access	0%	1.3%	2.0%	9.9%	24.5%	62.3%	5	4.44	0.85	Agree Strongly
Appropriate Integrated	4.6%	2.0%	7.3%	15.9%	37.1%	33.1%	4	3.78	1.29	Agree Moderately

Governance											
Structures											
Public-	2.6%	2.6%	4.0%	15.9%	35.1%	39.7%	4	3.97	1.18	Agree	
Private										Strongly	
Partnerships											

Note: 0 =Disagree Strongly, 1=Disagree Moderately, 2=Disagree Slightly, 3=Agree Slightly, 4=Agree Moderately, 5=Agree Strongly

4.2.2 Research Question 1a

Question 8 presented the antecedents that favoured upgrading the coffee value chain and sought to determine the extent to which respondents agreed with their importance. The results were summarised in Table 13 below. For the Non-Governance Antecedents, the majority of the respondents appeared to agree that the listed Non-Governance Antecedents were important for upgrading, with 78.8%, 77.5% and 27.2% for Marketing Capability, Operational Functioning and GVC Composition, respectively. The median was 4 for Marketing Capability and Operational Functioning, and 3 for GVC Composition. The mode was ‘Agree Strongly’ for Marketing Capability and Operational Functioning, and ‘Agree Slightly’ for GVC Composition. For the Governance Antecedents, the majority of the respondents appeared to agree that the listed Governance Antecedents were important for upgrading, with 67.6%, 72.2%, 64.9% and 78.1% for Internal Governance, External Governance, Horizontal Governance, and Vertical Governance respectively. The median scores were 4 for Internal Governance, External Governance, and Horizontal Governance, and 5 for Vertical Governance. The Mode was ‘Agree Strongly’ for Internal Governance, Horizontal Governance and Vertical Governance, and ‘Agree Moderately’ for External Governance. To check consensus and divergency of opinions, Means and Standard Deviations were run and results were as reflected below.

Table 13*Perceptions on Antecedents for Upgrading*

Non-Governance Antecedents (Capabilities)										
	0	1	2	3	4	5	Median	Mean	St.Dev	Mode
Marketing Capability	1.3%	2.6%	3.3%	13.9%	29.1%	49.7%	4	4.16	1.1	Agree Strongly
Operational Functioning	0.7%	2.6%	2.0%	17.2%	31.1%	46.4%	4	4.15	1.02	Agree Strongly
GVC Composition	2.6%	1.3%	6.0%	62.9%	27.2%	0%	3	3.11	0.78	Agree Slightly
Governance Antecedents (Control and Coordination)										
	0	1	2	3	4	5	Median	Mean	St.Dev	Mode
Internal Governance	2.0%	3.3%	6.0%	21.2%	26.5%	41.1%	4	3.9	1.22	Agree Strongly
External Governance	2.6%	2.6%	6.0%	16.6%	36.4%	35.8%	4	3.89	1.19	Agree Moderately
Horizontal Governance	1.3%	3.3%	6.0%	24.5%	28.5%	36.4%	4	3.85	1.16	Agree Strongly
Vertical Governance	2.6%	1.3%	4.6%	13.2%	23.8%	54.3%	5	4.17	1.18	Agree Strongly

Note: 0 =Disagree Strongly, 1=Disagree Moderately, 2=Disagree Slightly, 3=Agree Slightly, 4=Agree Moderately, 5=Agree Strongly

Hypothesis 1:

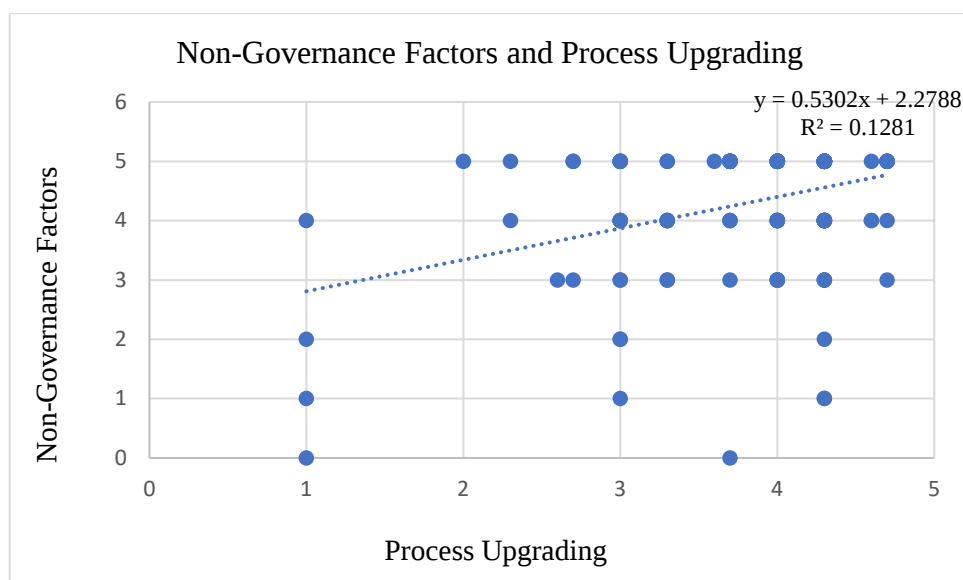
The Spearman's Order Correlations were run to examine the relationship between antecedents for upgrading and attitude toward upgrading. There was a positive correlation between the Governance Antecedents and all the different types of upgrading, as the Spearman's Order Correlation R-Value (Rs) were all positive, as seen in Table 14. Also, all the relationships were significant with Non-Governance and Governance Antecedents, and all the types of upgrading Process Upgrading where p Value for all is less than 0.05 ($P < 0.05$) as seen in the Table below. This means that when the favourability of antecedents increases, the favourability of upgrading also increases. Additionally, it is worth noting that the Governance Antecedents exhibited the

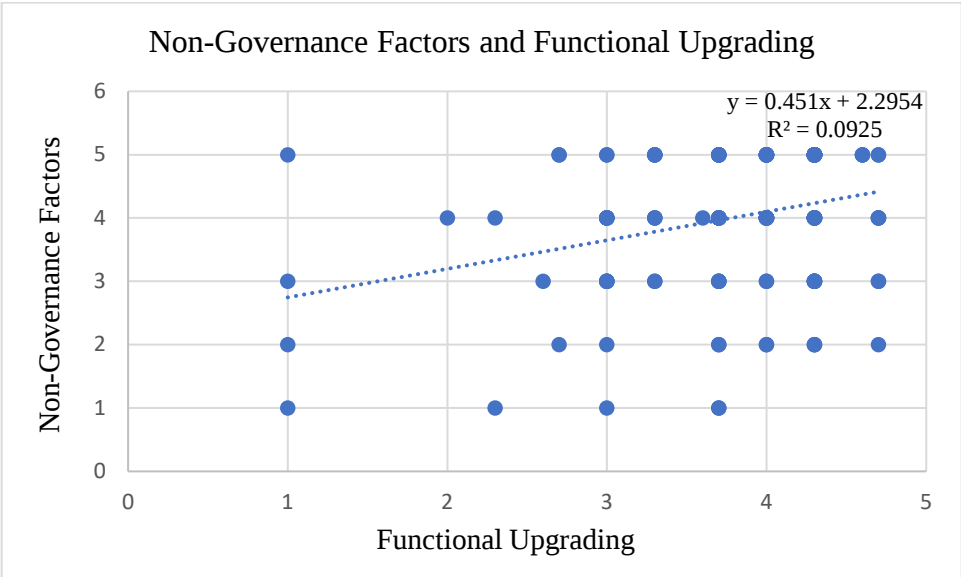
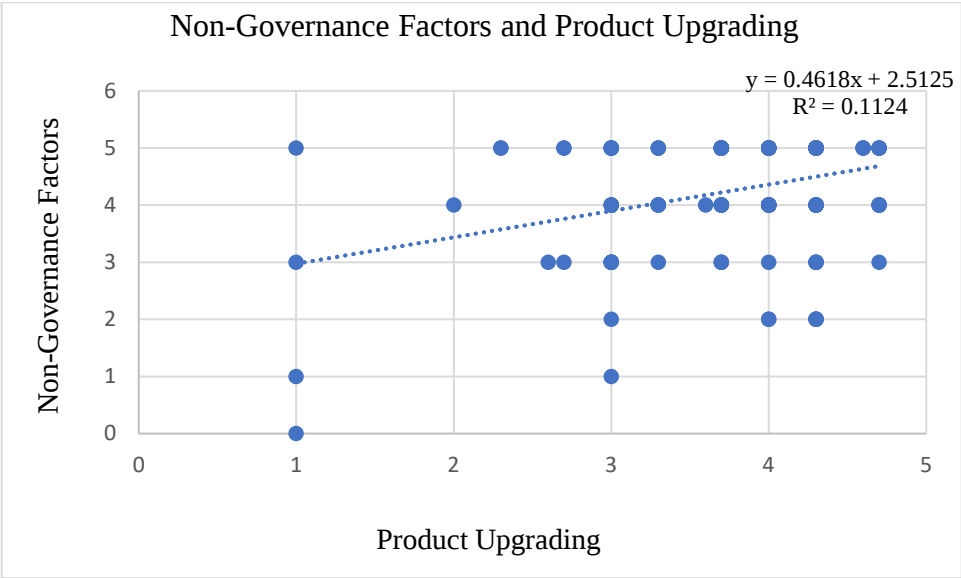
strongest correlation with the types of upgrading, with R values of 0.43, 0.32, 0.36, and 0.26 for Process, Product, Functional, and Chain Upgrading, respectively.

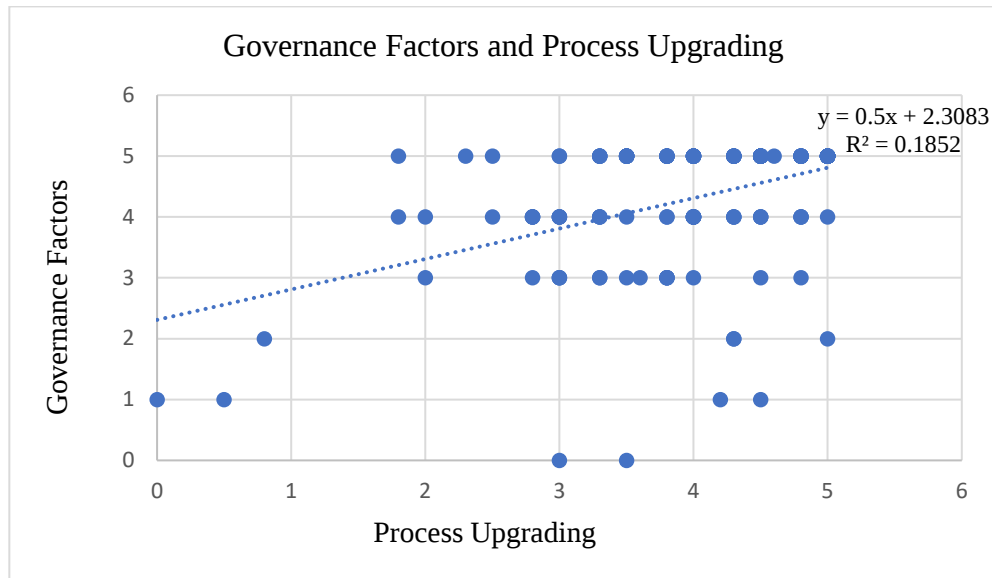
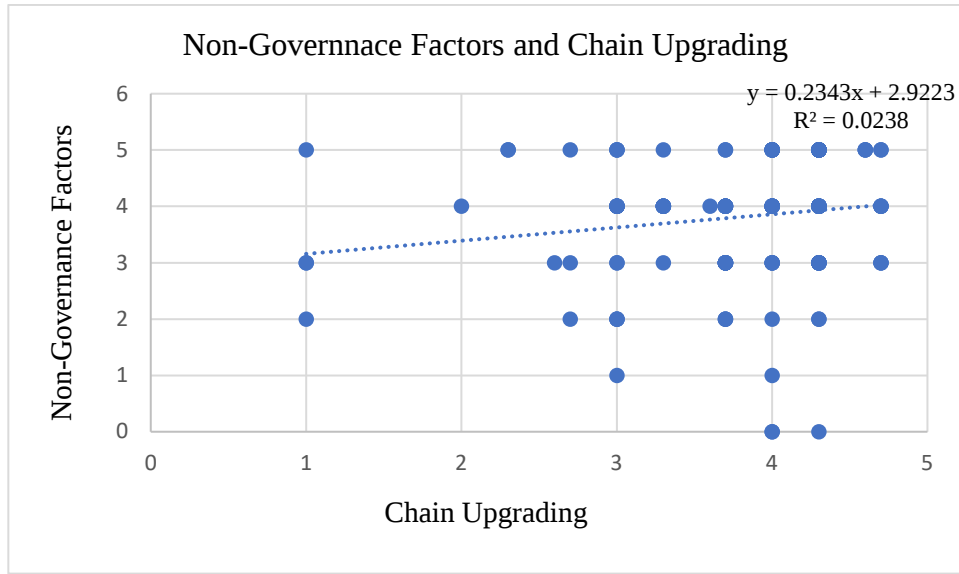
From the Simple Linear Regressions (see Figure 11 below), the strongest correlation was between Process Upgrading for Non-Governance and Governance Antecedents. For every unit, the increase in Non-Governance Antecedents (more skilled workforce, ability to compete, Process Upgrading, and more efficiency) increases by 0.53, while for Governance Antecedents like favourable regulatory environment, the increase is 0.50. The moderate correlation means the antecedents influence upgrading, but the effect is weak. Other factors, such as institutional capacity and weak direct relationships like training, could be considered. The model fitness reflected by R^2 is weak because of the complexity of the coffee value chain. Upgrading is a complex process and is affected by many other external factors beyond the control of firms, like external market conditions, export and import regulations, and technological changes.

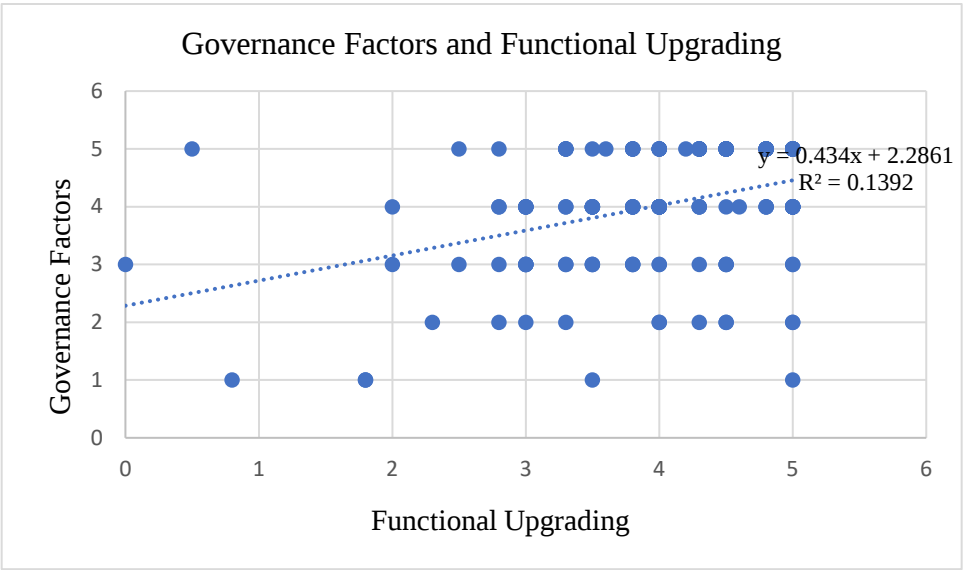
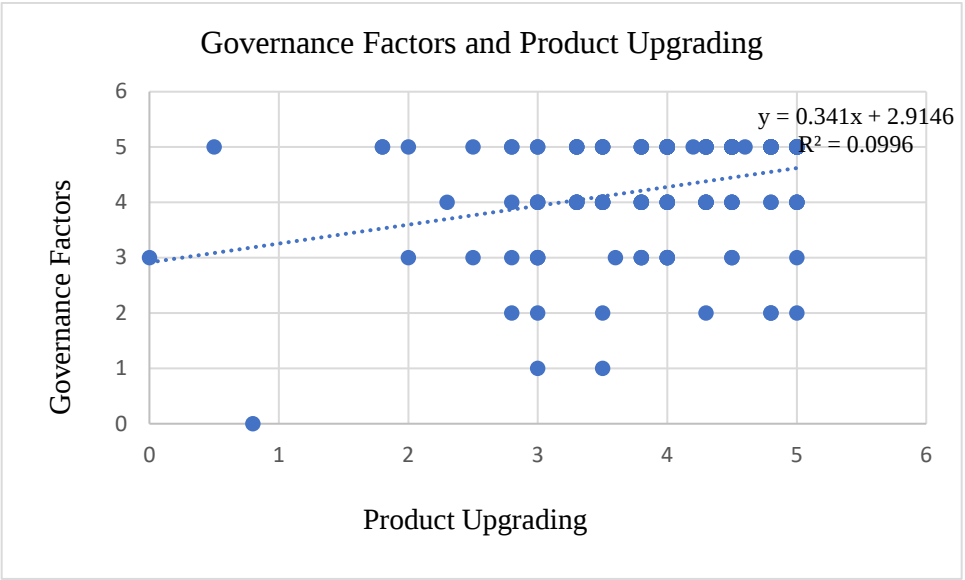
Figure 11

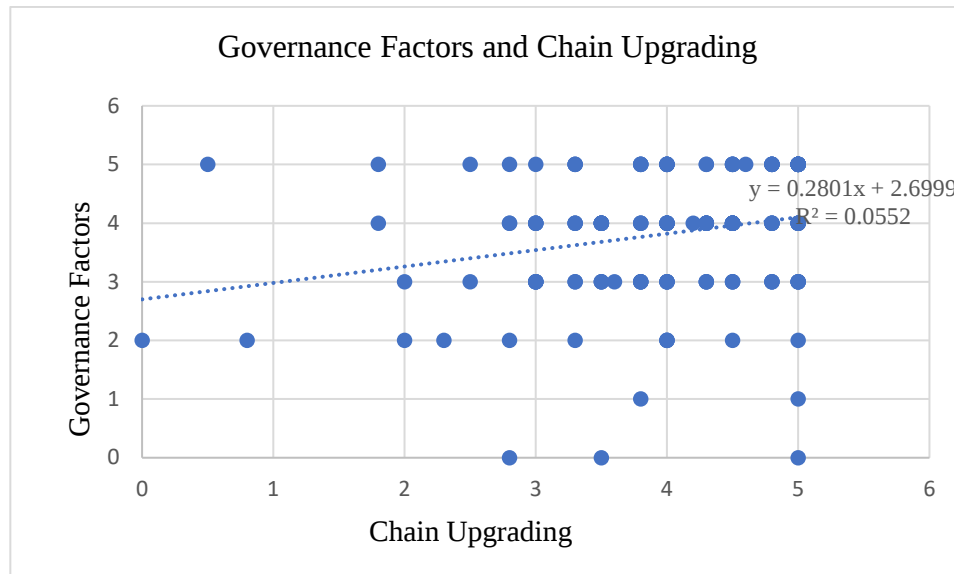
Linear Regressions for Antecedents and Types of Upgrading











The P-value of Spearman's Test is significant, while that of the Simple Linear Regression for the correlation between Non-Governance Antecedents and Chain Upgrading is insignificant. The correlation between Non-Governance Antecedents and Chain Upgrading has a P value greater than 0.05 and is, therefore, not significant. Based on Yadav et al., 2022) that highlighted the importance of institutional support for upgrading, this could imply that governance mechanisms which drive Chain Upgrading have not been measured. However, this study considers the P-value of Spearman's Order Correlation Test, considering it is a more appropriate test since the data were ordinal.

Research Hypothesis 1 that says, “The stakeholders' perceptions of an antecedent's favourability for upgrading are positively correlated to their favourability of attitudes towards upgrading”, is accepted.

Table 14

Spearman's Order Correlation Results between Antecedents and Types of Upgrading, and Simple Linear Regression Results

		Spearman's Test		Simple Linear Regression		
	Type of Upgrading	Spearman's Correlation Value Rs	Spearman's Test P Value	R ²	Beta	P Value
Non-Governance Antecedents	Process Upgrading	0.22	0.01	0.13	0.53	0.00
	Product Upgrading	0.22	0.00	0.11	0.46	0.00
	Functional Upgrading	0.27	0.00	0.09	0.45	0.00
	Chain Upgrading	0.22	0.01	0.02	0.23	0.59
Governance Antecedents	Process Upgrading	0.43	0.00	0.19	0.50	0.00
	Product Upgrading	0.32	0.00	0.10	0.34	0.00
	Functional Upgrading	0.36	0.00	0.14	0.43	0.00
	Chain Upgrading	0.26	0.00	0.06	0.28	0.04

4.2.3 Research Question 1b

Question 9 presented the means/types of value chain upgrading and asked respondents to indicate the extent to which they agreed that they facilitated upgrading. From the results summarised in Table 15 below, the majority of the respondents appeared to agree that the listed

types of upgrading facilitate upgrading with 82.7%, 81.5%, 73.5% and 66.9% for Process Upgrading, Product Upgrading, Functional Upgrading and Chain Upgrading, respectively. The Mode was ‘Agree Strongly’ for Process Upgrading, Product Upgrading and Functional Upgrading, while it was ‘Agree Moderately’ for Chain Upgrading. To check consensus and divergence of opinions, Means and Standard Deviations were run. Product Upgrading had the highest Mean of 4.27 while Chain Upgrading had the highest Standard Deviation of 1.11.

Table 15

Perceptions on Means/Types of Upgrading

	0	1	2	3	4	5	Median	Mean	St.Dev	Mode
Process Upgrading	1.3%	2.6%	2.6%	10.6%	23.8%	58.9%	5	4.3	1.08	Agree Strongly
Product Upgrading	0.7%	1.3%	4.6%	11.9%	26.5%	55.0%	5	4.27	1.01	Agree Strongly
Functional Upgrading	0%	3.3%	7.3%	15.9%	31.8%	41.7%	4	4.01	1.08	Agree Strongly
Chain Upgrading	2.0%	1.3%	7.3%	22.5%	36.4%	30.5%	4	3.81	1.11	Agree Moderately

Note: 0 =Disagree Strongly, 1=Disagree Moderately, 2=Disagree Slightly, 3=Agree Slightly, 4=Agree Moderately, 5=Agree Strongly

Hypothesis 2:

The Spearman’s Order correlations were run to examine the relationship between the type of upgrading and desired Sustainable Outcomes. There was a positive correlation between the type of upgrading and desired Sustainable Outcomes, as the Spearman’s Order Correlation R-Value (Rs) was positive as indicated in Table 16 below. Also, all relationships between the type of upgrading and desired Sustainable Outcomes were significant, with all values less than 0.05 ($P < 0.05$), as seen in the Table below. The implication is that the favourability of a type of upgrading increases as the desired outcome increases.

A Simple Linear Regression was also run, and shows that the highest increase is due to Product Upgrading for sustainable outcomes. For every unit increase in Process Upgrading, there is an increase of 0.29, 0.34 and 0.35 for economic, environmental and social outcomes, respectively. This could be because Product Upgrading transforms the final product for consumers. Product improvements, such as higher coffee quality, enable firms to demand higher prices, thereby increasing their financial returns. Whereas all the types of upgrading positively influence the sustainable outcomes and are statistically significant, the R^2 is weak, implying that there might be some other factors, like indirect influences like cost and accessibility to finance, and the presence of different situations depending on the node of the value chain.

Research Hypothesis 2, which says, “*The stakeholders' perceptions of favourability of a specific type of upgrading are positively correlated to their favourability of attitudes towards achieving desired outcomes*”, is accepted.

Table 16

Spearman's Order Correlation Results between Means of Types of Upgrading and Sustainable Outcomes, and Simple Linear Regression Results

		Spearman's Test		Simple Linear Regression		
	Sustainable Outcomes	Spearman's Correlation Value R2	Spearman's Test P Value	R ²	Beta	P Value
Process Upgrading	Economic	0.33	0.00	0.12	0.23	0.00
	Environmental	0.21	0.01	0.08	0.23	0.00
	Social	0.21	0.01	0.08	0.23	0.00
	Economic	0.29	0.00	0.16	0.29	0.00

Product Upgrading	Environmental	0.27	0.00	0.16	0.34	0.00
	Social	0.28	0.00	0.16	0.35	0.00
Functional Upgrading	Economic	0.35	0.00	0.12	0.13	0.00
	Environmental	0.25	0.00	0.07	0.21	0.01
	Social	0.25	0.00	0.07	0.21	0.01
Chain Upgrading	Economic	0.21	0.01	0.04	0.14	0.01
	Environmental	0.17	0.03	0.04	0.16	0.01
	Social	0.18	0.03	0.14	0.16	0.01

4.2.4 Research Question 1c

Question 10 presented the stakeholders of the coffee value chain and asked respondents to indicate the extent to which they agreed that they played an important role in influencing the upgrading process. From the results summarised in Table 17 below, the majority of the respondents appeared to agree that the listed stakeholders played an important role in influencing the upgrading process with 74.8%, 52.0%, 68.8.0%, 59.6%, 44.4%, 51.0% and 63.6% for State Agencies, Public Research Institutions, Coffee Unions, Private Research Institutions, Consulting Firms, and Financial Institutions, respectively. The mode for State Agencies, Public Research Institutions, Coffee Unions, and Financial Institutions was Agree Strongly; Development Partners was ‘Agree Moderately’ while Private Research Institutions and Consulting Firms was ‘Agree Slightly’. To check consensus and divergence of opinions, Means and Standard Deviations were run. State Agencies had the highest Mean of 4.09, while Public Research Institutions had the highest Standard Deviation of 1.49.

Table 17*Perceptions on Stakeholders' Influences on Upgrading*

	0	1	2	3	4	5	Median	Mean	St.Dev	Mode
Stage	2.0%	4.6%	4.0%	14.6%	21.2%	53.6%	5	4.09	1.26	Agree
Agencies										Strongly
Public	6.6%	6.6%	9.9%	25.2%	23.2%	28.5%	4	3.37	1.49	Agree
Research										Strongly
Institutions										
Coffee	2.6%	1.3%	6.0%	21.2%	29.1%	39.7%	4	3.92	1.18	Agree
Unions										Strongly
Development	4.0%	4.0%	5.3%	27.2%	31.1%	28.5%	4	3.63	1.28	Agree
Partners										Moderately
Private	6.6%	4.6%	10..6%	33.8%	28.5%	15.9%	3	3.21	1.33	Agree
Research										Slightly
Institutions										
Consulting	6.0%	2.0%	7.3%	33.8%	30.5%	20.5%	4	3.42	1.28	Agree
Firms										Slightly
Financial	4.6%	6.0%	6.0%	19.9%	24.5%	39.1%	4	3.71	1.43	Agree
Institutions										Strongly

Note: 0 =Disagree Strongly, 1=Disagree Moderately, 2=Disagree Slightly, 3=Agree Slightly, 4=Agree Moderately, 5=Agree Strongly

Hypothesis 3:

The Spearman's Order correlations were run to examine the relationship between Stakeholder influences and Upgrading. There was a positive correlation between Stakeholder influences and Upgrading, as indicated by Spearman's Order Correlation (Table 18 below) for the influence of Public Stakeholders on Product Upgrading, Private Stakeholders on Process, Product and Functional Upgrading. Also, the relationship between the Stakeholder influence and Upgrading for the influence of Public Stakeholders and Product Upgrading, influence of Private Stakeholders and Process, Product and Functional Upgrading was significant, where p-value for private stakeholders was less than 0.05 ($P < 0.05$), that is, 0.015, 0.001, 0.000 and 0.000. Results indicate that when the favourability of stakeholder influence increases, their attitude towards upgrading also increases. In this case, when the influence of Public Stakeholders increases, the

favourability of Product Upgrading also increases. Also, when the influence of private stakeholders increases, the favourability of Process, Product, and Functional Upgrading increases. However, this is not the case for the influence of public stakeholders and Process, Functional, and Chain Upgrading, and also for the influence of Private Stakeholders and Chain Upgrading, as the p-values were greater than 0.05 ($p > 0.05$), as seen in Table 18 below.

Based on the Simple Linear Regression run, the R^2 value is weak for both public and private stakeholders. However, their influence on upgrading is positive, except for Chain Upgrading, where it is almost nonexistent. The explanation could be that they may not be influencing upgrading directly, but may be doing so through non-profit organisations, associations or cooperatives of chain actors. In line with the significant correlations, the influence of Private Stakeholders is strongest with the Process, Product and Functional Upgrading, where their unit of influence increases by 0.33, 0.38 and 0.35, respectively.

Research Hypothesis 3, which says, *"The favourability of stakeholders' influence is positively correlated to the favourability of their attitudes towards achieving a type of upgrading"*, is accepted for the relationship between the influence of Public Stakeholders and Product Upgrading and the influence of Private Stakeholders and Process, Product and Functional Upgrading but rejected for the rest.

Table 18

Pearson's Correlation on Stakeholders' Influence and Types of Upgrading, and Simple Linear Regression Results

Stakeholders	Type of Upgrading	Pearson's Test		Simple Linear Regression		
		Pearson Correlation 2 Tailed	Level of Significance	R ²	Beta	P Value
Public Stakeholders	Process Upgrading	0.113	0.167	0.01	0.1	0.17
	Product Upgrading	0.198	0.015*	0.04	0.17	0.02
	Functional Upgrading	0.077	0.348	0.01	0.07	0.35
	Chain Upgrading	0.045	0.584	0.00	0.4	0.58
Private Stakeholders	Process Upgrading	0.276	0.001*	0.08	0.33	0.01
	Product Upgrading	0.339	0.000*	0.11	0.38	0.00
	Functional Upgrading	0.294	0.000*	0.09	0.35	0.00
	Chain Upgrading	0.100	0.222	0.01	0.12	0.222

4.2.5 Research Question 1d

Question 11 presented the types/means of upgrading as determinants of value chain upgrading on sustainable outcomes. Respondents were asked to rate the extent to which they agreed that they led to favourable, sustainable (economic, environmental, and social) outcomes. As shown in Table 19 below, the majority of the respondents appeared to agree that the listed types

of upgrading were determinants for achieving sustainable outcomes with 84.1%, 80.2.0%, 71.5%, and 68.3% for Process Upgrading, Product Upgrading, Functional Upgrading and Chain Upgrading, respectively. The mode was 'Agree Strongly' for Process Upgrading and Product Upgrading, while it was 'Agree Moderately' for Functional Upgrading and Chain Upgrading. To check consensus and divergence of opinions, Means and Standard Deviations were run. Process Upgrading had the highest Mean of 4.3, while Chain Upgrading had the highest Standard Deviation of 1.11.

Table 19

Perceptions on Types of Upgrading as Determinants for Sustainable Outcomes

	0	1	2	3	4	5	Median	Mean	St.Dev	Mode
Process Upgrading	1.3%	0.7%	2.0%	11.9%	31.1%	53.0%	5	4.3	0.96	Agree Strongly
Product Upgrading	1.3%	1.3%	1.3%	15.9%	27.2%	53.0%	5	4.25	1.01	Agree Strongly
Functional Upgrading	1.3%	6.6%	0%	20.5%	37.7%	33.8%	4	3.96	0.97	Agree Moderately
Chain Upgrading	2.6%	0.7%	7.9%	20.5%	41.1%	27.2%	4	3.28	1.11	Agree Moderately

Note: 0 =Disagree Strongly, 1=Disagree Moderately, 2=Disagree Slightly, 3=Agree Slightly, 4=Agree Moderately, 5=Agree Strongly

Hypothesis 4

There was a positive correlation between stakeholders' perceptions of the means/types of upgrading and their perceptions of Sustainable Outcomes, as indicated by a positive Spearman's Order Correlation R-Value (Rs) in Table 20 below. Also, all the relationships between the stakeholders' perceptions of means/types of upgrading favourability and their favourability of perception on Sustainable Outcomes were significant, where the p-value for all was less than 0.05 ($P < 0.05$), as seen in the Table 20 below. This means that when stakeholders' perceptions of the

types of upgrading become more favourable, their perceptions of Sustainable Outcomes also become more favourable.

Results from the Simple Linear Regression showed that the model fitted the analysis, as indicated by the positive R^2 values. The highest was with Process Upgrading. Overall, the increase per unit in Process Upgrading was also the highest, leading to increases in economic, environmental, and social outcomes of 0.34, 0.32, and 0.32, respectively. Process Upgrading directly determines sustainable outcomes by positively impacting the coffee value chain, improving efficiency through better employee conditions and resource utilisation, which in turn leads to higher productivity. Also, based on the results, stakeholders prioritise economic outcomes over environmental and social ones, which have the highest correlation across all types of upgrading. Whereas stakeholders' perceptions of upgrading are positive, they may not fully appreciate that it will lead to economic, environmental, and social outcomes due to other contextual factors like weak institutions (De Marchi & Alford, 2021), a neoliberal regime (Syafrian, 2019), disconnection with the global economy (Newman, Page, Rand, Shimeles, Söderbom, & Tarp, 2020), and inaccessibility to new markets (Fernandez-Stark, Bamber, Gereffi, 2012).

Research Hypothesis 4, *The stakeholders' perceptions of types of upgrading favourability is positively correlated with their favourability of perception on economic, environmental, and social outcomes*", is accepted.

Table 20

Spearman's Order Correlation between Types of Upgrading as Determinants and Sustainable Outcomes, and Simple Linear Regression Results

Influence	Sustainable Outcomes	Spearman's Correlation		Simple Linear Regression		
		Spearman's Correlation Value R2	Spearman's Test P Value	R ²	Beta	P Value
Process	Economic	0.33	0.00	0.45	0.34	0.00
Upgrading	Environmental	0.22	0.01	0.37	0.32	0.00
	Social	0.26	0.01	0.36	0.32	0.00
Product	Economic	0.31	0.00	0.36	0.26	0.00
Upgrading	Environmental	0.24	0.00	0.29	0.25	0.00
	Social	0.22	0.00	0.29	0.25	0.00
Functional	Economic	0.29	0.00	0.29	0.22	0.00
Upgrading	Environmental	0.22	0.00	0.26	0.24	0.01
	Social	0.28	0.00	0.27	0.24	0.01
Chain	Economic	0.30	0.00	0.25	0.17	0.02
Upgrading	Environmental	0.28	0.00	0.20	0.15	0.02
	Social	0.28	0.00	0.20	0.15	0.01

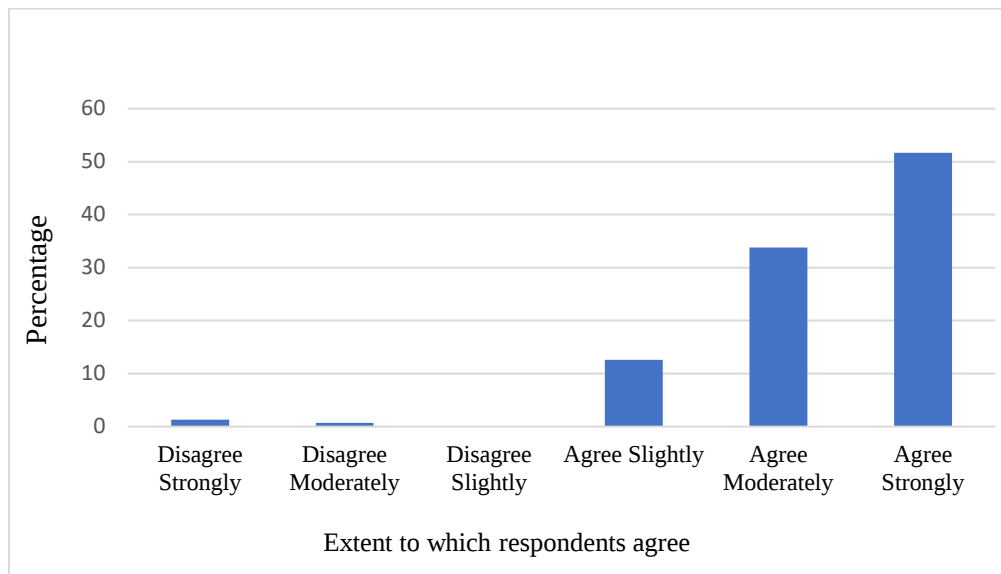
4.2.6 Research Question 1e

Question 12 presented the relationship of the antecedents, determinants and sustainable outcomes, and respondents were asked to rate the extent to which they agreed that the more favourable the coffee value chain upgrading factors, the more favourable the determinants and the more favourable the outcomes leading to upscaling. From the summary of the results presented in Figure 12 below, the majority of the respondents appeared to agree that the more favourable the coffee value chain upgrading factors, the more favourable the determinants and the more

favourable the outcomes leading to upscaling, with 85.5%. The mode was 'Agree Strongly' while the median was 5.

Figure 12

Perceptions on the Relationship of Antecedents, Determinants and Sustainable Outcomes for Upgrading



Hypothesis 5

The Spearman's Order Correlations were run to examine the relationship between stakeholders' perceptions of the favourability of antecedents of value chain upgrading, which was positively correlated to their favourability of determinants and outcomes. As shown in Table 21 below, there was a positive and significant relationship between stakeholders' perceptions of favourability of antecedents of value chain upgrading and their favourability of determinants, $R_s = 0.30$, $n=151$, $p<0.01$ and the relationship between stakeholders' perceptions of favourability of antecedents of value chain upgrading and their favourability of outcomes, $R_s = 0.44$, $n=151$, $p<0.01$ which stakeholders' perceptions of favourability of antecedents of value chain upgrading, Favourable Sustainable Influence and Sustainable Outcomes also increase.

From the Simple Linear Regression run, R^2 value was positive, indicating that the model fitted the analysis. It was also observed that for every unit increase in value chain upgrading factors, favourable sustainable determinants and sustainable outcomes increased by 0.41 and 0.49, respectively. Furthermore, for a unit increase in the favourable sustainable determinants, there was a 0.46 increase in sustainable outcomes. The strongest relationship between antecedents of upgrading and sustainable outcomes could imply that firm-level capabilities are relatively strong, as they do not necessarily require external determinants to intervene. The weak relationship between antecedents and determinants of upgrading could be attributed to external factors like demand and policy frameworks, while the relationship between determinants and outcomes of upgrading could be attributed to the direct relationship between the two variables.

Hypothesis 5, which says, “*The stakeholders' favourability of value chain upgrading is positively correlated to their favourability of determinants and outcomes*”, is accepted.

Table 21

Spearman's Order Correlation on Antecedents, Determinants and Sustainable Outcomes for Upscaling, and Simple Linear Regression Results

		Spearman's Correlation		Simple Linear Regression		
		Spearman's Correlation Value Rs	Spearman's Test P Value	R²	Beta	P Value
Value Chain Upgrading Antecedents	Favourable Sustainable Influence	0.30	0.00	0.16	0.41	0.00
	Sustainable Outcomes	0.44	0.00	0.26	0.49	0.00
Favourable Sustainable Influence	Sustainable Outcomes	0.44	0.00	0.23	0.46	0.00

*p=>0.01

4.2.7 Research Question 1f

Question 13 presented the sustainable outcomes, and respondents were asked to rate the extent to which they agreed that the sustainable outcomes led to upscaling. The summary of the results is as in Table 22 below. For the Economic Sustainable Outcomes, the majority of the respondents appeared to agree that the listed sustainable outcomes led to upscaling with 74.2%, 84.1%, 82.1%, 90.8%, 83.4%, and 78.1% for Value Distribution, Supplier Internationalisation, Innovation, Export Intensity, Financial Performance and Production Growth, respectively. The median for Value Distribution and Innovation was 4, while it was 5 for Supplier Internationalisation, Export Intensity, Financial Performance and Production Growth. The mode was 'Agree Strongly' for all of them.

For the Environmental Sustainable Outcomes, the majority of respondents appeared to agree that the listed sustainable outcomes led to upscaling, with percentages of 60.3%, 68.2%, and 63.6% for Regional and Economic Development, Knowledge Spill Over, and Reduced Waste, respectively. The median was 4 for Regional and Economic Development, Knowledge Spill Over and Reduced Waste. The mode was 'Agree Strongly' for Regional and Economic Development and Reduced Waste, and Agree Moderately for Knowledge Spill Over.

For the Social Sustainable Outcomes, the majority of respondents appeared to agree that the listed sustainable outcomes led to upscaling with 87.4%, 89.4% and 87.4% for Division of Labour/Specialisation, Competence and Employee Wellbeing, respectively. The median was 5 for the Divisions of Labour/Specialisation, Competence and Employee Wellbeing, and the mode was 'Agree Strongly' for all of them. To check consensus and divergence of opinions, Means and Standard Deviations were run and the results are as reflected below.

Table 22*Perceptions on Sustainable Outcomes*

	0	1	2	3	4	5	Median	Mean	St.Dev	Mode
Economic										
Value Distribution	3.3%	0.7%	6.6%	15.2%	33.1%	41.1%	4	3.97	1.19	Agree Strongly
Supplier Internationalisation	1.3%	2.0%	2.6%	9.9%	33.8%	50.3%	5	4.24	1.02	Agree Strongly
Innovation	1.3%	0.7%	2.0%	13.9%	35.1%	47.0%	4	4.22	0.96	Agree Strongly
Export Intensity	1.3%	1.3%	4.0%	12.6%	29.8%	51.0%	5	4.21	1.04	Agree Strongly
Financial Performance	0.7%	1.3%	1.3%	13.2%	29.8%	53.6%	5	4.31	0.93	Agree Strongly
Production Growth	1.3%	1.3%	0.7%	18.5%	23.8%	54.3%	5	4.25	1.01	Agree Strongly
Environmental										
Regional and Economic Development	2.0%	1.3%	7.3%	29.1%	29.8%	30.5%	4	3..75	1.13	Agree Strongly
Knowledge Spillover	2.6%	2.0%	4.6%	22.5%	35.1%	33.1%	4	3.85	1.15	Agree Moderately
Reduced Waste	2.6%	1.3%	5.3%	27.2%	31.1%	32.5%	4	3.8	1.15	Agree Strongly
Social										
Division of Labour/Specialisation	1.3%	2.0%	1.3%	7.9%	35.1%	52.3%	5	4.3	0.90	Agree Strongly
Competence	1.3%	2.6%	1.3%	5.3%	26.5%	62.9%	5	4.42	1.01	Agree Strongly
Employee Wellbeing	1.3%	1.3%	1.3%	8.6%	23.8%	63.6%	5	4.43	0.96	Agree Strongly

Note: 0 =Disagree Strongly, 1=Disagree Moderately, 2=Disagree Slightly, 3=Agree Slightly, 4=Agree Moderately, 5=Agree Strongly

Hypothesis 6:

The Spearman's Order Correlations were run to examine the relationship between stakeholders' perceptions of economic, environmental, and their favourability of attitudes towards upscaling. There was a positive correlation between stakeholders' perceptions of economic and environmental factors and their attitudes towards upscaling, as indicated by Spearman's Order Correlation R Value (Rs) in Table 23 below. Also, the relationship between stakeholders'

perceptions of economic, environmental, and social factors and their attitudes towards upscaling for economic sustainability was significant, with the p-value for private stakeholders being less than 0.05 ($P < 0.05$). This meant that when stakeholders' perceptions of economic, environmental, and social factors increased, their favourable attitudes towards upscaling also increased. However, this was not the case for stakeholders' perceptions of environmental and social outcomes, as a P-value was greater than 0.05 ($P > 0.05$) as shown in Table 23 below.

From the Simple Linear Regression run, the R^2 value was positive, implying that the model fitted the analysis. It was also observed that for every unit increase in economic, environmental, and social outcomes, there was a corresponding increase in favourability of attitudes towards upscaling by 0.39, 0.17, and 0.17, respectively, as indicated by the beta values. The increase was highest in economic sustainable outcomes since economic outcomes of upgrading value chains are directly associated with scaling (Islam & Polonsky, 2020), productivity (Pahl & Timmer, 2020) and profitability (Islam & Polonsky, 2020) necessary for upscaling, unlike environmental and social outcomes evident after a long period and are difficult to quantify (Hartmann, 2012).

Research Hypothesis 6 that says, “*The stakeholders' perceptions of economic, environmental, and social outcomes favourability are positively correlated to their favourability of attitudes towards upscaling*”, is accepted for the relationship between stakeholders' perceptions of economic outcomes and their favourability of attitudes towards upscaling for the economic sustainable outcomes but rejected for relationship between stakeholders' perceptions for environmental, and social outcomes, and their favourability of attitudes towards upscaling.

Table 23

Spearman's Order Correlation between Sustainable Outcomes and Upscaling, and Simple Linear Regression Results

		Spearman's Correlation		Simple Linear Regression		
	Sustainable Outcomes	Spearman's Correlation Value Rs	Spearman's Test P Value	R ²	Beta	P Value
Favourability of attitudes towards upscaling	Economic	0.39	0.00	0.10	0.39	0.00
	Environmental	0.14	0.09	0.03	0.17	0.43
	Social	0.18	0.08	0.03	0.17	0.41

Based on the above qualitative analysis, the summary for the decisions on the hypotheses is as shown in Table 24 below.

Table 24

Summary of Decisions on Hypotheses

Hypothesis	Decision
1	"The stakeholders' perceptions of an antecedent's favourability for upgrading are positively correlated to their favourability of attitudes towards upgrading", was accepted.
2	"The stakeholders' perceptions of favourability of a specific type of upgrading are positively correlated to their favourability of attitudes towards achieving desired outcomes", was accepted.

3	"The favourability of stakeholders' influence is positively correlated to the favourability of their attitudes towards achieving a type of upgrading", was accepted for the relationship between the influence of Public Stakeholders and Product Upgrading and the influence of Private Stakeholders and Process, Product and Functional Upgrading but was rejected for the relationship between Public Stakeholders and Process, Functional and Chain upgrading; and the relationship between Private Stakeholders and Chain Upgrading.
4	"The stakeholders' perceptions of types of upgrading favourability is positively correlated with their favourability of perception on economic, environmental, and social outcomes", was accepted.
5	"The stakeholders' favourability of value chain upgrading is positively correlated to their favourability of determinants and outcomes", was accepted.
6	"The stakeholders' perceptions of economic, environmental, and social outcomes favourability are positively correlated to their favourability of attitudes towards upscaling", was accepted for the relationship between favourability of stakeholders' perceptions of economic outcomes and their favourability of attitudes towards upscaling but rejected for the for the relationship between stakeholders' perceptions for environmental, and social outcomes and their favourabiility towards upscaling.

4.3 Results from the Qualitative Strand

The Interview Guide had 12 questions, where the first six questions, questions 1 to 6, were on demographic information for the participants, while the rest, questions 7 to 12, were open ended questions based on the research questions of the study.

4.3.1 Demographic Findings of the Qualitative Data

As summarised in Table 25, the participants' demographic information for the qualitative method was divided into the following categories: gender, age, education level, marital status, employment status and stakeholder chain activity.

- **Gender:** Question 1 was on Gender, where females were roughly a fifth of the participants, with 20% and males 80%.

- **Age:** Question 2 presented the age categories. 13.3% were aged 18-28 years, 40% aged 29-38 years, 33.3% aged 39-48 years, 6.7% aged 49-58 years, and 6.7% aged 59-70 years.
- **Education Level:** Question 3 asked participants to indicate their educational level. A majority of 80% held a Bachelors/Undergraduate or a Masters degree.
- **Marital Status:** Question 4 was on the participants' marital status. 26.7% were single, while 73.3% were married.
- **Employment Status:** Question 5 was on the employment status. 13.3% indicated Other, 33.3% were Professional Employees, 26.7% were Top Executive or Manager, and 26.7% Owners of a Company/Business.
- **Stakeholder Activity:** Question 6 asked participants to indicate the type of stakeholder where 6.7% were State Agencies, 6.7% were from Public Research Institutions, 26.7% were Coffee Union, 6.7% were Development Partners, 6.7% were from Private Research Institution, 33.3% were Consulting Firms, 6.7% were Finance Institutions, and 6.7% were Transporters, Shippers, Logistics, Warehousing and Collateral Management.

Table 25

Demographic Information for Qualitative Data

Item	Category	Frequency	Percentage
Gender	Female	3	20.0%
	Male	12	80.0%
Age	18-28	2	13.3%
	29-38	6	40.0%
	39-48	5	33.3%
	49-58	1	6.7%
	59-70	1	6.7%
Education	Prefer not to say	0	0%
	*Others	3	20%

	Bachelors/Undergraduate Level	6	40.0%
	Masters Level	6	40.0%
	PhD/Doctoral Level	0	0%
Marital Status	Prefer not to say	0	0%
	Single	4	26.7%
	Married	11	73.3%
Employment	Prefer not to say	0	0%
	Other	2	13.3%
	Housewife	0	0%
	Student	0	0%
	Retired	0	0%
	Office/Clerical Staff	0	0%
	Civil Servant	0	0%
	Professional Employee	5	33.3%
	Top Executive or Manager	4	26.7%
	Owner of a Company/Business	4	26.7%
Stakeholder Activity	State Agency	1	6.7%
	Public Research Institution	1	6.7%
	Coffee Union	4	26.7%
	Development Partner	1	6.7%
	Private Research Institution	1	6.7%
	Consulting Firm	5	33.3%
	Finance Institution	1	6.7%
	Transporters, Shippers, Logistics, Warehousing and Collateral Management	1	6.7%

*Others under Education included: Some Primary Education, Primary Leaving Exam, Uganda Certificate of Education (O-Levels), Uganda Advanced Certificate of Education (A-Levels), Diploma and Trade School.

4.3.2 Research Question 1a: Antecedents that Favour Upgrading Value Chains

To extract meaning from the raw qualitative data, the data were coded, and themes and sub-themes were identified, as observed by Boyatzis (1998). The findings are presented below. Participants were asked about antecedents that enhance the upgrading of the coffee value chains in Uganda. The responses were as reflected in Table 26 below. The findings revealed that the most mentioned upgrading antecedents of the Non-Governance Antecedents were Marketing Capability

(knowledge, skills and capabilities, affordable capital, equipment, marketing capabilities) and GVC Composition (Cooperatives and Associations). In contrast, the most mentioned Governance Antecedents were Vertical Governance (Price and Control and International Marketing) and Internal Governance (local domestic market).

Table 26*Antecedents of Upgrading*

Antecedents of Upgrading Themes	Number of Highlights for Theme	Sub-Themes	Number of highlights for Sub Theme	Highlights of Quotes
Non -Governance Antecedents /Capabilities – Marketing Capability				
Knowledge	22	- Quality (Product-coffee, Process - agronomic practices, and seedlings)	8	“The middlemen that connect the farmer to the market also lack this knowledge as they focus on the profit margins they make. For example, some buy coffee from Congo and mix it with coffee from Uganda, not knowing that it affects the taste”. “Control measures against pests and diseases are necessary if we are to realise pests and diseases. This negates the value because the produced coffee will have defects which will affect the overall price”. “The type of seedlings planted, that is planting material. There are several varieties “Good quality seedlings are key in upgrading because the value chain starts from the bottom”. “The current challenges, like low production and productivity for the farmers and quality issues, there are no extension services to tell the farmers what to do”.

				“Quality is critical. Where does the farmer get the knowledge? He/she must get it from those who know, like UCDA and others like local advisers. Are they affordable? At what cost?” “Access to quality seedlings, because most times the farmers have land but they don’t have seedlings”. “Afforestation encourages farmers to plant trees for rain, which will enable the coffee to be more productive”.
		-Market awareness	5	“They are beginning to appreciate that it is an internationally sought-after beverage and appreciate that what they do at the farm affects what the final coffee consumed tastes like. This disconnection is why we have failed to appreciate what we can do to earn more from coffee”. “Awareness of markets and value for the product, like coffee” “Farmers are only producing and selling to local agents or traders, and they are not exporting beyond the borders”. “Specifications required in the market. Are they communicable to the producer, and can they benefit from the extra effort?”

				“There is also a need for the market to speak directly to the producers. All this would increase the appreciation of what the consumer wants through direct interaction with them”.
		-Value addition	2	“Depending on the node of the value chain, one factor is knowledge on value chain activity. Someone should be able to know that they can roast, process, and grind coffee, if one doesn’t have the knowledge, it undermines their ability to upgrade or even to consider doing it”. “Value of upgrading the process itself”.
		-Farm management	5	“Coffee farm management, training extension workers seems not to be a priority in the ministry. I think there is a need to consider coffee farming as one of the priority areas so that more is invested in the industry if we are to reap more benefits as a family. We need to train more people in coffee management activities. There is no kind of coffee training information of any kind at universities. Extra training in the coffee training through higher institutions of learning would play a big role in the upgrading process. For instance, in Kenya, production is much more compared to Ugandan coffee farms because of better farm management”. “Soil management is key to the farmers. Farmers need to understand more about the soil they have at the farm for instance through research and soil testing”. “Good agronomic practices that directly affect the

				quality like land preparation, desirable deep pits, manuring, good spacing, pest and where I work, we focus on farmers, look at how to improve good agricultural practices around the farm, climate resilience production, supporting the business ecosystem, organising them through cooperatives that represent their interests, then we try to create an enabling policy environment and market access.”
		-Relational Knowledge	1	“UCDA has made a lot of effort to supporting the coffee industry and the coffee value chain is one of the most organised. However, a lot more like advocacy, lobbying and positioning are need. In the olden days, the coffee stakeholders in Buganda influenced politics because they had a big voice”.
Skills	13	-Technical Upgrading and processing skills	6	“For example, there can be targeted programs towards certain nodes of the value chain like providing wet mills to encourage the processing of coffee to reduce several malpractices. The programs can be focused on drying, processing, roasting etc depending on the needs assessment Political will must be there to create an environment that supports the chain actors to upgrade” “Talent, how do we get good talent? It is hard to find the right talent when doing value addition and requires various technical skills. One needs to have to pay people above average if one is to get certain key skills. Most people cannot even afford them”. “Also, the private sector does not require complexity of skills because the education system is the supplier of knowledge and skills so when it is lacking then

				there is a skill and talent challenge for one to innovate and upgrade”. “Skills and expertise form the chain actors. The more the process technical skills the easier it will be to upgrade. This is still largely lacking.” “Expertise is also important. UCDA has made some efforts to train barristers for example knowing how to determine the cup scores, differentiating the types of coffees etc. Upgrading is difficult if we have not built the local capacity of experts as far as brewing coffee is concerned”. “Support from the government agencies. They need constant support to educate them with skills, encourage them and provide an enabling environment to upgrade. Its constant engagement with the value chain actors is key to upgrading”.
		-Farming skills	4	“With the same methods of farming but on different types of soils, there is a difference in the yields”. “Agronomist practices or methods of farming. It is wide and cuts across many practices like spacing, pruning, etc”. “Good quality standards like farm planting and off the farm planting”. “Quality in terms of the seedlings because there are mostly old trees that are more than 20 or 30 years old and need to be replaced. This problem is often

				addressed with rehabilitation programs which can be embedded in the upgrading”.
		-Supply chain optimisation	1	“The supply of raw material or production of coffee is another factor. Here I am not looking at the volumes, I am talking about the consistency because when you start upgrading, consistency is important. The challenge here is that there is a lot of inconsistency in supply in quality and this affects upgrading. This can be solved by improved agronomic practices. For instance if irrigation was introduced, coffee production and flowering should not be seasonal instead of relying on natural rainfall. Breeding that allows flowering throughout the year”.
		-Business skills	2	“The stage at which the coffee is sold. For instance some people sell at flowering stage, ripened, after drying, or after the hasks have been removed. All these fetch different prices”. “Other factors may include equipping chain actors with the necessary skills in food production through incubations organised by CURAD, URII and MUK, e.g. local cooperatives in Kyotera. More effective methods of production to reduce the costs of production will facilitate upgrading. Because of inefficiency in the production process, our products are more expensive than the imported ones so it is really difficult to compete”.

Finance/Capital/Loans)	13	-Access	5	“It is difficult to upgrade without access to finance because quality goes with finance” “The first factor I would mention is access to financing and cost of capital. The availability of finance and capital is not the main problem but the cost of capital acquisition which is very expensive. Banks prefer to lend to the government, not individual players because the collateral security is challenging to have”. “Access to finance, many times chain actors are limited by capital. The challenge is that the finance available by commercial banks has very high interest rates”. “Availability of affordable finance to facilitate the processes of coffee value chains upgrading” “Also, not many people can easily access such financial opportunities”.
		-Type of loans-commercial	4	“What’s needed is reliable financing that is tailored to upgrade not grants because grants usually have the mind of those writing the grant. For example, it is a consultant, sometimes they are disconnected from the producer or the beneficiary because they have a thought of what they think the problem is and sometimes when it is not the real problem”. “The other factor is the nature of loans in Uganda. The nature of the loans is commercial in Uganda and these are not sustainable. The producers need collateral to get access to funding. Most of the

				producers have land that is not titled so it can't be used to get adequate funding". "Most producers can only get micro loans which are not enough to get machinery. Also, producers are required to be paid back within a short-term period yet they have to wait for 6 months to sell their coffee. Sometimes cooperatives get foreign financing but most of it is contract financing from the buyer. They have contracts from the buyer so when they are not buying the financing ends. This money can't be used for long-term upgrading processes so at some point the producer is left on their own. As a country, we are milking where we are not feeding. We need to look at financing because financing is very key to business". "Availability of patient capital is also important especially for research and development. In Uganda most of the capital is 5 years and below and cheap. Very few financial institutions like Uganda Development Bank and African Development Bank are willing to give capital beyond the 5 years".
		-Cost	4	"Financing. Despite the fact that an entity is making a profit, they need financing which has been very challenging in Uganda because our local coffee entrepreneurs don't have security to borrow. Finance is very expensive". "Financial incentives like government funding, grants, and loans on low interest".

				“The challenge is that the finance available by commercial banks has very high interest”. “The cost of investment is key and it is inversely proportional to upgrading”.
Equipment	7	-Availability	5	“Secondly, we have to have the supply of coffee processing and drying materials like pulper and raised beds, if we are to enhance value addition”. “Availability of equipment on the market, the coffee value chain is quite complex and equipment is expensive. For instance, roasters are very few and the smallest size is USD 5000”. “There is a need for coffee labs and coffee roasteries are made available across the country especially where coffee is grown. It is very difficult to think of upgrading when the facilities like roasteries, labs are in the city. The local roasteries if increased would increase the local consumption of the coffee because the farmers grow the coffee but they do not drink the coffee then the producers can value the coffee they produce. With this, then they would automatically care about the quality they produce”. “Few processing plants. They are not well spread out throughout the country so farmers end up selling to middle men who sell to exporters in Kampala and in that chain, we lose quality. A lot of malpractices take place when the traders or middle men are handling the coffee”.

		-Cost	2	“Storage of the coffee. The type of storage facility affects the quality of the coffee if the standards are not of the desired level. Transportation also affects the quality of the coffee so begets upgrading efforts if not proper”. “All these have a cost at the level of the farmers” “.....and equipment is expensive. For instance, roasters are very few and the smallest size is 5000 dollars”
Marketing Capabilities	5	-Nationalistic marketing	1	“The government has a role to play in terms of regulation so that when coffee leaves Uganda to an international market it is a Ugandan coffee. If the people along the value chain appreciate that it is the name of the coffee that is at stake, then they will start to have a patriotic attachment to the process. They will want to know what we can do to ensure that their coffee stands out”.
		-Direct connection	1	“Middle men removal because they compromise the coffee quality due to their malpractices. It would be good if farmers were directly linked to the market”.
		-Market policies	1	“One of the biggest issues is accessing the market. Once the market is accessed, for them to fulfil the market becomes a problem because of the limiting policies in plac, quantity required and meeting the contractual regulations”.
		-Demand for processed coffee	2	“Availability of markets for processed coffee. If we upgraded, where would the coffee go? Who would buy the coffee?”. “Ofcourse, the market preferences. 90% of the coffee

				is being exported. However, government is promoting the consumption of coffee and a lot of funding has been directed in the process”.
Non - Governance Antecedents /Capabilities – GVC Composition				
Cooperatives and Associations	5	-Organisation of cooperatives and associations	3	“Another way is organising the farmers into processing and marketing associations rather than keeping farmers organised under multinational companies. We could take on the approach of Rwanda where the cooperative movement is in charge of the coffee. This is also like the NUCAFE model. This would enable them to be vertically integrated and would end up being involved in all economic activities throughout the value chain”. “Strengthening farmers' cooperatives that work with growers' cooperative societies, not farmer groups like educating them on agronomic practices, and providing incentives like tools, hoes, and other equipment”. “Then there is the need to support the key stakeholders by helping them to form cooperatives, find affordable finance for value addition and also facilitate bilateral discussions in trade”.

		Type of producers unaware of coffee use	1	“First of all, it is good to look at why upgrading was not done earlier in the first place. The origin of the upgrading is a challenge. For instance how was the crop introduced because the chain actors do not appreciate upgrading since they were initially handling a product whose importance was not relevant to them. It was introduced as a cash crop for selling not for consumption. There is a disconnection between what the crop is and does to the end consumer and the producer. Both of them focused on different things, beverage and money, respectively. Most producers do not even know what it is used for, for example having grown on a coffee farm, as a child I only knew it as an ingredient for making bullets. There is misinformation and even an information gap on what coffee can actually be used for. If one doesn't know much about it there is no reason why someone would add value to it. However, the narrative has started to change as the government of Uganda through Uganda Coffee Development Authority (UCDA), Non-Governmental Organisations (NGOs) and other private agencies that are starting to work with the producers”.
Knowledge		Perception of cooperative members	1	“This knowledge might not be readily available because when interacting with members of the cooperative they think upgrading is very difficult and can't be done. What will make them understand and appreciate every effort they put in to be reflected in the price or profit margin they get? So, it is important that they understand that if it doesn't happen automatically and should therefore be patient and know that the positive effects come with time”

Governance Antecedents/Coordination - Vertical Governance				
Power and Control	5	-Multinational/ foreigner control	2	“The bulk of the coffee we produce and export is in the hands of the foreigners. Like 90% of the coffee exported is handled by the top 10 multinationals that are in control of all the processes like purchasing from the farmers, pre- processing, that is, wet and dry processing, to get to produce the green beans. This is the FAQ. This tells us that we do not have much control in upgrading because almost all of it is in the hands of the foreigners who prefer to export it as green beans”. “The farmers have no control over the coffee in the value chain”. “They exercise very little control over the coffee and get the least amount of money, a very small proportion of the final retail price of the coffee. I think they take about less than 5% of the final retail price which tells us how very unfair the price is. The farmers do everything at production level and their control ends at production. The rest of the control after that is in the hands of middlemen, traders or agents of multinationals that are exporters”.
		-Farmer value chain ownership	2	“In terms of upgrading it, I think Uganda should support the NUCAFE model that gives farmers more control over the coffee - a union of coffee farmers associations and enterprises which promotes the farmer ownership model and empowers them in exercising more control and retaining more value”. “Value chain ownership. In my understanding,

				farmers do not own the value chain and they don't look at the coffee value chain as a business".
		-Alternative income	1	"It is important that farmers have an alternative income because coffee harvesting is done in two seasons so in between they need an alternative source of income to meet domestic challenges"
International Marketing	5	-Branding	2	"Marketing because if you process and you don't market you end up losing money. Many coffee lovers associate their choice with the brand marketing is very important". "Branding and packaging are also key because when done locally on small scale, it is difficult to enjoy the economies of scale".
		-Complexity of international market	1	"Understanding the complexity of international trade and global markets (How do we position ourselves as a country, how do you organise yourself as a sector or industry, that is at high-level policy). For a long time, we did not know that Ugandan coffee can be geographically marked and it was possible to get a premium coffee as long as it was branded Ugandan since we are the origin of robusta coffee. Then we have floating and fixed prices, that is, fluctuating prices based on the dollar fluctuation which is difficult to control. In my view, countries have evolved from doing conventional policies like industry policies to innovation policies, generally how businesses position themselves because SMEs can never be enough to create the desired employment".

		-Market requirements	2	“Market and the market requirements because for any business, market is the limiting factor. Where do we take the coffee and what does the market want? We are mainly net exporters because we only consume about 3-4% of our coffee so the first thing to look at is where to take the remaining coffee and what to do to get it there. “Anything that is done must be able to fulfil the need of where the coffee is going. Looking at the various components that the market wants is what enhances upgrading. It starts from the farmer where it is produced. As you know, it comes from small holder farmers so farmers need to look at growing coffee as a business and know what exactly the market wants and then be able to translate that to their day-to-day practices”.
Governance Antecedents /Coordination - Internal Governance				
Local Domestic Market	4	Value addition	1	“Another way is processing the coffee in Uganda by adding value. There are many ways of doing this. Foreign farmers deliberately want to export the coffee in the raw form to the company headquarters abroad. Usually the subsidiaries export to their holding or mother companies say in the UK, Germany, Switzerland etc for secondary processing. They blend it, process it, repackage it, retail it in the forms they desire to maximise their benefits. We need to promote domestic roasting and processing because of some of the coffee exported and is interestingly imported back into the country ready for consumption as instant coffee and Ugandans are

				buying it. So processing and roasting coffee domestically would help fetch more value”.
		Good local prices	2	“The third is access to good prices. This enhances the value chain for example coffee exported has a different price from that which has value added. The maximum one can upgrade and this can only be done to the coffee beans and the buyers do not want processed coffee. They want raw beans. Some entrepreneurs are trying to process coffee and sell it but they can not compete on the market. I have some that have tried to export processed coffee to supermarkets in a few countries through collaborations but it is more on the social aspect side because they are not competing. This can be solved by creating demand locally through policies to protect the farmers like banning big brands and creating markets locally”. “Lucrative market prices where farm gate prices attract traders”.
		-Increase local consumption	1	“The other one is increasing local consumption. Again, it needs to be spearheaded by the government by creating awareness on coffee drinking. Although coffee drinking is mainly associated with the middle class of the country, it is possible to improve the awareness that it can be consumed by anyone. For instance, in Ethiopia, coffee is produced on large scale and consumed at the same time and this has promoted upgrading at a lower level especially at village levels, where it is roasted, ground, packed and sold to the local market as an alternative to the international market”.

4.3.2.1 Knowledge

Interviewees emphasised the importance of understanding quality in relation to the coffee product. Several participants expressed the importance of knowledge of quality coffee, which was summarised by Interviewee 11, “Quality is critical...”.

Others mentioned the need for improvement in the process, like better agronomic practices at a farming level, as highlighted by Interviewee 9,

“My observation is that the solution is for extension workers to continue doing their job of teaching coffee farmers on how to manage their crops, how to grow and harvest so that they can improve their agronomic practices”.

Interviewee 9 further stressed the quality of seedlings,

“Good quality seedlings are key in upgrading because the value chain starts from the bottom of the value chain”.

The importance of knowledge on upgrading practices was also highlighted, as seen by Interviewee 5,

“Depending on the node of the value chain, one factor is knowledge on value chain activity. Someone should be able to know that they can roast, process, and grind coffee, if one doesn’t have the knowledge, it undermines their ability to upgrade or even to consider doing it”.

Others observed knowledge on what is required in the market as reflected by Interviewee 11,

“Knowledge on specifications required in the market. Are they communicable to the producer, and can they benefit from the extra effort?”.

Knowledge in Farm Management was also mentioned by Interviewee 8, who seemed to think that coffee farm management and training extension workers seem not to be a priority in the ministry. He remarked,

“I think there is a need to consider coffee farming as one of the priority areas so that more is invested in the industry if we are to reap more benefits. We need to train more people in coffee management activities. There is no kind of coffee training information of any kind

at universities. Extra training in the coffee training through higher institutions of learning would play a big role in the upgrading process”.

Knowledge on soil management practices was also mentioned by Interviewee 8, who stated that,

“Soil management is key to the farmers. Farmers need to understand more about the soil they have at the farm for instance through research and soil testing with the use of soil testing”.

Relational knowledge was another knowledge-related factor observed by Interviewee 15 who stated that ,

“UCDA has made a lot of effort to supporting the coffee industry and the coffee value chain is one of the most organised. However, a lot more like advocacy, lobbying and positioning. In the olden days, the coffee stakeholders in Buganda influenced politics because they had a big voice”.

4.3.2.2 Skills

The second most common factor was skills (technical, farming, and business) and having the ability to optimise the supply chain. Interviewee 4 observed the importance of business skills,

“The stage at which the coffee is sold. For instance, some people sell at the flowering stage, ripened, after drying, or after the hawks have been removed. All these fetch different prices.”.

The importance of technical upgrading skills for innovation was highlighted as summarised by Interviewee 6 ,

“The private sector does not require the complexity of skills because the education system is the supplier of knowledge and skills so when it is lacking, then there is a skill and talent challenge for one to innovate and upgrade”.

He also stressed the skill of Supply Chain Optimisation by dealing with the challenges,

“How you are able to optimise and deal with the supply chain bottlenecks which are so many like a) How do I get the coffee, buy my own trucks or outsource b) Do I rely on aggregators to bring the coffee then c) There are quality issues since they only care about profits”.

4.3.2.3 Finance/Capital/ Loans

Finance/capital/ loans was the next most common, and participants highlighted issues of its nature, accessibility, and cost. The importance of accessibility to finance was discussed by Interviewee 1,

“It is difficult to upgrade without access to finance because quality goes with finance. What is needed is reliable financing that is tailored to upgrade, not grants, because grants usually have the mind of those writing the grant”.

He further stated the limitation of upgrading by the type of loans,

“The other factor is the nature of loans in Uganda. The nature of the loans is commercial in Uganda, and they are not sustainable. The producers need collateral to get access to funding. Most of the producers have land that is not titled, so it cannot be used to get adequate funding”.

Interviewee 5, in addition, shared how the cost of finance negatively affects the upgrading process,

“The cost of investment is key, and it is inversely proportional to upgrading”.

4.3.2.4 Equipment

Availability and cost of equipment were also highlighted as important upgrading factors.

Interviewee 5 further stated how equipment is expensive and not available.

“Availability of equipment on the market, the coffee value chain is quite complex and equipment is expensive”.

The same sentiment was echoed by Interviewee 9, who explained that the equipment is not well spread out,

“Few processing plants. They are not well spread out throughout the country so farmers end up selling to middle men who sell to exporters in Kampala and in that chain, we lose quality.

4.3.2.5 Marketing Capabilities

Another factor was Marketing Capabilities, where issues of nationalistic marketing, such as marketing coffee as a Ugandan product, the direct connection between farmers and the market,

market policies, and demand for processed coffee were mentioned. Interviewee 1 discussed how it is marketed on the international market,

“The government has a role to play in terms of regulation so that when coffee leaves Uganda to an international market it is a Ugandan coffee. If the people along the value chain appreciate that the name of the coffee is at stake, then they will start to have a patriotic attachment to the process. They will want to know what we can do to ensure that their coffee stands out.”

On the other hand, Interviewee 9 was concerned about the disconnection between farmers and the market,

“It would be good if farmers were directly linked to the market *to enhance traceability*”.

Furthermore, Interviewee 10 stressed the ability to access the market and the limiting policies, saying,

“One of the biggest issues is accessing the market. Once the market is accessed, for them to fulfil the market becomes a problem because of the limiting policies in place and quantity and meeting the contractual problems”.

On the contrary, Interviewee 13 expressed concern about the availability of the market and wondered where the processed coffee would go since importers prefer unprocessed green beans.

“Availability of markets for processed coffee. If we upgraded, where would the coffee go? Who would buy the coffee?”.

4.3.2.6 Cooperatives and Associations

Participants also stated that cooperatives and associations were another factor that enhanced upgrading. Interviewee 2 explained that organising farmers into associations was important,

“Another way is organising the farmers into processing and marketing associations rather than keeping farmers organised under multinational companies. We could take on the approach of Rwanda, where the cooperative movement is in charge of the coffee. This is also like the NUCAFE model. This would enable them to be vertically integrated and would end up being involved in all economic activities throughout the value chain”.

Similarly, Interviewee 7 also stated that strengthening farmers cooperatives,

“Strengthening farmers' cooperatives that work with growers' cooperative society, not farmer groups like educating them on agronomic practices, and providing incentives like tools, hoes, and other equipment”.

Interviewee 10 expressed that supporting the formation of cooperatives,

“Then there is the need to support the key stakeholders by helping them to form cooperatives, find affordable finance for value addition and also facilitate bilateral discussions in trade”.

Interviewee 1, on the other hand, highlighted that producers do not know much about coffee and how it can be exploited as seen in his comment,

“Most producers do not even know what it is used for, for example having grown on a coffee farm, as a child I only knew it as an ingredient for making bullets. There is misinformation and even an information gap on what coffee can actually be used for. If one doesn't know much about it there is no reason why someone would add value to it. However, the narrative has started to change as the government of Uganda through Uganda Coffee Development Authority (UCDA), Non Governmental Organisations (NGOs) and other private agencies that are starting to work with the producers”.

Further still, Interviewee 11 highlighted that the perception of cooperative members was important,

“This knowledge might not be readily available because when interacting with members of the cooperative, they think it is very difficult and can't be done. What will make them understand and appreciate every effort they put in to be reflected in the price or profit margin they get? So, it is important that they understand that if it doesn't happen automatically and should therefore be patient and know that the positive effects come with time”.

4.3.2.7 Power and Control

The next factor was Power and Control, where multinationals were mentioned to have the most control in the coffee industry, limited farmer value ownership and the need for alternative sources of income for chain actors. Interviewee 2 discussed how most of the coffee is controlled by foreign firms,

“The bulk of the coffee we produce and export is in the hands of the foreigners. Like 90% of the coffee exported is handled by the top 10 multinationals that are in control of all the processes, like purchasing from the farmers, pre-processing, and wet and dry processing, to produce the green beans. This is the FAQ. This tells us that we do not have much control over upgrading it because almost all of it is in the hands of the foreigners who prefer to export it as green beans”.

Interviewee 2 further stressed how farmers have limited control of the coffee value chain,

“The farmers have no control over the coffee in the value chain. They exercise very little control over the coffee and get the least amount of money, a very small proportion of the final retail price of the coffee. I think they take about less than 5% of the final retail price which tells us how very unfair the price is. The farmers do everything at production level and their control ends at production. The rest of the control after that is in the hands of middlemen, traders or agents of multinationals that are exporters”.

Interviewee 8 added the same sentiments on value chain ownership,

“In my understanding, farmers do not own the value chain, and they do not look at the coffee value chain as a business”.

He later suggested how having alternative sources of income could help them improve their economic power,

“It is important that farmers have an alternative income because coffee harvesting is done in two seasons, so in between they need an alternative source of income to meet domestic challenges”.

4.3.2.8 International Marketing

Another common factor mentioned was International Marketing, where issues of branding, complexity of the international market and requirements were highlighted. This was highlighted by Interviewee 4,

“Marketing because if you process and you don’t market, you end up losing money. Many coffee lovers associate their choice with the brand marketing is very important”.

He further explained the importance of branding and packaging and how it is difficult to enjoy economies of scale if one focuses on the small local market,

“Branding and packaging are also key because when done locally on small scale, it is difficult to enjoy the economies of scale”.

It was, however, noted that understanding the international market is important and this was stressed by Interviewee 6,

“Understanding the complexity of international trade and global markets how do we position ourselves as a country, how do you organise yourself as a sector or industry, that is at high-level policy”.

Interviewee 10 added that understanding the market requirements was equally important,

“Market and the market requirements, because for any business, the market is the limiting factor”.

4.3.2.9 Local Domestic Market

The Local Domestic Market was another factor highlighted in the responses. This was in terms of value addition through processing, reasonable prices and increased local consumption.

Interviewee 2 stated that,

“Another way is processing the coffee in Uganda by adding value. There are many ways of doing this. We need to promote domestic roasting and processing because some of the coffee exported is interestingly imported back into the country ready for consumption as instant coffee and Ugandans are buying it. So processing and roasting coffee domestically would help fetch more value”.

On the other hand, Interviewee 3 also noted that low prices were necessary to stimulate local demand. He remarked,

“The third is access to good prices. This enhances the value chain, for example, coffee exported has a different price from that which has value added. The best they can do is to upgrade and this can only be done to the coffee beans and the buyers do not want processed coffee. They want raw beans. Some entrepreneurs are trying to process coffee and sell it but they can not compete on the market. I have some that have tried to export processed coffee to supermarkets in a few countries through collaborations but it is more on the social aspect side because they are not competing. This can be solved by creating demand locally through policies to protect the farmers like banning big brands and creating markets locally”.

Interviewee 7, similarly stated that,

“Lucrative market prices where farm gate prices attract traders were key”.

Interviewee 10 explained that increasing local consumption would help develop the local market for the coffee. He commented,

“The other one is increasing local consumption. Again, it needs to be spearheaded by the government by creating awareness on coffee drinking. Although coffee drinking is mainly associated with the middle class of the country, it is possible to improve the awareness that it can be consumed by anyone. For instance, in Ethiopia, coffee is produced on a large scale and consumed at the same time and this has promoted upgrading at a lower level especially at village levels, where it is roasted, ground, packed and sold to the local market as an alternative to the international market”.

4.3.3 Research Question 1b: Common and Least Type of Upgrading

In line with Research Question 1b), participants were asked which type of upgrading was the most common and which one was the least. The responses were as reflected and summarised in Tables 27 and 28 below. For the most common type of upgrading, 12 mentioned Process Upgrading, 2 Functional Upgrading and 1 Product Upgrading. On the other hand, 1 mentioned Process Upgrading as the least common, 6 Functional Upgrading, 2 Product Upgrading and 5 Chain Upgrading.

Table 27*Most Common Types of Upscaling*

Means/Type of Upgrading	Number of Highlights	
	Most Common	Least Common
Process Upgrading	12	1
Functional Upgrading	2	6
Product Upgrading	1	2
Chain Upgrading	0	5

4.3.3.1 Most Common Means/Type of Upgrading

Table 28

Reasons for being Most Common Means/Type of Upgrading

Means/Type of Upgrading	Reason	Number of highlights	Highlights of Quotes
Process	Most upgrading activities and chain players at production level	10	“I think process upgrading is the most common because I am looking at the production process here. If there are better methods and equipment, then value will be added. For instance, in Brazil they have machinery for harvesting on their commercial farms. Others would be fermentation tanks, processing equipment like pulpers. If you have an acre of coffee do you have a high capacity pulper? Processes done manually are not efficient in terms of time. The value and quality are compromised if the equipment does not match the production”. “I think process upgrading is most common in Uganda at the moment since most activities are at the bottom of the value chain in the production stage. However, it was more of a Functional Upgrading about 8-years ago because of the incentives that were being provided to those that wanted to add value. In recent years, upgrading has mainly been at farmers' level because of the government initiatives to support upgrading at production level. I would say that the least is Product Upgrading. We are not yet at that level. The number of products produced are still very limited since the country mainly produces and exports green beans”. “..... most common is Process Upgrading because it's driven by multiple partners. The government has invested a lot to increase production like fertilisers, better

			seedlings, and rehabilitation programs. It is asking farmers to stamp their coffee so that they can produce more. Training helps them change and makes them want to do better. This is a production level”. “First Process Upgrading at production level. Here government supports chain actors through UCDA and this has pushed very many people into value addition activities at the production level like development financing, consolidation of producers by helping them establish washing centers etc. It’s at the production level that most activities of Process Upgrading are taking place which is typical to our coffee value chain in Uganda”. “I think Process Upgrading is most common because value chain machinery for upgrading fundamentally depends on the quality as it starts off the upgrading process and this begins at the production level”. “I would say Process Upgrading because farmers are now engaged in value addition and processing activities like wet washing and big companies have set up some central washing centers. The big companies have also started roasting like the cooperatives, they have bigger machines so I look at it as a process that is moving into Product Upgrading. As a country we shall be exporting more ground coffee”. “The most common upgrading type in Uganda is Process Upgrading for instance we see the use of local processes at production level. At production level we integrate coffee and other crops, help each other, use manure like husks, labor where all family members participate. Farmers hull the coffee after it has been dried and then the middle man buys from them. The middlemen then take it to Kampala and sell it to the exporters after grading it. The dried coffee beans are what is exported. Some have some machines to roast, grind, and pack. A bit of it is exported in ground form like UGACOF”. “I think the most common is Process Upgrading. Most chain actors are involved
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			and continue doing the same thing but are always trying to do things differently or in a better way”. “In my view Process Upgrading is the most common in the Ugandan coffee value chain because every chain actor is involved in some kind of activity which is a process of the coffee value chain despite the stage in the value chain”. “I think the Process Upgrading is the most common in terms of transforming the coffee to increase the value in the processes. This is mainly at the bottom of the value chain”.
	Process Upgrading activities reinforced by Institutions like Rainforest Alliance and the government	2	“I think the most common is Process Upgrading where we get seedlings from nurseries which would end up with a lot of diseases to use clones which are more resistant to pests and diseases. They grow uniformly and grow fast. We have also seen increased use of fertilisers with the support of UCDA and Operation Wealth Creation. There are also a number of NGOs with fertiliser platforms and companies that are providing blends of fertilisers specifically for coffee on the market. Process Upgrading is mainly taking place at the production level”. “I think the Process Upgrading if it means like certification, voluntarily upholding sustainable standards promoted by Institutions like Rainforest Alliance. Some are also promoted by big retailers like Starbucks and Nescafe. Helping farmers to vertically integrate and adding value in terms of management systems. Secondly Product Upgrading would guarantee more value”.
Functional	Most upgrading activities and chain players at production level	2	“I think it is Functional Upgrading because over 90% coffee is still at production based for export. Coffee consumption in Uganda is only at 5%. We are seeing all the investment in upgrading at the farm level. We are starting to see multinationals set up facilities like solar dryers and other investments in coffee washing processing machines, more coffee hullers, de-stoners, grading with the view that once the green beans are ready, they are ready to be exported. We

			are still producing mainly for export and the production is increasing. We are also seeing some sprinkling of cafes but not so much”. “In my view, I think Functional Upgrading at our level is where we are involved. For instance, when a variety is promoted, or planting from cuttings, not seeds, or wilt-resistant seedlings, high yielding results expected should entice farmers to buy into the technology that gives more benefits. Based on small household producers, the methods are completely different from those that are growing at a large scale. The planting method, harvesting methods, storage methods, drying and generally the processing methods. I think buying into the technology being promoted can bring a difference in the quality and production as a whole”.
Product	Product improvement efforts	1	“I think the most common is Product Upgrading which is aiming at improving the product through quality although the system is lacking. For example, if you talk about traceability. Only 10% of the coffee is traceable because when the coffee is too liberalised, most exporters are buying through middle men so there is no farmer organisation and systems. The systems for tracing the origin of the coffee are lacking. For instance, the European Union wants to help countries to develop a block chain traceability system for the country. Based on the discussions that are ongoing, the worry is how is this going to be done when organised farmer groups are lacking”.

With reference to Table 28 above, the most common means or types of upgrading were Process Upgrading, with 12 respondents indicating that this was because most activities and chain actors are at the production stage of the value chain, as summarised by Interviewee 4,

“I think Process Upgrading is most common in Uganda at the moment since most activities are at the bottom of the value chain in the production stage”.

Interviewee 5 added that this is because most players are mainly active at the production stage where the government has massively invested,

“Process Upgrading because it’s driven by multiple partners. The government has invested a lot to increase production like fertilisers, better seedlings, and rehabilitation programs. It is asking farmers to stamp their coffee so that they can produce more. Training helps them change and makes them want to do better. This is at production level”.

Interviewee 3 explained how methods and equipment at the production stage could lead to value addition,

“I think Process Upgrading is the most common because I am looking at the production process here. If there are better methods and equipment, then value will be added. For instance, in Brazil, they have machinery for harvesting on their commercial farms. Others would be fermentation tanks, processing equipment like pulpers. If you have an acre of coffee, do you have a high capacity pulper? Processes done manually are not efficient in terms of time. The value and quality are compromised if the equipment does not match the production”.

In the same light, Interviewee 7 highlighted that upgrading starts at the production stage,

“I think Process Upgrading is most common because value chain machinery for upgrading fundamentally depends on the quality as it starts off the upgrading process and this begins at the production level”.

Some respondents associated the activities at the production stage with Functional Upgrading instead and viewed it as the most common, with their reason being the same as those who said Process Upgrading was the most common, since many of the upgrading activities were still at the production stage, as Interviewee 1 remarked,

“I think it is Functional Upgrading because over 90% coffee is still at production based for export”.

With the same view, Interviewee 11 also argued that most activities are still at production level,

“In my view, I think Functional Upgrading at our level is where we are involved. For instance, when a variety is promoted, or planting from cuttings, not seeds, or wilt-resistant seedlings, high yielding results expected should entice farmers to buy into the technology that gives more benefits”.

4.3.3.2 Least Common Means/Type of Upgrading

Table 29

Least Common Means/Type of Upgrading

Type/Means of Upgrading	Reason	Number of highlights	Highlights of Quotes
Functional	Lack of skills	6	“I think the least is Functional Upgrading because it is a bit challenging because I know farmers into coffee but involved in other value chains like bananas. It is difficult to get into tea. It would be on a case by case basis. Some farmers have vertically integrated along the value chain” “Not common is Functional Upgrading which is almost like Product Upgrading because they lack the skills and knowledge to do so. Farmers are limited to production levels. They either sell dried coffee (kiboko) or coffee that has been picked” “Functional Upgrading is the least because it requires huge investment and high skills because it is expensive and what I tend to see is outsourcing it because it is service-driven. It is largely affected by lack of financing and lack of skills. Money available is development financing which is tied to specific programs like market accessibility, value addition following the government agenda, and the need to get money to private business investors for big business. The government has tried to reduce the cost of finance through some interventions like the Agriculture Development Fund, UDB. But who accesses that financial support? SMEs have challenges accessing this finance because they lack the institutional capacity. They ask for documents that they do not have. Secondly, other financial institutions like Microfinance companies and relevant banks get the money and give it to the farmer but have to add on their own interest because they also want

			to make some money. Alternatively, they too offer such financial services. The government is trying to work with some companies to see how they can get financial assistance to the intended beneficiaries who are farmers like NCASH”. “The least is Functional Upgrading because it requires a lot of expertise which is still lacking” “The least type of upgrading is Functional Upgrading in my view because people do not have the capability of moving to other value chains. If there was more support from say from the government, maybe it would be easier. I think more skills and technical know-how is needed to enable people to venture into new chains. This would call for more information flow and knowledge sharing amongst the various chain actors” “Functional upgrading is still very low in terms of adding value to the raw coffee and transforming it to various final products because of the skill set and sophisticated processes needed. However, it is there on a very small scale”.
Chain	Lack of technology and skills	1	“Chain Upgrading is the least because as a young organisation and small producers lack technology and skills. Technology is still lagging. That is why the advanced countries have the capacity to import the green beans, process them further and produce coffee for consumption”.
	Lack of equipment	1	“The least is Chain Upgrading because it is not easy since we still lack facilities and equipment like tractors to a large extent”.
	Lack of raw materials based on region	1	“The least is Chain Upgrading. Not many chain actors are able to change to something else if one thing doesn’t work out. It is generally not yet. Coffee is grown in clusters. There is some overlap but it is limited. One region specialising in say tea because of the specific favourable factors so it is difficult to decide to do coffee because the environment is not favourable or raw materials are simply not there”.

	Market entry challenges	1	“In my view Chain Upgrading is the least because market entry into new markets is still a big challenge”.
	Still low but it is happening	1	“Chain Upgrading is still very low but i think it is going to start happening. For instance, in Mbale, the coffee chain activities are being fused with the coffee industry where coffee is traced and the traceability of how it is being grown and processed is being disclosed to the public. So from this traceability”.
Product	Not many final products produced	1	“I think the least is Product Upgrading because in my view, the final product is to a large extent limited to few products that are produced at the end of the value chain of coffee. We produce and mainly export unprocessed coffee. There are very few chain actors that produce the actual products like cosmetics, and other products from coffee etc for production. Many other items can be produced”.
Process	Leads to product and demands lots of knowledge	2	“The least type of upgrading at this level is Process Upgrading because in my view it leads to a product”. “Process Upgrading is tedious and demands a lot of knowledge and technical input which is not available and is out of reach for the majority of farmers”.

Table 29 above presents the type of upgrading respondents perceive as the least common. Functional Upgrading was seen as the least common by 6 respondents because of the sophisticated upgrading processes involved and the skill set required to manage them, as summarised by Interviewee 14,

“Functional Upgrading is still very low in terms of adding value to the raw coffee and transforming it to various final products because of the skill set and sophisticated processes needed. However, it is there on a very small scale”.

Interviewee 5, with the same view,

“Not common is Functional Upgrading, which is almost like Product Upgrading because they lack the skills and knowledge to do so. Farmers are limited to production levels”.

The next least-highlighted type/means of upgrading was Chain Upgrading, mentioned by 5 respondents. Lack of technology and skills was one of the reasons, as articulated by Interviewee 3,

“Chain Upgrading is the least because young organisations and small producers lack technology and skills. Technology is still lagging. That is why the advanced countries have the capacity to import the green beans, process them further and produce coffee for consumption”.

Interviewee 9 stressed the lack of facilities and equipment,

“The least is Chain Upgrading because it is not easy since we still lack facilities and equipment like tractors to a large extent”.

At the same time, Interviewee 10 stated that it was due to market entry challenges,

“In my view Chain Upgrading is the least because market entry into new markets is still a big challenge”.

Interviewee 4 observed it is due to lack of raw materials in specific regions as reflected in his response,

“The least is Chain Upgrading. Not many chain actors are able to change to something else if one thing doesn’t work out. It is generally not yet. Coffee is grown in clusters. There is

some overlap, but it is limited. One region specialising in, say, tea because of the specific favourable factors, so it is difficult to decide to opt for coffee because the environment is not favourable or raw materials are simply not there”.

On the other hand, although Interviewee 15 observed that Chain Upgrading is the least, they acknowledged that it is starting to happen,

“Chain Upgrading is still very low, but I think it is going to start happening. For instance, in Mbale, the coffee chain activities are being fused with the coffee industry where coffee is traced and the traceability of how it is being grown and processed is being disclosed to the public. So, from this, traceability of the coffee being produced and sold is most likely to be the next thing”.

4.3.4 Research Question 1c: Main Stakeholders in the Coffee Industry in Uganda

In line with Research Question 1c, interviewees were asked about the main stakeholders in the Ugandan coffee industry. The responses were as reflected in Table 30 below, wherein 14 mentioned the government as the main stakeholder, 12 Producers/Farmers, 10 Traders/Exporters, 6 Development Partners, 5 Cooperatives and Unions, 5 Research Institutions, 4 Finance Institutions, and 1 for Processors, Foreign Investors, Commercial Nursery Operators, Input Suppliers, Safes, and Logistic/Transporting Companies.

Table 30*Main Stakeholders in the Coffee Value Chain in Uganda*

Type of Stakeholder	Number of Highlights
Government	14
Producers/Farmers	12
Traders/Exporters	10
Development Partners	6
Cooperatives and Unions	5
Research Institutions	5
Finance Institutions	4
Processors	1
Foreign Investors	1
Commercial Nursery Operators	1
Input Suppliers	1
Cafes	1
Logistic and Transport Companies	1

Participants were also asked to identify which of the mentioned stakeholders they believed significantly influenced the upgrading of the coffee value chain in Uganda, and their responses are presented in Table 31 below.

Table 31*Most Influential Stakeholders to the Upgrading Process*

Type of Stakeholders	Number of Highlights	Reason	Number of Highlights	Highlights
Producers/ Farmers	9	-Produce the coffee	5	“I think currently the key stakeholders are the producers. If they don’t produce, then there is no coffee and the quality of the coffee produced determines the price of the coffee itself. “Farmers, without the farmers we cannot have the coffee. The main stakeholders in the coffee value chain are farmers, then”. “Farmers are the source of the coffee so anything done with the coffee will have to start with them and then willing to cooperate. They must be willing to give information that is required to create that database. For instance, with the Coffee Act, not so much consultation was done although I think it is a good Act. When it came out, it was interpreted politically by the Members of Parliament especial y those from opposition. The implementation has also been interfered with by politics. For any intervention, the producers who are the majority should be consulted”. “The main stakeholder in my view is the primary producer because if he doesn’t produce, there is nothing to process and upgrade. We need to go back to the producers and the market they sell to at their level. We need to understand who they sell to, whether the local producers, exporters, or big companies. All the other chain actors depend on what was produced at the bottom of the value chain”.

				“The producers or farmers are the main stakeholders. We can't ignore the farmers. Farmers need to be integrated into the upgrading processes because that is where the whole process begins, they need to be linked to digitalisation because it is an important tool”
		-Determine the quality	4	“Farmers significantly influence upgrading process by producing quality products, traders by communicating to the producers what exactly is on the market, and government by facilitating the whole upgrading process by implementing favourable policies”. “I think farmers are most important, if they don't practice what is required to upgrade, then no upgrading will take place. Farmers determine overall quality of the coffee in the whole chain”. “Main stakeholders important in upgrading the coffee chain are the farmers playing a big role because they start from planting to selling the hulled coffee. They are very instrumental in this long journey. Farmers determine the quality unlike processors. If it is not good, it results in lower returns. For instance, if a farmer uses poor methods, then the quality will not be good like use of poor pesticides that affects the quality of coffee which affects the final tastes. All agronomic activities greatly affect the quality. The farmer plays a very big role”. “.....the producers, the farmers, because they set the specifications of the product. They give us the product”
Government	7	-Regulator	5	“.....Then Government through UCDA has equally played a big role as a regulator in ensuring quality. For example, there is a license fee which is charged for every container that is to leave the country. Samples are taken and quality is checked. This has forced exporters to ensure that they meet the minimum standards

				and the regulation is starting to trickle down to the producers because buyers are beginning to reject coffee that is of bad quality”. “The other one that determines the upgrading process is government through UCDA because they give licenses, they are in charge of grading, and regulate the value addition process. They give a go ahead to add value and upgrade. Also, the government as a whole including URA with taxes. If the government promotes domestic processing, they can negotiate with the importing countries, upgrading would be a lot easier. Political will is therefore important. It makes a difference in countries e.g. the recent coffee saga on the proposed monopoly coffee buyer”. “The Government through UCDA which is the regulatory body and also controls the standards for the value chain. For instance, if you are to operate a nursery bed, then you have to have certification from UCDA”. “The regulation agency in this case UCDA because the government is running the National Development Plan 3 which is focusing on value addition. Government agencies for the next 5 years from 2021 are focusing on value addition. Therefore, UCDA has purposely planned to procure value addition equipment each financial year which is being distributed to farmers free of charge. This is a significant input in value addition and upgrading. UCDA is distributing equipment like solar dryers, wet mills, and drying trays, to help them add value that will be distributed to farmers free of charge. Also, it is training cooperatives on how to use this equipment”. “Government as a stakeholder is also key for instance the UCDA who play the regulatory role creating a favourable environment”.
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		-Sets policies	1	“Government policies - all the stakeholders including the private sector, the farmers, to come to a general understanding because they are the ones with the mandate to put up the regulations and laws and streamline the industry. They also invest in areas that no one wants to invest because they are long term in nature..... They have to understand the context where the product is coming from in order to create appropriate policies for the industry. Government needs to give value development time to understand the value chain process otherwise. It creates a vacuum for itself where the consumers are out of coffee for some time”.
		-Creates Market	1	“Also, the government provides a market, they provide the backing to where the product ends and where the final value is created that trickles down to the stakeholders below”
Development Partners	2	-Offer finance	1	“Development partners to finance upgrading. They set the agenda because they provide 80% of the agenda. However, many people find it hard to realise profitability because the cost of set-up is really high and even when they manage to set it up, maintenance is high.....Development partners like development financiers”.
		-Offer machinery	1	“Development partners offer machinery, funding etc”.
		-Ensure certification		“....ensure certifications on behalf of the multinationals and their governments”.

4.3.4.1 Producers/Farmers

Nine (9) interviewees indicated that Producers/Farmers were the stakeholders that most influenced the coffee value chain upgrading process in Uganda. Five (5) of the interviewees asserted that producers were the actual producers of the coffee, as seen in the response from Interviewee 11,

“The main stakeholder in my view is the primary producer because if he doesn’t produce, there is nothing to process and upgrade. We need to go back to the producers and the market they sell to at their level. We need to understand who they sell to, whether the local producers, exporters, or big”.

Interviewee 1 had the same perception and added that they determine the quality of the coffee, which determines the price,

“I think currently the key stakeholders are the producers. If they don’t produce then there is no coffee and the quality of the coffee produced determines the price of the coffee itself”.

In line with Interviewee 1, Interviewee 2 also elucidated that Producers/Farmers determine the overall quality,

“Farmers significantly influence the upgrading process by producing quality products, traders by communicating to the producers what exactly is on the market, and government by facilitating the whole upgrading process by implementing favourable policies. I think farmers are most important, if they don’t practice what is required to upgrade, then no upgrading will take place. Farmers determine the overall quality of the coffee in the whole chain”.

Interviewee 9 further expounded on the key role Producers/Farmers play,

“The main stakeholders important in upgrading the coffee chain are the farmers playing a big role because they start from planting to selling the hulled coffee. They are very instrumental in this long journey. Farmers determine the quality, unlike the processors. If it is not good, it results in lower returns. For instance, if a farmer uses poor methods, then the quality will not be good like use of poor pesticides that affects the quality of coffee which affects the final taste. All agronomic activities greatly affect the quality. The farmer plays a very big role”.

4.3.4.2 Government

The second most influential stakeholder in the upgrading process in Uganda was the Government, according to seven (7) interviewees who viewed it as a regulator, and as explained by Interviewee 5,

“The regulation agency in this case is UCDA, because the government is running the National Development Plan 3 which is focusing on value addition. Government agencies for the next 5 years from 2021 are focusing on value addition. Therefore, UCDA has purposely planned to procure value-addition equipment each financial year, which will be distributed to farmers free of charge. This is a significant input in value addition and upgrading. UCDA is distributing equipment like solar dryers, wet mills, and drying trays, to help them add value that will be distributed to farmers free of charge”.

Interviewee 6 further mentioned the role of the government in setting policies to facilitate regulation,

“I think most upgrading has been driven by the government, like government policies through industry policies and push for favourable industrialisation which is in line with the National Development Plan. We are also seeing the development of industrial parks to facilitate this”.

In order to create appropriate policies, Interviewee 10 stressed understanding the context as the role of the Government to create a favourable environment for the upgrading process,

“They have to understand the context where the product is coming from in order to create appropriate policies for the industry. Government needs to give value development time to understand the value chain process”.

In addition, it was recognised for its important role of ensuring there is a market for the coffee as Interviewee 10 remarked,

“They also invest in areas that no one wants to invest because they are long term in nature. Also, the government provides a market, they provide the backing to where the product ends and where the final value is created that trickles down to the stakeholders below”.

4.3.4.3 Development Partners

Next were the Development Partners, who were highlighted as the stakeholders and perceived as the most influential stakeholders in the upgrading process by three (3) interviewees.

Development Partners were considered influential because they provide finance, as highlighted by Interviewee 6,

“Development partners finance upgrading. They set the agenda because they provide 80% of the agenda. However, many people find it hard to realise profitability because the cost of set-up is high, and even when they manage to set it up, maintenance is high. They promote upgrading because the nation benefits through industry policy where they support selected industries like coffee to develop. The rest follow”.

The other reason was that they provided machinery, as was stated by Interviewee 4,

“Development Partners offer machinery”.

Interviewee 2 also stated that Development Partners ensure the players do certification,

“....ensure certifications on behalf of the multinationals and their governments”

4.3.5 Research Question 1d: Main Influencing Value Chain Upgrading Type

In line with Research Question 1d, interviewees were asked what type of value chain upgrading leads to favourable sustainable outcomes. The responses are reflected in Table 32 below. Ten (10) interviewees indicated Process Upgrading, three (3) Functional and two (2) Product Upgrading.

Table 32*Types of Upgrading that leads to Sustainable Outcomes*

Type of Upgrading leading to Sustainable Influence	Number of Highlights	Reasons Given	Number of Highlights	Highlights
Process Upgrading	10	-Has majority of chain actors	2	“I think Process Upgrading because it’s the one most people are involved in. People are trying to be more efficient in the processes and this in a long run increases productivity, turnover grows, more people are employed, profitability increases, and there are more activities with more farmers and traders. Generally Process Upgrading benefits everyone”. “I think that the type of upgrading that would lead to favourable outcomes is the Process Upgrading which incorporates many chain actors at the bottom of the value chain because it operates at the lower nodes of the chain. These lower nodes of the value chain determine everything. They determine the production activity, that is they determine how much money comes to the government, the exporter and the farmer. They also determine the quality. If production and quality are improved at that level, the rest of the value chain benefits. So, for me the Process Upgrading targets many people and many are involved. Whatever level they upgrade the money goes to them”.

		-More products and brands, more returns	2	“Anything that increases the value so in my view I think Process Upgrading because it leads to better products that fetch more returns. Process Upgrading and Product Upgrading go hand in hand. I think individual players need to be paid attention too and determine the returns when they put in extra effort in their processes. Then the other aspects that can’t be easily quantified like environmental and social will follow. For the chain actors like the Farmers, these are not their concerns. It becomes their concern when they see the damage. The players need to introduce their social and environmental concerns in a way that will help them to appreciate why the extra efforts are important. The players need to be communicated to in a way they understand. Those licensing the value chain activities, that is the government through UCDA should enforce efforts that lead to environmental and social outcomes”. “Process Upgrading through technology; improving brands and products for what is on demand in the market is the best because this is the gap within the coffee value chain process”.
		-More revenue if efficient	1	“Process Upgrading if it is made more efficient then more revenue would be generated by the Farmers and the country itself”.
		-Aligned with nature of value chain structure	1	“I think the focus should be on Process Upgrading based on the way the value chain is structured at the production level. Product Upgrading is not driven by the structure of the value chain with most activities being at the production level but it is based on capability and skills. For Chain Upgrading there are a lot of backward and forward linkages so the question is how does the government regulate it so that others are not left out?”.

		-Beginning of upgrading process (production level)	1	“I think positive outcomes are achieved mainly through Process Upgrading contributing more because it is an upgrade that begins at the farm and to me that is upgrading the product and fetching extra benefits. Also, those doing roasting and grinding at different nodes fetch more money. In terms of the environment, some of the material waste goes back to the garden”.
		-Beginning of other types of upgrading	1	“The type of upgrading that leads to better outcomes is Process Upgrading because coffee through the processing when every step is followed. Once you reach the top of the value chain then the outcomes will be achieved as the chain activities advance”.
		-Depends on many other enabling factors	1	“Process Upgrading, I think. The type of upgrading depends on different enabling factors like at cultivation or production level through better agronomic practices and quality seedlings. Next is the processing stage that is dry and wet. Processors sometimes do not meet the price demanded so there are quality issues to be addressed. Cooperatives that collect the coffee and buy and sell at one go would be a solution. Local Agents and Farmers need to have the knowledge on the quality signals. Risk mitigation, living wages, pesticides, and other challenges that if upgraded would enable upgrading of the value chain. Stakeholder engagement is another one that is key in leading to favourable outcomes”.
		-Organic growth	1	“I think Process Upgrading leads to an organic way of growth. It leads to irreversible development and it is across at all levels of the value chain. I think that is a sustainable way to develop the coffee value chain. The other one is Product Upgrading which will lead to more earning but chain actors are more focused on what they do as individuals so it might not be sustainable. All they want is to make as much money as possible.”.
Functional Upgrading	3	-Mainly at production level	1	“I think again because we are still on the supply or production side as a country, Functional Upgrading is still important. All this you are stating directly are activities performed by the producer like the environmental issues, the social welfare uplifting and the

				economic performance. If value is added on the farm, then more money is earned. For instance, the geographical location, all we are trying to say is can we have some premium for the coffee for their efforts to ensure the sustainability practices that we have committed to. This is an opportunity to market for the origin of the coffee e.g., the specialty coffee - the way it was grown on the farm, how it was picked, dried, washed, processed, transported etc so that it is more appreciated and in return leading to traceability. This would lead to increased demands and the producer is able to bargain for a higher price. All these innovations remain very key because the dynamics of us consuming our own coffee still has a long way to go. People still ask for chai/tea when they are referring to coffee. Coffee was promoted as a commodity, and tea as a beverage”.
		-Holistic in nature	1	“Upgrading in general would improve the livelihoods of funding Processing Upgrading in my view key but won’t trickle down to the Farmer because not every Farmer can get the machines. Even if we don’t export and consume locally, some Farmers will still be left out. The advantage is that those who will be benefiting will still be Ugandans thus Uganda will benefit as a whole Farmers can only benefit when it is Functional Upgrading. However, it is still very complex to achieve because we have to ensure good quality and standards at the farm level which is very difficult. To improve sustainability in the value chains, the focus should be on the processing of coffee because many parties are involved. In the long term, we can start dictating the price since the consumption will be local and closer. It is better to remove the bad man who is outside. It’s better to have the bad man inside the country because they will reap more benefits regionally and locally. Chain actors usually get financial support from venture capitalists who I call the vampires that are usually outside. The money and profits just flow outwards. They add pressure and want their benefits maximised. The benefits will shift to the Farmers in the long run when the upgrading shifts to functional”.

		-More sophisticated processes	1	“I think Functional Upgrading is the one that would lead to favourable sustainable outcomes because it's more holistic since it is wider and understands the context. It does not give quick gains but it is a roadmap. Compared to the Product Upgrading because it just looks at the product and how it is improved. The Product Upgrading that is happening is voluntary in terms of who it gives direct benefits. Process Upgrading is better than Product Upgrading but it is also still limited. It would take a long time. Functional Upgrading is more mandatory where the regulations come in to support the process and pushes the whole industry to another level. That is how it's positioned and built to better quality products from the country and have a larger impact in the long run. The whole value chain can be turned into organic or specialty coffee but it would have to take the whole functionality kind of approach since it requires deliberate regulations where everyone is forced to conform to certain standards in terms of quality etc. Countries like Vietnam and Columbia did that”.
Product Upgrading	2	-More profits and forms of products	2	“Product Upgrading where other forms of coffee are being processed. Previously it was just raw beans being sold but if other forms or products were sold, more profit would be guaranteed for them. There is much more benefit as a country if other forms of coffee products were exported like coffee powder, coffee liquor and other cosmetics products. More value be earned and this would increase income for the Farmers, more employment with more value addition etc. The others would have a limit, beyond certification you would not do much”. “In my view the finished products lead to the most favourable outcomes. So that is the Product Upgrading like coffee powder”.

4.3.5.1 Process Upgrading as an Influence to Sustainable Outcomes

Interviewees had different reasons as to why they think that Process Upgrading is an influence that leads to sustainable outcomes. Interviewee 5 summarised and explained that it involves many chain actors,

“I think that the type of upgrading that would lead to favourable outcomes is the Process Upgrading which incorporates many chain actors at the bottom of the value chain because it operates at the lower nodes of the chain. These lower nodes of the value chain determine everything. They determine the production activity, that is, they determine how much money comes to the government, the exporter, and the farmer. They also determine the quality. If production and quality are improved at that level, the rest of the value chain benefits”.

Another reason was that Process Upgrading adds value, leading to more products and brands that fetch more returns, as was indicated by Interviewee 11,

“It leads to better products that fetch more returns. Process Upgrading and Product Upgrading go hand in hand. I think individual players need to be paid attention to and determine the returns when they put in extra effort in their processes. Then the other aspects that can’t be easily quantified like environmental and social will follow. For the chain actors like the Farmers, these are not their concerns. It becomes their concern when they see the damage. The players need to introduce their social and environmental concerns in a way that will help them to appreciate why the extra efforts are important. The players need to be communicated to in a way they understand. Those licensing the value chain activities, that is the government through UCDA should enforce efforts that lead to environmental and social outcomes”.

Interviewee 3, however, argued that sustainable outcomes would only be achieved if the upgrading process was more efficient as observed,

“If it is made more efficient then more revenue would be generated by the Farmers and the country itself”.

Further still, Interviewee 6 supported Process Upgrading by asserting that it is well aligned with the structure of the coffee value chain where most of the activities are positioned by saying,

“I think the focus should be on Process Upgrading based on the way the value chain is structured at the production level. Product Upgrading is not driven by the structure of the value chain with most activities being at the production level but it is based on capability and skills leading to better products that fetch more returns”.

On the other hand, Interviewee 15 was of the view that Process Upgrading initiates organic growth and development as stressed,

“I think Process Upgrading leads to an organic way of growth. It leads to irreversible development and it is across at all levels of the value chain”.

4.3.5.2 Functional Upgrading as an Influence to Sustainable Outcomes

Interviewee 4, however, argued that it is difficult for the benefits of Process Upgrading to trickle down and instead claimed that Functional Upgrading is what would lead to sustainable outcomes as he stated,

“Process Upgrading in my view is key but won't trickle down to the farmer because not every farmer can get the machines. Even if we don't export and consume locally some farmers will still be left out. The benefits will shift to the farmers in the long run when the upgrading shifts to functional”.

Interviewee 1 was of the view that Functional Upgrading determines sustainable outcomes because he associated it with the many chain activities at the production stage, as seen in his remark,

“I think again because we are still on the supply or production side as a country, Functional Upgrading is still important. All this you are stating directly are activities performed by the producer like the environmental issues, the social welfare uplifting and the economic performance. If value is added on the farm, then more money is earned”.

On the other hand, Interviewee 10 explained that it is holistic,

“I think Functional Upgrading is the one that would lead to favourable sustainable outcomes because it's more holistic since it is wider and understands the context. It does not give quick gains but it is a roadmap. The whole value chain can be turned into organic or specialty coffee but it would have to take the whole functionality kind of approach since it requires deliberate regulations where everyone is forced to conform to certain standards in terms of quality etc. Countries like Vietnam and Columbia did that!”

4.3.5.3 Product Upgrading as an Influence to Sustainable Outcomes

A few other respondents argued that Product Upgrading led to sustainable outcomes considering that it facilitated finished products that result to more economic benefits in terms of earnings as Interviewee 7 stressed,

“In my view the finished products lead to the most favourable outcomes”.

Interviewee 2 shared a similar view and shared that when more forms of products are produced, more profits are generated as he explained,

“Previously it was just raw beans being sold but if other forms of products were sold, more profit would be guaranteed. There is much more benefit as a country if other forms of coffee products were exported like coffee powder, coffee liquor and other cosmetics products. More value would be earned and this would increase income for the Farmers besides more employment with more value addition etc”.

4.3.6 Research Question 1e: Relationship between Antecedents, Determinants and

Outcomes of Upgrading

In line with Research Question 1e, interviewees were asked if they agreed that the more favourable the value chain upgrading antecedents, the more favourable the determinants and the more favourable the outcomes. The responses are reflected in Table 33 below wherein 13 respondents agreed with the statement, while two disagreed.

Table 33

Perceptions on the Relationship of Antecedents, Determinants and Outcomes

	Number of Highlights	Support to Response	Number of Highlights	Highlights
Agree	13	-If alongside other required services	4	“Yes, I agree that more favourable factors, the more favourable determinants and outcomes but it is not automatic because this needs to happen alongside other services required. For instance, increasing coffee land in the country, issues of infrastructure like access roads, training and research”. “Yes, upgrading will happen if the upgrading antecedents are favourable leading to favourable determinants and outcomes.....Field workers, if supported can get good results in the Ugandan coffee industry because the price will increase”. “Yes, my view is that if we increase production, improve productivity, increase research, empowerment of farmers, streamline the regulations and they are not selective, if the context and market are understood, then they will also receive the quality and true value that they are out to have. At the end of the day, if these are not put in place there is lost opportunity for all the chain actors and the environment in which they operate. If there is fair value chain distribution, then the social economic and environmental benefits will easily trickle down”. “Yes, assuming that other important antecedents are constant like political stability and climate, favourable stable weather patterns, rain on time. For example, rain coming late or later than expected can affect productivity or even the quality. It is not possible to influence these external factors. The prices sometimes go down by say 200 Uganda shillings because of what is happening on the world market. The farmers may not be able to read or understand the stock market but they determine their prices

				by seeing if the arrows are pointing up or down on the graphs they see on their phones. It will take us a long time to influence global prices. For example, when coffee is negatively affected in other producing countries the prices in Uganda go high. What could influence these external antecedents could be things like quality or the volumes of coffee/production so that we enjoy the economies of scale. The global market detects and at the moment we cannot influence them in any way. We are more influenced by our external antecedents and not the internal factors. An example is the cocoa industry in West Africa has decided to only export processed cocoa industry. If Uganda did that then we would not have to dance to the tunes of the external markets. They are going to take themselves out of poverty by focusing on value addition. For example, Uganda withdrew from the International Coffee Organisation because of some of the unfair regulations”.
		-If undermining antecedents addressed	4	“Yes, I would agree that favourable antecedents lead to favourable determinants and outcomes of upgrading. First of all, those are the antecedents undermining value addition in the value chain. If someone else focuses on other antecedents that the government is not able to provide and is lacking, there would be a significant improvement in the upgrading of the value chain. If focus on the antecedents that are hindering upgrading, it would make a significant contribution”. Yes, I agree with the statement. The antecedents affect the determinants because if processes are well-done, favourable outcomes will definitely be achieved”. “Yes, I would agree although it is not a guarantee that the benefits will trickle down to the lower levels because of antecedents like climate change to everything. The Farmers are the ones using it in the fields. Things like policies, and regulation deal with the risk but the actors who are affected by this do not experience the better outcomes. Sometimes the measures don’t lead to favourable outcomes that benefit all. Digitalisation and good premiums for farmers would benefit them directly. Some give quick results favouring them, others have slow results. For instance, improving the supply chain efficiency. The transfer of information to the farmer and dealing with the market structure like dry and wet mill processing facilities. In most times, the favourable outcomes do lead to the cultural positive effects like policy measures

				cannot happen overnight. Price control mechanisms may not always be effective to positive outcomes we envision”. “Sure. Yes, I agree to the statement because if for example capital is patient and available, we will have more actors experiment in new activities. There will be more ability to activate curiosity to try out new innovations and out of the trials some may work out. The findings can then be shared with other shareholders, that is, knowledge sharing. Experts like food scientists can then be hired. However, there might be some antecedents that are beyond the chain actors' control like the geo-politics. There are no gardens in Europe but they have all the power and so have no will to support development of the coffee value chain because they are interested in the raw materials. We can see Ghana and Ivory Coast having beatings from the IMF regarding their cocoa in response to their protectionist policies. So, it is the invisible hand that is affecting the producers. They can allow us to produce as much as possible. Producing companies cannot go into the space they want to play in. They have the economies of scale, technology and it would be very difficult to compete. I think it is best to concentrate on the niches where we have strength, for instance we have a tropical climate which they do not have. For example, produce the best organic coffee in the world and build our economic livelihood on the coffee bean. We cannot beat them at their game. It will take us so many years. Process Upgrading at production level will lead to innovation like developing small machines that are appropriate for African soil profiles. For instance, the tractor has blades that pull out infertile soil from deep in the ground to the surface and yet it is not the best for farming. The nature of the soil in Uganda is such that the fertile soil is on top. Uganda is most likely to get support for such innovations but not to roast our coffee and sell them roasted or fully processed beans”.
		-Leads to better quality, prices, and more profits	3	“Yes, I agree because favourable upgrading leads to quality and as a result of improved quality the prices will be high. We also need to understand who is looking for the quality or what exactly they want”.

				“Yes, I agree with the statement because, with more earnings from the finished product, the returns can bring better farm prices, environmental improvements and social well-being and the community at large”. “Yes, I would agree because it is all based on profitability which is also based on viability which also depends on access to markets. Access to markets has a lot of correlation with supply chain optimisation and business positioning”.
		-Seen success stories	2	“Yes, I would agree. It is obvious. I agree because we have seen Farmers that have advanced up the value chain. I have a clear example. This is a farmer association that started as 100 Farmers and today they are in 1000s. The first upgrade they did was to organise themselves, get certification, and trade through an exporter. Eventually they started exporting directly. Today they have built a big warehouse in Mbale and they are handling coffee for export to Europe, America and Japan. They have created employment at all levels with a strong management team with a well-established board. They have a General Manager, accountants, inspectors, and many other forms of employment that have provided job opportunities to many chain actors like logistics and certification companies, volunteers and of course they also pay taxes to the government. You can see how a small association has created value to not only their Farmer communities but the country as a whole”. “Yes, upgrading will happen An example is a prominent exporting company where I worked. It started by changing the mind of Farmers, training them in agronomic antecedents like mulching, better drying methods, carrying out environmental management assessments like not digging along the rivers, fertiliser usage, training that good to target certain kilograms for each coffee tree, and in the end the Farmers appreciated the benefits etc when poorly dried, coffee got mould. The challenge was that this company aimed at profits compared to development partners that aimed at improving the well-being of chain actors. In the end the training element they started with was not sustainable so they later only focused on buying coffee from the Farmers.

		-If farmers have power at production level	1	“Yes, I would agree but at the production level, the chain actors who are the Farmers have no power to influence the outcomes. The agriculture sector suffers because other activities are affecting it negatively socially and environmentally because all the focus is on having high-profit margins despite the costs involved. We know some leaders in the coffee sector like Good African Coffee and Banya Cafe that were doing well and are no longer on the market. They followed the environmental guidelines and were working closely with the Farmers and this improved their social well-being. What went wrong? Government has a role, but we seem to destroy its own policies that would otherwise be good. As a coffee grower, my role is to grow coffee that will meet the set conditions and my expectation is to produce coffee of high quality that will fetch a high price so I would agree to the statement. All the other people in the value chain will also benefit”.
Disagree	2	-Farmers need to have power	1	“I disagree with the statement. I don’t agree that the more favourable factors, the more desirable outcomes. Not yet, we have not reached that level. For this statement to be true, the power must be in the hands of the Farmers. Farmers should have a say in the whole process. There are other antecedents like economic policies that need to be put in place. Regulation is also generally very weak and this doesn’t create the best operating environment for the chain actors. Also, UNBS which is in charge of setting and ensuring standards is still very inefficient. For instance, one can produce coffee and put it on the market for 3 years before it has its standards certified. The operating environment is still very relaxed because the regulation enforcement is still very weak. That is why it is said Uganda is one of the most entrepreneurial countries in Africa. Friendly tax policies are another factor. Also, investment policies. Farmers should allow the public to buy shares in the processing and then have a few selected members make decisions on their behalf to improve the management practices. For instance, having 1000 cooperative members with the same say over a machine does not make economic sense because there is always politics. Business cannot be run like that. There should be some kind of control. When everyone has equally benefited through shares then they can grow more coffee. In this case, they will be more likely to be motivated to upgrade. Some people are cutting down their 5-acre coffee plantations because they have given up hope. They have decided to try and plant other crops like maize. Although production levels have increased, the prices

				have gone down because when demand increases, the prices go down and the Farmer loses. With new varieties, the quality is not necessarily superior. For instance, corona coffee which is a new variety has fibrous roots, so is highly affected by drought. The solution is to grow elite coffee. There are 7 types of elite, each is resistant to a particular pest or disease, so planted in 7 lines so that if one is affected, the others survive. It is like diversifying the risk. The elite coffee that is maximised is not the best but it reduces the risk for the Farmer compared to the corona coffee where in case of drought or pests and diseases, the Farmer loses everything”
		-Some antecedents can't be controlled	1	“I think it is not automatic because while there are antecedents that we are in control of, there are other contributing antecedents that we cannot manipulate like the weather. For example, production is all by small holder Farmers. Most Farmers are on land between 0.25 to 0.5 acres of land. Not many can afford irrigation if the rains are late or inadequate. Another factor is the infrastructure of water e.g. Arabica coffee can only be produced in highland areas and Robusta in low areas. We are also seeing climate change contributing to the pests and diseases, some are increasing while others are resistant to certain chemicals. As the disease starts to adapt to the new climate and develop new mechanisms of survival, they become inefficient to the chemicals that were originally used to treat them. The other one is national branding and this is different from patriotism because if you look at how the coffee market plays, you may not hear about Ugandan coffee in some markets. Ugandan coffee is being bought by countries like Rwanda and Kenya. They are rebranding and selling it as their own. Who is speaking for Uganda's coffee as a nation? For example, there is an Australian who told us that we know and have heard of Ethiopian coffee and Rwandan coffee but Ugandan coffee is not appreciated in the market because it is not known. So, I am going to buy your coffee at a reduced price because I am going to market for your coffee. In the end we lost because we could not sell him our coffee at the market price he wanted. We are seeing people that sell coffee go to the market as individuals but that will definitely have an impact. When we go for exhibitions, we should have a booth selling Ugandan coffee, not coffee of an individual like Rwanda is doing it. When we are individuals and divided, we cannot influence the market”

4.3.6.1 Participants that Agreed to Statement in Interview Question 1e

Four (4) interviewees agreed with the statement, as seen in Table 33 above. However, they asserted that other critical services alongside upgrading would have to be put in place, as was expressed by Interviewee 8,

"Yes, I agree that more favourable factors, the more favourable *determinants* and outcomes, but it is not automatic because this needs to happen alongside other services required. For instance, increasing coffee land in the country, issues of infrastructure like access roads, training, research".

Close to this view, three (3) interviewees also agreed to the assertion that only if the upgrading undermining antecedents are addressed,

"Sure. Yes, I agree with the statement because if, for example, capital is patient and available, we will have more actors experiment in new activities. There will be more ability to activate curiosity to try out new innovations, and out of the trials, some may work out. The findings and knowledge can then be shared with other shareholders".

Interviewee 14 highlighted that although he agrees it is not automatic, it is not by guarantee that the sustainable outcomes will trickle down to the lower levels of the value chain,

"Yes, I would agree although it is not a guarantee that the benefits will trickle down to the lower levels because of antecedents like climate change to everything. The farmers are the ones using the coffee in the fields. Things like policies, and regulation deal with the risk but the actors who are affected by this do not experience the better outcomes".

Three (3) interviewees indicated that they agreed because upgrading leads to better quality, prices, and more profits and this is summarised by Interviewee 7,

"Yes, I agree with the statement because, with more earnings from the finished product, the returns can bring better farm prices, environmental improvements and social wellbeing and the community at large".

With the same view, Interviewee 6 also expressed,

"Yes, I would agree because it is all based on profitability which is also based on viability according to access to markets. Access to markets has a lot of correlation with supply chain optimisation and business positioning".

Two other interviewees agreed to the statement because they have witnessed success stories, as indicated by Interviewee 9,

"Yes, upgrading will happen An example is a prominent exporting company where I worked. It started by changing the minds of Farmers, training them in agronomic factors like mulching, better drying methods, carrying out environmental management assessments like not digging along the rivers, fertiliser usage, training that good to target certain kilograms for each coffee tree, and in the end the farmers appreciated the benefits etc when poorly dried, coffee got mould".

However, he further added that wellbeing should be deliberate,

"The challenge was that this company aimed at profits compared to Development Partners that aimed at improving the wellbeing of chain actors. In the end the training element they started with was not sustainable so they later only focused on buying coffee from the farmers".

Another success story is illustrated by Interviewee 2,

"I agree because we have seen Farmers that have advanced up the value chain. I have a clear example. This is a farmer's association that started with a hundred Farmers today, and they are in thousands. Their first upgrade was to organise themselves, get certification, and trade through an exporter. Eventually, they started exporting directly. Today, they have built a big warehouse in Mbale, and they are handling coffee for export to Europe, America and Japan. They have created employment at all levels with a strong management team and a well-established board".

One response agreed with the statement if power shifts to Farmers,

"Yes, i would agree, but at the production level, the chain actors who are the farmers have no power to influence the outcomes. The agriculture sector suffers because other activities are affecting it negatively, that is, socially and environmentally because all the focus is on having high-profit margins despite the costs involved".

4.3.6.2 Participants that Disagreed to Statement in Interview Question 1e

As Table 33 presents above, two (2) interviewees disagreed with the statement. Interviewee 4 was convinced that Uganda had not reached that level and argued that for the statement to be true, the farmers should have the power to control the upgrading process. His statement reflected this,

“I don’t agree that the more favourable factors, the more desirable outcomes. Not yet, we have not reached that level. For this statement to be true, the power must be in the hands of the Farmers. Farmers should have a say in the whole process”.

He further articulated that,

“There are other antecedents like economic policies that need to be put in place”.

The other interviewee, Interviewee 1 observed that there are antecedents that are difficult to control as seen in his comment,

“I think it is not automatic because while there are antecedents that we are in control of, there are other contributing antecedents that we cannot manipulate like the weather. For example, production is all done by smallholder farmers. Most farmers are on land between 0.25 to 0.5 acres of land. Not many can afford irrigation if the rains are late or inadequate”.

4.3.7 Research Question 1f (i): Perceptions on Upgrading, its Determinants on Sustainable Outcomes and Upscaling

In line with Research Question 1f(i), interviewees were asked to share their general impression of upgrading the coffee value chain in Uganda and their perceptions of what determines the upgrading process to achieve favourable, sustainable outcomes. As indicated in Table 34 below, five (5) participants were of the view that it is achievable, five (5) were of the view that it is happening, three (3) said it was still wanting, and one (1) was of the view that it is not appreciated.

Table 33*Perceptions on General Impressions on Upgrading*

General Impression of Upgrading	Number of Highlights	Mentioned Limitation	Highlights
Achievable	5	-Internal and external forces	"I would say it is possible because I have seen it happening. It is very difficult but is possible because I have seen it happening. There are many forces both internal and external that make it difficult".
		-Incentives	"My impression is that upgrading is very achievable as long as the important incentives are in place. These include equipment, which increases the quality in an efficient high, high cup score. All this has led to increased revenue and government taxes".
		-Expensive	"My general impression is that at the top of the value chain, upgrading is very possible although it is very expensive to upgrade the coffee value chain. For instance, transitioning to making powder-to-soluble coffee requires about 50 million dollars of investment. That is at the end of the value chain".
		- No bottom-up approach	"Upgrading is possible if we take a bottom-up approach. District Farmers Association can make a structure to have change agents from the village level who should connect to the parish level then to the district and then to the national. I think this procedure would help. UCDA regulators have one representative in the whole region as change agents. It's better to use farmers themselves to propose a bottom up approach"

		-Markets too liberalised	“Upgrading is possible but it is difficult because the market is too liberalised. Yes, the policies and regulations have been put in place to try and regulate the environment for the benefit of the entire sector, but the implementation is moving on slowly due to political interference and what I would call the mafias in the private sector. Those are the exporters”.
Happening	4	- Baby steps though not there yet	“Yes, my general impression about upgrading is that it is happening. We are taking the baby steps towards upgrading but we are not yet there”.
		- Developing and evolving	“My general impression of upgrading in Uganda is that it is an evolving process that is going on. It is possible through processes like the certification, addressing economic and environmental factors, and the use of good quality seedlings. The linkages are being made effective through sustainability. There are things to be done but it is developing and evolving. Chain actors are slowly learning and adopting better practices. My general impression is that in the post-harvest stage, it is developing very slowly”.
		- Improvements seen	“Some good work is being done regarding upgrading in general. The coffee industry is a work in progress and we can see that there are a number of improvements. Lots of nursery beds, more products, bags increased for export, more development partners, extension workers through NAADS, more processing firms like hullers at district level, more companies have registered to export, more inspectors checking paperwork work and standards, more regulations like the Coffee Act, more organisations of coffee farmer groups, more promotions and even competition. Generally a lot is going on for the improvement of the sector”.
		-Can work in good political system	“Honestly, I am convinced that it can work within a good political system”.
Still Wanting	3	-Quality	“More has to be done on upgrading on and off the farm to increase quality”.

		-Still exporting raw beans	“My general impression of upgrading in Uganda is that the current levels of Product Upgrading is still wanting. It is still low generally as compared to other coffee producers because as a country we still export raw materials so as a country we are losing”.
		-Lack of awareness for the need to upgrade and unfavourable policies	“My general impression of upgrading in Uganda is that there is still a lot to be done in terms of awareness for the need to upgrade coffee. The government sector should spearhead the private sector in this so as to assure the stakeholders of the benefits. Upgrading has also been a dilemma and caused a low attitude by stakeholders due to unfavourable policies leading to reduced or no markets for the product”.
Appreciated	2	-No guaranteed market	“My general impression is that upgrading is a good thing. It is where we would like to be. If you read about coffee producers in South America like Brazil and Argentina, they have decided to concentrate on improving their productivity at whatever cost. They are making lots of money”
		-Goal as aspiration	“I think the answer is an affirmative yes. But the fundamental question is as a country what do we want to achieve out of the upgrading?”.
Not Appreciated	1	-Chain Actors not motivated enough	“Upgrading in my view is not appreciated at all levels of the value chain. Chain actors are not motivated enough to go the extra mile to add value and upgrade for example our own restaurants selling our own coffee known to be specialty coffee are still getting customers that ask for imported coffee like Nescafe”.

4.3.7.1 Achievable

Five (5) interviewees expressed that Upgrading is achievable, although there are still limitations due to internal and external factors, such as a lack of incentives, high costs, an approach, and a market that is too liberalised. Interviewee 2 highlighted that there are internal and external forces that make it difficult,

“I would say it is possible because I have seen it happening. There are many forces, both internal and external, that make it difficult”.

Interviewee 3 mentioned the need for incentives like equipment,

“My impression is that Upgrading is very achievable as long as the important incentives are in place. These include equipment, which increases the quality in an efficient way like high cup score. All this has led to increased revenue and government taxes”.

Interviewee 5, on the other hand, raised the issue of high cost,

“My general impression is that at the top of the value chain, upgrading is possible although it is very expensive to upgrade the coffee value chain. For instance, transitioning to making powder-to-soluble coffee requires about 50 million dollars of investment”.

Interviewee 9, however, argued that upgrading is possible if a bottom-up approach is used,

“Upgrading is possible if we take a bottom-up approach. District Farmers Association can make a structure to have change agents from the village level who should connect to the parish level, then to the district and then to the national”.

In addition, Interviewee 10 asserted that upgrading is achievable although the market is too liberalised,

“Upgrading is possible, but it is difficult because the market is too liberalised. Yes, the policies and regulations have been put in place to try and regulate the environment for the benefit of the entire sector, but the implementation is moving on slowly due to political interference and what I would call the mafias in the private sector”.

4.3.7.2 Happening

Four (4) interviewees stated that upgrading is happening. Interviewee 4 stated baby steps are being taken,

“Yes, my general impression about upgrading is that it is happening. We are taking the baby steps towards upgrading, but we are not yet there”.

Interviewee 14 was of the same view that it is developing and evolving,

“My general impression of upgrading in Uganda is that it is an evolving process that is going on. It is possible through processes like the certification, addressing economic and environmental factors, and the use of good quality seedlings. The linkages are being made effective through sustainability”.

Interviewee 12 confirmed that upgrading improvements were visible,

“Some good work is being done regarding upgrading in general. The coffee industry is a work in progress and we can see that there are a number of improvements”.

Interviewee 11 was convinced upgrading is taking place and can thrive in a good political system,

“.... So there is some improvement which indicates that upgrading of the value chains is steadily taking place. There are generally more products... Honestly, I am convinced that it can work within a good political system”.

4.3.7.3 Still wanting

Although some interviewees stated that it was achievable and happening as indicated above, three (3) were of the view that there is a lot that still needs to be done. Interviewee 7 expressed that the quality needed to be improved,

“More has to be done on upgrading on the farm and off the farm to increase quality”.

Interviewee 9 raised the concern of still exporting unprocessed green coffee beans,

“My general impression of upgrading in Uganda is that the current levels of Product Upgrading are still wanting. It is still low generally as compared to other coffee producers because as a country we still export raw materials so as a country we are losing”.

On the other hand, Interviewee 13 asserted that chain actors are not aware why they need to upgrade,

“My general impression of upgrading in Uganda is that there is still a lot to be done in terms of awareness for the need to upgrade coffee. The government sector should spearhead the private sector in this so as to assure the stakeholders of the benefits”.

He further argued that there is also a lack of favourable policies,

“Upgrading has also been a dilemma and caused a low attitude by stakeholders due to unfavourable policies leading to reduced or no markets for the product”.

4.3.7.4 Appreciated

Two (2) interviewees expressed their appreciation for upgrading but aired out doubts about the goal, as highlighted by Interviewee 6,

“I think the answer is an affirmative yes. But the fundamental question is, as a country, what do we want to achieve from upgrading?”

Similarly, Interviewee 15 stated,

“My general impression is that upgrading is that it is a good thing. It is where we would like to be. If you read about coffee producers in South America, such as Brazil and Argentina, they have decided to concentrate on improving their productivity at whatever cost. They are making lots of money”.

4.3.7.5 Not Appreciated

One (1) interviewee felt that upgrading is not appreciated because chain actors are not motivated to do so. Interviewee 1 expressed,

“Upgrading, in my view, is not appreciated at all levels of the value chain. Chain actors are not motivated enough to go the extra mile to add value and upgrade. For example, our own restaurants selling our own coffee known to be specialty coffee are still getting customers that ask for imported coffee like Nescafe”.

4.3.8 1f (ii): Perceptions on what determines the Upgrading Process to get Favourable Sustainable Outcomes

Participants were further asked what determines upgrading to get favourable sustainable outcomes/effects for upscaling and results are as indicated in the Table 35 below. The top five influencing antecedents mentioned were government support, knowledge sharing, affordable, local/domestic market, and more control/power.

Table 34

Perceptions on what determines the Upgrading process to result to Favourable Sustainable Outcomes

Influencing Factors	Number of Highlights	Comment	Number of highlights	Highlights of Quotes
Government Support	16	-Through regulation	6	“Policies or laws and regulation pushing for export of processed coffee for example more export of green coffee beans can influence positive outcomes. If we stuck to such policies, in a short run, there would be a drop in incomes but in the long run, we would earn like three times more. UCDA through regulations is emphasising value addition e.g. rules like don't pick green beans, don't do this that increases the value”. “Government put in place policies to protect the local Farmers and develop the local market because we cannot compete with the multinational companies. Let us develop the local market where we are protected”. “Sometimes, regulation can be used for instance the government can say we are no longer accepting a certain standard of coffee. This would force the chain actors to produce to the expected standards thus upgrading and upscaling in the long run. Putting policies in place to facilitate upscaling could help”. “The determinants of upgrading include quality, market demand and compliance with the regulations in place”. “Government needs to put boundaries for all chain actors in the

				value chain, not to control what chain actors are doing but how they cooperate and relate with each other in the industry. For example, how farmers should carry out trade, how the private sector should deal with the farmers in a way that they do not weaken them with their actions, creating some kind of organisations, and identifying common gaps for value chain development. Otherwise, when you do not know you cannot put in place appropriate interventions like industry policy”. “The assumption is that global prices are stable and there are good sales and profits. One wants to see the services available like the roads, with costs reduced, and jobs created. It’s not only the coffee sector that will contribute to this area. Other revenues are also very important if accounted for very well. The whole thing bounces back to the government and how it ensures that the set regulations have been adhered to”.
		-Independence of intervention	4	“Farmers’ Unions changed their mindset and approach by not taking up politically driven decisions. It would benefit the chain actors and the whole upgrading process e.g if they made business-driven decisions for example in management processes etc”. “Government agencies intervened independently without appearing to be influenced by politics. Although we are trying to regionalise, within 3-5 years, we usually see reduced funding because of changes in the political environment. Most chain actors therefore see the government as support from NRM which is the ruling party. Approvals of funding have to go through the President’s office, the army etc”. Government agencies intervened independently without appearing to be influenced by politics. Although we are trying to

				regionalise, within 3-5 years, we usually see reduced funding because of changes in the political environment. Most chain actors therefore see the government as support from NRM which is the ruling party. Approvals of funding have to go through the President's office, the army etc". "The government has done its job and the implementers who are the technocrats should be left alone to do their job".
		-Incentive policies (pricing and finance)	3	"What would largely upgrade the upgrading is pricing policies that are fair". "What would largely improve the upgrading process is pricing policies that are fair. The current ones seem to favour private investors more, for instance, foreign or international investors have all kinds of incentives compared to local ones. The incentives are segregated, that is how I would subscribe to it. The other factor I would mention is finance because our local banks have very high lending interest rates which makes finance very expensive". "Policy and how the government controls the price mechanism".
		-Stakeholder Engagement	2	"The engagement of stakeholders through networking, and how they contribute to the policy making process from which they should benefit". ".....That is how they support the farmers with subsidies, better seedlings and motivation to do things better".

Knowledge Sharing from Experiences	9	-Coordination	2	“What determines upgrading, I would say is the positive factors mentioned earlier like linking producers with consumers, linking research and industry, adequate financing, being patriotic, branding our Ugandan coffee”. “Motivation of the Farmers to engage in backward linkages. Addressing the motivation factors and how they implement the measures on the farm. How they address climate change, getting them to adopt insurance for risk management etc, more about networking events like regional forums, workshops, so that all the stakeholders are involved in policy making, they need to know what is going on. This needs to be strengthened”.
		-Sharing lessons learn	2	“Development Partners shared the lessons they are learning. They only share the success stories, they don’t share the challenges from which others can learn. We have seen people who have been given machines and they were not successful, but they don’t want to say that our project failed. This allows other people to be victims of the same mistake”. “Study and learn from where it has worked and try it out”
		-Creation of Awareness	4	“Lack of awareness for value addition is key”. “Coffee upgrading and the whole value chain process needs stakeholders to sensitise people on importance of upgrading Training people to be aware of the coffee value chains and its importance would facilitate the upgrading process”. “Farmers are not taught these things so they are usually not aware of the new changes that need to be done”. “In other words, they don’t see the need to upgrade because they are not ware of the benefits and importance”.

		-Digitalisation	1	“Digitalisation especially at the bottom of the value chain”.
Affordable Finance	6	-Low Cost	6	“Let’s have finance that is tailored for upgrading and is low cost or interest or patient financing e.g there is funding from the UK they borrow at 8% and give us at 10%. We have approached some of our local banks like Centenary Bank and the best rate they offered us was 24%. We have also been getting pre-financing from a buyer who has been charging us 4% per annum. The multinationals here are also accessing foreign financing at the same rate of 4% per annum”. “It is impossible for one that gets local financing and international financing to compete. If we had financing that is favourable, people would be motivated to invest in businesses that are patient and pay back in a longer period like 50 years so business planning and strategy would be aligned accordingly. The possibility is there at all levels, for example, protected land can be reallocated to coffee farming if upscaling makes business sense”. “Affordable Capital is key”. “Upgrading can be achieved if the problem of finance is addressed”. “Upgrading can be achieved if the problem of finance is addressed. Finance is still the biggest challenge we have. Another challenge to upgrading the coffee value chain in Uganda is market accessibility. For instance, cooperatives are privately owned and therefore get a lot of resistance from the government. The government seems to favour middlemen who have formed their strong entities and promote theirs”. “Right financing is also another challenge”.

More Control/Power of Upgrading Processes	5	-Increase of Local Demand	1	“I think if we owned the upgrading process, it is possible because we would generate the local demand”.
		-Farmer ownership model for more earnings	1	“Farmer ownership of the processes like using the NUCAFE model. For upscaling, it is already happening in Uganda. I have visited women coffee farmers in Bugisu where Arabic coffee fetches the highest value on the international market when it is certified against the sustainability standards. They buy from themselves, 80% of the coffee is sold internationally because the rest is locally roasted where they make powder. Half a kilo of coffee is sold between 10,000 to 20,000 Uganda shillings per kilogram. So they earn more when they add value, actually more than double if they do not add any value. They reinvest the money they earn, they support each other financially by offering loans at a very low interest. This is very helpful. If all coffee Farmers did this, upscaling would easily be achieved. The farmer ownership model enables the Farmer to grow, process and sell the coffee on behalf of their Farmers or Producers so they earn more than when they sell to middle men. They also have a roasting facility if roasted coffee is required. The disadvantage is that it can only be sold to local markets because Europe does not accept roasted coffee. They cannot sell to international markets because they have protectionist policies”.

		-Awareness of standards	1	“Demand from buyers will drive the upgrading because the middlemen guide what kind of standards are needed”.
		-Farmer empowerment	1	“Overall, it is possible to upgrade if power shifts to the farmers and if governments equip them with the right environment and capabilities in terms of skill”.
		-Uncontrollable dynamic economic	1	“Stakeholders are also held back by slow markets, and changing economic environments which they have no control over”.

4.3.8.1 Government Support

Government support in terms of policies and regulation was mentioned fifteen (15) times, as summarised by Interviewee 2,

“Policies or laws and regulation pushing for export of processed coffee, for example, more export of green coffee beans can influence positive outcomes. If we stuck to such policies, in the short run, there would be a drop in incomes, but in the long run, we would earn like three times more”.

However, four (4) interviewees stated the importance of government support that is independent as was expressed by Interviewee 4,

“The upgrading process could be accelerated if government agencies intervened independently without appearing to be influenced by politics. Although we are trying to regionalise, within 3-5 years, reduction in funding is usually seen because of changes in the political environment”.

Interviewee 4 further added that,

“It would benefit the chain actors and the whole upgrading process if they made business-driven decisions, for example, in management processes”.

Interviewee 8 expressed the need for government support through fair pricing policies,

“What would largely improve the upgrading process is pricing policies that are fair. The current ones seem to favour private investors more, for instance foreign or international investors have all kinds of incentives compared to local ones”.

He added,

“The other factor I would mention is finance because our local banks have very high lending interest rates, which makes finance very expensive”.

Two (2) interviewees highlighted the importance of stakeholder engagements with the government to improve policies, as indicated and summarised by Interviewee 14,

“The engagement of stakeholders through networking, and how they contribute to the policy-making process from which they should benefit the upgrading process”.

4.3.8.2 Knowledge Sharing from Experiences

Two (2) interviewees highlighted the importance of coordination in upgrading, as observed in the remark of Interviewee 1,

"What determines upgrading, I would say is the positive factors mentioned earlier like linking producers with consumers, linking research and industry, adequate financing, being patriotic, and branding our Ugandan coffee".

Besides coordination, two (2) interviewees stressed the role of sharing lessons learnt as summarised by Interviewee 4

"It would be good if Development Partners shared the lessons they are learning. They only share the success stories; they don't share the challenges from which others can learn".

In addition, four (4) interviewees highlighted that the creation of awareness would facilitate knowledge sharing, as was stated by Interviewee 13,

"Coffee upgrading and the whole value chain process needs stakeholders to sensitise people on importance of upgrading. Training people to be aware of the coffee value chains and its importance would facilitate the upgrading process".

Digitalisation was also mentioned by Interviewee 14: "Digitalisation, especially at the bottom of the value chain, is key".

4.3.8.3 Affordable Finance

Another critical influence mentioned was affordable finance. Six (6) interviewees alluded to the sentiment that it is expensive. Interviewee 1 suggested,

"Let us have finance that is tailored for upgrading and is low cost or interest/patient financing.

Interviewee 7 further confirmed the importance of finance to upgrading, "Upgrading can be achieved if the problem of finance is addressed".

4.3.8.4 More Control/Power of Upgrading Processes

Five (5) interviewees expressed the need for more control/power in the upgrading process.

Interviewee 1 believed this would be improved with more local demand,

“I think if we owned the upgrading process, it is possible because we would generate the local demand”.

Interviewee 2 explained that the farmer ownership model has successfully secured better prices,

“A good example is the NUCAFE model. The Farmer ownership model enables the Farmer to grow, process and sell the coffee on behalf of their farmers or producers so they earn more than when they sell to middlemen”.

Interviewee 3 added that buyer demand raises awareness of the required standards.

“Demand from buyers will drive the upgrading process because the middlemen guide the kind of standards needed”.

On the other hand, Interviewee 4 observed that upgrading is possible when farmers are empowered by the government,

“Overall, it is possible to upgrade if power shifts to the farmers and if government equip them with the right environment and capabilities in terms of skill”.

Interviewee 13 stated how stakeholders are held back and have no control over certain economic changes,

“Stakeholders are also held back by slow markets and changing economic environments which they have no control over”.

4.3.9 1f(iii): Perceptions on Upscaling the Favourable Sustainable Outcomes

Interviewees were also asked about their perceptions on how easy it is to upscale the economic, environmental, and socially favourable outcomes and results as presented in Table 36 below. Government policies, adequate financing, management skills, transparent knowledge and sharing, and better organisation of chain actors were mentioned the most. Seven (7) interviewees mentioned the role of government policies in upscaling adequate finance, management skills, and

transparent knowledge sharing, while six (6) mentioned the better organisation of chain actors, and five (5) indicated better organisation of chain actors. Other issues highlighted were Stable Demand/Market, Social Entrepreneurship, Improved Production Processes, Traceability, and Environmental Factors if upscaling is to take place.

Table 35*Perceptions on Upscaling Sustainable Outcomes*

Facilitation of Upscaling Sustainable Outcomes	Number of Highlights	Comment	Number of Highlights	Examples of Quotes
Government Policies	7	-Regulation	6	“Sometimes, regulation can be used for instance the government can say we are no longer accepting a certain standard of coffee. This would force the chain actors to produce to the expected standards thus upgrading and upscaling in the long run. Putting policies in place to facilitate upscaling could help”. “To achieve upscaling, we need policies that enforce social and environmental aspects as well. For instance, in Uganda, 70% of the funding is from Development Partners who do not care about profits and the rest is from commercial banks”. “So, in my view, upscaling depends on specific regulations to push businesses to more ethical and responsible practices that have more people in mind and the type of capital available”.

				“If the government is committed to developing its country, it can be possible to upscale because there are specific areas in the value chain that create employment and improve wellbeing of the masses”. “It is not automatic I would say but it is possible depending on the legislation, policy, having motivated Farmers and Processors, government dealing with inequality indicators, changing mindset of Farmers, crop testing, effectiveness of extension workers, sustainability efforts and practices. Upscaling is doable along with these factors. Good results of the ongoing projects should be replicated. In a way, advocacy plays a key role”. “Bottom line, gender mainstreaming, Farmer representation, digitalisation should be enhanced. Successful projects should be replicated. The government is the initiator and the buyers of the coffee so there is a need to work together. Farmers are represented in these forums so that they are fully integrated and facilitated”
		Certification	1	“More has to be done on upgrading on and off the farm to increase quality for instance better practices and off the farm when they come to the factory through compliance with the set standards and certifications”.

Adequate Financing	6	-Affordable	3	“The whole upgrading process is a gradual process and can be done at different stages when resources allow one to grow along the way. This kind of equipment is expensive to buy at once”. “Availability of adequate financing that is cheap is also key. The upscaling process needs finance to speed up the implementation yet it is often expensive”. “The funding gap is another important factor for capital-intensive equipment. In Uganda, we have the Agricultural Credit Facility (ACF) in the Bank of Uganda. ACF is very good because the interest is low about 12%. However, accessing it is through commercial banks which have their own products. The banks prefer to give their own funds because they earn money. This other one is exploited by those who have influence or are able to aggressively pursue it. We need more funding opportunities like ACF which is easily accessible to support upscaling efforts”.
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		-Availability	3	“Financing is also very important for upscaling. One cannot upscale if they do not have money. If funds are available, upscaling is possible”. “Funding is a challenge in the process because Grants are usually short term yet coffee takes five years to be harvested”. “There is need to finance the upgrading and value chains for better results Financing the whole value chain and upgrading process is key and then we can talk about upscaling”.
Transparent Knowledge and Sharing	6	-Knowledge sharing and experiences	2	“For a person to upscale, there is a need to be transparent and have good knowledge sharing whether it is a success or failure, so that other chain actors can learn from each other. Funders shouldn’t punish failures by withdrawing support when there is a failure in a project. Instead, they should try and find out why they have failed and help them to overcome the challenges so that they learn from the mistake and improve in future. What people actually do is that they formally do not disclose that they have failed. They do so by manipulating the numbers so that they can maintain the support”. “Increase in post-harvest activities and processing improvements because with this come more value and profit margins”.

		-Learning from Pilots	2	“Increase in post-harvest activities and processing improvements because with this comes more value and profit margins”. “We can do some demonstration activities for farmer groups so that the knowledge can be exchanged”.
		-Sensitisation	1	“If sensitisation is done correctly, it’s easy to scale out the upgrading outcomes”.
		-Digitalisation	1	“Digitalisation also facilitates the upscaling process to all farmers because information can easily spill over to where it is needed most in the value chain especially at the bottom”.
Management Skills	5	-Business Management skills	2	“Better skills in management are required for instance an entrepreneur has to be physically present in order for their business to succeed otherwise they can’t be present at different farms or business setups”. “I think it is possible to upscale, it is doable if profits are made, saved and reinvested for expansion”.
		-Management of resources	1	“So the possibility is there at all levels for example protected land can be reallocated to coffee farming if upscaling makes business sense”.
		-Good Ethical Practices	1	“Good ethical practices”.

		-Diversification	1	“Diversification. Farmers usually have limited diversification. Coffee is the main crop but other crops can be planted along with it because coffee is harvested only twice a year. So when it is not in season, Farmers should have other activities to do. For example, plant other trees like macadamia. Alignment between quality standards along the chain is also important”.
Better Organisation of Chain Actors	5	- Organisations of cooperatives, unions, and associations	3	“The cooperative movement would be ideal as it would be inclusive vertically in the value chain. This is being done in Rwanda and big margins of the proceeds are retained”. “Regarding how easy it is to upscale assuming that we are able to upgrade, I would say it is not difficult. We only need to have better organisation of the players in the value chain. If they are in organised groups and they view upgrading as a positive contribution to the value chain, it is possible”. “They leave the unions and cooperatives which would otherwise have bigger positive effects on the chain actors especially those at the bottom of the value chain”. “More support from the government through UCDA to coffee unions and associations is required because they have a bigger impact on the

				communities. The private individuals are mainly interested in making profits”.
		-Processing zones	2	“Also, to upscale the positive outcomes of upgrading, we need to establish processing zones in the coffee growing areas like a factory in every place. In Kenya, this is done through the local government”. “Upscaling can be done and it is achievable if the economically favourable aspects are achieved. Our Farmer's association plans to set up other processing stations in the city closer to the market where we can supply to supermarkets”.

4.3.9.1 Government Policies

Seven (7) participants were of the view that government policies play a significant role in upscaling sustainable outcomes, with 6 of them arguing that this would be through regulation, as expressed by Interviewee 5,

“Regulation can be used for instance, the government can say we are no longer accepting a certain standard of coffee. This would force the chain actors to produce to the expected standards, thus upgrading and upscaling in the long run. So, putting policies in place to facilitate upscaling could help”.

Interviewee 6 added the importance of policies for enforcing social and environmental aspects,

“...So to achieve the upscaling, we need policies that enforce social and environmental aspects as well. For instance, in Uganda, 70% of the funding is from development partners who do not care about profits, and the rest is from commercial”.

The importance of the government's role in certification was also highlighted by Interviewee 7,

“More has to be done on upgrading on the farm and off the farm to increase quality for instance better practices and off the farm when they come to the factory through compliance with the set standards and certifications”.

4.3.9.2 Adequate Financing

Six (6) participants expressed that upscaling sustainable outcomes is possible with adequate and available finance. Three (3) respondents stated that adequate finance was necessary, as observed by Interviewee 3,

“Availability of adequate financing that is cheap is also key. The upscaling process needs finance to speed up the implication yet it is often expensive”.

This is illustrated by Interviewee 4, who shares,

“The funding gap is another important factor for capital-intensive equipment. In Uganda, we have the Agricultural Credit Facility (ACF) in the Bank of Uganda. ACF is very good because the interest rate is low, about 12%. However, accessing it is through commercial banks, which have their products is difficult. The banks prefer to give their funds because they earn money. This other one is exploited by those who have influence or can aggressively pursue it. We need more funding opportunities like ACF easily accessible to support upscaling efforts”.

The funding issue was confirmed by three (3) other participants as summarised by Interviewee 5,

“Financing is also very important for upscaling. One cannot upscale if you do not have money. If funds are available, upscaling is possible”.

4.3.9.3 Transparent Knowledge and Sharing

Six (6) participants considered transparent knowledge sharing as important in facilitating upscaling. Two respondents observed that sharing lessons learnt from experiences is one of the ways of enhancing knowledge sharing, as expressed by Interviewee 4,

“For a person to upscale, there is a need to be transparent and a good knowledge sharer whether it is success or failure, so that other chain actors can learn from each other”.

He added that even lessons from failures are important,

“Funders shouldn’t punish failures by withdrawing support when there is a failure in a project. Instead, they should try and find out why they have failed and help them to overcome the challenges so that they learn from their mistakes and improve in future. What people actually do is formally not disclose that they have failed. They do so by manipulating the numbers to maintain the support”.

Two other respondents mentioned the importance of learning from pilot studies, as expressed by Interviewee 10,

“Regarding upscaling, it is possible and can be done. If you do not have the investment to upgrade the entire value chain at once, you take on portions through pilots with goodwill from all stakeholders. These are monitored and observed to determine where the challenges are and corrective action is taken. From the findings, there is a basis for recommendations and pilot the results that will be a basis for future action for upscaling in other areas”.

Others raised sensitisation as raised by Interviewee 5, “If sensitisation is done correctly, it’s easy to scale out the upgrading” while Interviewee 14, mentioned the role of digitalisation in upscaling,

“Digitalisation also facilitates the upscaling process to all farmers because information can easily spill over to where it is needed most in the value chain especially at the bottom”.

4.3.9.4 Management Skills

Five (5) participants stressed the need for management skills in order to upscale sustainable outcomes successfully. Three (3) participants highlighted the importance of good business management skills, as was expressed by Interviewee 11,

“I think it is possible to upscale, it is doable if profits are made, saved and reinvested for expansion”.

Management of resources was also mentioned by Interviewee 1,

“So, the possibility is there at all levels, for example, protected land can be reallocated to coffee farming if upscaling makes business sense”.

In addition, the need for diversification for alternative sources of income was highlighted by Interviewee 14,

“Farmers usually have limited diversification. Coffee is the main crop, but other crops can be planted along with it because coffee is harvested only twice a year. So, farmers should have other activities to do when it is not in season. For example, plant other trees like macadamia”.

Further still, he added “.... good ethical practices were also key”.

4.3.9.5 Better Organisation of Chain Actors

Three (3) participants highlighted the importance of the organisation of cooperatives, unions, and associations, as was mentioned by Interviewee 5,

“Regarding how easy it is to upscale assuming that we can upgrade, I would say it is not difficult. We only need to have better organisation of the players in the value chain. If they are in organised groups and they view upgrading as a positive contribution to the value chain, it is possible”.

Interviewee 7 stressed the importance of economic favourable outcomes achieved through farmers' associations,

“Upscaling can be done, and it is achievable if the economically favourable aspects are achieved. Our farmer's association plans to set up other processing stations in the city closer to the market where we can supply to supermarkets”.

Processing zones were further highlighted by Interviewee 2 who remarked,

"Also, to upscale the positive outcomes of upgrading, we need to establish processing zones in the coffee growing areas like a factory in every place".

4.4 Evaluation of Findings and Connection with Literature

This study sought stakeholders' perceptions of the influence of specific antecedents of value chain upgrading on upscaling. Various concepts on Upgrading in the literature were adopted to guide the inquiry on their applicability in the Ugandan coffee industry, from which the stakeholders were drawn. The next section triangulated and summarised the quantitative and qualitative findings. The sub-research questions under 1.6.1 were employed to answer the main research question, "What is the influence of specific antecedents of value chain upgrading on upscaling from stakeholders' point of view?"

4.4.1 Triangulation and Evaluation of the Research Findings

The problem that this study attempted to address was that upgrading global value chains like coffee, has remained challenging in the producing countries, yet upgrading is seen as a strategy for economic development through inclusive growth (Holste, 2015). However, it is unclear how developing countries can practically apply the upgrading strategy due to the limited and existing theoretical tensions. This study examined the influence of upgrading on the upscaling of global value chains by investigating stakeholders' perceptions of the coffee industry in Uganda. The study was a Convergent Mixed Study Method, collecting data using Interviews and Questionnaires. In order to improve the reliability and validity of the study, this section triangulated the results collected from the quantitative and qualitative methods (Creswell & Miller, 2000).

4.4.1.1 Antecedents favouring Upgrading Value Chains

The first question concerned the antecedents that favour upgrading the value chain. Questionnaires and Interviews were employed to address the question. The findings address the limited empirical

research on what facilitates upgrading in global value chains identified by Vogel et al. (2020) and Islam and Polonsky (2020).

From the Questionnaire responses, Non-Governance Antecedents (Marketing Capability, Operating Environment), and Governance Antecedents (Internal Governance, Horizontal Governance and Vertical Governance) had the highest frequency of 'Agree Strongly'. This was followed by External Governance with a mode of 'Agree Moderately' and GVC Composition with the lowest mode as 'Agree Slightly'. Regarding the mean, Vertical Governance had the highest mean of 5, and GVC Composition had the lowest. Marketing Capability, Operating Environment, Internal Governance, External Governance and Horizontal Governance had a mean of 4. The results, which are statistically significant, reveal a positive correlation between the antecedents of upgrading and the means or types of upgrading, suggesting an evident influence of these factors. The strongest correlation was found with Governance Antecedents, specifically Process Upgrading. With the non-governance/capabilities factor, the correlation was strongest with Functional Upgrading. The study's findings are crucial for understanding the complex and dynamic nature of the coffee value chain in Uganda, where numerous stakeholders operate in diverse geopolitical environments.

From the responses to the interviews, Marketing Capabilities and GVC Composition as non-governance/capabilities antecedents were highlighted and complemented the findings from the quantitative analysis. Also, from the Governance Antecedents, Internal and Vertical Governance stood out from the responses, which complements the quantitative results that revealed the highest correlation with Process Upgrading.

Based on the responses from the Questionnaires that were in agreement with those from the interviews, the Non-Governance Antecedents that are most important for upgrading the coffee value chain in the context of Uganda are Marketing Capabilities and GVC Composition for non-Governance Antecedents and Internal and Vertical Governance for the Governance Antecedents. The current study supports the idea that the Non-Governance Antecedents, Marketing Capabilities (Pasquali, 2021) and GVC Composition (Kano, 2018), are essential for upgrading. The findings of Marketing Capabilities on the importance of knowledge studies are supported by observations of Addisie and Tebarek (2023), who observed that technical knowledge and the adoption of new technologies, as well as the improvement of skills and capabilities through past experiences (Ochago, Dentoni & Mahdad, 2024). The findings of Marketing Capabilities as an antecedent are also supported by Ayenew (2023), who observed the importance of market accessibility, infrastructure, stable prices, and availability of finance, all of which facilitate and enforce the marketing capabilities of agricultural products in East Africa. The findings highlight GVC Composition as another important antecedent of upgrading the coffee value chains in Uganda and are also in line with previous studies by Wedig (2019) that illustrate how cooperatives can be used as an instrument to address poverty and structural inequalities within the coffee value chain rather than seeking for only economic benefits. However, Non-Governance Antecedents did not influence Chain Upgrading.

The study findings further support the idea that Internal Governance (Scuotto, Garcia-Perez, Nespoli, & Petruzzelli, 2020) and Vertical Governance (Gereffi & Lee, 2016) are important for upgrading in the context of Uganda. For instance, for Internal Governance, the role of certification and their awareness in upgrading were equally highlighted in Ethiopia, also a developing country and was seen to lead to sustainable outcomes that improved the well-being of

chain actors in producing countries (Oe, Yamaoka, & Ochiai, 2022). Further, an earlier study also observed the role of standards and certification as a critical enabler to global market participation (Okamoto, 2020). The creation of local markets as an Internal Governance factor key for upgrading the coffee value chain was also supported by Ategeka (2023), who observed in a study on coffee sector analysis trends in Uganda. The results for the Vertical Governance Antecedents of Control and Power shifting to farmers are supported and in line with previous studies, such as Frost (2019), which confirmed that power in the international coffee market is in the hands of multinational and international players. Similarly, Alfaro-Ureña, Manelici and Vasquez (2022) observed what they referred to as buyer-driven upgrading between local firms and multinational branches. This confirms the nature of the coffee value chain in Uganda that is buyer driven.

4.4.1.2 Types/Mean of Upgrading Value Chains in Developing Countries

The second question addressed the different types and trajectories of value chain upgrading in the context of developing countries, aiming to fill the gap identified by Islam and Polonsky (2020). According to the Questionnaire responses, the types of upgrading that occurred most frequently were Process, Product, and Chain upgrading. Process and Product had the highest median of 5, while the others had 4. On average, the highest correlation with sustainable outcomes was Functional Upgrading. Functional Upgrading also had the highest correlation overall with Economic Sustainable outcomes. For all the types of Upgrading, the highest correlation was with economically sustainable outcomes.

From the interview responses, most interviewees believed that Process Upgrading was the most common type/means of upgrading, while Functional Upgrading was the least common, followed closely by Chain Upgrading.

Responses from both Questionnaires and Interviews agreed that Process Upgrading is the most common process in Uganda's coffee industry. The findings are supported by Addisie & Tebarek (2023), who theorised that most coffee producers are engaged in Process Upgrading due to their connection with buyers and the kind of technical assistance they receive. Okamoto (2020) also observed that Process Upgrading can be a path to improvement in quality due to manageable competition within agricultural markets. Earlier on, Fromm (2007), in a study on upgrading value chains in the Houndorus agricultural sector, and Fischer and Quaim (2012), in their study in Kenya, also observed that farmers are engaged in Process Upgrading activities before advancing to other types of upgrading, making it the most common in developing countries. However, when comparing the types of value addition that facilitate upgrading, Functional Upgrading had the highest correlation with sustainable outcomes, particularly economically sustainable outcomes. This is because Functional Upgrading, which is when producers transition to high value-added activities (Rossi, 2013), results in higher returns since more profits are added due to the value addition. Important to note, however, is that Process Upgrading, which is when production processes are made more efficient (Humphrey & Schmitz, 2002), may not easily lead to sustainable outcomes in developing countries due to the limited technological capabilities and skills since it takes place internally. Tian, Dietzenbacher and JongA-Pin (2019) observed that technology, knowledge and improved skills are prerequisites for upgrading. In agreement, Yoruk (2019) observed that Process and Product Upgrading form illustrations of technological upgrading. Lwesya (2022) observed that foreign direct investments through which technological spillovers pass are essential for Process Upgrading in developing countries. However, he pointed out crucial factors like fluctuating exchange rates, weak institutions, liberalisation, infrastructure, and lack of human capital and finance must be addressed. Although Functional Upgrading may indeed lead to an increase in profitability, a recent study in Uganda by Arslan, Gregg, and Wollni (2024) asserted

that due to information asymmetry and quality challenges, it is better to focus on supply chain optimisation rather than producing sophisticated coffee products to avoid value chain degrading. Another study by Giuliani, Pietrobelli, and Rabellotti (2005) also observed that Functional Upgrading is likely not to happen in developing countries since it requires an advanced skill set that is often lacking.

4.4.1.3 Key Stakeholders in the Coffee Value Chain

The third question addressed the key stakeholders in the Ugandan coffee industry and their influence on value chain upgrading (Magala, Mangheni, & Zonal, 2018). According to the Questionnaire responses, the mode was ‘Agree Strongly’ for the categories of State Agencies, Public Research Institutions, Coffee Unions and Associations, and Financial Institutions. The mode for Development Partners was ‘Agree Moderately’, while it was ‘Agree Slightly’ for Private Research Institutions and Consulting Firms. State Agencies had the highest median of 5, Public Research Institutions, Coffee Unions/Associations, Development Partners, Consulting Firms, and Financial Institutions had a median of 4. In contrast, Private Research Institutions had the lowest median of 3. Correlations between Public Stakeholders and Product Upgrading, and Private Stakeholders with Process, Product and Functional were positive and significant, with the strongest correlation for both Public and Private Stakeholders being with Product Upgrading. This indicates that when one variable increases, the other variable increases and the relationship is not due to chance. Regarding the relationship between Public Stakeholders and Process, Functional, and Chain Upgrading, as well as Private Stakeholders and Chain Upgrading, although a positive correlation was observed, it was not statistically significant. The relationships between Private and Public Stakeholders with Product Upgrading had the strongest correlation.

From the responses to the interviews, the main stakeholders included the Government, which was mentioned the most, followed by Producers/Farmers, Traders/Exporters, Development Partners, Research Institutions, and Financial Institutions. Asked which stakeholders influence the upgrading process, most of the stakeholders mentioned Producers/Farmers. The next most frequently mentioned were the Government, Development Partners, and the Private Sector. The importance and inclusion of stakeholders like farmers and their groups facilitate the achievement of local governance systems that enhance the upgrading process through knowledge sharing (Ssebunya, Schmid, van Asten, Schader, Altenbuchner, & Stolze, 2017). The results stressing the importance of farmers is not surprising considering that previous researchers like Horner and Alford (2019) observed that their importance has been overlooked. On the other hand, the findings of the Government as a key stakeholder in the upgrading processes is supported and stressed by Yadav, Arun, Santhosha, Manohar, Chandrarekha, and Gagana (2022), who observed that the upgrading process is extremely difficult without institutional support from the Government in form of policies. Kummritz, Taglioni, and Winkler (2017) observed that although domestic policies play a big role in upgrading, the upgrading process is driven by the lead firms in developed countries. However, in a recent study by Dung and Thanh (2023), where cross-country firm data from developing countries was the focus of analysis, it was observed that institutional constraints played a role in GVCs. It was revealed that bribery, referred to as the “greasing-the-wheels-of-GVC”, influenced global value development decisions by improving the chances of small and medium-sized firms to become global value chain actors with weak institutions. The same study also revealed that larger firms enjoyed more benefits from bribery in the absence of strong institutions.

The findings from the Questionnaires and Interviews complement each other and agree that the main stakeholders are the Government, Producers/farmers, Traders/Exporters, Development partners, Research Institutions, and Financial Institutions. From these, Farmers emerged as the most important stakeholders that influence upgrading, followed by the Government.

4.4.1.4 Determinants of Value Chain on Sustainable Outcomes

The fourth question was on the main determinants of value chain upgrading that lead to favourability of economic, environmental, and social outcomes in an attempt to fill the gaps identified by Lam et al. (2020) ; Scoones et al. (2020), and Marcato and Baltar (2021). Process and Product Upgrading as determinants of achieving sustainable outcomes had a mode of ‘Agree Strongly’ followed by Functional and Chain Upgrading with a mode of ‘Agree Moderately’. Again, Process and Product Upgrading had the highest median of 5, while Functional and Chain Upgrading had a median of 4. There was a positive and significant relationship between the as the type of upgrading increases, the sustainable income also increases. Also of notable importance is that the highest correlation was between the types of upgrading as determinants and economic sustainable outcomes.

From the interviews, Process Upgrading was viewed as the influence that leads to sustainable outcomes. Of those who viewed Process Upgrading as the most influential, the majority cited that it was because activities involve most chain actors at the production stage, and more products and brands are produced as a result. This aligns with the argument of Oliveira, Fleury and Fleury (2021), who observed that Process Upgrading improves worker skills, efficiency, management practices, and technological and innovative financing strategies. Because Process and Process Upgrading are positively correlated (Ponte & Ewert, 2009), the study expected

Product Upgrading as the next identified influence for upgrading; however, the results were Functional Upgrading. In addition, the highlight of Functional Upgrading in the results was a surprise, as it demands a high level of skills and capabilities from local firms, which are still lacking to a large extent (Sato & Fujita, 2009). As a result, it is difficult for new entrants, especially in developing countries like Uganda (Pietrobelli & Rabellotti, 2006). Horner and Alfred (2019) also highlighted that while Functional Upgrading is challenging to achieve in the context of developing countries, it makes it possible for producers to generate and capture value sustainably. The next most influential factor from the responses was Product Upgrading. However, in the context of developing countries like Uganda, Product Upgrading has limitations due to a lack of policies that enhance innovations in capabilities, as was observed by Banga (2023), who, in a study in India, observed a shift to exporting less sophisticated products to buyers from other developing countries. Based on the findings from the Questionnaire and Interviews, Process Upgrading was the most influential factor in achieving favourable sustainable outcomes.

4.4.1.5 Relationship of Upgrading Antecedents, Determinants and Outcomes

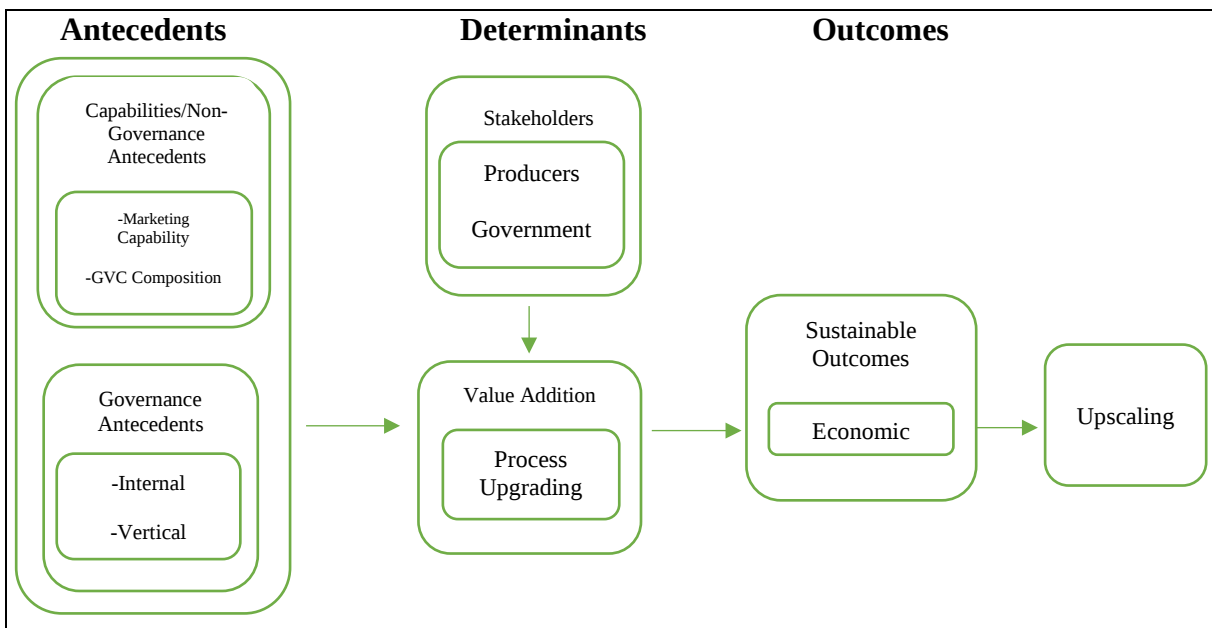
The fifth question addressed how the upgrading antecedents, determinants, and outcomes relate to each other within the value chain, in line with Pasquali's (2021) identified gap. According to the Questionnaire responses, the mode was 'Strongly Agree', indicating that most respondents agreed with the statement. The median was 5, suggesting that almost all respondents (98.1%) agreed with the statement. There was also a positive and significant correlation between the three variables.

From the responses of the interviews, most interviewees, 13 out of 15, agreed with the statement that the more favourable the antecedents are, the more favourable the determinants and the more

favourable the sustainable factors leading to Upscaling. However, the majority agreed on the condition that other services facilitating upgrading were provided, antecedents undermining upgrading were addressed, and power was shifted to farmers at the production level. A minority of 2 participants disagreed with the statement because they believed farmers needed power, and there were factors beyond their control.

Figure 13

Antecedents, Determinants and Outcomes based on Research Findings



Source: The Researcher

Both responses from the Questionnaire and Interviews agree and indicate a high response that agrees with the statement that the more favourable the antecedents of upgrading are, the more favourable the determinants and the more favourable the sustainable outcomes for upscaling. Figure 13 above presents the relationships of the antecedents, determinants and outcomes based on the findings of the study.

Although there is a paucity of studies in Uganda on the relationships of upgrading antecedents, determinants, and sustainable outcomes, this can be demonstrated by a study in Thailand on exporting sea products to developed countries. A positive and significant relationship between antecedents and determinants of upgrading is supported and illustrated by Farole and Winkler (2018), who found a positive relationship between skilled workers and the involvement of developing countries in value chain activities on the global market. A positive relationship between determinants and sustainable outcomes is further supported by Matheis and Herzig (2019), who argue that addressing the bottlenecks of upgrading would improve the achievement of sustainable outcomes through the inclusiveness of marginalised chain actors. However, a negative association with upgrading was observed, for instance, in a study on food exports in Thailand, where Process Upgrading was attributed to high production costs resulting from high product standards (Tanrattanaphong, Hu & Gan, 2020).

4.4.1.6 Sustainable Outcomes Leading to Upscaling

The sixth question was on the main determinants of economic, environmental, and social outcomes of upgrading for upscaling in line with the gaps identified by McWilliam, et al., (2019); Golgeci, Makhmadshoev and Demirbag (2021).

Responses from the Questionnaire showed a mode of ‘Agree Strongly’ for the economic (Value Distribution, Supplier Internationalisation, Export Intensity, Financial Performance and Production Growth) and social (Division of Labour/Specialisation, Competence and Employee Wellbeing) outcomes. Of the environmental outcomes, Regional Development and Reduced Waste also had a mode of ‘Agree Strongly’, while Knowledge Spillover had a mode of ‘Agree Moderately’. Of the economically sustainable outcomes, Supplier Internationalisation, Export

Intensity and Production Growth had a median of 5, together with the socially sustainable outcomes. The environmental sustainable outcome and two of the economic sustainable outcomes had a mode of 4 came second. All the sustainable outcomes had a positive and significant correlation with favourability of Upscaling with economic sustainable income having the highest correlation of 0.39 although the strength is moderate.

To get deeper insights into upgrading, interviewees were initially asked about their perceptions of upgrading. From the responses of the interviewees, most of the respondents were of the view that upgrading was achievable, although they mentioned some limitations like internal and external forces, lack of incentives, high cost, lack of a bottom-up approach, and market being too liberalised. These limitations are highlighted by previous scholars for instance, government policies by De Marchi & Alford (2021), Internal and External Governance forces by Scuotto, Garcia-Perez, Nespoli, & Petruzzelli (2020), Incentives like finance by Barrientos (2014), liberalisation by Syafrin (2019), high transaction costs De Melo & Twum (2020) and Lee & Gereffi (2014) limited bottom-up approaches like local firms to initiating efforts to improve their positions by addressing their inefficiencies. Others believed that upgrading was happening because improvements and developments were already evident on a small scale and could work effectively under a good political system. Others still highlighted that it was still wanting, since the country is still exporting raw materials, there is a lack of awareness of the need to upgrade, and unfavourable policies and quality issues persist. A few also appreciated the upgrade, though they questioned whether there was a market for processed coffee and highlighted the goal.

Again, from the interview, participants were asked what influenced the upgrading process to get favourable sustainable outcomes. Most of the participants indicated government support, with the majority indicating that the government is the regulator of the industry. While some

studies have observed that strict government regulations had limited accessibility of small-holder coffee farmers to microfinance incentives and services in Uganda (Nakabugo, Muathe, & Mwasiaji, 2022), this is in line with the assertions of Alford and Phillips (2018) that highlighted the role of the state as a regulator and facilitator of upgrading and ensuring its benefits are evenly distributed in a sustainable manner. The second most influential factor was knowledge sharing from experiences and lessons learnt through coordination and digitalisation, which all create awareness. The next influencing factor was Affordable Finance and Control/Power, which the farmers are lacking, as was primarily highlighted. Other influencing antecedents included Improved Quality and Patriotic Branding.

Lastly, interviewees were also asked about their perceptions of upscaling Favourable Sustainable Outcomes. Most respondents highlighted that it is achievable with favourable Government Policies through regulation as a facilitator for upscaling, Adequate Finance, Management Skills and Transparent Knowledge Sharing were the next highlighted, followed by Better Organisation of Chain Actors.

By juxtaposing the findings from the Questionnaire and Interviews, and considering the growing body of research on social and environmental aspects of upgrading in recent years (De Marchi, Di Maria, Golini, & Perri, 2020), this study underscores the prominence of economically sustainable outcomes in the context of upscaling. This is because economic sustainability upgrading not only positively determines social sustainability upgrading and productivity growth (upscaling) (Pahl & Timmer, 2020) but also enhances the financial performance of chain actors and social outcomes in terms of employment (Islam & Polonsky, 2020). However, it is crucial to acknowledge that there are often tradeoffs among the economic, social, and environmental outcomes, as observed by Lee and Gereffi (2015).

4.5 Chapter Summary

This chapter rigorously evaluated and triangulated the findings in relation to the expectations based on previous studies. The findings from the qualitative study have provided deeper meaning by revealing new insights. Notably, Spearson's and Pearson's Correlation findings, which are widely recognised statistical tools, demonstrate that all variables were positively correlated and statistically significant. However, it was observed that the strength ranged from weak to moderate. Similarly, Pearson's Correlation was positive and statistically significant for the relationship between the public stakeholders and upgrading, further validating the study's findings.

The findings indicate that the most important Non-Governance Antecedents for upgrading the coffee value chain in Uganda are Marketing Capabilities and GVC Composition, specifically for Internal and Vertical Governance. The study also revealed that Process Upgrading is the most common type of upgrading in Uganda's coffee industry, although Functional Upgrading showed the highest correlation with sustainable outcomes, particularly economically sustainable outcomes. The findings further revealed that the main stakeholders are the Government, Producer/farmers, Traders/Exporters, Development Partners, Research Institutions and Financial Institutions. From these, Producers/Farmers emerged as the most important stakeholders that influence upgrading, followed by the Government. In addition, it was observed that Process Upgrading was the most influential in achieving favourable sustainable outcomes in Uganda's context. More so, a very high response agreed with the statement that the more favourable the antecedents of upgrading are, the more favourable the determinants and the more favourable the sustainable outcomes for upscaling. Lastly, the study findings revealed that economically sustainable outcomes were predominantly a

perquisite leading to upscaling. The following chapter presents the study's implications, recommendations for applications and future studies, limitations, and conclusions.

CHAPTER 5: IMPLICATIONS, APPLICATIONS, RECOMMENDATIONS FOR FUTURE RESEARCH AND CONCLUSIONS

5.0 Introduction

This study examined the influence of upgrading on the upscaling of global value chains by studying stakeholders' perceptions of Uganda's coffee industry. The findings fill a research gap by suggesting an extension in theory, building on its conceptualisation and measurement and its generalisation and testing. Considering that this study adopted a multidisciplinary approach to conceptualising and understanding upgrading of global value chains, it offered a more holistic methodological framework and significantly contributed to stakeholders' understanding of the relationship between favourable upgrading of value chain antecedents and the primary outcomes that will guide their decision-making processes based on their perceptions.

The study explored the influence of specific antecedents of upgrading on upscaling global value. The study employed a Convergent Mixed Study Method that combined qualitative and quantitative approaches through Interviews and Questionnaires. The researcher ensured honesty through the sharing of research findings, maintained objectivity in data analysis and interpretation, demonstrated integrity through consistency, took responsibility for publication to enrich the research body rather than just advancing personal career, and protected participants while respecting laws (Shamoo & Resnik, 2015). All forms of conflict of interest and discriminatory treatment based on sex, ethnicity, and race were avoided. Furthermore, the researcher's supervisor and the UNICAF UREC Committee initially approved the research proposal, the research design, and the data collection tools and granted the researcher permission to proceed with the data collection phase. Above all, the researcher was granted a Gatekeeper Letter from the Ministry of Agriculture, Animal Industry and Fisheries of Uganda.

The study's limitations pertained to the setting and measurement scale. This study considered the entire value chain in the research setting, yet focusing on specific chain nodes might have yielded different findings. Additionally, the study was limited to the coffee value chain in Uganda; however, different value chains, producing countries, types of upgrading, research designs, sampling methods, and the incorporation of consumers as participants may have yielded different results. Regarding the measurement scales, these were limited to literature from previous research. Also, due to time limitations and given that the study was mainly explorative in nature, it did not conduct correlation tests between individual variables.

Based on the previous chapter, the research findings offer various implications for theory, methodology, and practical implications. The study enhanced the existing literature and chain actors gained a better understanding of the constructs of upgrading global value chains, their antecedents, impact, and outcomes. It closes current literature gaps and enhances and reactivates previous literature by adding complementary insights, as upgrading the global value chain is a complex and dynamic process. The research extended theory through empirical testing, verified the conceptualisation, measured the constructs, and tested the theory and its generalisability within the academic body. For practical implications, the study had implications for chain actors and policy-makers. Chain actors gained a better understanding that upgrading local value chains is multifaceted since it is influenced by multiple factors, putting them in a better position to make cautiously informed decisions when strategising on how to upgrade. Further still, confirmation of the critical factors needed to achieve favourable upgrading of global value chains will assist policy-makers in ensuring that supportive mechanisms are in place to promote upgrading. Policy-makers can make informed decisions when orchestrating what contributes to the favourable upgrading of global value chains to achieve favourable economic, social, and environmental outcomes for upscaling.

The findings also identified the antecedents that enhance upgrading most in the context of development, highlight the different types of key stakeholders and how they influence the upgrading of the value chain, the main determinants of value chain upgrading favourability on economic, environmental, and social outcomes, the relationship of upgrading antecedents, determinants, and outcomes and the main determinants of economic, environmental, and social outcomes of upgrading on upscaling.

The main contribution of the study was its model (see Figure 13 in Chapter 4), which describes the upgrading of global value chains, such as the coffee value chain, in developing countries like Uganda. Understanding stakeholders' perceptions is critical to upgrading the coffee value chain and achieving sustainable outcomes that enable upscaling to improve the livelihoods of the chain actors. Guidance on future research and the study limitations are highlighted. This study's contributions are further presented in this chapter, which presents the Implications of the Research Study in section 5.1, Applications in 5.2, Recommendations for Future Research in 5.3, Conclusions in 5.4 and a Summary in 5.5.

5.1 Implications of the Research Study

5.1.1 Theoretical Implications

According to Gereffi (2014), upgrading occurs when value is captured. The process of capturing value occurs when favourable antecedents for upgrading are present. The research findings, which are supported by previous studies, indicate that the most important Non-Governance Antecedents for upgrading the coffee value chain in Uganda are Marketing Capabilities and GVC Composition. These refer to processes for applying knowledge, skills and resources to market-related needs and relationships that mediate information flow (Bayighomog et al., 2020). Basic conditions of capabilities and technical tools, therefore, play a critical role in enabling upgrading. Process Upgrading is the easiest and the initial point to other types of

upgrading suggesting that interventions should be context-based. Of the Governance and Non-Governance Antecedents, findings revealed that Governance Antecedents largely determines upgrading implying that focusing on power dynamics, institutional and regulatory frameworks, stakeholder engagements, and empowerment is key. The study also specifically revealed that the important Governance Antecedents for upgrading were Internal Governance, that is, buyer and supplier relationships within the country (Keane, 2012), and Vertical Governance, that is, buyers and supplier relationships in different countries, Gereffi and Lee (2016) in Uganda. Whereas previous studies focused on governance and its effects on a firm's ability to learn, innovate, and upgrade, recent studies have shifted the focus to other factors that influence the strategies firms employ to upgrade (Pietrobelli & Rabellotti, 2011). As Holste (2015) observed, understanding a firm's capabilities for upgrading provides deeper insights into firm performance, thereby facilitating value capture. As was observed by Cortez and Hidalgo (2022), Marketing Capabilities continue to gain popularity as an enabler of sustainable competitive advantage. Morgan, Katsikeas and Vorhies (2012) also earlier posited that they improved performance as they act as a market sensor for developing international export market strategies that enhance competitiveness. GVC Composition provides a medium through which knowledge travels (Bisztray & Poitiers, 2022). It is also a social network, often comprised of GVC actors and the orchestrating firm that controls the dynamics of information flow (Kano, 2018). Internal Governance influences upgrading through the internal linkages with a value chain and is determined by supplier capabilities, regulations, standardisation, partnerships, and alliances (McWilliam, Kim, Mudambi, & Nielsen, 2019). Vertical governance is another factor affecting upgrading initiatives through a control mechanism between buyers and suppliers located in different locations.

From the findings, Process Upgrading was the most common type of upgrading in the coffee industry of Uganda, although Functional Upgrading had the highest correlation to

sustainable outcomes and economic outcomes. Previous studies have observed how more value is captured by having a more efficient production process and may be characterised by an increase in productivity (Wambua, Ndirangu, Mogaka & Gichimu, 2024), capital compensation growth (Milberg & Winkler, 2011), and capital intensity (Barrientos, Gereffi, & Rossi, 2011). The results further revealed that Process Upgrading is the most popular type of value addition because the capabilities of a developing country like Uganda are mainly at the bottom of the value chain, that is, at the production stage. This aligns with the conceptual framework and previous scholars like Addisie and Tebarek (2023), who observed that the interaction of coffee producers and buyers, together with the technical assistance they receive from the government, facilitates Process Upgrading in Uganda. Process Upgrading at the production stage is well-aligned with the level of development in developing countries, as it does not require a high-level skill set or sophisticated expertise. Instead, Process Upgrading at the production stage is achieved through simple improvements, such as implementing better agronomic and sustainable practices. Over time, these improvements evolve into other types of upgrades (Fischer & Quaim, 2012).

The role of stakeholders is not only stressed by the Stakeholder Theory employed in this study, but is also seen to support the Efficiency or Resource View. For instance, although Freeman, Dmytriiev and Phillips (2021) initially acknowledged the differences between the two theories, they observed that in their recent studies, the Stakeholder Theory informs the efficiency/resource view in terms of normativity or societal values and ethics, sustainability based on stakeholder relationships, people who offer the resources, and cooperation from economic relations. The main stakeholders highlighted were the Government, Producers/Farmers, Traders/Exporters, Development Partners, Research Institutions, and Financial Institutions. In addition, findings revealed that Producers/Farmers were perceived as the most important stakeholders influencing upgrading. This finding is supported by studies like Šūmane, Kunda, Knickel, Strauss, Tisenkopfs,

des Ios Rios, Maria Rivera, Tzruya Chebachm and Ashkenazy (2018), who stressed how important producers' informal knowledge strengthens the sustainability and resilience of global value chains since it determines the quality they produce and how they react to markets. The next most influential group is the government, the regulator (Alford & Phillips, 2018). The interpretation of the results are limited to Uganda's context and operating environment.

The findings revealed that Process Upgrading was the most influential in achieving favourable sustainable outcomes in Uganda. The results were not surprising, as they aligned with the most common type of upgrading, namely Process Upgrading (Addisie & Tebarek, 2023). Again, the limitation of interpretation is that since the respondents and participants are primarily involved in Process Upgrading activities at the production level, their perceptions may be based on their experiences and exposure. The findings, however, were not surprising since Process Upgrading was perceived as the most influential factor in achieving sustainable outcomes. The findings align with the conceptual framework and effectively address the research question. The findings contribute to the theory and existing literature by initiating a line of inquiry that many scholars have not previously explored. Whereas previous literature supports the view that improved efficiency increases productivity and reduces costs, thereby leading to better-quality products and increased value capture, this contribution to the literature highlights that Process Upgrading determines the achievement of sustainable outcomes in the context of developing countries like Uganda. The research findings revealed that respondents and participants were of the view that of the sustainable outcomes, economic, environmental and social, the economic sustainable outcomes influence upscaling most.

5.1.2 Research Implications

The research findings on Non-Governance Antecedents (Marketing Capabilities and GVC Composition) and Governance Antecedents (Internal and Vertical Governance) build on the

existing literature on upgrading value chains in developing countries, considering that upgrading value chains is viewed as a development strategy. A limitation of the study's interpretation is that the findings may be limited to the Ugandan context, considering that different developing countries may have varying policy and regulatory support systems. In addition, these context-specific antecedents are interconnected and very dynamic. The findings are well-aligned with the research goal and conceptual framework and are important because they guide industry decision-makers in orchestrating policies that enhance the upgrading of the coffee value chain. Upgrading value chains is a vehicle for equitable value distribution (Taglioni & Winkler, 2016), enabling developing countries to achieve higher returns (Tanrattaphong, Hu, & Gan, 2020). A significant contribution of this study is the empirical information it provides on the antecedents that facilitate upgrading of the coffee value chain in Uganda.

A significant contribution of the findings on Process Upgrading being the most common upgrading type in developing countries like Uganda is that it provides empirical information on what type of upgrading of the coffee value chain in Uganda is most dominant. In addition, the findings build on the existing literature on upgrading value chains in developing countries, considering that it is the type of upgrading in which most coffee chain actors participate. The interpretation limitation might be that optimising Process Upgrading depends on government support, since the chain at the bottom of the value chain often lacks control and power to influence the dynamics of the value chain.

Considering that respondents and participants are all occupants of a developing country and chain actors mainly involved in the activities at the production stage, the results that revealed that producers are the most influential stakeholders in the upgrading process might be limited since that is the value chain level they are exposed to. The responses highlighted the most influential stakeholders. Understandably, the Government was the next most influential, considering that the

support the Uganda Coffee Development Authority is offering to the coffee industry is mainly focused on activities at the production level. The findings are well aligned with the conceptual framework based on previous literature. The results from the research contribute to the existing literature by adding a new dimension of producers being perceived as influential in developing countries like Uganda, since they are responsible for quality at the production stage, which significantly determines the final product and the earnings fetched. Identifying producers as the most influential to the upgrading process highlights the importance of addressing issues of their skills and capabilities, knowledge sharing, power and control, development strategy and distribution of value if upgrading is to lead to sustainable outcomes that benefit all previously highlighted by previous research. An illustration of a highlight of skills and capabilities is Interviewee 13, who stated that,

"Skills and expertise form the chain actors. The more the process technical skills, the easier it will be to upgrade. This is still largely lacking".

On knowledge sharing, Interviewee 1 remarked,

"The middlemen that connect the farmer to the market also lack this knowledge as they focus on the profit margins they make. For example, some buy coffee from Congo and mix it with coffee from Uganda, not knowing that it affects the taste".

Interviewee 2 explained that,

"The farmers have no control over the coffee in the value chain. They exercise very little control over the coffee and get the least amount of money, a very small position of the final retail price of the coffee. I think they take about less than 5% of the final retail price which tells us how very unfair the price is. The farmers do everything at the production level, and their control ends at production. The rest of the control after that is in the hands of middlemen, traders or agents of multinationals that are exporters".

Based on the Stakeholder Theory, interventions should be aligned with stakeholders' interests (Hamzah, Hassan, Mohamed, Ahmad, & Saad, 2013).

Process Upgrading was the most influential factor in achieving favourable sustainable outcomes. The implication is that it could be key in enhancing development if it is harnessed,

although this is limited to the Ugandan context. The study findings build onto existing theory, especially in developing countries which are usually producing countries in global value chains. This finding could be instrumental in bottom-up interventions for development if supported by policy makers, since many stakeholders are involved in Process Upgrading at the production stage of the coffee value chain.

The study's findings revealed that more than 95% agreed that the more favourable antecedents are, the more favourable the determinants and the more sustainable the outcomes. The interpretation limitation of the findings is that the antecedents are limited to Uganda. The researcher acknowledges that the antecedents may be unique to Uganda's producer-driven initiatives due to Internal Governance, given the multidimensional dynamic nature of the coffee value chain, which involves many players. Uganda's Internal Governance of the coffee value chain may depend on the nature of producer capabilities, partnerships, control systems, internal regulations, certification, and standardisation (McWilliam, Kim, Mudambi, & Nielsen, 2019). The findings aligned with the researcher's expectations and the conceptual framework that argues that when favourable upgrading antecedents are used, the determinants are motivated, increasing favourable sustainable outcomes that can be upscaled for a more significant impact. The findings contribute to the theory by building on the limited existing literature that shifts from the scholarly view of upgrading due to governance structures, with the information flowing from the top to the bottom of the value chain. The interpretation of the findings was limited to some extent as the respondents and participants were composed of different chain actors/stakeholders. However, this research did not categorise responses by the type of chain actor or stakeholder they were.

The interpretation limitation of the research findings on the significance of economic outcomes on upscaling is limited to the Ugandan context. The findings aligned with the researcher's expectations and agreed with previous existing literature. Girón, Kazemikhasragh,

Cicchello and Panetti (2021) earlier observed that firms tend to focus on economic sustainability rather than environmental and social sustainability, as they constantly strive to be competitive. Similarly, Taglioni and Winkler (2016) observed that economic sustainability upgrading increases competitiveness, leading to higher value achieved through value distribution (Kano, 2018), supplier internationalisation, innovation (McWilliam, Kim, Mudambi & Nielsen, 2019) and (Di Simone, Petracchi & Piva, 2022), export intensity, production growth (Islam & Polonsky, 2020), and financial performance (Brancati, Brancati & Mareca, 2015). Moreover, the study's results aligned with the conceptual framework, which hypothesised that upscaling can be realised when the favourability of sustainable outcomes increases. The contribution to the literature is to highlight and reaffirm the significance of economic outcomes for upscaling.

5.1.3 Practical Implications

The practical application is that expanding these highlighted antecedents guides policy makers in creating the ideal environment for upgrading the coffee value chain and addressing the bottlenecks that affect them.

Recognising that Process Upgrading is the most common type of upgrading in developing countries like Uganda, policymakers can support the processes involved to actors. Ensuring the maximum benefits of Process Upgrading at the production stage through support facilitates inclusive development and brings about structural transformation, resulting in improved quality, increased production, higher earnings for the country, and enhanced well-being for producers. They also help determine upgrading readiness and design assessment tools to determine if the basic conditions are in place, guiding practitioners in identifying where to focus their investment in basic upgrading antecedents for maximum impact. This finding fills a gap in the literature on upgrading GVCs, indicating the need to examine how upgrading trajectories can be accelerated, as proposed by Gereffi & Lee (2016). It also fills the gap in understanding which type of value chain upgrading

is key in the context of developing countries, as identified by Islam and Polonsky (2020). Furthermore, findings guide policymakers in creating the ideal environment for upgrading, focused on governance structure improvement, like strengthening value chain policies, coordination and inclusive governance, and promoting collaboration, given that the Governance Antecedents had a stronger relationship with the types of upgrading.

The finding that producers are the most important stakeholders in the coffee value chain in developing countries like Uganda guides policymakers on what they should prioritise, such as formulating and implementing appropriate policies and regulations to support initiatives led by producers and addressing the issues that inhibit and affect their ability to upgrade. The findings may guide state-led policies for upgrading. This finding addressed the paucity of studies systematically examining upgrading from the perspective of stakeholder perceptions, as identified by Vogel et al. (2020).

The finding that Process Upgrading was the most influential in achieving favourable sustainable outcomes in Uganda implies that enhancing Process Upgrading could facilitate inclusive growth through improved social well-being, as it involves, the mode chain actors at the bottom of the value chain. Lam et al. (2020), Scoones et al. (2020), and Marcato and Baltar (2021) observed that sustainability transformations in global value chains focused on developed countries. However, this study closes the gap by investigating in upgrading of global value chains in Uganda, which is a developing country.

In practice, policymakers can use this new finding to ensure that sustainable outcomes are realised at a larger scale by including producers in stakeholder engagements. Using a bottom-up approach, policymakers can focus on facilitating Process Upgrading to accelerate economic development resulting from organic growth.

The practical implication of the findings is that favourable antecedents of upgrading, if harnessed and optimised by the determinants, are important for achieving sustainable outcomes in upscaling. This knowledge can guide policymakers in formulating and implementing policies that promote structural transformation in developing countries.

5.2 Recommendations for Application of Research Study

5.2.1 Managerial Recommendations for Application

Enhancement of Vertical Governance, that is, the linkages between buyers and suppliers across countries (Gereffi & Lee, 2016), is a managerial recommendation for implementation. Vertical Governance enhancement could be achieved by supporting digitalisation to facilitate coordination, transparency, knowledge sharing, traceability, and learning processes. Furthermore, stakeholder engagement and partnerships with the government and development partners could be implemented to build trust among the stakeholders in the coffee value chain. Fromm (2007) posited that when trust exists between buyers and producers, there are more sales, better quality, and market flows with relevant information more easily due to favourable contracts. Relevant policies and codes could also be implemented to promote and enhance sustainable best practices within the coffee value chain. Lastly, it is recommended to invest in producer development programs to elevate their capabilities and expertise. These suggested recommendations are supported by previous literature. For instance, Matthess and Kunkel (2020) observed positive social-economic effects digitalisation has on productivity, job creation and coordination connections within a sector. In a systematic literature review on multistakeholder platforms in agriculture, Maryono, et al. (2024) highlighted that stakeholder engagement positively affected producers' economic, social, environmental, and technological outcomes. Earlier still, Mayer and Phillips (2017) observed the role of government policies in protecting national interests within the value chains. Vertical governance has various benefits for coffee producers in Uganda. These include the ability to

diversify their market, which would reduce the risks caused by price fluctuations. Vertical Governance also facilitates the transfer of technological capabilities from buyers. Quality improvements would also be guaranteed due to efforts to meet certification and standard requirements. However, since producers primarily meet the demands of buyers from different geographic regions, it is difficult to respond to contingencies within the value chain, and innovation initiatives may be constrained. Additionally, there may be trust issues between producers and sellers, as they have different levels of information and control. Transaction costs are also likely to increase, as buyers will always put in extra effort to meet the demands of buyers in different markets.

Another managerial recommendation is ensuring efficient production processes. (Tanrattanaphong, 2025) observed that Process Upgrading occurs when more efficient production processes are employed. Managerial practices to improve efficiency could be incentivised by encouraging producers to invest in new technologies and research and development. In addition, the government should encourage and support programs that facilitate knowledge transfer through industrial parks and programs that link research institutes with practitioners or chain actors. More investments in skill and capability programs to enhance the chain actor's abilities to exploit and absorb new technologies and skills should be made through training. Process Upgrading in developing countries like Uganda will be instrumental in improving management skills for competitiveness and production at the firm level through more efficient operational processes (Oliveira, Fleury & Fleury, 2021). In addition, Process Upgrading increases revenues since there is value addition that will ultimately contribute to improved wellbeing of the chain actors (Milberg & Winkler, 2011). As Taglioni and Winkler (2016) observed, chain actors' capabilities are also enhanced, as they require technical skills to adopt new technologies and innovations, leading to inclusive development through increased labour productivity. However, such initiatives are

usually constrained by limited finances, the nature of largely informal operations, and limited infrastructure, like no or very high electricity costs.

Managerial practices promoting Process Upgrading by employing more sustainable practices, such as using equipment that uses less energy or time, are efficient and eco-friendly. Socially responsible practices could also be promoted, like giving back to the coffee communities by contributing to infrastructure like roads, creating employment opportunities, and building health centres and schools. Also, certification could be introduced. However, convincing the chain actors of what they would earn from the extra effort they put into practising sustainable practices remains challenging, as there are mixed theories. For instance, while Asfaw, Mithöfer and Waibel (2010) confirmed that certification schemes improve the social well-being of farmers in their study in Kenya, Akoyi and Maertens (2016) found that they did not reduce poverty or improve returns in a coffee community in Eastern Uganda. Another challenge for promoting Process Upgrading for sustainable outcomes is that constant promotion and advocacy may be needed, considering that basic incentives are often lacking. For sustainable outcomes to be achieved in the coffee value chain in developing countries like Uganda, Process Upgrading should be supported, as most chain actors are involved in economic activities at the production stage, which is at the bottom of the value chain. Positive effects from Process Upgrading will empower the chain actors to advance to other types of upgrading in the long run. This is supported by Marcato and Baltar (2021), who stated that the process of upgrading starts with Process Upgrading and later to Product, Function and lastly, Chain Upgrading. In agreement with this, Process Upgrading is the type of value addition chain actors in the producing countries that can easily participate since it does not require sophisticated skills. Process Upgrading can influence sustainable outcomes and thus drive inclusive growth and development.

5.2.2 Policy Recommendations for Application

The first policy recommendation is to formulate policies that enable chain actors, especially at the production stage, that is, to know what the markets demand to strengthen the non-government factor of marketing capabilities. Mitrega (2020) posited that Marketing Capability involves consolidative processes through which firms use collective knowledge, skills, and resources to address market-related needs to add value and increase their competitiveness. This can be done by equipping them with knowledge, skills, and capabilities to harvest high-quality coffee, like applying better agronomic practice through training facilitated by extension workers. In Uganda, this is underway, although the challenge is that very few extension workers work directly with farmers. This study confirms that Marketing Capabilities at the production level are very important and, therefore, require more support from the government and development partners. Cortez and Hidalgo (2022) confirmed the importance of Marketing Capabilities in Upgrading. Several other studies highlighted that it improves the product brand through branding (Ghasempour & Kazemi (2024). It also leads to sustainable competitive advantage (Liang, Du & Hua, 2025)), acts as a market sensor (Liang, Frösén, & Gao, 2023), enhances competence and improves financial performance (Homburg & Wielgos, 2022). The challenge of enhancing Marketing Capability may be limited institutional support.

For the non-governance factor, the GVC Composition, which, according to McDermott and Corredoira (2010), is the network that intermediates the flow of information, a combination of approaches for policy are recommended to enhance the flow and transfer of knowledge. GVCs act as a social network channel through which information and knowledge are upgraded, and therefore, the composition of the GVCs matters (Bisztray & Poitiers, 2022). This can be achieved by facilitating the coordination of social mechanisms to enhance their efficiency, as supported by

Kano (2018). In addition, policies to invest in formal educational systems where relevant knowledge and skills are taught to the chain actors could be implemented.

Policies enabling the government to collaborate with development partners and the private sector to fund knowledge transfer initiatives like competition awards, research, and development, among others, could also facilitate knowledge transfer within the value chain. However, considering that Uganda is a developing country, challenges to applying these policy recommendations may include the power imbalances between lead firms and producers, where the former controls the kind of knowledge passed on. The inability to disseminate relevant and valuable knowledge from what is available may also be another limitation. Dünhaupt & Herr (2020) and Tessmann (2020) confirm the dominance of lead firms and how they hinder the flow of information and knowledge for upgrading. The importance of GVC Composition and its role in the transfer of information is supported by Rigo (2021), who observed how participating in global value chains is a pathway to technology transfer, leading to improvements in productivity and, ultimately, upgrading.

Another policy recommendation is for Internal Governance, where protectionist policies are implemented to protect the chain actors from intense competition. Keane (2012) described Internal Governance as interconnections between producers and buyers within a value chain. The protectionist policies could, for instance, be industrial policies targeted at improving technological capabilities to enhance competitiveness and market access, such as encouraging certification and standardisation of coffee production to ensure quality coffee products. Practically, these protectionist policies include limiting imports of products like coffee, being produced to develop the local market through import tariffs. Some challenges arise when protectionist policies are implemented. For instance, considering that markets are liberalised, international buyers may

retaliate, leading to long-term adverse effects. Cooperation with the trade partners and negotiations may address these potential challenges. Internal Governance is an important factor because when producers are connected to buyers, they have better market accessibility, are aware of market demands, and incur lower transaction costs. Additionally, there are higher chances of production growth, as assured demand is in place (Keane, 2012). Furthermore, there are producer-driven mechanisms that facilitate knowledge sharing that leads to the development of skills (McWilliam, Kim, Mudambi, & Nielsen, 2019) and improved quality (Pasquali, 2021). In the long run, jobs are created, resulting in inclusive growth and economic development. Policies that create an ideal operating environment through which they can acquire more skills, capabilities, power and control that will enable them to compete favourably are also recommended.

Producers learn and work towards the required quality, certifications, and market standards through interactions with the buyers; information flow enables producers to acquire new skills and technical expertise. All these facilitate upgrading at the bottom of the value chain. Policies to enhance factors like skills development, accessibility to affordable finance and markets, and compliance to sustainability standards to uphold quality are examples that could contribute to a favourable operating environment that will put them in a better position to influence the dynamics within the coffee value chain. However, one of the main challenges of this application is that producers in Uganda's coffee supply chain are extremely poor, living on less than USD 1 per day and earning less than 5% of the retail price of the coffee they produce, as observed by Nkandu (2018). It is difficult for poor producers to invest in and adopt more efficient production processes and equipment necessary for upgrading. Ekowu, Kamugisha and Kaazara (2023), in their study on influencing factors of coffee production in Uganda, observed that the size of land, labour and capital were positively correlated to coffee production. Gereffi and Memedovic (2003) also

confirmed earlier that producers should be included in the coordination mechanisms of the global value chains since it is managed in developed countries due to their management capabilities.

Another policy recommendation is creating an enabling environment to reap maximum benefits from the antecedents, determinants, and sustainable outcomes for upscaling. According to the research, the highlighted antecedents were Marketing Capability and GVC Composition for Non-Governance Antecedents, and Internal Governance and External Governance for Governance Antecedents. Producers were perceived as the most influential stakeholders in upgrading, followed by the government, while Process Upgrading was the type of upgrading that led to the most sustainable outcomes. The challenge of applicability is coordinating all the dynamic antecedents, determinants, and outcomes and ensuring that they continue to relate positively to each other over time. A justification for the new conceptual framework is, for instance, the availability of Marketing Capability as an antecedent through the adoption of technological and innovative strategies (Oliveira, Fleury & Fleury, 2021). If adopted, it leads to value addition through Process Upgrading, which Producers and the Government in Uganda facilitate. This results in sustainable outcomes that can be upscaled for more significant impact. It is important to note that although there was a positive correlation among the antecedents, determinants, and sustainable outcomes, it was weak, with $R_s = 0.30$ and $R_s = 0.44$. This could be because the context of the coffee value chain is in Uganda, a developing country facing several challenges and limitations to upgrading.

Policies that support the achievement of sustainable, inclusive economic activities, which can be upscaled to reap maximum benefits, are recommended as they provide the necessary framework for these activities. Economic sustainable outcomes have several benefits in value chains like more equitable value distribution from improved efficiency (Kano, 2018), increased global market share (McWilliam, Kim, Mudambi & Nielsen, 2019), more innovation (Di Simone,

Petracci & Piva, 2022), increased exports (Islam & Polonsky, 2020), better financial performance (Brancati, Brancati & Maresca, 2015), and increase in production (Pahl & Timmer, 2020), among others. Pahl and Timmer (2020) observed that social sustainability outcomes, like the creation of employment as was highlighted by Islam and Polonsky (2020), can be achieved from economic sustainability outcomes. In addition, chain actors can invest in eco-friendly strategies that can lead to sustainable environmental outcomes. In addition, special support could be given to producers through empowerment programs like training to increase their bargaining power and capabilities and improve their accessibility to information. This would reduce inequality by addressing poverty and improving their well (Islam & Polonsky, 2020). The main limitation of the applicability of enhancing economically sustainable outcomes for upscaling is that chain actors may be more focused on short-term goals compared to long-term ones, as observed by Smith, Fressoli & Thomas (2014). It is also important to note that exploiting economic sustainability outcomes to realise environmental and social sustainable outcomes for upscaling is a challenge, as there are usually tradeoffs that arise (Steffen et al., 2015). This calls for balanced strategic interventions that can be done through enhanced collaborations and partnerships with all stakeholders.

5.3 Recommendations for Future Research

The following section presents conceptual, methodological and contextual recommendations for future research based on the findings of this study. Potential areas for further studies are identified from the limitations of the study's findings. Other future research suggestions are made based on this study's research design and sample size. However, the identified limitations do not diminish the significance of the study's results but rather help guide and point to potential directions for future research, as mentioned below.

5.3.1 Conceptual

Non-Governance Antecedents (Marketing Capabilities and GVC Composition), and Governance Antecedents, (Internal and Vertical Governance), were highlighted as important antecedents for upgrading the coffee value chain in Uganda. These antecedents were based on the findings in Uganda, a developing country. Other antecedents not included in this study, like certification, international prices, research and development, which were mentioned in this study, could be considered for future studies. For instance, on certification, Interviewee 14 highlighted the degree of sustainable upgrading certification by asserting that,

"So far, the certification program is not widespread if we refer to all the economic empowerments and social measures".

The role of trade openness and international prices was mentioned by Interviewee 4, who remarked,

"The global pricing affects the sales from the local production in the local markets. For instance, if there are floods in Brazil, there may be an increase in the demand for coffee from other coffee producers".

Interviewee 11 added that producers also need to understand why prices go down,

"UCDA should conduct regular training to help farmers understand the market forces, why prices fluctuate etc. UCDA should be able to detect when the prices are likely to go down or up and communicate to the farmers so that they are not discouraged and start thinking that the traders are cheating them".

Another factor highlighted worth investigating is the role of research in upgrading. Interviewee 1 explained that utilising research is still limited, as seen in his comment,

"Uganda is starting to take strides in terms of releasing new varieties of coffee that are resistant to disease, however, there is a big disconnection between the researchers and the producers".

Interviewee 15 further added that there is still a need for the availability of research grants and support,

"For some of these things people are testing, and they do not know if it will work or not. Support that is not tied to interest would facilitate upgrading".

Government, Producers/Farmers, Traders/Exporters, Development Partners, Research Institutions and Financial Institutions were confirmed to be the critical stakeholders in the coffee value chain, and Producers/Farmers were perceived to be the most important stakeholders influencing upgrading. Whereas chain actors facilitate upgrading in their effort to meet the market demands, non-chain actors offer support to upgrading processes in terms of technological, social, political and economic aspects, as well as organisation and educational assistance through pro-poor market development (Trienekens, 2011). In this study's findings, it was argued that producers or farmers influenced upgrading the most. This is supported by a study by de Janvry, Sadoulet and Trachtman (2019) who observed the important role of producers through horizontal coordination processes, which are a prerequisite to vertical coordination that facilitates upgrading. Producers face several challenges, and addressing these could enhance their ability to influence the upgrading of the coffee value chain in Uganda. Future studies could focus on Producers and the role of technical support, digitalisation, multi-stakeholder platforms, market accessibility, and the adoption of better agronomic antecedents in upgrading Uganda's coffee value chain. The study also presented a one-sided view by considering only the service providers throughout the value chain as stakeholders. These included the chain actors and their supporters, thus providing the study with perceptions from one perspective. It did not include the consumers of the coffee products. Incorporating the views of coffee consumers in future studies may reveal different perceptions, thereby increasing the scope of the findings.

The study findings revealed that more than 95% of the respondents agreed that antecedents, determinants, and sustainable outcomes were positively and significantly correlated. However, the constructs in the conceptual framework were based on literature from previous research (Snyder,

2019). This approach, however, may be limited due to the dynamic nature of the identified constructs. More measurement scales and constructs may lead to enhanced results and new findings. This study recommends exploring additional constructs for future studies, which could be derived from other sources, such as primary data from stakeholder interviews. Employing other sources of constructs, in addition to previous literature, not only leads to constructs based on the latest information but also increases the validity of the study findings (Flick, 2022). In addition, future studies could test the new conceptual framework based on this study's research findings in Uganda and other developing countries.

More so, studies like Oqubay and Ohno (2019) observed that economically sustainable outcomes do not automatically lead to social and environmental outcomes and yet it is important that the three aspects of sustainability are achieved in a balanced manner. An area for future research that this study recommends is investigating how the three aspects of sustainable outcomes can be balanced, as they are all important for resilient, sustainable economic growth for current and future generations (Hysa, Kruja, ur Rehman, Laurenti, 2020).

The study's findings revealed that Process Upgrading is the most common type of upgrading in Uganda's coffee industry based on the entire value chain. The focus of the analysis was the entire coffee value chain. However, at each node of the chain, all types of upgrading may exist to some extent, but the degree to which they exist is unknown. The researcher acknowledges that the research findings may differ if different focuses for analysis are employed, such as at specific nodes of the coffee value chain or in different value chains, due to the presence of distinctive characteristics. In Uganda, Process Upgrading at the production stage is receiving significant support from the government. For instance, the Ugandan government offers institutional support under the National Development Plan 3 (2021-2026), which focuses on value addition. Here, through the UCDA, the government procures and distributes value-added

equipment to improve processes and conducts training for chain actors at the production stage on how to use it each financial year. Future research could conduct a similar study focusing on different value chain nodes to investigate the most common type of upgrading. This could help inform policymakers in formulating ideal inclusive growth and development policies based on the findings that would reveal how value is created, what drives the value addition, and what limitations are encountered during the value addition processes.

5.3.2 Methodological

Comparative studies can enhance empirical research by comparing statistical methods and cases (Ragin, 2014). They are perspective-oriented, rather than focusing on a single study (Ragin & Robinson, 2009). Different cases are analysed for similarities and differences (Mokhtarianpour, 2016), leading to robust research by addressing weaknesses and limitations. In turn, this would enhance the generalisation of research findings, thus leading to more meaningful deductions.

In addition, since Process Upgrading emerged as the type of upgrading that determines upgrading in Uganda, future studies could focus on exploring how Process Upgrading could be supported. Future research could build on this new finding, thus expanding scholarly literature. To meaningfully contribute to existing literature and theory development, mapping the field of upgrading global value chains in developing countries and presenting evidence of the consequence could be employed so that findings can effectively guide policy and practical interventions (Snyder, 2023).

Future studies based on the research design are also suggested. This study employed a Convergent Mixed Study Method, utilising Questionnaires for the quantitative component and Interviews for the qualitative component. Other mixed-method research designs could be employed, like the sequential mixed study beginning with qualitative data from which constructs would be derived, is recommended for future research (Gogo & Musonda, 2022). The findings

from qualitative data in the first stage of research could provide appropriate issues that are unresolved and ideal for developing new ideas from which new research ideas can be derived (Heesen, Bright, & Zucker, 2019). In addition, qualitative data collection methods like focus group discussions and observations are recommended for future research. The quantitative method employed in this study, which used a simple random technique, also has some limitations. Whereas the researcher used it for convenience as the sample was from a coffee register, it was not possible to estimate the sampling error and minimise bias as was observed by West (2016). To strengthen the validity, future research could employ a probability sampling technique.

In addition, this study's target population was limited to chain actors that were registered in the Uganda Coffee Directory (2022) of the Uganda Coffee Development Authority since the researcher had limited finances and time. The study was self-sponsored, and the data had to be collected at a specific time. The limitations of time and finances necessitated that data be collected from manageable samples within reasonable distances and be completed within the specified timeframe. The sample was determined using Yamane's formula to address this challenge. However, future studies could focus on a larger sample to obtain more precise estimates, as a stronger positive relationship between the standard error of the mean and sample size has been observed by Asiamah, Mensah, and Oteng-Abayie (2017). In addition, future research could consider conducting a consensus since the study population was only 283 and would have been ideal because of its heterogeneity, the relatively small size, and minimisation of errors.

Findings and antecedents that enhance the upgrading of global value chains in developing countries, such as Uganda, were identified based on the specific circumstances at a particular time. They were collected over a short period. Future studies could consider the findings preliminary since they are less valid for comparing cause-and-effect relationships between variables (Caruana, Roman, Hernández-Sánchez, & Solli, 2015). It is important to note that this is because the

conditions, such as skills, capabilities, and the availability of information that shape these factors, are dynamic and constantly changing. Future studies could, therefore, focus on conducting the study over time to explore how these changing conditions affect the identified factors. As Gates, Chow and Molenaar (2023) observed, such studies, often referred to as longitudinal studies, have continued to gain popularity. They are observational or experimental and use measures repeatedly over a specific period (Caruana, Roman, Hernández-Sánchez, & Solli, 2015). Longitudinal studies will enable future researchers to establish connections between events and their sequences to specific exposures, changes can be tracked, and recall bias will be reduced since data is collected before they know what is going to happen in future (Caruana, Roman, Hernández-Sánchez, & Solli, 2015). Studies conducted over time provide detailed insights into how the contributing antecedents and their relationships with one another are responsible for the outcomes that guide interventions for supporting the upgrading of the coffee value chain in developing countries, such as Uganda. Moreover, such studies would help reveal changes that occur over a given period and continually yield new findings that would propel further research. This study conducted correlation tests to establish relationships among variables, using their means, as it was mainly in an exploratory study. Future research could conduct correlation tests between individual variables to gain deeper insights and more meaning from the results.

5.3.3 Contextual

Future studies could focus on conducting the research in different developing countries with different regulatory structures, institutions, political, economic, or even social settings. Replicating this study in other developing countries could facilitate future comparative studies, offering researchers more insights, for instance, into how the unique characteristics of different countries shape outcomes.

Future studies could also examine other global value chains in Uganda, such as the mining sector, to investigate whether the same antecedents are important for other value chains. For instance, as recently revealed by the Bank of Uganda (2024), gold is now the largest foreign export earner for Uganda, with revenue earnings of USD 2.7 billion and a market share of 37%, followed by coffee, with revenue earnings of USD 1 billion and a market share of 13%. Just as coffee is exported in its raw form, gold is exported in its raw form. It would be interesting to investigate if the same Non-Governance and Governance antecedents highlighted as necessary for upgrading the coffee value chain are also applicable to other value chains, like Uganda's gold value chain.

Process Upgrading was perceived to be most influential in achieving favourable sustainable (economic, environmental, and social) outcomes in Uganda. Considering that developing countries may have unique characteristics, such as operating environments, investigating a similar research question across countries may yield varying results, offering in-depth insights that could suggest. These would test external validity and enhance generalisation. Future studies in other producing countries are recommended.

Economically sustainable outcomes were perceived to be the most influential factor in upscaling in this study. Again, the interpretation of these findings is limited to the Ugandan context. Other developing countries may have other sustainable outcomes that are the most influential to upscaling. For instance, depending on the unique circumstances of a country, social or environmental sustainable outcomes may be perceived to lead to economic factors that later result in upscaling. For instance, another developing country may have lead firms that are customer-focused, with high reputational risks, which in turn, could lead to environmental sustainability outcomes. This could result in economic sustainability outcomes (Poulsen, Ponte, & Lister, 2016), making it possible for upscaling. Conducting a similar study in other developing countries, as they may have different characteristics that may result in different findings. This section highlights

recommended areas for future study based on the study's findings, research design, and sample size. The next section will present the study's conclusions.

5.4 Conclusions

The study's findings met the objectives and addressed the research questions and hypothesis, which were aligned with the rationale of investigating the influence of upgrading on the upscaling of global value chains based on stakeholders' perceptions of the coffee industry in Uganda. The study aimed to understand the concept of upgrading by examining how antecedents, determinants, and outcomes relate to each other in developing countries, based on stakeholders' perceptions of the coffee value chain in Uganda.

The study acknowledged that upgrading global value chains remains a significant challenge, yet it is considered a development strategy that many producing countries are attempting to implement to achieve inclusive growth (Holste, 2015). Upgrading the coffee value chain in Uganda is key, given that it is a major exporter, accounting for 18.9% of total exports, according to the Observatory of Economic Complexity (2024). Coffee has been Uganda's biggest foreign export earner until recently, when it was overtaken by Gold (New Vision, 2021). Although the government of Uganda, through the Uganda Coffee Development Authority, continues to support the development of the coffee sector in various ways, the sector faces several challenges, making it difficult for upgrading to occur at a faster rate.

The purpose/rationale of the study was to explore the influence of specific antecedents of upgrading on upscaling global value chains. The study's main objectives were to examine the concept of value chain upgrading, assess various types of value chain upgrading within the context of developing countries, analyse the key stakeholders in the context of the coffee industry in Uganda and understand how they influence upgrading, evaluate antecedents that significantly influence favourable value chain upgrading, develop and empirically assess a conceptual

framework about the relationships amongst value chain upgrading antecedents, determinants and outcomes, and investigate the impact of the favourable value chain upgrading outcomes on upscaling.

The study was a Convergent Mixed Study Method. The target population was stakeholders in the coffee value chain registered in the Uganda Coffee and Cocoa Directory compiled by the Uganda Coffee Development Authority (UCDA) and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), from which a sample was extracted. Questionnaires and Interviews were used to collect data. The PSPP and Taguette software were used to analyse the quantitative and qualitative data, respectively.

The research findings addressed the gap identified by Islam and Polonsky (2020) in their study, which highlighted the paucity of empirical studies on upgrading value chains' dimensions, antecedents, outcomes, and relationships. The research findings also address the scarcity of systematic studies on upgrading and sustainable outcomes from a stakeholders' perspective, as observed by Vogel et al. (2020).

The study's main contribution is the model of upgrading key global value chains, such as coffee, in developing countries like Uganda, based on the understanding of the stakeholders' perceptions on how upgrading impacts the coffee value chain and its sustainable outcomes for upscaling to improve the livelihoods of the chain actors. Understanding what antecedents enhance upgrading and what influences them to realise favourable sustainable outcomes, which can be upscaled for a bigger positive impact, is instrumental in developing and implementing appropriate development strategies to reduce poverty and enhance inclusive growth for sustainable economic development.

The study reveals the complexity and multifaceted nature of the upgrading process and puts chain actors and policy-makers in a better position to make informed decisions. As a policy

maker, the government can make informed decisions in creating a supporting environment for upgrading its outcomes and, ultimately, how they can be upscaled to have a greater impact on the well-being of stakeholders and the country.

The findings were based on stakeholders' perceptions of the coffee value chain in Uganda, and several conclusions aligned with the study objectives were derived, as presented below.

- The study reveals and concludes that the most important Non-Governance Antecedents for upgrading the coffee value chain in Uganda are Marketing Capabilities and GVC Composition, while the Governance Antecedents are Internal and Vertical Governance. These findings met Objective 1 of the study, which was to understand the concept of value chain upgrading by investigating upgrading antecedents in Uganda. The empirical findings on what antecedents facilitate the upgrading of the coffee value chain in Uganda can guide the government in creating policies that address the challenges that affect them to create an enabling environment. An enabling environment where there is easy movement of information flow and knowledge sharing would greatly improve the capabilities of chain actors. Internal and Vertical Governance are also instrumental in information flow between producers and buyers, both within the chain and beyond the border. Knowledge spillovers on upgrading would benefit not only the coffee value chain but also other value chains. This would facilitate structural transformation and economic development since chain actors would have the ability to advance to activities that demand more skills and offer higher returns.
- Process Upgrading is the most common type of upgrading in the coffee industry of Uganda, meeting Objective 2 of this study. The findings provided empirical information on the most common type of coffee value chain upgrading in Uganda. The findings also build on the existing literature by propelling further debate on upgrading value chains in developing

countries to guide policy formulation to support Process Upgrading for maximum benefits, since it would facilitate inclusive growth. Although improving upgrading processes often faces various challenges and optimising Process Upgrading in developing countries largely depends on government support since the chain actors at the bottom of the value chain often lack control and power to influence the value chain dynamics, developmental-based interventions on value addition processes of Process Upgrading could be a stepping stone to other forms of upgrading which would not only benefit Uganda but the East African region as well.

- Government, Producers/Farmers, Traders/Exporters, Development Partners, Research Institutions and Financial Institutions were identified as the main stakeholders, and from these findings. It was also revealed that Producers/Farmers are the most important stakeholders in influencing upgrading, followed by the government. These findings met Objective 3, which was to examine the key stakeholders in Uganda's coffee industry and assess their influence on value chain upgrading.
- The research findings contribute to existing literature by highlighting producers as the most influential stakeholders in upgrading the coffee value chain in developing countries like Uganda. Addressing their challenges could positively influence upgrading, providing a hypothesis for future research. The findings guide policy formulation and implementation aimed at supporting producers, who are the chain actors at the bottom and often poor farmers. Supporting and enabling them would reduce poverty and encourage inclusive economic development.
- Process Upgrading emerged as the most influential type of upgrading that results in favourable sustainable (economic, environmental, and social) outcomes in Uganda, according to stakeholders' perceptions. This met Objective 4 of this research, which was to

evaluate what significantly determines favourable value chain upgrading leading to sustainable outcomes. The findings reveal that Process Upgrading most determines the achievement of sustainable outcomes in the context of developing countries like Uganda; thus, it could facilitate inclusive growth, as it mainly occurs at the production stage, involving most chain actors, given their limited capabilities. The findings can also inform the government to ensure sustainable outcomes are realised through stakeholder engagements, including producers, emphasising a bottom-up approach that utilises and builds onto local knowledge for organic sustainable development and poverty reduction.

- Findings confirmed that the more favourable antecedents are, the more favourable determinants and the more sustainable outcomes, and there was a positive and significant relationship amongst the variables. The findings addressed Objective 5, which was to develop and empirically assess a conceptual framework. The findings add to the existing theory that diverges from top-down upgrading due to governance structures. More so, future studies could focus on specific groups of chain actors since the responses of the results were not categorised. The findings could be instrumental in guiding policy-makers to develop policies that enhance the optimisation of determinants for maximum sustainable outcomes. This would be instrumental in realising inclusive economic growth, protecting the environment and social equity as a country.
- Lastly, the study findings revealed that of the sustainable outcomes, the economic sustainable outcomes influence upscaling the most. This met Objective 6 of the study, which was to investigate the impact of favourable value chain upgrading outcomes on upscaling. The findings could guide policy-makers when formulating and implementing policies to achieve economically sustainable outcomes since they can later transform into environmental and social benefits. When economic outcomes are achieved, chain actors

can invest in environmentally friendly practices, for instance, green technologies. Also, when economic outcomes are achieved, economic activities increase and result in employment opportunities, which benefit the social wellbeing of the local communities

5.5 Summary

Chapter 5 presented the Implications, Application, Recommendations for Future Research and Conclusions based on the research findings. Data from the Questionnaire and Interviews, respectively, from the quantitative and qualitative methods, respectively, provided insights into understanding the upgrading of the coffee value chain in Uganda. The findings indicated that the relationships proposed as correlations were all statistically significant, save for a few. However, the significance was weak. The results were complemented and supported by the descriptive data.

The results show that antecedents positively affect the determinants and sustainable outcomes. The most important Non-Governance Antecedents for upgrading the coffee value chain in Uganda are Marketing Capabilities and GVC Composition. The study also revealed that the important Governance Antecedents for upgrading were Internal and Vertical Governance in Uganda. Process Upgrading was the most common type of upgrading in the coffee industry of Uganda, although Functional Upgrading had the highest correlation to sustainable outcomes and economic outcomes. The main stakeholders highlighted the most significant number of times were the Government, Producers/farmers, Traders/Exporters, Development Partners, Research Institutions and Financial Institutions. In addition, findings revealed that Producers/Farmers were perceived as the most important stakeholders influencing upgrading. Process Upgrading as an upgrading influence was the most influential in achieving favourable, sustainable outcomes in Uganda. The study's findings revealed that more than 95% agreed that the more favourable antecedents are, the more favourable determinants and the more sustainable outcomes. Lastly, the research findings highlighted that respondents and participants revealed that of the sustainable

outcomes (economic, environmental and social), the economic sustainable outcomes influence upscaling the most.

Future areas for study are suggested based on the Conceptual, Methodological and Contextual framework. The results enhanced the existing literature and will help chain actors better understand the construct of upgrading global value chains, their antecedents, impact, and outcomes by closing current gaps and reactivating existing literature with complementary insights, given that upgrading global value chains is a complex and dynamic process. It will also extend theory through empirical testing, verification of conceptualisation, measurement of the constructs, and testing of theory and generalisation of the academic body. Methodologically, this research employed a multidisciplinary approach, combining qualitative and quantitative methods to examine the concept of upgrading global value chains and to provide a holistic perspective. For practical implications, the study has implications for chain actors and policy-makers. Chain actors will understand that upgrading local value chains is a multifaceted, dynamic process and will be in a better position to make informed decisions when strategising on how to upgrade. Policy-makers can also make informed decisions when formulating policies that enhance environmental support mechanisms to promote upgrading.

REFERENCES

- Aarts, B. (2006). Conceptions of categorization in the history of linguistics. *Language Sciences*, 28(4), 361-385.
- Arslan, C., Gregg, D., & Wollni, M. (2024). Paying more to make less: value degrading in the coffee value chain in eastern Uganda. *American Journal of Agricultural Economics*, 106(1), 96-117.
- Ategeka, S. (2023). Trend Analysis Of Uganda's Coffee Sector. *Applied Studies in Agribusiness and Commerce*, 17(2).
- Abid, G., Ahmed, S., Elahi, N. S., & Ilyas, S. (2020). Antecedents and mechanism of employee well-being for social sustainability: A sequential mediation. *Sustainable Production and Consumption*, 24, 79-89.
- Adams, R. H. (2003). *Economic growth, inequality and poverty: Findings from a new data set* (Vol. 2972). World Bank Publications.
- Addisie, G., & Tebarek, L. (2023). Upgrading Opportunities and Challenges for Small Coffee Producers in Sidama Region of Ethiopia. *International Journal of Rural Management*, 19(2), 234-252.
- Adesemowo, P. O., & Sotonade, O. A. (2022). Basic of education: The meaning and scope of education. *Olabisi Onabanjo University*.
- Ahen, F. (2017). Responsibilization and MNC-Stakeholder engagement: Who engages whom in the pharmaceutical industry? In R. E. Freeman, J. Kujala, & S. Sachs (Eds.), *Stakeholder Engagement: Clinical Research Cases*. Cham: Springer.
- Akamatsu, K. (1962). A historical pattern of economic growth in developing countries. *The Developing Economies*, 1, 3-25.

- Akoyi, K. T., & Maertens, M. (2016). Private sustainability standards in the Ugandan coffee sector: Empty promises or catalysts for development?, *Bioeconomics Working Paper Series Working Paper* 1–28.
- Al Marzouqi, A. H., Khan, M., & Hussain, M. (2020). Employee social sustainability: Prioritizing dimensions in the UAE's airlines industry. *Social Responsibility Journal*, 16(3), 349-367.
- Alfaro, A., Manelici, I., & Vásquez, J. P. (2022). The Effects of Joining Multinational Supply Chains: New Evidence from Firm-to-Firm Linkages. *Quarterly Journal of Economics* (Revise and Resubmit)(cit. on pp. 15, 16).
- Alford, M. (2020). Antagonistic governance in South African fruit global production networks: a neo-Gramscian perspective. *Global Networks*, 20(1), 42-64.
- Alford, M., & Phillips, N. (2018). The political economy of state governance in global production networks: Change, crisis and contestation in the South African fruit sector. *Review of International Political Economy*, 25(1), 98-121.
- Alhadeff-Jones, M. (2013). Complexity, Methodology and Method: Crafting a Critical Process of Research. *Complicity: An international journal of complexity and education*, 10, 19-44
- Alharahsheh, H. H., & Pius, A. (2020). A review of key paradigms: Positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2(3), 39-43.
- Alshenqeeti, H. (2014). Interviewing as a data collection method: A critical review. *English linguistics research*, 3(1), 39-45.
- Altenburg, T. (2006). Governance patterns in value chains and their development impact. *The European Journal of Development Research*, 18(4), 498-521
- Ambos, B., Brandl, K., Perri, A., Scalera, V. G., & Van Assche, A. (2021). The nature of innovation in global value chains. *Journal of World Business*, 56(4), 101221.

- Ancarani, F., Garijo Añaños, P., Gutiérrez, B., Pérez-Nievas, J., Vicente-Rodríguez, G., & Gimeno Marco, F. (2025). The Effectiveness of Debriefing on the Mental Health of Rescue Teams: A Systematic Review. *International Journal of Environmental Research and Public Health*, 22(4), 590.
- Anderson, S. J., Chandy, R., & Zia, B. (2018). Pathways to profits: The impact of marketing vs. finance skills on business performance. *Management Science*, 64(12), 5559-5583.
- Andersson, U., Dasí, Á., Mudambi, R., & Pedersen, T. (2016). Technology, innovation and knowledge: The importance of ideas and international connectivity. *Journal of World Business*, 51(1), 153-162.
- Andrews, R. (2007). Argumentation, critical thinking and the postgraduate dissertation. *Educational Review*, 59(1), 1-18.
- Anner, M. (2022). The governance challenges of social upgrading in apparel global value chains in the context of a sourcing squeeze and the COVID-19 pandemic. In *Economic and Social Upgrading in Global Value Chains* (pp. 361-384). Palgrave Macmillan, Cham.
- Ansu, Y. (2013). Industrial policy and economic transformation in Africa: Strategies for development and a research agenda. *The Industrial Policy Revolution II*, 492-528.
- Antonacopoulou, E. P., & Meric, J. (2005). A critique of Stakeholder Theory: management science or a sophisticated ideology of control?. *Corporate Governance: The international journal of business in society*.
- Antràs, P. (2005). Incomplete contracts and the product cycle. *American Economic Review*, 95(4), 1054-1073.
- Armando, E., Azevedo, A. C., Fischmann, A. A., & Pereira, C. E. C. (2016). Business strategy and upgrading in global value chains: a multiple case study in Information Technology firms of Brazilian origin. *RAI Revista de Administração e Inovação*, 13(1), 39-47.

- Arndt, C., James, R. C., & Simler, K. R. (2006). Has economic growth in Mozambique been pro-poor?. *Journal of African Economies*, 15(4), 571-602.
- Arslan, C., Gregg, D., & Wollni, M. (2024). Paying more to make less: value degrading in the coffee value chain in eastern Uganda. *American Journal of Agricultural Economics*, 106(1), 96-117.
- Artiach, T., Lee, D., Nelson, D., & Walker, J. (2010). The determinants of corporate sustainability performance. *Accounting & Finance*, 50(1), 31-51.
- Asfaw, S., Mithöfer, D. & Waibel, H. (2010). What Impact Are EU Supermarket Standards Having on Developing Countries' Export of High-Value Horticultural Products? Evidence from Kenya. *Journal of International Food & Agribusiness Marketing*, 22, 252-276.
- Asiamah, N., Mensah, H. K., & Oteng-Abayie, E. F. (2017). Do larger samples really lead to more precise estimates? A simulation study. *American Journal of Educational Research*, 5(1), 9-17.
- Aslam, A., Eugster, J., Ho, J., Jaumotte, F., Osorio-Buitron, C., & Piazza, R. (2018). Globalization helps spread knowledge and technology across borders. IMF Blog.
- Aswicahyono, H. (2000). How not to industrialise? Indonesia's automotive industry. *Bulletin of Indonesian Economic Studies*, 36(1), 209-241.
- Ategeka, S. (2023). Trend Analysis of Uganda's Coffee Sector. *Applied Studies in Agribusiness and Commerce*, 17(2).
- AUC/OECD (2022), Africa's Development Dynamics: Regional Value Chains for a Sustainable Recovery, AUC, Addis Ababa/ OECD Publishing, Paris.
- Augenstein, K., Bachmann, B., Egermann, M., Hermelingmeier, V., Hilger, A., Jaeger-Erben, M., ... & von Wirth, T. (2020). From niche to mainstream: the dilemmas of scaling up sustainable alternatives. *GAIA-Ecological Perspectives for Science and Society*, 29(3), 143-147.

- Ahmed, S. K. (2024). The pillars of trustworthiness in qualitative research. *Journal of Medicine, Surgery, and Public Health*, 2, 100051.
- Axinn, W. G., & Pearce, L. D. (2006). Mixed method data collection strategies. Cambridge, UK: Cambridge University Press.
- Ayenew, Y. Y. (2023). Challenges of Agricultural Marketing in East African Developing Countries. *Journal of World Economic Research*, 12(2), 47-58.
- Azadegan, A., & Wagner, S. M. (2011). Industrial upgrading, exploitative innovations and explorative innovations. *International Journal of Production Economics*, 130(1), 54-65.
- Bacchiocchi, E., Florio, M., & Giunta, A. (2012). Internationalisation and the agglomeration effect in the global value chain: the case of Italian automotive suppliers. *International Journal of Technological Learning, Innovation and Development*, 5(3), 267-290.
- Baines, T., Lightfoot, H., Peppard, J., Johnson, M., Tiwari, A., Shehab, E., & Swink, M. (2009). Towards an operations strategy for product-centric servitization. *International Journal of Operations & Production Management*.
- Boonyaratana, Y., Hansson, E. E., Granbom, M., & Schmidt, S. M. (2021). The psychometric properties of the meaning of home and housing-related control beliefs scales among 67–70 year-olds in Sweden. *International Journal of Environmental Research and Public Health*, 18(8), 4273.
- Baker, R., Brick, J. M., Bates, N. A., Battaglia, M., Couper, M. P., Dever, J. A., & Tourangeau, R. (2013). Summary report of the AAPOR task force on non-probability sampling. *Journal of Survey Statistics and Methodology*, 1(2), 90-143. Retrieved on October 22, 2019 from <https://academic.oup.com/jssam/article-abstract/1/2/90/941418>
- Baldwin, R. (2018). The great convergence. In *The Great Convergence*. Harvard University Press.

- Baldwin, R. & Evenett, S. (2020), *COVID-19 and Trade Policy: Why Turning Inward Won't Work*. E-Book, CEPR Press.
- Ballet, J., Bazin, D., & Mahieu, F. R. (2020). A policy framework for social sustainability: Social cohesion, equity and safety. *Sustainable Development*, 28(5), 1388-1394.
- Bamber, P., Fernandez-Stark, K., & Taglioni, D. (2020). Why global value chains remain essential for COVID-19 supplies. *VoxEU. org*, 20.
- Bamber, P., Fernandez-Stark, K., Gereffi, G., & Guinn, A. (2014). *Connecting Local Producers in Developing Countries to Regional and Global Value Chains* (OECD Trade Policy Papers). Paris: Organisation for Economic Co-operation and Development.
- Banga, K. (2022). Digital technologies and product upgrading in global value chains: Empirical evidence from Indian manufacturing firms. *The European Journal of Development Research*, 34(1), 77-102.
- Banga, K. (2023). Global value chains and product sophistication in developing countries: the case of Indian manufacturing. *The Journal of International Trade & Economic Development*, 32(4), 509-536.
- Bank of Uganda (2024), *The Monitor: Gold reclaims spot as Uganda's largest export commodity*,
- Barrientos, S. (2014). Gender and global value chains: challenges of economic and social upgrading in agri-food. *Robert Schuman Centre for Advanced Studies Research Paper No. RSCAS*, 96.
- Barrientos, S., Gereffi, G. & Rossi, A. (2011). Economic and Social Upgrading in Global Production Networks: Developing a Framework for Analysis. *International Labour Review*, 150(3), 319– 340.

- Barrientos, S., Knorringa, P., Evers, B., Visser, M., & Opondo, M. (2016). Shifting regional dynamics of global value chains: Implications for economic and social upgrading in African horticulture. *Environment and Planning A: Economy and Space*, 48(7), 1266-1283.
- Barro, F. (2009). Stakeholder theory and dynamics in supply chain collaboration. *International Journal of Operations & Production Management*, 29(6), 591-611.
- Bayighomog Likoum, S. W., Shamout, M. D., Harazneh, I., & Abubakar, A. M. (2020). Market-sensing capability, innovativeness, brand management systems, market dynamism, competitive intensity, and performance: an integrative review. *Journal of the Knowledge Economy*, 11(2), 593-613.
- Bean Poet. (2020). How Experts Rated 1,229 Coffees From Countries Around The World.
- Beins, B. C., & McCarthy, M. A. (2017). *Research methods and statistics*. Cambridge University Press.
- Belso-Martínez, J. A. (2015). Resources, Governance, and Knowledge Transfer in Spanish Footwear Clusters: Can Local Firms be Locked Out by Their Crucial Partner?. *International Regional Science Review*, 38(2), 202-231.
- Benito, G. R., Petersen, B., & Welch, L. S. (2019). The global value chain and internalization theory. *Journal of International Business Studies*, 50(8), 1414-1423.
- Benn, S., Abratt, R., & O'Leary, B. (2016). Defining and identifying stakeholders: Views from management and stakeholders. *South African Journal of Business Management*, 47(2), 1-11.
- Berk, R. A., & Ray, S. C. (1982). Selection biases in sociological data. *Social Science Research*, 11(4), 352- 398.
- Bernhardt, T. & W. Milberg (2011) *Economic and social upgrading in global value chains: Analysis of horticulture, apparel, tourism and mobile telephones*. Capturing the Gains Working Paper 2011/6, University of Manchester.

- Bernhardt, T., & Pollak, R. (2016). Economic and social upgrading dynamics in global manufacturing value chains: A comparative analysis. *Environment and Planning A: Economy and Space*, 48(7), 1220-1243.
- Bhalotra, S. (2006). *Childhood mortality and economic growth* (No. 2006/79). WIDER Research Paper.
- Bilir, L. K., & Morales, E. (2020). Innovation in the global firm. *Journal of Political Economy*, 128(4), 1566-1625.
- Bird, R. C., & Soundararajan, V. (2020). The role of precontractual signals in creating sustainable global supply chains. *Journal of Business Ethics*, 164(1): 81–94.
- Bisztray, M., & Poitiers N. F. (2022). *Knowledge flows and global value chains*. Bruegel.
- Blalock, G., & Gertler, P. J. (2008). Welfare gains from foreign direct investment through technology transfer to local suppliers. *Journal of international Economics*, 74(2), 402-421.
- Blažek, J. (2016). Towards a typology of repositioning strategies of GVC/GPN suppliers: the case of functional upgrading and downgrading. *Journal of Economic Geography*, 16(4), 849-869.
- Bogdan, R. & Biklen, S.K. (2003). *Qualitative research in education: An introduction to theory and methods*. Allyn & Bacon.
- Bogdan, R., & Biklen, S. K. (1997). *Qualitative research for education*. Boston, MA: Allyn & Bacon.
- Bonadio, B., Huo, Z., Levchenko, A., & Pandalai-Nayar, N. (2020). The role of global supply chains in the COVID-19 pandemic and beyond. *VoxEU CEPR*, 25.
- Boquiren, M. (2010). *Tools for Influencing Informal Rules in Value Chains, Accelerated Microenterprise Advancement Project*, USAID.
- Bourne, L., & Walker, D. H. (2006). Visualising stakeholder influence—Two Australian examples. *Project Management Journal*, 37(1), 5-21.

- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage.
- Brancati, E., Brancati, R., & Maresca, A. (2015, April). Global value chains, innovation and performance: Firm-level evidence from Italy. In *Workshop: Explaining Economic Change*. University of Venice Ca'Foscari.
- Brandi, C. A. (2017). Sustainability standards and sustainable development—synergies and trade-offs of transnational governance. *Sustainable Development*, 25(1), 25-34.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Brown, B. J., Hanson, M. E., Liverman, D. M., & Merideth, R. W. (1987). Global sustainability: Toward definition. *Environmental management*, 11(6), 713-719.
- Brown, D. J. (2001). *Using Surveys in Language Programs*. Cambridge: Cambridge University Press.
- Brugha, R., & Varvasovszky, Z. (2000). Stakeholder analysis: a review. *Health Policy and Planning*, 15(3), 239-246.
- Bryant, A. (2011). Leading issues in business research methods. *Academic Conferences Limited*.
- Bryman, A. (2021) *Social Research Methods*, Oxford University Press, Oxford, UK.
- Buckley, P. J. (2009). Internalisation thinking: From the multinational enterprise to the global factory. *International Business Review*, 18(3), 224-235.
- Buckley, P. J. (2009). The impact of the global factory on economic development. *Journal of World Business*, 44(2), 131-143.
- Burns N. & Grove S.K. (2005). *The Practice of Nursing Research: Conduct, Critique, and Utilization* (5th Ed.). St. Louis, Elsevier Saunders.
- Burns, A. (1999). *Collaborative action research for English language teachers*. Cambridge: CUP

- Burns, R.B. (1997) *Introduction to Research Methods*. 3rd Edition, Addison Wesley Longman Australia, South Melbourne.
- Cano-Kollmann, M., Cantwell, J., Hannigan, T. J., Mudambi, R., & Song, J. (2016). Knowledge connectivity: An agenda for innovation research in international business. *Journal of International Business Studies*, 47(3), 255-262.
- Cantwell, J., & Mudambi, R. (2005). MNE competence-creating subsidiary mandates. *Strategic Management Journal*, 26(12), 1109-1128.
- Caruana, E. J., Roman, M., Hernández-Sánchez, J., & Solli, P. (2015). Longitudinal studies. *Journal of Thoracic Disease*, 7(11), E537.
- Casella, B., Bolwijn, R., Moran, D., & Kanemoto, K. (2019). Improving the analysis of global value chains: the UNCTAD-Eora Database. *Transnational Corporations*, 26(3), 115-142.
- Chandy, L., & Linn, J. F. (2011). *Taking development activities to scale in fragile and low capacity environments*. Brookings Institution, Global Economy and Development.
- Chenery, H. B., Robinson, S., Syrquin, M., & Feder, S. (1986). *Industrialization and growth* (p. 175). New York: Oxford University Press.
- Choksy, U. S., Sinkovics, N., & Sinkovics, R. R. (2017). Exploring the relationship between upgrading and capturing profits from GVC participation for disadvantaged suppliers in developing countries. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 34(4), 356-386.
- Civera, C., De Colle, S., & Casalegno, C. (2019). Stakeholder engagement through empowerment: The case of coffee farmers. *Business Ethics: A European Review*, 28(2), 156-174.
- Clark, L. F., & Hobbs, J. E. (2018). Informational barriers, quality assurance and the scaling up of complementary food supply chains in Sub-Saharan Africa. *Outlook on Agriculture*, 47(1), 11-18.

- Clarke, T., & Boersma, M. (2017). The governance of global value chains: Unresolved human rights, environmental and ethical dilemmas in the apple supply chain. *Journal of Business Ethics*, 143(1), 111-131.
- Clever K. (2012). Investing in Agriculture to Reduce Poverty and Hunger In *Scaling up in agriculture, rural development, and nutrition* (Vol. 19). (Linn 2012) Investing in Agriculture to Reduce Poverty and Hunger
- Coelho, T. M., Castro, R., & Gobbo Jr, J. A. (2011). PET containers in Brazil: Opportunities and challenges of a logistics model for post-consumer waste recycling. *Resources, Conservation and Recycling*, 55(3), 291-299.
- Coffey, A., & Atkinson, P. (2013). *Making Sense of Qualitative Data*. Thousand Oaks, CA: Sage Publications.
- Cohen, J. (1977). *Statistical power analysis for the behavioral sciences*. New York: Academic Press.
- Cohen, L., Manion, L., & Morrison, K. (2013). Action research. In *Research methods in education* (pp. 368-385). Routledge.
- Colombelli, A., & Quatraro, F. (2019). Green start-ups and local knowledge spillovers from clean and dirty technologies. *Small Business Economics*, 52(4), 773-792.
- Corley-Coulibaly, M., Kizu, T., Kühn, S., Peels, R., & Viegelahn, C. (2015). Changes in global production patterns and impacts on enterprises and employment. *World Employment and Social Outlook*, 2015(2), 131-159.
- Cortez, R. M., & Hidalgo, P. (2022). Prioritising B2B marketing capabilities: Crossvergence in advanced and emerging economies. *Industrial Marketing Management*, 105, 422-438.
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78(1), 98.

- Creswell J. W (2015) *Revisiting Mixed Methods and Advancing Scientific Practices*. In: Hesse-Biber S and Johnson RB (eds) *The Oxford Handbook of Multimethod and Mixed Methods Research Inquiry*. New York: Oxford University Press, 61-71.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative research*. Prentice Hall.
- Creswell, J. W. (2003) *Research design: Qualitative, quantitative, and mixed approaches*, Sage Publications, CA.
- Creswell, J. W. & Miller, D. L. (2000) "Determining validity in qualitative inquiry", *Theory into Practice*, Vol. 39, No. 3, pp. 124-131.
- Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. Sage publications.
- Creswell, J. W., & Inoue, M. (2025). A process for conducting mixed methods data analysis. *Journal of General and Family Medicine*, 26(1), 4-11.
- Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Creswell, J.W. & Plano-Clark, V.L.P. (2006). *Designing and Conducting Mixed Methods Research*. London: SAGE Publications
- Cumyn, A., Ouellet, K., Côté, A. M., Francoeur, C., & St-Onge, C. (2019). Role of researchers in the ethical conduct of research: A discourse analysis from different stakeholder perspectives. *Ethics & Behaviour*, 29(8), 621-636.
- Darby, J. L., Fugate, B. S., & Murray, J. B. (2019). Interpretive research: A complementary approach to seeking knowledge in supply chain management. *The International Journal of Logistics Management*.

- Dawadi, Saraswati, Shrestha, Sagun & Ram A. (2021). Mixed-Methods Research: A Discussion on its Types, Challenges, and Criticisms. *Journal of Practical Studies in Education*, 2(2) pp. 25–36.
- De Backer, K. & S. Miroudot (2013), “*Mapping Global Value Chains*”, OECD Trade Policy Papers, No. 159, OECD Publishing, Paris.
- DeBerge, T. (2024). Responsibility boundaries and the governance of global value chains: The interplay of efficiency, ethical, and institutional pressures in global strategy. *Global Strategy Journal*, 14(1), 196-222.
- de Janvry, A., Sadoulet, E., & Trachtman, C. (2019). Achieving coordination in agricultural value chains: The role of lead agents and multi-stakeholder platforms. *Agricultural-value-chains-the-role-of.pdf*
- De Marchi V., Di Maria E., Krishnan A., Ponte S., Barrientos S. (2019). Environmental upgrading in global value chains. In Ponte S., Gereffi G., Raj-Reichert G. (Eds.), *Handbook on Global Value Chains* (pp. 310–323). Edward Elgar.
- De Marchi, V., & Alford, M. (2021). State policies and upgrading in global value chains: A systematic literature review. *Journal of International Business Policy*, 1-24.
- De Marchi, V., & Di Maria, E. (2019). Environmental upgrading and suppliers’ agency in the leather global value chain. *Sustainability*, 11(23), 6530.
- De Marchi, V., Di Maria, E., & Ponte, S. (2014). Multinational firms and the management of global networks: Insights from global value chain studies. In *Orchestration of the global network organization*. Emerald Group Publishing Limited.
- De Marchi, V., Di Maria, E., Golini, R., & Perri, A. (2020). Nurturing International Business research through Global Value Chains literature: A review and discussion of future research opportunities. *International Business Review*, 29: 1017085.

- De Marchi, V., Di Maria, E., Krishnan, A., & Ponte, S. (2019). Environmental upgrading in global value chains. In *Handbook on global value chains*. Edward Elgar Publishing.
- De Marchi, V., Di Maria, E., Krishnan, A., & Ponte, S. (2019). In *Handbook on Global Value Chains*; Ponte, S., Gereffi, G., Raj-Reichert, G., Eds.; Edward Elgar Publishing: Cheltenham, UK, 2019, 310–323.
- De Melo, J., & Twum, A. (2020). Supply chain trade in East Africa: Prospects and challenges. *FERDI Working Paper P263*.
- De Oliveira, C. T., Dantas, T. E. T., & Soares, S. R. (2021). Nano and micro level circular economy indicators: Assisting decision-makers in circularity assessments. *Sustainable Production and Consumption*, 26, 455-468.
- de Sousa Jabbour, A. B. L., Jabbour, C. J. C., Foropon, C., & Godinho Filho, M. (2018). When titans meet—Can industry 4.0 revolutionise the environmentally-sustainable manufacturing wave? The role of critical success factors. *Technological Forecasting and Social Change*, 132, 18-25.
- Delera, M. (2021). Is production in global value chains (GVCs) sustainable? A review of the empirical evidence on social and environmental sustainability in GVCs. *PEGNet Policy Studies*, 04/2020.
- Della Santa Navarrete, S., Borini, F. M., & Avrichir, I. (2020). Environmental upgrading and the united nations sustainable development goals. *Journal of Cleaner Production*, 264, 121563.
- Deng, Z., Ma, X., & Zhu, Z. (2022). Transactional dependence and technological upgrading in global value chains. *Journal of Management Studies*, 59(2), 390-416.
- Derry, R. (2012). Reclaiming marginalized stakeholders. *Journal of Business Ethics*, 111(2), 253-264.

- Dhanaraj, C., & Parkhe, A. (2006). Orchestrating innovation networks. *Academy of management review*, 31(3), 659-669.
- Di Pofi, J. A. (2002). Organizational diagnostics: integrating qualitative and quantitative methodology. *Journal of Organisational Change Management*, 15(2), 156-168.
- Di Simone, L., Petracci, B., & Piva, M. (2022). Economic sustainability, innovation, and the ESG factors: An empirical investigation. *Sustainability*, 14(4), 2270.
- Diansambu, I. (2020). “Regional Postgraduate School, DRC”, Tropical Forest Update: Promoting the conservation and sustainable development of tropical forests, Vol. 29, No. 1, *International Tropical Timber Organization (ITTO), Yokohama*
- Diaz Rios, L. (2013). *Evolving role of commodity authorities in coffee, cocoa, and tea sections of Indonesia*. Report to the World Bank.
- Distelhorst, G., & McGahan, A. (2021). Socially irresponsible employment in emerging-market manufacturers. *Organization Science*. Doner, R. F., & Wad, P. (2014). Financial crises and automotive industry development in Southeast Asia. *Journal of Contemporary Asia*, 44(4), 664-687.
- Doody, O. & Noonan, M. (2013). Preparing and conducting interviews to collect data. *Nurse Researcher*, 20 (5), 28-32.
- Doz, Y. L., Olk, P. M., & Ring, P. S. (2000). Formation processes of R&D consortia: Which path to take? Where does it lead?. *Strategic Management Journal*, 21(3), 239-266.
- Drost, E. A. (2011). Validity and reliability in social science research. *Education Research and Perspectives*, 38(1), 105.
- Du Pisani, J. A. (2006). Sustainable development—historical roots of the concept. *Environmental Sciences*, 3(2), 83-96.

- Du, Y., & Agbola, F. W. (2022). Servicification and global value chain upgrading: empirical evidence from China's manufacturing industry. *Journal of the Asia Pacific Economy*, 1-23.
- Dung, H. P., & Thanh, T. T. (2023). Bribery, global value chain decisions, and institutional constraints: Evidence from a cross-country firm-level data. *International Economics*, 173, 119-142.
- Dünhaupt, P., & Herr, H. (2020). Global value chains—a ladder for development?. *International Review of Applied Economics*, 1-19.
- Dünhaupt, P., & Herr, H. (2022). Global value chains—a ladder for development?. In *Capitalism: An Unsustainable Future?* (pp. 126-144). Routledge.
- Dunn, E., Sebstad, J., Batzdorff, L., & Parsons, H. (2006). Lessons learned on MSE upgrading in value chains. *AMAP BDS Knowledge and Practice microreport N°71, USAID/G/EGAT/MD*.
- Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews. *Archives of sexual behavior*, 41, 1319-1320.
- Dzhengiz, T., & Niesten, E. (2020). Competences for environmental sustainability: A systematic review on the impact of absorptive capacity and capabilities. *Journal of Business Ethics*, 162(4), 881-906.
- Earl B.R. (2010). *The Practice of Social Research*. 12th ed. Belmont, CA: Wadsworth Cengage.
- Ekowu B., Kamugisha N. & Kaazara A. G. (2023). Factors Influencing Coffee Production Among Small Scale Farmers in Uganda, *Metropolitan Journal of Business and Economics*, ISSN 1813-4238, 2(3)391-401.
- Elkington, J. (1998). Partnerships from cannibals with forks: The triple bottom line of 21st-century business. *Environmental Quality Management*, 8(1), 37-51.

- Eng, T. Y., & Spickett-Jones, J. G. (2009). An investigation of marketing capabilities and upgrading performance of manufacturers in mainland China and Hong Kong. *Journal of World Business*, 44(4), 463-475.
- English, J., & Nielsen, R. A. (2022). Interpretation for Positivists.
- Epede, M. B., & Wang, D. (2022). Global value chain linkages: An integrative review of the opportunities and challenges for SMEs in developing countries. *International Business Review*, 101993.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Evenett, S., & Fritz, J. (2020). *Collateral Damage: Cross-Border Fallout from Pandemic Policy Overdrive*. The 26th Global Trade Alert Report.
- Fàbregues, S., Escalante-Barrios, E. L., Molina-Azorin, J. F., Hong, Q. N., & Verd, J. M. (2021). Taking a critical stance towards mixed methods research: A cross-disciplinary qualitative secondary analysis of researchers' views. *Plos one*, 16(7), e0252014.
- Fagerberg, J., Lundvall, B. Å., & Srholec, M. (2018). Global value chains, national innovation systems and economic development. *The European Journal of Development Research*, 30(3), 533-556.
- Farole T., Winkler D. (2018). *Trade in global value chains: An assessment of labour market implications*. World Bank, Jobs Working Paper.
- Farole, T., & Winkler, D. (Eds.). (2014). *Making foreign direct investment work for Sub-Saharan Africa: local spillovers and competitiveness in global value chains*. World Bank Publications.

- Feng, H., Morgan, N. A., & Rego, L. L. (2020). The impact of unprofitable customer management strategies on shareholder value. *Journal of the Academy of Marketing Science*, 48(2), 246-269.
- Fernandez De Arroyabe Fernandez, J. C., Ozdemir, S., Sena, V., & Gupta, S. (2023). Stakeholder Diversity and Collaborative Innovation: Integrating the Resource-Based View with Stakeholder Theory. *Journal of Business Research*, 164, 113955-113955.
- Fernandez-Stark, K., Bamber, P., & Gereffi, G. (2012). Upgrading in global value chains: Addressing the skills challenge in developing countries. *Duke Center on Globalization, Governance & Competitiveness at the Social Science Research Institute, Duke University*.
- Ferris, S., Robbins, P., Best, R., Seville, D., Buxton, A., Shriver, J., & Wei, E. (2014). Linking smallholder farmers to markets and the implications for extension and advisory services. *MEAS Brief*, 4(10), 13-14.
- Filippi, M., & Chapdaniel, A. (2021). Sustainable demand-supply chain: An innovative approach for improving sustainability in agrifood chains. *International Food and Agribusiness Management Review*, 24(2), 321-335.
- Fischer, E. & Quaim, M. (2012). Linking Smallholders to Markets: Determinants and Impacts of Farmer Collective Action in Kenya. *World Development*, 40 (6), 1255-1268.
- Fisman, R., & Khanna, T. (2004). Facilitating development: The role of business groups. *World Development*, 32(4), 609-628.
- Flick, U. (2022). *An introduction to qualitative research*. 6th ed. SAGE Publications, Inc.; Berlin, Germany
- Forsgren, M. (2016). A note on the revisited Uppsala internationalization process model—the implications of business networks and entrepreneurship. *Journal of International Business Studies*, 47(9), 1135-1144.

- Fouji, M. H., & Hoque, I. (2021). Supplier internationalization through upgrading in global supply chain: Evidence from the garments industry of Bangladesh. *International Journal of Global Business and Competitiveness*, 16(2), 116-129.
- Fraenkel, J. R., & Wallen, N. E. (2022). *Causal-Comparative Research. In How to design and evaluate research in Education*. McGraw-Hill.
- Frederick, S., & Gereffi, G. (2009). Value Chain Governance. Washington, D.C.: USAID.
- Frederick, S., & Gereffi, G. (2011). Upgrading and restructuring in the global apparel value chain: why China and Asia are outperforming Mexico and Central America. *International Journal of Technological Learning, Innovation and Development*, 4(1/2/3).
- Freeman, R. E. (1984). Strategic Management: A Stakeholder Approach. Cambridge University Press.
- Freeman, R. E. (1994). The politics of stakeholder theory: Some future directions. *Business Ethics Quarterly*, 409-421.
- Freeman, R. E., Dmytriiev, S. D., & Phillips, R. A. (2021). Stakeholder theory and the resource-based view of the firm. *Journal of Management*, 47(7), 1757-1770.
- Freeman, R. E., Harrison, J., & Wicks, A. (2007). *Managing for stakeholders. Survival, reputation, and success*. London, England: Yale University Press.
- Friedman, M. (1970). Social Responsibility of Business, the New York Times Magazine. *September*, 13(33), 122-26.
- Fromm, I. (2007). *Upgrading in Agricultural Value Chains: The Case of Small Producers in Honduras*. German Institute of Global and Area Studies Working Papers, No. 64.
- Frost A. L (2019), *Who Holds Power in the Global Coffee Market*, Thesis for: BA(Hons) Politics & International Relations
- Frost J. (2015). *Choosing Between a Nonparametric Test and a Parametric Test*. State College: The Minitab Blog

- Galanakis, C. M. (Ed.). (2018). *Sustainable food systems from agriculture to industry: Improving production and processing*. Academic Press.
- Garetti, M., & Taisch, M. (2012). Sustainable manufacturing: trends and research challenges. *Production Planning & Control*, 23(2-3), 83-104.
- Gates, K. M., Chow, S. M., & Molenaar, P. C. (2023). *Intensive longitudinal analysis of human processes*. Chapman and Hall/CRC.
- Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research Policy*, 36(3), 399-417.
- George, A. L., Bennett, A., Lynn-Jones, S. M., & Miller, S. E. (2005). *Case studies and theory development in the social sciences*. MIT Press.
- Gereffi & Sturgeon. (2013). Global Value Chains and Industrial Policy: The Role of Emerging Economies. In D. K. Elms & P. Low (Eds.), *Global Value Chains in a Changing World*. Geneva: World Trade Organization, Fung Global Institute and Termasek Foundation Centre for Trade and Negotiations.
- Gereffi G, Humphrey J. and Sturgeon T. (2005). "The Governance of Global Value Chains", *Review of International Political Economy*, Vol. 12 (1), 78-104.
- Gereffi G. & Fernandez-Stark K. (2016). *Global Value Chain Analysis: A Primer. Second Edition*. Durham, North Carolina, USA: Duke University Center on Globalization, Governance & Competitiveness (Duke CGGC).
- Gereffi, G. (1994). The organization of buyer-driven global commodity chains: How US retailers shape overseas production networks. *Commodity Chains and Global Capitalism*, 95-122.
- Gereffi, G. (1999). International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics*, 48(1), 37-70.

- Gereffi, G. (2001). Shifting governance structures in global commodity chains, with special reference to the internet. *American Behavioral Scientist*, 44(10), 1616-1637.
- Gereffi, G. (2011). Global value chains and international competition. *The Antitrust Bulletin*, 56(1), 37-56.
- Gereffi, G. (2013). A global value chain perspective on industrial policy and development in emerging markets. *Duke J. Comp. & Int'l L.*, 24, 433.
- Gereffi, G. (2014). Global value chains in a post-Washington Consensus world. *Review of International Political Economy*, 21(1), 9-37.
- Gereffi, G. (2019). Economic upgrading in global value chains. In *Handbook on global value chains*. Edward Elgar Publishing.
- Gereffi, G. 2018. *Global value chains and development: Redefining the contours of 21st century capitalism*. Cambridge: Cambridge University Press.
- Gereffi, G. and Memedovic, O. (2003) *The Global Apparel Value Chain: What Prospects for Upgrading by Developing Countries*, UNIDO Sectoral Studies Series, Vienna
- Gereffi, G., & Lee, J. (2016). Economic and social upgrading in global value chains and industrial clusters: Why governance matters. *Journal of Business Ethics*, 133(1), 25-38. 3
- Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, 12(1), 78-104.
- Gereffi, G., Humphrey, J., Kaplinsky, R., & Sturgeon, T. J. (2001). Introduction: Globalization, value chains and development. *IDS Bulletin*, 32(3), 1–8.
- Gerring, J. (2012). Mere description. *British Journal of Political Science*, 42(4), 721-746.
- Ghasempour Ganji, S. F., & Kazemi, A. (2024). Improving international brand performance: the implications of marketing capabilities, brand orientation and customer value cocreation. *Journal of Product & Brand Management*, 33(8), 1088-1100.

- Ghauri, P. N. & Yamin, M. (2009) Revisiting the impact of multinational enterprises on economic development. *Journal of World Business* 44 (2): 105-107.
- Ghomari, S. (2020). Impact of Upgrade Programmes on the Competitiveness: Case of the Algerian Companies. *Economics and Business*, 34(1), 201-223.
- Ghosh, S. K., Burns, C. B., Prager, D. L., Zhang, L., & Hui, G. (2018). On nonparametric estimation of the latent distribution for ordinal data. *Computational Statistics & Data Analysis*, 119, 86-98.
- Gibbon, P. (2008). Governance, entry barriers, upgrading: A re-interpretation of some GVC concepts from the experience of African clothing exports. *Competition & Change*, 12(1), 29-48.
- Ginige, K., Amaratunga, D., & Haigh, R. (2018). Mapping stakeholders associated with societal challenges: A Methodological Framework. *Procedia Engineering*, 212, 1195-1202.
- Girón, A., Kazemikhasragh, A., Cicchiello, A. F., & Panetti, E. (2021). Sustainability reporting and firms' economic performance: Evidence from Asia and Africa. *Journal of the Knowledge Economy*, 12(4), 1741-1759.
- Giuliani, E., C. Pietrobelli, & R. Rabellotti. (2005). "Upgrading in Global Value Chains: Lessons from Latin American Clusters." *World Development* 33 (4): 549–73.
- Glewwe, P., & Jacoby, H. G. (2004). Economic growth and the demand for education: is there a wealth effect?. *Journal of Development Economics*, 74(1), 33-51.
- Glorya, M. J., & Nugraha, A. (2019). *Private sector initiatives to boost productivity of cocoa, coffee, and rubber in Indonesia* (No. 8). Discussion Paper.
- Goerzen, A., Iskander, S. P., & Hofstetter, J. (2021). The effect of institutional pressures on business-led interventions to improve social compliance among emerging market suppliers in global value chains. *Journal of International Business Policy*, 4(3), 347-367.

- Gogo, S., & Musonda, I. (2022). The use of the exploratory sequential approach in mixed-method research: A case of contextual top leadership interventions in construction H&S. *International Journal of Environmental Research and Public Health*, 19(12), 7276
- Gold, S., & Schleper, M. C. (2017). A pathway towards true sustainability: A recognition foundation of sustainable supply chain management. *European Management Journal*, 35(4), 425-429.
- Gölgeci, I., Gligor, D. M., Lacka, E., & Raja, J. Z. (2021). Understanding the influence of servitization on global value chains: a conceptual framework. *International Journal of Operations & Production Management*, 41(5), 645-667.
- Golgeci, I., Makhmadshoev, D., & Demirbag, M. (2021). Global value chains and the environmental sustainability of emerging market firms: A systematic review of literature and research agenda. *International Business Review*, 101857.
- Golini, R., De Marchi, V., Boffelli, A., & Kalchschmidt, M. (2018). Which governance structures drive economic, environmental, and social upgrading? A quantitative analysis in the assembly industries. *International Journal of Production Economics*, 203, 13-23.
- Gray, D., E. (2004). *Doing Research in The Real World*. London: Sage
- Greene, J. C. (1987). *Uses and misuses of mixed- method evaluation designs*. Proposal for the 1988 annual meeting of the American Education Research Association, New Orleans.
- Greenwood, M., & Van Buren III, H. J. (2010). Trust and stakeholder theory: Trustworthiness in the organisation–stakeholder relationship. *Journal of Business Ethics*, 95(3), 425-438.
- Gupta, S., Melewar, T. C., and Bourlakis, M. (2010) “Transfer of brand knowledge in business-to-business markets: a qualitative study”, *Journal of Business and Industrial Marketing*, Vol. 25, No. 5, pp. 395-403.

- Haggerty, K. D. (2004). Ethics creep: Governing social science research in the name of ethics. *Qualitative Sociology*, 27(4), 391-414.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black. W. C. (1998) *Multivariate Data Analysis*, Prentice-Hall, New Jersey.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3 ed.). Thousand Oaks, CA: Sage.
- Håkanson, L., & Nobel, R. (1993). Determinants of foreign R&D in Swedish multinationals. *Research Policy*, 22(5-6), 397-411.
- Hamzah, N., Hassan, M. S., Mohamed, Z. M., Ahmad, A., & Saad, S. (2013). Annual reporting practices: human capital information by Malaysian services companies. *Journal Pengurusan*, 37, 53–62.
- Hanna, V., & Walsh, K. (2008). Interfirm cooperation among small manufacturing firms. *International Small Business Journal*, 26(3), 299-321.
- Hansen, U. E., Fold, N., & Hansen, T. (2016). Upgrading to lead firm position via international acquisition: learning from the global biomass power plant industry. *Journal of Economic Geography*, 16(1), 131-153.
- Haq, Z. U., Rasheed, R., Rashid, A., & Akhter, S. (2023). Criteria for assessing and ensuring the trustworthiness in qualitative research. *International Journal of Business Reflections*, 4(2).
- Hartmann, A. (2012). *Scaling up in agriculture, rural development, and nutrition: Scaling up agricultural value chains for pro-poor development* (No. 19 (7)). International Food Policy Research Institute (IFPRI).
- Harvey D. (2005), *A Brief History of Neoliberalism*, Oxford: Oxford University Press.

- Hazell, P. B., & Rahman, A. (Eds.). (2014). Introduction: In: Hazell, P., Rahman (Eds.), *New Directions for Smallholder Agriculture. New Directions for Smallholder Agriculture*. Oxford University Press, UK, 1–12.
- Heesen, R., Bright, L. K., & Zucker, A. (2019). Vindicating methodological triangulation. *Synthese*, 196, 3067-3081.
- Heider, F. (2013). *The psychology of interpersonal relations*. Psychology Press.
- Hoffmann, U., & Grothaus, F. (2015). Assuring coherence between the market-access and livelihood impact of private sustainability standards. United Nations Forum on Sustainability Standards (UNFSS), CH-Geneva. Accessed on August 03, 2022 from
- Hofstetter, J. S., McGahan, A. M., Silverman, B. S., & Zoogah, B. D. (2022). Sustainability and global value chains in Africa: Introduction to the Special Issue. *Africa Journal of Management*, 8(1), 1-14.
- Hollweg, C. H. (2019). Global value chains and employment in developing economies. *Global Value Chain Development Report 2019*, 63.
- Holste, J. H. (2015). *Local firm upgrading in global value chains: A business model perspective*. Springer.
- Homburg, C., & Wielgos, D. M. (2022). The value relevance of digital marketing capabilities to firm performance. *Journal of the Academy of Marketing Science*, 50(4), 666-688.
- Honorene, J. (2017). Understanding the role of triangulation in research. *Scholarly Research Journal for Interdisciplinary Studies*, 4, 91-95.
- Hoque, I. (2021). Buyer-assisted lean intervention in supplier firms: a supplier development approach. *Journal of Manufacturing Technology Management*.33(1), 146-168.
- Horner, R. (2014). Strategic decoupling, recoupling and global production networks: India's pharmaceutical industry. *Journal of Economic Geography*, 14(6), 1117-1140.

- Horner, R. (2017). Beyond facilitator? State roles in global value chains and global production networks. *Geography Compass*, 11(2), e12307.
- Horner, R., & Alford, M. (2019). The roles of the state in global value chains. In S. Ponte, G. Gereffi, & G. Raj-Reichert (Eds), *Handbook on Global Value Chains*: 555–569. Cheltenham, UK: Edward Elgar Publishing.
- Horner, R., & Nadvi, K. (2018). Global value chains and the rise of the Global South: unpacking twenty-first century polycentric trade. *Global Networks*, 18(2), 207-237.
- Howe, K. R. (1988). Against the quantitative-qualitative incompatibility thesis or dogmas die hard. *Educational Researcher*, 17(8), 10-16.
- Hui, M. K., & Zhou, L. (2003). Country-of-manufacture effects for known brands. *European Journal of Marketing*. 37(1/2), 133-153.
- Hummel, K., & Schlick, C. (2016). The relationship between sustainability performance and sustainability disclosure—Reconciling voluntary disclosure theory and legitimacy theory. *Journal of Accounting and Public Policy*, 35(5), 455-476.
- Humphrey, J., & Schmitz, H. (2000). *Governance and upgrading: linking industrial cluster and global value chain research* (Vol. 120, pp. 139-170). Brighton: Institute of Development Studies.
- Humphrey, J., & Schmitz, H. (2002). How does insertion in global value chains affect upgrading in industrial clusters?. *Regional Studies*, 36(9), 1017-1027.
- Hussey, I., Alsalti, T., Bosco, F., Elson, M., & Arslan, R. (2025). An aberrant abundance of Cronbach's alpha values at .70. *Advances in Methods and Practices in Psychological Science*, 8(1), 25152459241287123.

- Hysa, E., Kruja, A., Rehman, N. U., & Laurenti, R. (2020). Circular economy innovation and environmental sustainability impact on economic growth: An integrated model for sustainable development. *Sustainability*, 12(12), 4831.
- Inan, G. G., & Kop, A. E. (2018). Marketing Capability Development in Micro Manufacturing Enterprises. *American Journal of Industrial and Business Management*, 8(01), 1.
- Ingram, V., & Oosterkamp, E. (2014). Literature review on the labour market impacts of value chain development interventions. Wageningen: LEI Wageningen UR (University & Research centre), LEI Report.
- Irvine, A. (2010). Using phone interviews. Morgan Centre, University of Manchester.
- Islam, M. T., & Polonsky, M. J. (2020). Validating scales for economic upgrading in global value chains and assessing the impact of upgrading on supplier firms' performance. *Journal of Business Research*, 110, 144-159.
- Ivankova, N. V., & Plano Clark, V. L. (2018). Teaching mixed methods research: using a socio-ecological framework as a pedagogical approach for addressing the complexity of the field. *International Journal of Social Research Methodology*, 21(4), 409-424.
- Ivarsson, I., & Alvstam, C. G. (2011). Upgrading in global value-chains: A case study of technology-learning among IKEA-suppliers in China and Southeast Asia. *Journal of Economic Geography*, 11(4), 731–752.
- Jacob, S. A., & Furgerson, S. P. (2012). Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research. *Qualitative Report*, 17, 6.
- Johnson, C., (2025), What is Cronbach's Alpha, Dissertation Data Analysis Guides.

- Jalaluddin, R., Shiviji, R. B. A., & Amarsi, Y. (2025). Challenges in Implementing Methodological Triangulation in Mix-Method Research. *Journal of Asian Development Studies*, 14(2), 1180-1187.
- Jankowicz, A. D. (2005). *Business Research Projects* (4th ed.). London: Thomson Learning.
- Javorcik, B. (2020). Reshaping of global supply chains will take place, but it will not happen fast. *Journal of Chinese Economic and Business Studies*, 18(4), 321-325.
- Jenkins, A. (2012). *After firm failure: emotions, learning and re-entry* (Doctoral dissertation, Jönköping International Business School).
- Jiang, K., Keller, W., Qiu, L. D., & Ridley, W. (2018). *International joint ventures and internal vs. external technology transfer: Evidence from China* (No. w24455). National Bureau of Economic Research.
- Jick, T. (1983) 'Mixing Qualitative and Quantitative Methods: Triangulation in Action', in J. von Maanen (ed.), *Qualitative Methodology*. London: Sage. 135–148.
- Jindra, B., Hatani, F., Steger, T., & Hiemer, J. (2019). Social upgrading and cooperative corporate social responsibility in global value chains: the case of Fairphone in China. *Global Networks*, 19(3), 371-393.
- Johanson, J., & Vahlne, J. E. (2017). The internationalization process of the firm—a model of knowledge development and increasing foreign market commitments. In *International Business* (pp. 145-154). Routledge.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112-133.
- Jun, M. (2020). *The value of value addition in coffee production in Uganda*. Kansas State University.

- Kadarusman, Y., & Nadvi, K. (2013). Competitiveness and technological upgrading in global value chains: Evidence from the Indonesian electronics and garment sectors. *European Planning Studies*, 21(7), 1007-1028.
- Kalibwani, R. M., Twebaze, J., Kamugisha, R., Kakuru, M., Sabiiti, M., Kugonza, I., ... & Nyamwaro, S. (2018). Multi-stakeholder partnerships in value chain development: A case of the organic pineapple in Ntungamo district, Western Uganda. *Journal of Agribusiness in Developing and Emerging Economies*.
- Kano, L. (2018). Global value chain governance: A relational perspective. *Journal of International Business Studies*, 49(6), 684-705.
- Kano, L., & Verbeke, A. (2015). The three faces of bounded reliability: Alfred Chandler and the micro-foundations of management theory. *California Management Review*, 58(1), 97-122.
- Kano, L., Narula, R. and Surdu, I. (2022) Global value chain resilience: understanding the impact of managerial governance adaptations. *California Management Review*, 64 (2). ISSN 0008-1256.
- Kano, L., Tsang, E. W., & Yeung, H. W. C. (2020). Global value chains: A review of the multi-disciplinary literature. *Journal of International Business Studies*, 51(4), 577-622.
- Kaplinsky, R. (2010). Globalisation and unequalisation: what can be learned from value chain analysis?. *Journal of Development Studies*, 37(2), 117-146.
- Kaplinsky, R., & Morris, M. (2000). *A handbook for value chain research* (Vol. 113). Brighton: University of Sussex, Institute of Development Studies.
- Kaplinsky, R., & Readman, J. (2001). How can SME producers serve global markets and sustain income growth?. *University of Sussex and University of Brighton, mimeo*

- Kaplinsky, R., & Readman, J. (2005). Globalization and upgrading: what can (and cannot) be learnt from international trade statistics in the wood furniture sector?. *Industrial and Corporate Change*, 14(4), 679-703.
- Kaplinsky, R., Memedovic, O., Morris, M., & Readman, J. (2003). The global wood furniture value chain: What prospects for upgrading by developing countries. *UNIDO Sectoral Studies Series Working Paper*.
- Karatepe, I. D., & Scherrer, C. (2022). Few Opportunities for Smallholders for Upgrading in Agricultural Value Chains. In *Economic and Social Upgrading in Global Value Chains* 335-358. Palgrave Macmillan, Cham.
- Katz, R., & Allen, T. J. (1982). Investigating the Not Invented Here (NIH) syndrome: A look at the performance, tenure, and communication patterns of 50 R & D Project Groups. *R&D Management*, 12(1), 7-20.
- Keane, J. A. (2012). The governance of global value chains and the effects of the global financial crisis transmitted to producers in Africa and Asia. *Journal of Development Studies*, 48(6), 783-797.
- Keane, J., & Te Velde, D. W. (2008). The role of textile and clothing industries in growth and development strategies. *Overseas Development Institute*, 7.
- Kee, H. L., & Tang, H. (2015). Trade and FDI liberalisation help China move up the global value chains. *Vox EU*, 9.
- Keesing, D. B., & Lall, S. (2011). *Marketing Manufactured Exports from Developing Countries: Learning Sequences and Public Support*. ORA - Oxford University Research Archive
- Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review of Psychology*, 31(1), 457-501.

- Kernaghan, K. (1993). Partnership and public administration: conceptual and practical considerations. *Canadian Public Administration*, 36(1), 57-76.
- Khan, M. H. (2019). Knowledge, skills and organizational capabilities for structural transformation. *Structural Change and Economic Dynamics*, 48, 42-52.
- Khan, Z., Lew, Y. K., & Sinkovics, R. R. (2015). The mirage of upgrading local automotive parts suppliers through the creation of vertical linkages with MNEs in developing economies. *Critical perspectives on international business*. 11(3/4), 301-318.
- Khatun, N. (2021). Applications of normality test in statistical analysis. *Open Journal of Statistics*, 11(01), 113.
- Kidder, L. H , & Fine, M. (1987). Qualitative and quantitative methods: When stories converge. In M. M. Mark & R. L. Shotland (Eds.), *Multiple methods in program evaluation: New Directions for Program Evaluation* 35 (pp. 57- 75). San Francisco: Jossey-Bass.
- Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *Am J Health Syst Pharm*, 65(23), 2276-2284.
- Knoll, H. O., & Jastram, S. M. (2019). A pragmatist perspective on sustainable global value chain governance – the case of Dr. Bronner’s. *Society and Business Review*, 14(1), 12–30.
- Koch, T. (1994). Establishing rigour in qualitative research: The decision trail. *Journal of Advanced Nursing*, 19, 976–986. doi:10.1111/ j.1365-2648.1994.tb01177.x
- Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: the construct, research propositions, and managerial implications. *Journal of Marketing*, 54(2), 1-18.
- Kotler, P., & Armstrong, G. (1994). *Marketing management, analysis, planning, implementation, and control*, Philip Kotler. London: Prentice-Hall International.

- Krauss, J. E., & Krishnan, A. (2022). Global decisions versus local realities: Sustainability standards, priorities and upgrading dynamics in agricultural global production networks. *Global Networks*, 22(1), 65-88.
- Krishnan, A. (2018). *Re-thinking the environmental dimensions of upgrading and embeddedness in production networks: The case of Kenyan horticulture farmers* (Doctoral dissertation, University of Manchester).
- Krishnan, S. (2017). Sustainable coffee production. In *Oxford research encyclopedia of environmental science*.
- Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners*. Cornwall, Great Britain. Sage Publications Limited.
- Kummritz, V., Taglioni, D., & Winkler, D. E. (2017). Economic upgrading through global value chain participation: which policies increase the value added gains?. *World Bank Policy Research Working Paper*, (8007).
- Lam, D. P., Hinz, E., Lang, D., Tengö, M., Wehrden, H., & Martín-López, B. (2020). Indigenous and local knowledge in sustainability transformations research: a literature review. *Ecology and Society*, 25(1).
- Lam, D. P., Martín-López, B., Wiek, A., Bennett, E. M., Frantzeskaki, N., Horcea-Milcu, A. I., & Lang, D. J. (2020). Scaling the impact of sustainability initiatives: a typology of amplification processes. *Urban Transformations*, 2(1), 1-24.
- Lam, Horcea-Milcu, Fischer, Peukert & Lang (2020), Three principles for co-designing sustainability intervention strategies: Experiences from Southern Transylvania. *Ambio*, 49(9), 1451-1465.
- Lambin, E. F., Kim, H., Leape, J., & Lee, K. (2020). Scaling up solutions for a sustainability transition. *One Earth*, 3(1), 89-96..

- Lamboll, R., Nelson, V., Posthumus, H., Martin, A., Adebayo, K., Alacho, F., ... & Westby, A. (2015). Practical lessons on scaling up smallholder-inclusive and sustainable cassava value chains in Africa. *Food Chain*, 5(1-2), 28-52.
- Lamotte, O., & Colovic, A. (2013). Innovation and internationalization of young entrepreneurial firms. *Management International/International Management/Gestìon Internacional*, 18(1), 87-103.
- Landes, W. M., & Posner, R. A. (1987). *The economic structure of tort law*. Cambridge, MA: Harvard University Press.
- Laursen, K., & Salter, A. (2006). Open for innovation: the role of openness in explaining innovation performance among UK manufacturing firms. *Strategic Management Journal*, 27(2), 131-150.
- Lederman, N. G., & Lederman, J. S. (2015). What is a theoretical framework? A practical answer. *Journal of Science Teacher Education*, 26(7), 593-597.
- Lee, J., & Gereffi, G. (2015). Global value chains, rising power firms and economic and social upgrading. *Critical Perspectives on International Business*.
- Lee, J., Gereffi, G., & Beauvais, J. (2012). Global value chains and agrifood standards: Challenges and possibilities for smallholders in developing countries. *Proceedings of the National Academy of Sciences*, 109(31), 12326-12331.
- Lee, K., & Mao, Z. (2020). GVC, industrial policy and industrial upgrading: Automotive sectors in Malaysia, Thailand and China in Comparison with Korea. *European Journal of Development Research*.
- Lehtonen, M. (2004). The environmental–social interface of sustainable development: capabilities, social capital, institutions. *Ecological economics*, 49(2), 199-214.

- Levin, P. S., Gray, S. A., Möllmann, C., & Stier, A. C. (2021). Perception and conflict in conservation: The Rashomon effect. *BioScience*, 71(1), 64-72.
- Levitt, H. M., Bamberg, M., Creswell, J. W., Frost, D. M., Josselson, R., & Suárez-Orozco, C. (2018). Journal article reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in psychology: The APA Publications and Communications Board task force report. *American Psychologist*, 73(1), 26.
- Li, Y. & Weeks, J.R. (2004). Marital Status. In: Encyclopedia of Women's Health. *Springer*, Boston, MA, 763–765.
- Liang, Z., Du, J., & Hua, Y. (2025). The Impact of Digital Marketing Capability on Firm Performance: Empirical Evidence from Chinese Listed Manufacturing Firms. *Journal of Theoretical and Applied Electronic Commerce Research*, 20(3), 236.
- Liang, X., Frösén, J., & Gao, Y. (2023). Do not settle for simple assessment: the effects of marketing metric uses on market-sensing capability. *European Journal of Marketing*, 57(5), 1502-1530.
- Liebenberg, L., Jamal, A., & Ikeda, J. (2020). Extending youth voices in a participatory thematic analysis approach. *International Journal of Qualitative Methods*, 19, 1609406920934614.
- Lim, W. M. (2025). What is qualitative research? An overview and guidelines. *Australasian Marketing Journal*, 33(2), 199-229.
- Lim W. M., Gupta G., Biswas B., Gupta R. (2022). Collaborative consumption continuance: A mixed-methods analysis of the service quality-loyalty relationship in ride-sharing services. *Electronic Markets*, 32(3), 1463–1484
- Lima, U. M., & Lee, K. (2023). Governance and asymmetry in global value chains of the coffee industry: Possibility for catch-up by emerging economies. *Seoul Journal of Economics*, 36(1).

- Lindstrom, D. (2010). *Schaum's Easy Outline of Statistics*, Second Edition (Schaum's Easy Outlines) 2nd Edition. McGraw-Hill Education
- Linn, J. F. (Ed.). (2012). *Scaling up in agriculture, rural development, and nutrition* (Vol. 19). Over View, Pathways and Drivers. Intl Food Policy Res Inst.
- Liverpool-Tasie, L. S. O., Wineman, A., Young, S., Tambo, J., Vargas, C., Reardon, T., ... & Celestin, A. (2020). A scoping review of market links between value chain actors and small-scale producers in developing regions. *Nature Sustainability*, 3(10), 799-808.
- Locke, R. M. (2013). *The promise and limits of private power: Promoting labor standards in a global economy*. Cambridge University Press.
- Lorenzen, M., Mudambi, R., & Schotter, A. (2020). International connectedness and local disconnectedness: MNE strategy, city-regions and disruption. *Journal of International Business Studies*, 51(8), 1199-1222.
- Lozano, R. (2015). A holistic perspective on corporate sustainability drivers. *Corporate Social Responsibility and Environmental Management*, 22(1), 32-44.
- Lund-Thomsen, P. (2020). Corporate social responsibility: A supplier-centered perspective. *Environment and Planning A: Economy and Space*, 52(8), 1700-1709.
- Lund-Thomsen, P., & Lindgreen, A. (2014). Corporate social responsibility in global value chains: Where are we now and where are we going?. *Journal of Business Ethics*, 123(1), 11-22.
- Lund-Thomsen, P., & Pillay, R. G. (2012). CSR in industrial clusters: An overview of the literature. *Corporate Governance: The International Journal of Business in Society*, 12(4), 568-578.
- Lund, S., Manyika, J., Woetzel, J., Bughin, J., & Krishnan, M. (2019). Globalization in transition: The future of trade and value chains.

- Lwesya, F. (2022). Integration into regional or global value chains and economic upgrading prospects: an analysis of the East African Community (EAC) bloc. *Future Business Journal*, 8(1), 33.
- Magala, D. B., Mangheni, M. N., & Miiro, R. (2018). Formation of effective multi-stakeholder Platforms: Lessons from coffee innovation platforms in Uganda. *African Journal of Rural Development (AFJRD)*, 3(1978-2018-4434), 617-632.
- Malindretos, G., Vlachos, I., Manikas, I., & Chatzimanolakis, M. (2016). Future prospects of sustainable aquaculture supply chain practices. In *International Conference on Sustainable Design and Manufacturing* (pp. 487-497). Springer, Cham.
- Mahajan, R., Lim, W. M., Sareen, M., Kumar, S., & Panwar, R. (2023). Stakeholder theory. *Journal of Business Research*, 166, 114104.
- Mao, J., & Yang, S. (2024). Changes in supply chain relationships and the enterprise internationalization process. *Research in International Business and Finance*, 67, 102148.
- Marcato, M. B., & Baltar, C. T. (2021). Economic upgrading in global value chains: concepts and measures. *Revista brasileira de inovação*, 19.
- Marchi, V. D., Maria, E. D., & Micelli, S. (2013). Environmental strategies, upgrading and competitive advantage in global value chains. *Business strategy and the environment*, 22(1), 62-72.
- Marin, G. (2014). Do eco-innovations harm productivity growth through crowding out? Results of an extended CDM model for Italy. *Research Policy*, 43(2), 301-317.
- Mark, M. M., & Shotland, R. L. (1987). Problems in drawing inferences from multiple methodologies. In *Paper presented at the Joint Meeting of the Evaluation Network and the Evaluation Research Society*

- Maryono, M., Killoes, A. M., Adhikari, R., & Aziz, A. A. (2024). Agriculture development through multi-stakeholder partnerships in developing countries: A systematic literature review. *Agricultural Systems*, 213, 103792.
- Matheis, T. V., & Herzig, C. (2019). *Upgrading products, upgrading work? Interorganizational learning in global food value chains to achieve the Sustainable Development Goals*. *GAIA - Ecological Perspectives for Science and Society*, 28(2), 126–134. doi:10.14512/gaia.28.2.11
- Matsumoto, Y. (2007). *Financial fragility and instability in Indonesia*. Routledge. Southeast Asia Series.
- Matthess, M., & Kunkel, S. (2020). Structural change and digitalization in developing countries: Conceptually linking the two transformations. *Technology in society*, 63, 101428.
- Mayer, F. W., & Phillips, N. (2017). Outsourcing governance: States and the politics of a ‘global value chain world’. *New Political Economy*, 22(2), 134-152.
- McDermott, G. A. (2007). The politics of institutional renovation and economic upgrading: Recombining the vines that bind in Argentina. *Politics & Society*, 35(1), 103-144.
- McDermott, G. A., & Corredoira, R. A. (2010). Network composition, collaborative ties, and upgrading in emerging-market firms: Lessons from the Argentine autoparts sector. *Journal of International Business Studies*, 41(2), 308-329.
- McGuinn, J., Fries-Tersch, M. C. E., Jones, M. C. M., & Crepaldi, M. C. C. (2020). *Social Sustainability—Concepts and Benchmarks*. Policy Department for Economic, Scientific and Quality of Life Policies Directorate-General for Internal Policies. European Parliament.
- McWilliam, S. E., Kim, J. K., Mudambi, R., & Nielsen, B. B. (2019). Global value chain governance: Intersections with international business. *Journal of World Business*, 101067.

- Mehran A. & Tahiri M. (2019). Comparison between Qualitative and Quantitative Research Approaches: Social Sciences. *International Journal For Research In Educational Studies*, 5(7), 01-07.
- Mellahi, K., Frynas, J. G., Sun, P., & Siegel, D. (2016). A review of the nonmarket strategy literature: Toward a multi-theoretical integration. *Journal of management*, 42(1), 143-173.
- Mendelow, A. (1991). Stakeholder mapping. In *Proceedings of the 2nd International Conference on Information Systems*, 10-24.
- Mendoza, J. L., Stafford, K. L., & Stauffer, J. M. (2000). Large-sample confidence intervals for validity and reliability coefficients. *Psychological Methods*, 5(3), 356.
- Meng, B., (2022) *Making Global Value Chains Visible: A Smile Curve Analysis of the US-China Trade Conflicts*. Institute of Developing Economies Research Columns.
- Menke, C., Hüseman, M., & Siems, E. (2021). *Stakeholder Influence on Sustainable Supply Chain Management: A Case Study of a German Apparel Frontrunner*.
- Merrilees, B., Rundle-Thiele, S., & Lye, A. (2011). Marketing capabilities: Antecedents and implications for B2B SME performance. *Industrial Marketing Management*, 40(3), 368-375.
- Mesquita, L. F., & Lazzarini, S. G. (2009). Horizontal and vertical relationships in developing economies: Implications for SMEs' access to global markets. In *New Frontiers in Entrepreneurship* (31-66). Springer, New York, NY.
- Milberg, W., & Winkler, D. (2011). Economic and social upgrading in global production networks: Problems of theory and measurement. *International Labour Review*, 150(3-4), 341-365.
- Minichiello, V., Aroni, R., Timewell, E., & Alexander, L. (1990). In-depth interviewing. *Melbourne: Logman*, 105-121.

- Miroudot, S. (2020). *Resilience versus robustness in global value chains: Some policy implications*. In *COVID-19 and trade policy: Why turning inward won't work*, 117-130. Center for Economic Press Research (CEPR) Press.
- Mitchell, R. K., Agle, B. R. & Wood, D. J. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *Academy of Management Review*, 22, 4: 853-886.
- Mithas, S., Ramasubbu, N., & Sambamurthy, V. (2011). How information management capability influences firm performance. *MIS quarterly*, 237-256.
- Mitręga, M. (2020). Dynamic marketing capability—refining the concept and applying it to company innovations. *Journal of Business & Industrial Marketing*, 35(2), 193-203.
- Mohan, A., Thyagarajan, A., & Muller, N. (2020). Growth, sustainability, and the measurement of global gross product. *VOXeu, CEPR Policy Portal*, 31.
- Mokhtarianpour, Majid. (2016). Islamic Model of Iranian Pattern Development Process Model. *The Pattern of Islamic Development of Iran*, 4 (8), 9-30.
- Mola, L., Russo, I., Giangreco, A., & Rossignoli, C. (2017). Who knows what? Reconfiguring the governance and the capabilities of the supply chain between physical and digital processes in the fashion industry. *Production Planning & Control*, 28(16), 1284-1297.
- Monete, D. R., Sulvian, T. J., & Dejong, C. R. (1986). *Applied social research*. New York, Chicago, San Francisco, Holt.
- Morell, L., & Tan, R. J. B. (2009). Validating for use and interpretation: A mixed methods contribution illustrated. *Journal of Mixed Methods Research*, 3(3), 242–264.
- Morgan, N. A. (2019). Researching marketing capabilities: Reflections from academia. *AMS Review*, 9(3), 381-385.

- Morgan, N. A., Katsikeas, C. S., & Vorhies, D. W. (2012). Export marketing strategy implementation, export marketing capabilities, and export venture performance. *Journal of the Academy of Marketing Science*, 40(2), 271-289.
- Morris, M., & Staritz, C. (2014). Industrialization trajectories in Madagascar's export apparel industry: Ownership, embeddedness, markets, and upgrading. *World Development*, 56, 243-257.
- Morris, M., Staritz, C., & Barnes, J. (2011). Value chain dynamics, local embeddedness, and upgrading in the clothing sectors of Lesotho and Swaziland. *International Journal of Technological Learning, Innovation and Development*, 4(1-3), 96-119.
- Morrison, A., Pietrobelli, C., & Rabellotti, R. (2008). Global value chains and technological capabilities: a framework to study learning and innovation in developing countries. *Oxford Development Studies*, 36(1), 39-58.
- Morton, S. M., Bandara, D. K., Robinson, E. M., & Carr, P. E. A. (2012). In the 21st Century, what is an acceptable response rate?. *Australian and New Zealand Journal of Public Health*, 36(2), 106-108.
- Moustakas, C. (1994). *Phenomenological Research Methods*. Thousand Oaks, CA: Sage.
- Mudambi, R. (2008). Location, control and innovation in knowledge-intensive industries. *Journal of Economic Geography*, 8(5), 699-725.
- Munir, K., Ayaz, M., Levy, D. L., & Willmott, H. (2018). The role of intermediaries in governance of global production networks: Restructuring work relations in Pakistan's apparel industry. *Human Relations*, 71(4), 560-583.
- Murakami, Y., & Ōtsuka, K. (2019). *A Review of the Literature on Productivity Impacts of Global Value Chains and Foreign Direct Investment: Towards an Integrated Approach*. Research Institute for Economics and Business Administration, Kobe University.

- Murphy, K. (2012). The social pillar of sustainable development: a literature review and framework for policy analysis. *Sustainability: Science, Practice and Policy*, 8(1), 15-29.
- Murray-Webster, R., & Simon, P. (2006). Making sense of stakeholder mapping. *PM World Today*, 8(11), 1-5.
- Myers, M.D. (2008). *Qualitative Research in Business & Management*. Thousand Oaks, CA: Sage
- Myors, B., Murphy, K. R., & Wolach, A. (2014). *Statistical power analysis: A simple and general model for traditional and modern hypothesis tests*. Routledge.
- Nachum, L. (2021). Value distribution and markets for social justice in global value chains: Interdependence relationships and government policy. *Journal of International Business Policy*, 4(4), 541-563.
- Nadvi, K., & Raj-Reichert, G. (2015). Governing health and safety at lower tiers of the computer industry global value chain. *Regulation & Governance*, 9(3), 243-258.
- Nakabugo, M. J., Muathe, S., & Mwasiagi, E. (2022). Microfinance services and government regulations: Reflections on performance of small holder coffee entrepreneurs in Uganda. *The Journal of Entrepreneurial Finance (JEF)*, 24(1), 1-24.
- Natsuda, K., Otsuka, K., & Thoburn, J. (2015). Dawn of industrialisation? The Indonesian automotive industry. *Bulletin of Indonesian Economic Studies*, 51(1), 47-68.
- Navas-Alemán, L. (2011). The impact of operating in multiple value chains for upgrading: the case of the Brazilian furniture and footwear industries. *World development*, 39(8), 1386-1397.
- Neilson, J. (2008). Global private regulation and value-chain restructuring in Indonesian smallholder coffee systems. *World Development*, 36(9), 1607-1622.
- Neilson, J., & Pritchard, B. (2011). *Value chain struggles: Institutions and governance in the plantation districts of South India*. John Wiley & Sons

- Neilson, J., Wright, J., & Aklimawati, L. (2018). Geographical indications and value capture in the Indonesia coffee sector. *Journal of Rural Studies*, 59, 35-48.
- Nelson, J. (2010). The private sector and aid effectiveness: Toward new models of engagement. *Brookings, Making Development Aid More Effective*. 20-27.
- Neuman, W. L. (2016). *Social Research Methods: Qualitative and Quantitative Approaches* (6th ed.). Pearson.
- New Vision (2021), Uganda Registers highest monthly earning from Coffee.
- Newman, C., Page, J., Rand, J., Shimeles, A., Söderbom, M., & Tarp, F. (2020). Linked-in by FDI: The role of firm-level relationships for knowledge transfers in Africa and Asia. *The Journal of Development Studies*, 56(3), 451-468.
- Nikolaou, I. E., Evangelinos, K. I., & Allan, S. (2013). A reverse logistics social responsibility evaluation framework based on the triple bottom line approach. *Journal of Cleaner Production*, 56, 173-184.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1609406917733847.
- Nugroho, M. I. (2022). Global value chains participation to enhance export: Evidence from Indonesian apparel SMEs. *Journal of Socioeconomics and Development*, 5(1), 99-114.
- Oranga, J. (2025). Mixed methods research: application, advantages and challenges. *Journal of Accounting Research, Utility Finance and Digital Assets*, 3(4), 370-375.
- O’rourke, D. (2006). Multi-stakeholder regulation: privatising or socialising global labor standards?. *World Development*, 34(5), 899-918.
- Observatory of Economic Complexity (OEC), (2024), Complexity2024https://oec.world/en/visualize/tree_map/hs92/export/uga/all/show/2022

- Ochago, R., Dentoni, D., & Mahdad, M. (2024). The Effect of Ugandan Coffee Farmers' Role Identity on Their Experiential Learning. *Journal of Experiential Education*, 10538259241244726.
- Ochago, R., Dentoni, D., Lans, T., & Trienekens, J. (2023). Disentangling the experiential learning process of coffee farmers in Uganda's innovation platforms. *The Journal of Agricultural Education and Extension*, 29(1), 117-148.
- Oe, H., Yamaoka, Y. and Ochiai, H., 2022. Coffee narrative with a focus on certification schemes: Ethiopian agri-food value chain in a global market context. *International Journal of Business Management and Economic Review*, 5 (5), 103-122.
- Okamoto Y. (2020). *Do standards and certificates support upgrading and the SDGs in global value chains?: the case of the Uganda Organic Coffee Farmers' Association* (Doctoral dissertation, Doshisha University).
- Oliveira, L., Fleury, A., & Fleury, M. T. (2021). Digital power: Value chain upgrading in an age of digitization. *International Business Review*, 30(6), 101850.
- Ong, T. S., Lee, A. S., Teh, B. H., & Magsi, H. B. (2019). Environmental innovation, environmental performance and financial performance: Evidence from Malaysian environmental proactive firms. *Sustainability*, 11(12), 3494.
- Oqubay, A., & Ohno, K. (Eds.). (2019). *How Nations Learn: Technological Learning, Industrial Policy, and Catch-up*. Oxford University Press.
- Organisation for Economic Co-operation and Development (OECD), Activity of Multinational Enterprises (AMNE) Data (2022).
- Osanloo, A., & Grant, C. (2016). Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your "house". *Administrative Issues Journal: Connecting Education, Practice, and Research*, 4(2), 7.

- Page, J., & Shimeles, A. (2015). Aid, employment and poverty reduction in Africa. *African Development Review*, 27(S1), 17-30.
- Pahl, S., & Timmer, M. P. (2020). Do global value chains enhance economic upgrading? A long view. *The Journal of Development Studies*, 56(9), 1683-1705.
- Pasquali G. (2021); When value chains go South: Upgrading in the Kenyan leather sector. *Journal of World Business*; Volume 56, Issue 2, 101161.
- Peralta, A., Shupp, R., & Arslan, C. (2022). The grower-trader relationship: experiments with coffee value chain actors in Uganda. *Oxford Development Studies*, 50(3), 193-208
- Pereira, L., Karpouzoglou, T., Doshi, S., & Frantzeskaki, N. (2015). Organising a safe space for navigating social-ecological transformations to sustainability. *International Journal of Environmental Research and Public Health*, 12(6), 6027-6044.
- Perri, A., Scalera, V. G., & Mudambi, R. (2017). What are the most promising conduits for foreign knowledge inflows? Innovation networks in the Chinese pharmaceutical industry. *Industrial and Corporate Change*, 26(2), 333-355.
- Pesqueux, Y., & Damak-Ayadi, S. (2005). Stakeholder theory in perspective. *Corporate Governance: The International Journal of Business in Society*, 5(2), 5-21.
- Pfeffer, J., & Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*. CA: Stanford University Press
- Pickles, J., Smith, A., Bucěk, M., Roukova, P., & Begg, R. (2006). Upgrading, changing competitive pressures, and diverse practices in the East and Central European apparel industry. *Environment and Planning A*, 38(12), 2305-2324.
- Piedra-Muñoz, L., Galdeano-Gómez, E., & Pérez-Mesa, J. C. (2016). Is sustainability compatible with profitability? An empirical analysis on family farming activity. *Sustainability*, 8(9), 893.

- Piermartini, R., & Rubínová, S. (2014). *Knowledge spillovers through international supply chains* (No. BOOK). The Graduate Institute of International and Development Studies.
- Pieter, V. D. M., & Trienekens, J. (2012). Global Value Chains: An Overview of the Issues and Concepts. In *Upgrading of Value Chains in Developing Countries*. In *Global Value Chains* 237-250. Amsterdam University Press.
- Pietrobelli, C., & Rabellotti, R. (2004). *Upgrading in clusters and value chains in Latin America: the role of policies* (No. 40778). Washington, DC: Inter-American Development Bank.
- Pietrobelli, C., & Rabellotti, R. (2006). *Upgrading to compete global value chains, clusters, and SMEs in Latin America*. Washington, DC: Inter-American Development Bank.
- Pietrobelli, C., & Rabellotti, R. (2011). Global value chains meet innovation systems: are there learning opportunities for developing countries?. *World development*, 39(7), 1261-1269.
- Pipkin, S. (2011). Local means in value chain ends: dynamics of product and social upgrading in apparel manufacturing in Guatemala and Colombia. *World Development*, 39(12), 2119-2131.
- Pipkin, S., & Fuentes, A. (2017). Spurred to upgrade: A review of triggers and consequences of industrial upgrading in the global value chain literature. *World Development*, 98, 536-554.
- Pisano, G. P., & Shih, W. C. (2009). Restoring american competitiveness. *Harvard business review*, 87(7/8), 114-125.
- Pla-Barber, J., Villar, C., & Narula, R. (2021). Governance of global value chains after the Covid-19 pandemic: A new wave of regionalization?. *BRQ Business Research Quarterly*, 24(3), 204-213.
- Ponte, S. (2008). Developing a vertical dimension to chronic poverty research: Some lessons from global value chain analysis. *Chronic Poverty Research Centre Working paper*, (111).

- Ponte, S. (2020). Green capital accumulation: business and sustainability management in a world of global value chains. *New Political Economy*, 25(1), 72-84.
- Ponte, S. (2020). The hidden costs of environmental upgrading in global value chains. *Review of International Political Economy*, 1-26.
- Ponte, S., & Ewert, J. (2009). Which way is “up” in upgrading? Trajectories of change in the value chain for South African wine. *World Development*, 37(10), 1637-1650.
- Poulsen, R. T., Ponte, S., & Lister, J. (2016). Buyer-driven greening? Cargo-owners and environmental upgrading in maritime shipping. *Geoforum*, 68, 57-68.
- Poulton, C., Dorward, A., & Kydd, J. (2010). The future of small farms: New directions for services, institutions, and intermediation. *World Development*, 38(10), 1413-1428.
- Pushp, P., & Ahmed, F. (2024). Toward a future discourse on global value chains. *Critical Perspectives on International Business*, 20(3), 378-407.
- Ragin, C. C. (2014). *The comparative method: Moving beyond qualitative and quantitative strategies*. Univ of California Press.
- Ragin, C. C., & Robinson, C. (2009). The distinctiveness of comparative research. *The SAGE Handbook of Comparative Politics*, 13-34.
- Raha, A., Hajdini, I., & Windsperger, J. (2021). A multilateral stakeholder salience approach: An extension of the stakeholder identification and salience framework. *Industrial Marketing Management*, 97, 1-9.
- Rautakorpi, J. (2021). Fairtrade Coffee: Commodity Chain Data Transparency and Stakeholder Benefits.
- Reed, M. S., Graves, A., Dandy, N., Posthumus, H., Hubacek, K., Morris, J., ... & Stringer, L. C. (2009). Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management*, 90(5), 1933-1949. Accessed on

- Reichardt, D. S., & Cook, T. D. (1979). Beyond qualitative *versus* quantitative methods. In T. D. Cook & C. S. Reichardt (Eds.), *Qualitative and Quantitative Methods in Evaluation Research* (pp. 7-32). Beverly Hills, CA: Sage.
- Resnik, D. B. (2011). What is ethics in research & why is it important. *National Institute of Environmental Health Sciences*, 1(10), 49-70.
- Resnik, D. B., & Elliott, K. C. (2016). The ethical challenges of socially responsible science. *Accountability in Research*, 23(1), 31-46.
- Rigo, D. (2021). Global value chains and technology transfer: new evidence from developing countries. *Review of World Economics*, 157(2), 271-294.
- Robertson, M. (2021). *Sustainability principles and practice*. Routledge.
- Robson, C. (2011). *Real world research: A resource for social-scientists and practitioner-researchers*. 3rd Edition. Oxford: Blackwell Publishing.
- Rockström, J., Williams, J., Daily, G., Noble, A., Matthews, N., Gordon, L., ... & Smith, J. (2017). Sustainable intensification of agriculture for human prosperity and global sustainability. *Ambio*, 46(1), 4-17.
- Rodrik, D. (2008). One economics, many recipes. In *One Economics, Many Recipes*. Princeton University Press.
- Rodrik, D. (2018). *New technologies, global value chains, and developing economies* (National Bureau of Economic Research, Working Paper No. 25164). Cambridge,
- Roesch, S. C., & Amirkhan, J. H. (1997). Boundary Conditions for Self-serving Attributions: Another Look at the Sports Pages 1. *Journal of Applied Social Psychology*, 27(3), 245-261.
- Rossi, A. (2013). Does economic upgrading lead to social upgrading in global production networks? Evidence from Morocco. *World Development*, 46, 223-233.

- Rossman, G. B., & Rallis, S. F. (2011). *Learning in the field: An introduction to qualitative research*. Sage.
- Rotmans, J., Kemp, R., & Van Asselt, M. (2001). More evolution than revolution: Transition management in public policy. *Foresight (Los Angeles, Calif)*, 3(1), 15–31.
- Roy, D., & Thorat, A. (2008). Success in high value horticultural export markets for the small farmers: The case of Mahagrapes in India. *World Development*, 36(10), 1874-1890.
- Ruben, R., & Zuniga, G. (2011). How standards compete: comparative impact of coffee certification schemes in Northern Nicaragua. *Supply Chain Management: An International Journal*, 16(2), 98-109.
- Rughiniș, C., & Humă, B. (2015). Who theorizes age? The “socio-demographic variables” device and age–period–cohort analysis in the rhetoric of survey research. *Journal of Aging Studies*, 35, 144-159.
- Rugman, A. M., & Verbeke, A. (1992). A note on the transnational solution and the transaction cost theory of multinational strategic management. *Journal of International Business Studies*, 23(4), 761-771.
- Rugman, A. M., & Verbeke, A. (2003). Multinational enterprises and clusters: An organizing framework. *Management International Review*, 43, 151-169.
- Sako, M., & Zylberberg, E. (2019). Supplier strategy in global value chains: shaping governance and profiting from upgrading. *Socio-Economic Review*, 17(3), 687-707.
- Bellhouse, T., & Salido Marcos, J. (2016). Economic and Social Upgrading: Definitions, connections and exploring means of measurement. *Sede Subregional de la CEPAL en México (Estudios e Investigaciones)*, (40096).

- Salkind, N. J., & Frey, B. B. (2019). *Statistics for people who (think they) hate statistics*. Sage Publications.
- Sampson, T. (2022). *Technology transfer in global value chains*. Centre for Economic Performance, Department of Economics London School of Economics.
- Sarkis, J., Helms, M. M., & Hervani, A. A. (2010). Reverse logistics and social sustainability. *Corporate Social Responsibility and Environmental Management*, 17(6), 337-354.
- Sato, Y., & Fujita, M. (2009). *Capability matrix: a framework for analysing capabilities in value chains*. Inst. of Developing Economies, Japan External Trade Organization.
- Sauerhaft, B., & Hope-Johnstone, I. (2012). *Scaling up in agriculture, rural development, and nutrition: Scaling up agricultural supply chains in the private sector* (No. 19 (8)). International Food Policy Research Institute (IFPRI).
- Saunders, M., Lewis, P., and Thornhill, A. (2023) , Ninth Edition, *Research methods for business students*, Prentice Hall, London.
- Scalera, V. G., Perri, A., & Hannigan, T. J. (2018). Knowledge connectedness within and across home country borders: Spatial heterogeneity and the technological scope of firm innovations. *Journal of International Business Studies*, 49(8), 990-1009.
- Schmitz, H. (1999). Global competition and local cooperation: success and failure in the Sinos Valley, Brazil. *World Development*, 27(9), 1627-1650.
- Schmitz, H. (2006). Learning and earning in global garment and footwear chains. *The European Journal of Development Research*, 18(4), 546-571.
- Scholes, E., & Clutterbuck, D. (1998). Communication with stakeholders: An integrated approach. *Long Range Planning*, 31(2), 227-238.

- Schreuder, H. T., Gregoire, T. G., & Weyer, J. P. (2001). For what applications can probability and non-probability sampling be used?. *Environmental Monitoring and Assessment*, 66, 281-291.
- Schwartz-Shea, P. (2006). Conundrums in the practice of pluralism. *Making political science matter: debating knowledge, research, and method*. NYU Press, New York, 313-331.
- Scoones, I., Stirling, A., Abrol, D., Atela, J., Charli-Joseph, L., Eakin, H., ... & Yang, L. (2020). Transformations to sustainability: combining structural, systemic and enabling approaches. *Current Opinion in Environmental Sustainability*, 42, 65-75.
- Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching*, 5(9), 9-16.
- Scuotto, V., Garcia-Perez, A., Nespoli, C., & Petruzzelli, A. M. (2020). A repositioning organizational knowledge dynamic by functional upgrading and downgrading strategy in global value chain. *Journal of International Management*, 26(4), 100795.
- Sen, K. (2019). What explains the job creating potential of industrialisation in the developing world?. *The Journal of Development Studies*, 55(7), 1565-1583.
- Shamoo, A., & Resnik, D. (2015). *Responsible conduct of research* (3rd edition). New York: Oxford University Press.
- Shank, G. & Brown, L. (2007). *Exploring Educational Research Literacy*. New York: Routledge
- Shaw, M., Majumdar, A., & Govindan, K. (2022). Barriers of social sustainability: an improved interpretive structural model of Indian textile and clothing supply chain. *Sustainable Development*. 30(6), 1616-1633.

- Shen, R., Tang, Y., & Zhang, Y. (2016). *Does Firm Innovation Affect Corporate Social Responsibility?*. Harvard Business School: Boston, MA, USA.
- Siba, E., & Gebreeyesus, M. (2016). Learning to export and learning from exporting: The case of Ethiopian manufacturing. *Journal of African Economies*, 1-23.
- Slabá, M. (2016). *Stakeholder profile and stakeholder mapping of SMEs. Littera Scripta*, 9(1), 123-139.
- Smith, A., Fressoli, M., & Thomas, H. (2014). Grassroots innovation movements: challenges and contributions. *Journal of Cleaner Production*, 63, 114-124.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, [104](#), 333–339.
- Snyder, H. (2023). Designing the literature review for a strong contribution. *Journal of Decision Systems*, 1-8.
- Soejachmoen, M. P. (2016). Globalization of the Automotive Industry: Is Indonesia Missing Out?. *Asian Economic Papers*, 15(1), 1-19.
- Spyropoulou, S., Katsikeas, C. S., Skarmeas, D., & Morgan, N. A. (2018). Strategic goal accomplishment in export ventures: the role of capabilities, knowledge, and environment. *Journal of the Academy of Marketing Science*, 46(1), 109-129.
- Ssebunya, B. R., Schmid, E., van Asten, P., Schader, C., Altenbuchner, C., & Stolze, M. (2017). Stakeholder engagement in prioritising sustainability assessment themes for smallholder coffee production in Uganda. *Renewable Agriculture and Food Systems*, 32(5), 428-445.
- Stahl, N. A., & King, J. R. (2020). Expanding approaches for research: Understanding and using trustworthiness in qualitative research. *Journal of Developmental Education*, 44(1), 26-28.

- Staritz, C., Gereffi, G., & Cattaneo, O. (2011). Shifting End Markets and Upgrading Prospects in Global Value Chains (Special Issue of IJTLID). *Special issue of International Journal of Technological Learning, Innovation and Development (IJTLID)*, 4.
- Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., ... & Sörlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223), 1259855.
- Stein, C., & Barron, J. (2017). *Mapping actors along value chains: integrating visual network research and participatory statistics into value chain analysis* (Vol. 5). International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems (WLE)..
- Sturgeon, T. J. (2003). What really goes on in Silicon Valley? Spatial clustering and dispersal in modular production networks. *Journal of Economic Geography*, 3(2), 199-225.
- Sturgeon, T. J., & Memedović, O. (2011). *Mapping global value chains: Intermediate goods trade and structural change in the world economy*. United Nations Industrial Development Organization.
- Šūmane, S., Kunda, I., Knickel, K., Strauss, A., Tisenkopfs, T., des Ios Rios, I., Maria Rivera, Tzruya Chebach... & Ashkenazy, A. (2018). Local and farmers' knowledge matters! How integrating informal and formal knowledge enhances sustainable and resilient agriculture. *Journal of Rural Studies*, 59, 232-241.
- Swartz, E., Money, A., Williams, B., & Remenyi, D. (1998). Doing research in business and management: an introduction to process and method. *Doing Research in Business and Management*, 1-320.
- Syafrian, D. (2019), Upgrading Challenges in Global Value Chains, *Advances in Economics, Business and Management Research*, Volume 98, 2352-5428.

- Takona, J. P. (2024). Research design: qualitative, quantitative, and mixed methods approaches. *Quality & Quantity*, 58(1), 1011-1013.
- Taglioni, D., & Winkler, D. (2016). *Making global value chains work for development*. World Bank Publications.
- Tajoli, L., & Felice, G. (2018). Global value chains participation and knowledge spillovers in developed and developing countries: An empirical investigation. *The European Journal of Development Research*, 30(3), 505-532.
- Tander, N., & van Tilburg, A. (2007). Standards and market access in Indian cashew processing and international trade. *Governance for quality in tropical food chains*. Wageningen: Wageningen Academic Publishers, 211-238.
- Tanrattaphong, B. (2025). Value chain upgrading and seafood exports: lessons from developing countries. *Humanities and Social Sciences Communications*, 12(1), 1-11.
- Tanrattaphong, B., Hu, B., & Gan, C. (2020). The impacts of value chain upgrading on the export of processed food. *Food Policy*, 93, 101906.
- Tansey, O. (2009). Process tracing and elite interviewing: a case for non-probability sampling. *Methoden der vergleichenden Politik-und Sozialwissenschaft: Neue entwicklungen und anwendungen*, 481-496.
- Tapaninaho, R., & Heikkinen, A. (2022). Value creation in circular economy business for sustainability: A stakeholder relationship perspective. *Business Strategy and the Environment*. 31(6), 2728-2740.
- Teddlie, C., & Stringfield, S. (1993). *Schools make a difference: Lessons learned from a 10-year study of school effects*. New York, NY: Teachers College Press.
- Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, 1(1), 77–100.

- Teece, D. J. 2014. A dynamic capabilities-based entrepreneurial theory of the multinational enterprise. *Journal of International Business Studies*, 45(1): 8-37.
- Tejada, P., Santos, F. J., & Guzmán, J. (2011). Applicability of global value chains analysis to tourism: issues of governance and upgrading. *The Service Industries Journal*, 31(10), 1627-1643.
- Tesch, R. (1990). *Qualitative Research: Analysis Types and Software Tools*. Basingstoke: Falmer.
- Tessmann, J. (2020). Global value chains and policy practice: The making of linkages in the Ivorian cashew industry. *Competition & Change*, 24(1), 26-43.
- The New Vision, September 5, 2024, *Coffee Lead Agricultural Exports with \$210.48 (shs795 Bn)*
- The New Vision, September 4, 2024, *Uganda Coffee Firms sign deal with Chinese Company*
- Thietart, R. A. (2001). *Doing management research: a comprehensive guide*. Sage Publications, London.
- Thoburn & Natsuda (2018)a, Pharmaceutical industry. *Journal of Economic Geography*, 14(6), 1117-1140.
- Thoburn, J., & Natsuda, K. (2018)b, How to conduct effective industrial policy: a comparison of automotive development in the Philippines and Indonesia. *Journal of the Asia Pacific Economy*, 23(4), 657-682.
- Thomas, G. (1997). *What's the Use of Theory?* Harvard Educational Review, 67 (Spring, 1997), 75-104.
- Thorpe, J. (2018). Procedural justice in value chains through public–private partnerships. *World Development*, 103, 162-175.
- Tian, K., Dietzenbacher, E., & Jong-A-Pin, R. (2019). Measuring industrial upgrading: applying factor analysis in a global value chain framework. *Economic Systems Research*, 31(4)

- Tian, K., Dietzenbacher, E., & Jong-A-Pin, R. (2019). Measuring industrial upgrading: applying factor analysis in a global value chain framework. *Economic Systems Research*, 31(4), 642-664.
- Tian, K., Dietzenbacher, E., & Jong-A-Pin, R. (2022). Global value chain participation and its impact on industrial upgrading. *The World Economy*, 45(5), 1362-1385.
- Timmer, S., & Kaufmann, L. (2019). Do managers' dark personality traits help firms in coping with adverse supply chain events?. *Journal of Supply Chain Management*, 55(4), 67-97.
- Tokatli, N. (2013). Toward a better understanding of the apparel industry: a critique of the upgrading literature. *Journal of Economic Geography*, 13(6), 993-1011.
- Toussaint, M., Cabanelas, P., & Muñoz-Dueñas, P. (2021). Social sustainability in the food value chain: what is and how to adopt an integrative approach?. *Quality & Quantity*, 1-24.
- Trainor, K. J., Rapp, A., Beitelspacher, L. S., & Schillewaert, N. (2011). Integrating information technology and marketing: An examination of the drivers and outcomes of e-Marketing capability. *Industrial Marketing Management*, 40(1), 162-174.
- Tran, N., Bailey, C., Wilson, N., & Phillips, M. (2013). Governance of global value chains in response to food safety and certification standards: the case of shrimp from Vietnam. *World Development*, 45, 325-336.
- Trienekens, J. H. (2011). Agricultural value chains in developing countries a framework for analysis. *International Food and Agribusiness Management Review*, 14(1030-2016-82778), 51-82.
- Trienekens, J. H., & van Dijk, P. (2012). 10. *Upgrading of Value Chains in Developing Countries. In Global Value Chains. Linking local producers from developing countries to international markets.* (237-250). Amsterdam University Press.

- Tzabbar, D., & Vestal, A. (2015). Bridging the social chasm in geographically distributed R&D teams: The moderating effects of relational strength and status asymmetry on the novelty of team innovation. *Organization Science*, 26(3), 811-829.
- Uganda Coffee Development Authority Annual Report (2020)
- Uganda Coffee Directory (2022)
- Uganda Coffee Development Authority (2024), *Uganda Coffee, Then & Now* \
- United Kingdom Statistics Authority (2022). Ethical considerations associated with qualitative research methods.
- United Nations Conference on Trade and Development (2014), *Looking at trade policy through a “gender lens”. Summary of seven country case studies.*
- Urquhart, C. (2022). *Grounded theory for qualitative research: A practical guide*. Sage.
- Ursachi, G., Horodnic, I. A., & Zait, A. (2015). How reliable are measurement scales? External factors with indirect influence on reliability estimators. *Procedia Economics and Finance*, 20, 679-686.
- Van Assche, A. (2017). Global value chains and innovation. In *The Elgar companion to innovation and knowledge creation*. Edward Elgar Publishing.
- Van der Meer, K. (2002). “Public–Private Cooperation in Agricultural Research: Examples from the Netherlands.” In *Research Policy in an Era of Privatization: Experiences from the Developing World*, ed. D. Byerlee and R.G. Echeverria. Wallingford: CABI.
- Van Holt, T., Delaroche, M., Atz, U., & Eckerle, K. (2021). Financial benefits of reimagined, sustainable, agrifood supply networks. *Journal of International Business Policy*, 4(1), 102-118.
- Vanderstoep, S. W., & Johnson, D. D. (2008). *Research methods for everyday life: Blending qualitative and quantitative approaches* (Vol. 32). John Wiley & Sons.

- Verhoogen, E. (2023). Firm-level upgrading in developing countries. *Journal of Economic Literature*, 61(4), 1410-1464.
- Vieira, L., & Hartwich, F. (2002). *Approaching Public–Private Partnerships for Agroindustrial Research: A Methodological Framework*. San José, Costa Rica: International Service for National Agricultural Research.
- Vivek, S. D., Richey Jr, R. G., & Dalela, V. (2009). A longitudinal examination of partnership governance in offshoring: A moving target. *Journal of World Business*, 44(1), 16-30.
- Vlachos, I. P., & Gutnik, S. (2016). Together we e-export: Horizontal cooperation among Austrian food companies in global supply chains and the role of electronic business tools. *International Journal of Information Systems and Supply Chain Management (IJISSCM)*, 9(1), 17-40.
- Vogel, C., Mathé, S., Geitzenauer, M., Ndah, H. T., Sieber, S., Bonatti, M., & Lana, M. (2020). Stakeholders' perceptions on sustainability transition pathways of the cocoa value chain towards improved livelihood of small-scale farming households in Cameroon. *International Journal of Agricultural Sustainability*, 18(1), 55-69.
- Vorhies, D. W., & Morgan, N. A. (2005). Benchmarking marketing capabilities for sustainable competitive advantage. *Journal of Marketing*, 69(1), 80-94.
- Vveinhardt, J., & Gulbovaite, E. (2018). Reliability of methodological and psychometric characteristics of the questionnaire of congruence of personal and organizational values. *Oeconomia Copernicana*, 9(3), 545-571.
- Walters, D., & Helman, D. (2020). *Strategic Capability Response Analysis*. Springer International Publishing.
- Wambua, D. M., Ndirangu, S. N., Mogaka, H., & Gichimu, B. M. (2024). Decomposition of the Coffee Value Chain Among Smallholder Farmers in Embu and Kirinyaga Counties in Central Kenya. *Advances in Agriculture*, 2024(1), 9346391.

- Wang, C. N., Yu, M. C., Ho, N. N. Y., & Le, T. N. (2021). An integrated forecasting model for the coffee bean supply chain. *Applied Economics*, 53(28), 3321-3333
- Wedig, K. (2019). *Cooperatives, the State, and Corporate Power in African Export Agriculture: The Case of Uganda's Coffee Sector*. Routledge
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548.
- Weiner, B. (2010). The development of an attribution-based theory of motivation: A history of ideas. *Educational Psychologist*, 45(1), 28-36.
- West, P. W. (2016). Simple random sampling of individual items in the absence of a sampling frame that lists the individuals. *New Zealand Journal of Forestry Science*, 46, 1-7.
- White, L. (2001). 'Effective governance' through complexity thinking and management science. *Systems Research and Behavioral Science: The Official Journal of the International Federation for Systems Research*, 18(3), 241-257.
- Whitfield, L., Staritz, C., Melese, A. T., & Azizi, S. (2020). Technological capabilities, upgrading, and value capture in global value chains: Local apparel and floriculture firms in Sub-Saharan africa. *Economic Geography*, 96(3), 195-218.
- Wiek, A., & Lang, D. J. (2016). Transformational sustainability research methodology. In *Sustainability Science*, 31-41. Springer, Dordrecht.
- Wiles, M. A., Morgan, N. A., & Rego, L. L. (2012). The effect of brand acquisition and disposal on stock returns. *Journal of Marketing*, 76(1), 38-58.
- Williamson O. E. (1986). *Economic organization: Firms, markets and policy control*. New York University Press.
- Williamson, O. E. (1999). Strategy research: governance and competence perspectives. *Strategic Management Journal*, 20(12), 1087-1108.

- Williamson, O. E. (1996). *The mechanisms of governance*. New York, NY: Oxford University Press.
- Wiseman, A. W., & Anderson, E. W. (2025). Methodological complementarity in comparative education research. In *Handbook on Comparative Education* (pp. 152-160). Edward Elgar Publishing.
- Wittke, K. (2014). *The contribution of stakeholder theory to supply chain management: A theory evaluation* (Bachelor's thesis, University of Twente).
- Wong, H. Y., & Merrilees, B. (2008). The performance benefits of being brand-orientated. *Journal of Product & Brand Management*.
- World Population Review (2024), *Coffee Producing Countries*.
- Xing, Y., & Detert, N. C. (2010). How the iPhone widens the United States trade deficit with the People's Republic of China. *Aussenwirtschaft*, 66(3), 339-350.
- Yadav C. , Arun A. Santhosha K. M., Manohar C. , Chandrarekha C. & Gagana M. D., (2022), Value Chain Upgrading Strategies for Sustainable Coffee Industry:- A Visionary SWOT Approach, *Asian Journal of Agricultural Extension Economics & Sociology*, 40(12), 232-244.
- Yamakawa, Y., & Cardon, M. S. (2015). Causal ascriptions and perceived learning from entrepreneurial failure. *Small Business Economics*, 44(4), 797-820.
- Yamane, Taro (1967). *Statistics, An Introductory Analysis*, 2nd Ed., New York: Harper and Row.
- Yamin, M., & Forsgren, M. (2006). Hymer's analysis of the multinational organization: Power retention and the demise of the federative MNE. *International Business Review*, 15(2), 166-179.

- Yang, C. (2013). From strategic coupling to recoupling and decoupling: Restructuring global production networks and regional evolution in China. *European Planning Studies*, 21(7), 1046-1063.
- Yang, D. Y. R., & Coe, N. M. (2009). The governance of global production networks and regional development: A case study of Taiwanese PC production networks. *Growth and Change*, 40(1), 30-53.
- Yang, Y., & Cooke, C. (2020). Exploring the barriers to upscaling the production capacity of the edible insect sector in the United Kingdom. *British Food Journal*, 123(4), 1531-1545.
- Yaqub, M. Z. (2009). Antecedents, consequences and control of opportunistic behavior in strategic networks. *Journal of Business & Economics Research (JBER)*, 7(2).
- Yenkey, C. B. (2018). Fraud and market participation: Social relations as a moderator of organizational misconduct. *Administrative Science Quarterly*, 63(1), 43–84.
- Yeung, H. W. C., & Coe, N. (2015). Toward a dynamic theory of global production networks. *Economic Geography*, 91(1), 29-58.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th Ed.). Thousand Oaks, CA
- Ylönen, M., & Aven, T. (2023). A framework for understanding risk based on the concepts of ontology and epistemology. *Journal of Risk Research*, 26(6), 581–593
- Yoruk, D. E. (2019). Dynamics of firm-level upgrading and the role of learning in networks in emerging markets. *Technological Forecasting and Social Change*, 145, 341-369.
- Youn, S., Hwang, W., & Yang, M. G. (2012). The role of mutual trust in supply chain management: deriving from attribution theory and transaction cost theory. *International Journal of Business Excellence*, 5(5), 575-597.
- Yu, M. (2012). Industrial structural upgrading and poverty reduction in China, the untold story: Structural change for poverty reduction: The case of the BRICS. *Beijing: Peking University*.

- Zakic, N., Bozilovic, S., & Sijakovic, I. (2018). analysis and upgrading OF value chain. *Ekonomika, Journal for Economic Theory and Practice and Social Issues*, 64(1350-2019-2914), 1-15.
- Zhan, J., Bolwijn, R., Casella, B., & Santos-Paulino, A. U. (2020). Global value chain transformation to 2030: Overall direction and policy implications. *VoxEU & CEPR*.
- Zhang, F., & Gallagher, K. S. (2016). Innovation and technology transfer through global value chains: Evidence from China's PV industry. *Energy policy*, 94, 191-203.
- Zhang, W., & Banerji, S. (2017). Challenges of servitization: A systematic literature review. *Industrial Marketing Management*, 65, 217-227.

APPENDICES

APPENDIX 1: UREC PROVISIONAL APPROVAL



UREC Decision, Version 2.0 ☐

Unicaf University Research Ethics Committee Decision	
Student's Name:	Bella Murungi Dutki
Student's ID #:	R1810D6638010
Supervisor's Name:	Dr Ilias Vlachos
Program of Study:	UU-DBA-900-1-ZM ▼
Offer ID /Group ID:	O30632G31805
Dissertation Stage:	DS 1 ▼
Research Project Title:	Examining the influence of upgrading on financial performance and upscaling of global value chains: An investigation of stakeholders' perceptions on the coffee industry of Uganda.
Comments:	No comments
Decision*:	A. Provisionally approved without revision or comments ▼
Date:	19-Apr-2022

*Provisional approval provided at the Dissertation Stage 1, whereas the final approval is provided at the Dissertation stage 3. The student is allowed to proceed to data collection following the final approval.

APPENDIX 2: UREC FINAL APPROVAL



UREC Decision, Version 2.0

Unicaf University Research Ethics Committee Decision

Student's Name: Bella Murungi Dutki

Student's ID #: R1810D6638010

Supervisor's Name: Dr Ilias Vlachos

Program of Study: UU-DBA-900-3-ZM

Offer ID /Group ID: O55872G62745

Dissertation Stage: DS3

Research Project Title:

Examining the influence of upgrading on upscaling of global value chains: An investigation on stakeholders' perceptions in the coffee industry of Uganda.

Comments: No comments.

Decision*: A. Approved without revision or comments

Date: 11 Apr 2023

*Provisional approval provided at the Dissertation Stage 1, whereas the final approval is provided at the Dissertation stage 3. The student is allowed to proceed to data collection following the final approval.

APPENDIX 3: INFORMED CONSENT FORM



UU_IC - Version 2.1

Informed Consent Form

Part 1: Debriefing of Participants

Student's Name: Bella Murungi Dutki

Student's E-mail Address: [REDACTED]

Student ID #: R1810D6638010

Supervisor's Name: Dr. Illas Viachos

University Campus: Unicaf University Zambia (UUZ)

Program of Study: UUZ: DBA - Doctorate of Business Administration

Research Project Title: Examining the Influence of upgrading on upscaling of global value chains: An Investigation on stakeholders' perceptions in the coffee industry of Uganda.

Date: 02/18/2023

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 purpose of the study is to explore the influence of specific factors/antecedents of upgrading on upscaling global value chains.

The study aims to examine the influence of specific factors/antecedents of upgrading on upscaling by investigating the concept of upgrading.

The results of this study will enhance theory, methodology, and have practical implications on value chain upgrading processes. To theory, it will enhance the existing literature and help chain actors better understand the construct of upgrading global value chains, its antecedents, impact, and outcomes. For methodology, it will use a multi-disciplinary approach (qualitative and quantitative methods) to examine the concept of upgrading global value chains. For practical implications, it will help chain actors and policy-makers make cautiously informed decisions when strategizing how to upgrade.

You are chosen to participate because you are considered to have the necessary information as a stakeholder in the coffee industry in Uganda.

The above named Student is committed in 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, Bella Murungi Dutki, ensure that all information stated above is true and that all conditions have been met.

Student's Signature:

Informed Consent Form

Part 2: Certificate of Consent

This section is mandatory and should to be signed by the participant(s)

Student's Name: Bella Murungi Dutki

Student's E-mail Address: [REDACTED]

Student ID #: R1810D6638010

Supervisor's Name: Dr. Illias Vlachos

University Campus: Unicaf University Zambia (UUZ)

Program of Study: UUM: DBA - Doctorate of Business Administration

Research Project Title: Examining the Influence of upgrading on upscaling of global value chains: An Investigation on stakeholders' perceptions in the coffee industry of Uganda.

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 to 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:

APPENDIX 4: LOCAL APPROVAL

In any correspondence on
this subject please quote No. FAD 46/317/01



The Republic of Uganda

MINISTRY OF AGRICULTURE,
ANIMAL INDUSTRY AND FISHERIES
P.O BOX 102,

E-MAIL: ps@agriculture.go.ug

WEBSITE: www.agriculture.go.ug

TELEPHONE: 320987/3, 320004, 320327/8

FAX: 256-041-321047, 256-041-321010,
256-041-321255

ENTEBBE, UGANDA

Ms. Bella Murungi Dutki
Doctoral Student
UNICAF University, Zambia
c/o P.O. Box 2429,
Kampala, Uganda

April 24, 2023

Dear Ms. Bella M. Dutki,

Research on the Upgrading of the Coffee Value Chain in Uganda

Your request to conduct research entitled "*Examining the influence of upgrading on upscaling of global value chains: An investigation on stakeholders' perceptions in the coffee industry of Uganda*," in the registered stakeholders in the coffee Industry registered in the Coffee and Cocoa Directory Uganda compiled by the Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and Uganda Coffee Development Authority (UCDA) is granted.

Kindly note that we expect you to fully be in charge of all the arrangements for the processes involved in conducting interviews and having the questionnaires filled without causing any disruptions.

We will appreciate it if all the participants involved are protected such that their identities are not exposed.

Please feel free to present this letter to the coffee chain actors and other stakeholders should it be necessary.

Best wishes,


For Permanent Secretary
Ministry of Agriculture Animal Industry and Fisheries

Permanent Secretary
MINISTRY OF AGRICULTURE, ANIMAL
INDUSTRY AND FISHERIES
P.O. BOX 102, ENTEBBE

APPENDIX 5: APPROVED REAF FORM



REAF_DS - Version 3.1 AP

UNICAF UNIVERSITY RESEARCH ETHICS APPLICATION FORM DOCTORAL STUDIES	UREC USE ONLY: Application No: Date Received:
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Student's Name: Bella Murungi Dutki

Student's E-mail Address: [REDACTED]

Student's ID #: R1810D6638010

Supervisor's Name: Dr. Ilias Vlachos

University Campus: Unicaf University Zambia (UUZ)

Program of Study: UUZ: DBA - Doctorate of Business Administration

Research Project Title:

Examining the influence of upgrading on upscaling of global value chains: A Study on stakeholders' perceptions in the coffee industry of Uganda.

1. Please state the timelines involved in the proposed research project:

Estimated Start Date: 10/01/2021

Estimated End Date: 08/31/2024

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.

Individual sponsor

2.c. If there are any perceived ethical issues or potential conflicts of interest arising from applying or and 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.

None

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 of the Study

The purpose/rationale of the study is to explore the influence of specific antecedents of upgrading on upscaling global value.

Research Question

The research question for this study is 'What is the impact/influence of specific antecedents of value chain upgrading on upscaling from stakeholders' point of view?

This research question is building onto the work of Islam & Polonsky (2020) who studied firm-level upgrading as a means of tackling deficiencies to enhance performance. In this study, it was noted that there are scanty studies that have exhaustively examined upgrading of value chains dimensions, antecedents, outcomes and their relationships. In addition, conducting a study on stakeholders' perspectives is inspired by the study of Vogel, Mathé, Gelitzenauer, Nidah, Sieber, Bonatti, & Lana (2020) that observed that there are limited studies that have systematically conducted on upgrading/sustainable transformations based on stakeholder perceptions.

To answer the above question, a number of sub-research questions have been developed based on identified research gaps in current literature. Please refer to Appendix 1 for the details.

a) What antecedents/factors favour upgrading value chains? ((Gereffi (2019); (Islam & Polonsky, (2020); Vogel, Mathé,

Gelitzenauer, Nidah, Sieber, Bonatti, & Lana (2020))

b) What are the different types/trajectories of value chain upgrading in the context of developing countries? Islam & Polonsky (2020)

c) Who are the key stakeholders in the context of the coffee industry in Uganda, and how do they influence the upgrading of the value chain? Magala, Mangheni, & Zonal (2018).

d) What are the main influences/factors of value chain upgrading favourability on economic, environmental, and social

outcomes? (Lam, Hinz, Lang, Tengö, Wehrden & Martin-López, 2020); Scoones, Stirling, Abrol, Atela, Charli-Joseph, Eakin, H., ... & Yang (2020); Marcalo & Baltar (2021))

e) How do value chain upgrading antecedents, influences, and outcomes relate to each other? Pasquali (2021)

f) What are the main influences of economic, environmental, and social outcomes of upgrading on upscaling? (McWilliam, Kim, Mudambi & Nielsen (2019); Golged, Makhmadshoev & Demirbag (2021).

Hypotheses

Hypothesis 1: The stakeholders' perception of an antecedent's favorability for upgrading is positively correlated to their favourability of attitudes towards upgrading.

Hypothesis 2: The stakeholders' perceptions of favorability of a specific type of upgrading is positively correlated to their favourability of attitudes towards achieving desired outcomes.

Hypothesis 3: The stakeholders' perceptions of the favorability of upgrading causes is positively correlated to their favourability of attitudes towards achieving desired outcomes.

Hypothesis 4: The stakeholders' perceptions of upgrading favorability is positively correlated to their favourability of perception of economic, environmental, and social outcomes.

Hypothesis 5: The stakeholders' favorability of value chain upgrading is positively correlated to their favourability of influences and outcomes.

Hypothesis 6: The stakeholders' perceptions of economic, environmental, and social outcomes favorability is positively correlated to their favourability of attitudes towards upscaling.

Expected Results

Expected results will confirm that favourable antecedents/factors impact favourably on upgrading of global value chains, favourable types of upgrading impact favourably on desired outcomes, and favourable outcomes impact favourably on upscaling.

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).

This study will enhance the existing literature and help chain actors better understand the construct of upgrading global value chains, its antecedents, impact, and outcomes. It will close the current literature gaps and enhance and reactivate previous and existing literature by adding complementary insights that will be made since upgrading the global value chain is a complex and dynamic process.

The research will extend theory through empirical testing, verify conceptualization, measure the constructs, and test theory and generalization of the academic body.

For methodology, this research will use a multi-disciplinary approach involving qualitative and quantitative methods to examine the concept of upgrading global value chains to provide a holistic perspective.

For practical implications, the study will have implications for chain actors and policy-makers. Chain actors will understand that upgrading local value chains is multifaceted since it is influenced by multiple factors, putting them in a better position to make cautiously informed decisions when strategizing on how to upgrade.

Further still, the confirmation of critical factors needed to attain favourable upgrading of global value chains will assist policy-makers in ensuring that there are support mechanisms in the environment to promote upgrading. Policy-makers will be able to make informed decisions when orchestrating what contributes to the favourable upgrading of global value chains to achieve favourable economic, social, and environmental outcomes that can be upscaled.

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:

The study employs the mixed method approach because of its various benefits over the traditional method of solely using the qualitative or quantitative method. The study will take a concurrent style where one research approach (qualitative approach) will be used simultaneously with the other (quantitative approach) due to the limited time the researcher has to collect data.

4.b. Methods. The following study will involve the use of:

Method	Materials / Tools
Qualitative:	☒ Face to Face Interviews
	☒ Phone Interviews
	☐ Face to Face Focus Groups
	☐ Online Focus Groups
	☐ Other *
Quantitative:	☒ Face to Face Questionnaires
	☒ Online Questionnaires
	☐ Experiments
	☐ Tests
	☐ Other *

*If you have chosen 'Other' please Explain:

None

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

The target population which is 283 (52 for the qualitative method and 231 for the quantitative method) .

The representative sample for the qualitative method will be determined based on the point of saturation, while the representative sample of 166 for the quantitative was arrived at by using the Yamane formula. Yamane's formula is given by: $n = N / (1 + N(e)^2)$ where n = sample size, N = population, e = margin of error, $N = 283$ (based on the number of the chain actors from the Uganda Coffee Directory 2022), $n = 283 / (1 + 283(0.05)^2)$, $n = 165.73$ approximately 166

Please refer to Appendix 2 attached.

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

The participants will be males and females aged 18 and above from Uganda. They will be stakeholders or chain actors representing the public sector, the private sector, and the chain actors of the coffee value chain in Uganda.

Exclusion criteria

Participants will exclude persons:
- considered to be of unsound mind or with learning disabilities
- that have not consented their participation in written form
- that are illiterate
- not been involved in coffee value chain activities for the last one year
- that have participated in the pilot study

Disabilities

Only participants who can provide informed consent will participate in the study. People with mental disabilities will not take part.

Other relevant information (use the space provided in the box):

The study's target population will include all stakeholders of the coffee industry of Uganda. It will be represented by three main groups: the coffee value chain actors, the public sector, and the private sector. According to the National Coffee Act 2021, all coffee value chain actors are registered with the Uganda Coffee Development Authority (UCDA), the regulatory authority of the coffee industry, all reflected in the Uganda Coffee Directory 2022. It complied in collaboration with the Ministry of Agriculture, Animal Industry, and Fisheries. The coffee value chain actors include coffee farmers, primary processors, exporting, trading and grading companies, and roasters. Stakeholders from the public sector will include state agencies and public research institutions. Stakeholders from the private sector will include coffee unions, development partners, private research institutions, consulting firms, and financial institutions and transporters, shippers, logistics, warehousing and collateral management according to the Uganda Coffee Directory 2022.

5 c. Participation & Research setting:

Clearly describe which group of participants is completing/participating in the material(s)/ tool(s) described in 5b above (use the space provided in the box).

This study is a mixed study where the qualitative data collection tools will be complemented with the quantitative data collection tools to collect the necessary data simultaneously.

The participants to use the qualitative data collection tools are 25, (a rough estimate based on the point of saturation), while 166 participants will use the quantitative data collection tools. These will be in person/ phone interviews and self administered/phone/online questionnaires, respectively.

Of the estimated 25 participants for the interviews, 11 are estimated to use online/phone and 14 for in person interviews. On the otherhand, of the 166 participants for the questionnaires, it is estimated that about 136 will use in person questionnaires while about 30 will use the online/phone questionnaires.

Please refer to Appendix 2 attached.

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).

Identification: The potential participants will be identified by purposively choosing them since they are considered to be knowledgeable about the favourable influences of upgrading, the characteristics, and outcomes. The non-probability sampling technique will be applied for its ability to identify and choose information-rich cases.

Approach: Potential participants will include all stakeholders of the coffee industry in Uganda. They will include coffee value chain actors, namely, producers/farmers, primary processing plants, exporters, grading companies, and roasters. The researcher will contact the Uganda Coffee Development Authority (UCDA) for physical addresses and phone and email contacts since it maintains a registrar of all chain actors in Uganda. The researcher will then contact each of the potential participants and request their participation of filling in the questionnaire which will be complemented with online (Interviewer completed/phone) questionnaires.

Besides the chain actors, other stakeholders will include the public stakeholders (state agencies and public research institutions) and the private sector (coffee unions, development partners research institutions, consulting firms, and financial institutions). These will be contacted through email and followed up with a physical visit or phone call to request their participation of interviews which will be complemented with phone interviews.

Recruitment: Potential participants will be recruited based on their age eligibility, state of mind, ability to understand the objectives and significance of the study after the researcher has explained to them, their consent for participating, and confirmation that ethical standards are being upheld. During the research, the student will need a GateKeeper approval to gain access to participants from the institutions of the public sector like state agencies like Ministries and public research institutions and also institutions in the private sector like coffee unions, development partners, private research institutions, consulting firms, and coffee-related financial institutions.

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).

None

6. Potential Risks of the Proposed Research Study.

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 (such as the risk of an accident when travelling to a remote location for data collection)?

☐ YES ☒ NO

If YES, specify below and answer the question 6 a.ii.

None

6 a.ii Provide information on what measures will be taken in order to exclude or minimise risks described in 6.a.i.

None

6 b. Choose the appropriate option

	Yes	No
i. Will you obtain 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.	☒	☐

	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.

None

6 d. Indicate the Risk Rating.

☐ High ☒ Low

7. Further Approvals

Are there any other approvals required (in addition to ethics clearance from UREC) in order to carry out the proposed research study?

☐ YES ☒ NO

If YES, specify (maximum 100 words).

8. Application Checklist

Mark ✓ if the study involves any of the following:

- ☐ Children and young people under 18 years of age, vulnerable population such as children with special educational needs (SEN), racial or ethnic minorities, socioeconomically disadvantaged, 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.	☒	☐

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.
- (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: Bella Murungi Dutki

Supervisor's Name: Dr. Ilias Vlachos

Date of Application: 02/18/2023

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 6: APPROVED GATEKEEPER LETTER



UU_GL - Version 2.0

Gatekeeper letter

Address: [REDACTED]

Date: 02/18/2023

Subject: Request for permission to recruit participants from your organization/company in this research.

Dear

I am a doctoral student at Unicaf University, Zambia.

As part of my degree, I am carrying out a study on the topic of upgrading global value chains in developing countries like Uganda.

I am writing to ask if you can assist me by granting me permission to recruit participants in this research from your organization/company.

Subject to approval by Unicaf Research Ethics Committee (UREC), this study will use self-administered questionnaires complemented by online/telephone questionnaires and face-to-face interviews complemented by telephone interviews.

The title of this project is "Examining the influence of upgrading on upscaling of global value chains: An investigation on stakeholders' perceptions in the coffee industry of Uganda." My supervisor is Dr. Ilias Vlachos.

The purpose of the study is to explore the influence of specific antecedents of upgrading on upscaling global value chains. The study aims to examine the influence of specific antecedents of upgrading on upscaling by investigating the concept of upgrading.

This is to kindly request your support by granting me permission to recruit participants from your organization/company and access the necessary data after participants have consented. These will be stakeholders of the coffee value chain in Uganda. The process will take a maximum of six (6) weeks.

Thank you in advance for your time and consideration of this project.

Please let me know if you require any further information or need any further clarifications.

Yours Sincerely,

Student's Name: Bella Murungi Dutki

Student's E-mail: [REDACTED]

Student's Address and Telephone: [REDACTED]

Supervisor's Title and Name: Dr. Ilias Vlachos

Supervisor's Position: Professor, UNICAF University/Excelia Business School

Supervisor's E-mail: i.vlachos@unicaf.org

APPENDIX 7: QUESTIONNAIRE

Questionnaire

You are invited to complete the following questionnaire on your perceptions of upgrading the coffee value chain.

Your participation and cooperation as a stakeholder is key in completing this research titled, *"Examining the influence of upgrading on upscaling of global value chains: An investigation on stakeholders' perceptions in the coffee industry of Uganda."*

The questionnaire should only take about 15 minutes and includes 13 questions.

Please note that your answers are anonymous and for research purposes only.

Your participation indicates you understand your answers are anonymous and will not be identified with you in any way. Feel free to jump to any question that you find offensive. However, it will help me if you respond to as many questions as you feel comfortable with.

It is your right to withdraw at any stage (prior to or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted.

Please complete all questions and make sure you follow the instructions for each question.

Thank you for your precious time completing this questionnaire as part of this research project.

In order to get a full understanding of your perceptions, kindly answer the questions below.

1. Please fill in your gender. Choose one option

- ☐ Female
- ☐ Male
- ☐ Prefer not to say

2. What is your age?

- ☐ 18-28
- ☐ 29-38
- ☐ 39-48
- ☐ 49-58
- ☐ 59-70

3. What is the highest education you achieved?

- ☐ Some Primary education
- ☐ Primary Leaving Examination
- ☐ Uganda Certificate of Education (O-Levels)
- ☐ Uganda Certificate of Advanced Education (A-Levels)
- ☐ Diploma
- ☐ Bachelors/Undergraduate Level
- ☐ Masters Level

- ☐ Doctoral/PhD Level
☐ Post-Doctoral/PhD Level
☐ Trade School
☐ Prefer not to say

4. What is your marital status?

- ☐ Married
☐ Single
☐ Prefer not to say
☐ Other

5. What is your employment status? (Please choose your main occupation).

- ☐ Top executive or manager
☐ Owner of a company/business
☐ Civil servant
☐ Professional employee (Lawyer, doctor, teacher, etc)
☐ Office/clerical staff
☐ Student
☐ House wife
☐ Retired
☐ Prefer not to say
☐ Other

6. What coffee chain/stakeholder activity are you mainly involved in?

Chain Actors

- ☐ Coffee farming/producer ☐ Primary processor ☐ Coffee trader/exporter
☐ Secondary Grading company ☐ Coffee Roaster

Non-Chain Actors

- ☐ State agency ☐ Public Research Institute ☐ Coffee Union ☐ Development Partner
☐ Private Research Institute ☐ Consulting Firm ☐ Financial Institute ☐ Transporters, shippers, logistics and warehousing

7. To what extent do you agree that the following strategies/means are effective in upgrading the coffee value chain in Uganda?	Disagree strongly	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree strongly
	0	1	2	3	4	5
Value addition (learning, innovating, and adopting new sophisticated processes to produce more advanced products).						
Market access (vertical and horizontal relationships in the value chains).						
Appropriate integrated governance structures (interfirm, local, and foreign firms'						

collaborations based on standardization and certification).						
Public-Private Partnerships where public and private firms complement each other.						

Antecedents that favour upgrading of the coffee value chain.

Research Question 1a): What antecedents favour upgrading value chains?

8. Please tick the number that best presents your opinion on the extent to which you agree that the antecedents are important to upgrade.	Disagree strongly	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree strongly
	0	1	2	3	4	5
Capabilities (Non-Governance Antecedents)						
Marketing Capability (ability to apply collective knowledge to market needs to enhance value addition)						
Operational Functioning (improved efficiency and capability development)						
GVC Composition (various networks through which information flows)						
Governance Antecedents (control and its coordination)						
Internal Governance (linkages within the value chain actors)						
External Governance (relations between chain actors and external institutions like government, NGOs, unions etc.)						
Horizontal Governance (coordinated economic and social relations between chain actors and institutions within and beyond)						
Vertical Governance (links between buyers and sellers each of which add value to the final products)						

Types of value chain upgrading

Research Question 1b): What are the different types/trajectories of value chain upgrading in the context of developing countries?

9. Please rate the extent to which you agree that the following means of value addition have facilitate upgrading of the coffee value chain in Uganda.	Disagree strongly	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree strongly
	0	1	2	3	4	5
Process Upgrading (more efficient production processes due to better advanced technology)						
Product Upgrading (shifting production to better quality products)						
Functional (moving towards higher value-added activities)						
Chain Upgrading (moving to higher value activities in other value chains)						

Stakeholders in the coffee industry in Uganda

Research Question 1c): Who are the key stakeholders in the context of the coffee industry in Uganda, and how do they influence the upgrading of the value chain?

10. To what extent do you agree that the following stakeholders play an important role in influencing value addition in the coffee value chain in Uganda?	Disagree strongly	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree strongly
	0	1	2	3	4	5
Public Sector						
State Agencies like UCDA, NARO						
Public Research Institutions/Agencies like NAADS						
Private Sector						
Coffee Unions like National Union of Coffee Agribusiness and Farm Enterprises (NUCAFE), Uganda Coffee Traders						
Development Partners like USAID, Agribusiness Initiative Trust						
Private Research Institutions e.g Agro Generic Technologies						

Consulting Firms like Africa Coffee Academy						
Financial Institutions supporting coffee industries like DFCU, CRDB						

Main determinants of value chain favourability on economic, environmental, and social outcomes.

Research Question 1d): What type of upgrading significantly influences value chain upgrading favourability on economic, environmental, and social outcomes

11. To what extent do you agree that the following determinants lead to favourable sustainable economic (improved competitiveness and profitability), environmental (improved environment and adoption of production processes with minimum environmental damages) and social (improvement in people's lives) outcomes in the coffee value chain in Uganda?	Disagree strongly	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree strongly
	0	1	2	3	4	5
Process Upgrading (more efficient production processes due to better advanced technology) leads to favourable outcomes.						
Product Upgrading (shifting production to better quality products) leads to favourable outcomes.						
Functional Upgrading (moving towards higher value-added activities) leads to favourable outcomes.						
Chain Upgrading (moving to higher value activities in other value chains) leads to the favourable outcomes.						

Perceptions on relation of antecedents, determinants and outcomes leading to Upscaling

Research Question 1e): How do value chain the upgrading antecedents, determinants, and outcomes relate to each other?

Regional and economic development (host country's capital and technology spill over)						
Knowledge spillover (knowledge transfer from interactions with global companies)						
Reduced waste through reversed logistics like reduced energy use, water pollution, etc.						
Social (improvement in people's lives)						
Division of labour/employment (specialization)						
Competence (learn new ways of production for better competitiveness)						
Employee wellbeing (improved quality of life)						

APPENDIX 8: INTERVIEW GUIDE

Interview Guide

Introduction and Information Note:

I am Bella Murungi Dutki, and I am pursuing a Doctorate in Business Administration at UNICAF University, Zambia. I achieved my first Master's in Business Administration from Maastricht School of Management, Netherlands/ Eastern and Southern Management Institute, Arusha, Tanzania. I completed my second in Policy Studies from the National Graduate School of Policy Studies, Tokyo, Japan. I have more than 20 years of work experience.

The aim/purpose of this study titled, "*Examining the influence of upgrading on upscaling of global value chains: A Study on stakeholders' perceptions in the coffee industry of Uganda.*" is to examine the influence of specific antecedents of upgrading the coffee value chain and determining its influence upscaling. The significance of the study is to enhance theory, research methodology and have practical implications on value chain upgrading. To theory, it will enhance the existing literature and help chain actors better understand the construct of upgrading global value chains, its antecedents, impact, and outcomes. For methodology, it will use a multi-disciplinary approach (qualitative and quantitative methods) to examine the concept of upgrading global value chains. For practical implications, it will help chain actors and policy-makers make cautiously informed decisions when strategising how to upgrade.

You are chosen to participate in this study.

Your views as a stakeholder are key in completing this, as they will help me understand the relationship between upgrading value chains and upscaling. All responses shared will remain anonymous. Kindly allow me to record our discussion for reference when I am putting my findings together. Please let me know if you are uncomfortable recording something in particular so that I pause.

Thank you very much.

Consent Agreement

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 to 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.

☐

I agree

☐

I disagree

In order to get a full understanding of your perceptions, kindly answer the questions below.

1. Please fill in your gender. Choose one option

☐

Female

☐

Male

☐

Prefer not to say

2. What is your age?

☐

18-28

☐

29-38

☐

39-48

☐

49-58

☐

59-70

3. What is the highest education you achieved?

☐

Post-Doctoral/PhD Level

☐

Doctoral/PhD Level

☐

Masters Level

☐

Bachelors/Undergraduate Level

☐

Trade School

☐

Diploma

- ☐ Uganda Certificate of Advanced Education (A-Levels)
- ☐ Uganda Certificate of Education (O-Levels)
- ☐ Primary Leaving Examination
- ☐ Some Primary education
- ☐ Prefer not to say

4. What is your marital status?

- ☐ Married
- ☐ Single
- ☐ Prefer not to say
- ☐ Other

5. What is your employment status? (Please choose your main occupation).

- ☐ Owner of company/business
- ☐ Top executive or manager
- ☐ Professional employee (Lawyer, doctor, teacher, etc)
- ☐ Civil servant
- ☐ Office/clerical staff
- ☐ Retired
- ☐ Student
- ☐ House wife
- ☐ Other
- ☐ Prefer not to say

6. What category of stakeholder are you?

Public Sector

- ☐ State agency
- ☐ Public Research Institution
- ☐ Other.....

Private Sector

- ☐ Coffee Union/Association
- ☐ Development Partner
- ☐ Private Research Institute
- ☐ Consulting Firm
- ☐ Financial Institution
- ☐ Transporters, Shippers, Logistics, Warehousing and Collateral Management
- ☐ Other.....

Interview Questions

Main Research Question:

What is the influence of specific antecedents of value chain upgrading on upscaling from a stakeholders' point of view?

Sub-questions:

1. In your view, could you please mention at least 5 antecedents that you think enhance or would enhance upgrading of the coffee value chain in Uganda?

2. We have different value addition means or types of upgrading, namely:

-Process Upgrading where production processes in firms are made more efficient, e.g., through more advanced technology;

-Product Upgrading where firms shift to more sophisticated, complex, or better-quality products;

-Functional Upgrading where there is change in the activities performed by the supplier firm toward a higher value-added;

-Chain Upgrading where firms move to activities of higher value by spreading to new but similar businesses or other value chains and improving brands of products and skills for marketing.

Which of these types is the most common in coffee value chain in Uganda? Which one is the least?

3. In your view, who are the main key stakeholders in the coffee value chain in Uganda? Who of these significantly influence upgrading of the coffee value chain in Uganda? Why do you think so? How do they influence upgrading?
4. In your view, what type of value chain upgrading lead to favourable outcomes/effects (economic outcomes like equal value distribution, better financial performance;

environmental outcomes like regional economic development and social outcomes like knowledge transfer, employee wellbeing)?

5. Do you agree that the more favourable the value chain upgrading antecedents, the more favourable the determinants and the more favourable the outcomes?

Please support your answer?

6. What is your general impression of upgrading of the coffee value chain in Uganda?

What do you think determinants upgrading to get favourable outcomes/effects in your view? How easy is it to upscale the economic, environmental, and social favourable outcomes?