The role of social entrepreneurs' metacognitive awareness on the sustainability of social enterprises in Nairobi, Kenya

A research proposal submitted to the Faculty of Commerce, Law and Management. University of Witwatersrand, in partial fulfillment of the requirements for the degree of Master of Management in Entrepreneurship and New Venture Creation

Student

Susan Mwihaki Maina

Supervisor

Professor Boris Urban

Wits Business School

Date: 19 June 2023

ABSTRACT

Social Enterprises (SEs) are increasingly becoming viable solutions for tackling the world's most pressing social problems. However, their sustainability is hindered by several external factors such as limited funding opportunities, market acceptance and human resources. While previous entrepreneurial studies have focused on these external factors, this study shifts the focus to social entrepreneurs and investigates the role of their metacognitive awareness in the sustainability of their social enterprises.

Using a cross-sectional and quantitative method that adopted the post-positivist approach, this study collected primary data through an online questionnaire from a sample size of 300 social entrepreneurs in Nairobi, Kenya. Descriptive, correlational, and multiple regression analyses were employed to analyze the study's data. The findings revealed that social entrepreneurs' metacognitive experiences positively influence the sustainability of their social ventures. In other words, their unique experiences, emotions and feelings are predictors of their social enterprises' sustainability.

Additionally, the findings also revealed that goal orientation, metacognitive knowledge, metacognitive experience, metacognitive choice and metacognitive monitoring are not sufficient predictors of social enterprises' sustainability. By contextualizing the metacognitive awareness model within the social entrepreneurship field, this study offers relevant contributions towards expansion of knowledge within the field. Moreover, the study's findings address the data gap that exists within the Kenyan social entrepreneurship landscape.

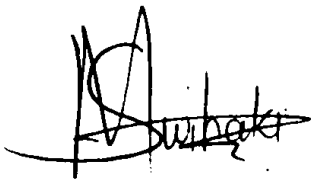
This study provides practical suggestions to business development service providers (BDSs), investors, government and policy makers. This is to encourage these stakeholders to tailor their training and supportive structures to suit the needs of social enterprises in Kenya. Leveraging on social entrepreneurs' metacognitive awareness as an entrepreneurial resource is highlighted as a pathway towards enabling more social enterprises become sustainable.

Keywords: Entrepreneur's Cognition, Metacognition, Metacognitive Awareness, Social Entrepreneur, Sustainability

DECLARATION

I, Susan Maina, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the Field of Entrepreneurship at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Susan Maina



Signed at ……...

On the 19th day of June 2023.

DEDICATION

I dedicate this research report to my family. You all are my greatest source of inspiration. From the many things I have achieved, this process was one of the most challenging but rewarding. Thank you for your support.

My dearest Lucy Wanjiru, I dedicate this to you. Thank you for setting a high standard for me. I am eternally grateful for the love and investment in my education.

To my lovely nieces and nephews, may this serve as an inspiration for you all to chase all your dreams fearlessly. I love you guys very much.

To social entrepreneurs, I dedicate this to you, thank you for dedicating your lives towards making the world a better place.

ACKNOWLEDGEMENTS

To my supervisor Professor Boris Urban, you have been supportive throughout this process, and your work on social entrepreneurship was an inspiration in my study, thank you.

To Dr. Mc Edward, thank you for believing in me and providing me with additional support needed during this study.

To Wits Business School, it has been a privilege to belong to such a prestigious institution.

To Claire, Maureen, Fiona, Abraham, Mugendi thank you your patience and support, you have been the wind beneath my wings during this year.

TABLE OF CONTENT

LIST OF THE TABLES

LIST OF FIGURES

1 CHAPTER 1: INTRODUCTION

1.1 Background of the Study

Over the years, social enterprises (SEs) have played an essential role in tackling some of the world's most pressing issues, sparking an interest in the field (He, Liu, Phang, & Luo, 2022) . SEs are defined as enterprises that prioritize social impact over financial gains and center their activities on their social mission (Desiana et al., 2022). At the heart of running and managing social enterprises, are social entrepreneurs as they operate them (Venter et al., 2015). These enterprises ability to survive over time is essential in enabling them achieve their financial and social goals (He et al., 2022). However, SEs goals are often paradoxical in nature, as they are interdependent and in constant competition (Hahn & Knight, 2021). Therefore, to create lasting impact, social enterprises must balance these goals effectively (Kamaludin, Xavier, & Amin, 2021).

Despite the growth and expansion within the social entrepreneurship field, there's a need to study factors affecting SEs sustainability (Desiana et al., 2022). Previous studies have primarily focused on external factors affecting SEs sustainability such as market and community acceptance as well as diverse funding opportunities (Gimmon & Spiro, 2013). Moreover, financial sustainability poses a threat to the social mission that drives these enterprises (Bagnoli & Megali, 2011). Consequently, social capital is instrumental to SEs' successful innovations (Naranjo-Valencia, Ocampo-Wilches, & Trujillo-Henao, 2022) , and a prerequisite for social enterprises' sustainability (Desiana et al., 2022).

Social entrepreneurs, as key players in their social enterprises, have an important role in sustaining their social ventures. Previous research has concentrated on external influences of SEs' sustainability, this study however, examines the role of social entrepreneurs themselves. For instance, previous studies have indicated that social entrepreneurs' self-efficacy significantly influences the social outcomes of their enterprises (Urban, 2015), emphasizing that social entrepreneurs that are confident in their capabilities, are better positioned to build sustainable

ventures (Urban, 2015). Moreover, social entrepreneurs motivation and drive are central to their pursuit of social opportunities (Germak & Robinson, 2014).

Within the field of cognition, entrepreneurial cognition (EC) has been instrumental in expanding knowledge on how entrepreneurs think and why their thinking differs from that of others (Venter et al., 2015). Moreover, EC has a significant influence on the daily strategic decisions entrepreneurs make (De Winnaar & Scholtz, 2019). Building upon this, the concept of metacognition emerged to explore how entrepreneurs think about their thinking (Jost, Kruglanski, & Nelson, 1998). Metacognition is a valuable entrepreneurial resource that enables entrepreneurs develop business strategies that allow them to navigate complex business environments (De Winnaar & Scholtz, 2019). This study is grounded on social entrepreneurs' metacognitive awareness and seeks to investigate its role on SEs sustainability.

1.2 Context of the Study

Kenya remains the leading economic hub in the East Africa region and one of the major economic hubs within Africa (World Bank Group, 2022). The country's Gross Domestic Product increased by 7.5%, a path to recovery for its multiple sectors from the global pandemic experienced (World Bank Group, 2022). Nairobi, its capital city, has a population of 3 million people and is a major commercial center in the region experienced (World Bank Group, 2022). Kenya has made commendable progress in terms of ease of doing business, as evidenced by its current global ranking of 56th, according to Siemens Stiftung report and the World Bank. This accomplishment can be attributed to the country's ongoing efforts to implement reforms aimed at cultivating and supporting businesses. Despite its population growth of 57 million, according to the latest census, the country continues to face significant economic challenges such as high unemployment rates, poverty and food security (World Bank Group, 2020).

Social enterprises play and important role in developing countries (Ciambotti, Pedrini, Doherty, & Molteni, 2023), as they provide immediate solutions to the significant challenges these countries face (Ciambotti et al., 2023). In Kenya, SEs are not a new phenomenon, they have been at forefront of tackling the country's pressing issues (British Council Report, 2017). According to Siemens Stiftung (2020), the country has approximately 85,600 registered social enterprises. The primary

goal of these social enterprises as identified by the British Council Report (2017), include creating employment opportunities, improving the socio-economic status of their communities and promoting financial inclusion.

The impact of these social enterprises in Kenya is evident through the creation of over 345,000 direct jobs, with a projected increase of over 444,000 jobs by 2030 (Siemens Stiftung, 2020). This evidence, the critical role social enterprises continue to play in addressing the country's pressing issues. In Kenya, the social entrepreneurship space has gained relevance, due to the inability of the private sector and government to meet the needs of its economy fully (Siemens Stiftung, 2020). However, despite the importance of social enterprises in Kenya, the country faces a significant data gap to provide an updated overview of its social entrepreneurship landscape (Siemens Stiftung, 2020).

1.3 Theory section

The thinking process of social entrepreneurs is considered the source of their creativity (Schaefer, Corner, & Kearins, 2022). Thus, understanding how they think and what drives their behaviour is essential in understanding how they transform ideas into viable social enterprises (Venter et al., 2015). Psychological theories have been applied in the field of entrepreneurship to reveal the drivers of an entrepreneur's behaviour rather than the behaviour itself (De Winnaar & Scholtz, 2019).

Social Cognitive Theory (SCT) highlights that individuals' cognitions, shape and inform their behaviour (De Winnaar & Scholtz, 2019). In the context of entrepreneurship, the concept of entrepreneur's cognition (EC) refers to the knowledge structures entrepreneurs employ when making decisions (Barbosa, Kickul, & Smith, 2008). While EC encompasses the knowledge structures entrepreneurs use in making decisions, metacognition pertains their higher-order process (De Winnaar & Scholtz, 2019). Metacognition enables entrepreneurs to select the best cognitive strategies within dynamic environments (J. M. Haynie, Shepherd, Mosakowski, & Earley, 2010).

This study situates the metacognitive awareness model within the context of social entrepreneurship. The model incorporates five metacognitive dimensions that define the level of an entrepreneur's metacognitive awareness: goal orientation, metacognitive knowledge, metacognitive experience, metacognitive choice, and monitoring (Haynie et al., 2010). By adopting this theoretical framework, this study investigates the role of social entrepreneurs' metacognitive awareness in the sustainability of their social enterprises.

1.4 Motivation for the study and problem statement

The sustainability of social enterprises often faces significant setbacks due to the competing nature of their social and financial goals (York, O'Neil, & Sarasvathy, 2016). Previous studies have primarily focused on external factors that affect the sustainability of social enterprises (He et al., 2022). This study shifts this focus, to social entrepreneurs themselves and the role they play in the sustainability of their social enterprises. It seeks to shed new light on why certain social entrepreneurs succeed in establishing and running sustainable ventures while others do not. Moreover, this study focuses on the context of Nairobi, Kenya, as the country's social entrepreneurship landscape faces a significant data gap (Siemens Stiftung, 2020). By focusing on this particular context, the study contributes towards an understanding of factors that influence the sustainability of social enterprises in Nairobi.

1.5 Research purpose, research question and aims of the study

Social entrepreneurship is a dynamic process that requires social entrepreneurs to adapt (Dees, 1998). Therefore, social entrepreneurs' ability to cognitively adapt is critical for the success of their ventures (Haynie et al., 2010). This study investigates the role of social entrepreneurs' metacognitive awareness in the sustainability of their ventures. Particularly, the study investigates the level of influence the different metacognitive dimensions; goal orientation, metacognitive knowledge, metacognitive experience, metacognitive choice and monitoring have, in the sustainability of social enterprises in Nairobi.

The research questions for this study are;

RQ1: To what extent does metacognitive dimension- goal orientation influence the sustainability of social enterprises in Nairobi, Kenya?

RQ2: To what extent does metacognitive knowledge influence the sustainability of social enterprises in Nairobi, Kenya?

RQ3: To what extent does metacognitive experience influence the sustainability of social enterprises in Nairobi, Kenya?

RQ4: To what extent does metacognitive choice influence the sustainability of social enterprises in Nairobi, Kenya?

RQ5: To what extent does metacognitive monitoring influence the sustainability of social enterprises in Nairobi, Kenya?

1.6 Conceptual definition of terms

- Social Entrepreneurship (SE) - Social entrepreneurship is the process by which a social entrepreneur identifies a social opportunity within their social context and 'actions' that mission to create a venture (Dees, 1998).
- Social Entrepreneur- Change agent within the social sector that adopts a social mission, explores social opportunities and actions the opportunity despite limited resources (Dees, 1998).
- Social Enterprise/venture - Enterprises that combine a social mission with a business-like discipline (Dees, 1998).
- Sustainability in SEs - The ability of a social enterprise to survive in business, financially support itself and be resilient over time (Petison & Kantabutra, 2023).

- Financial Sustainability – The ability of an enterprise to maintain its financial capacity overtime (Bagnoli & Megali, 2011).

- Social Sustainability - An organization's ability to meet its demands while taking in considerations the sustainability of its decisions in the future (Vallance, Perkins, & Dixon, 2011).

- Environmental Sustainability - The ability of an organization to run its activities in ways that do not compromise their community and the environment (Lumpkin et al., 2013).

- Social Enterprise Effectiveness - Assessing social enterprises economic & financial performance, social effectiveness, and legitimacy (Bagnoli & Megali, 2011)

- Entrepreneur Cognition - The knowledge structures that entrepreneurs use when making critical decisions (Mitchell et al., 2002)

- Metacognitions – The higher-order cognitive process that organizes what people know and perceive about themselves, their work, their situations, and their surroundings to facilitate successful and adaptable cognitive functioning in the face of complex and dynamic contexts (Flavell, 1979).

- Goal orientation – A metacognitive dimension that captures the extent to which an individual recognizes environmental changes as a result of some personal, societal, and organizational objectives (Haynie et al., 2010).

- Metacognitive knowledge - Highlights the extent to which an individual depends on what they already know about themselves, other people, tasks, and strategy when constructing numerous choice frameworks centered on interpreting, planning, and implementing goals to manage a changing environment (M. Haynie & Shepherd, 2009).

- Metacognitive experience - The level to which an individual depends on idiosyncratic experiences, emotions, and intuitions when constructing numerous choice frames centered on interpreting, planning, and implementing goals to manage a changing environment (Haynie & Shepherd, 2009)

- Metacognitive choice - The extent to which an individual actively chooses from numerous decision frames, one that best interprets, develops, and implements a response for the goal of managing a changing environment (Haynie & Shepherd, 2009)

- Monitoring - An individual's ability to manage a changing environment by seeking and using feedback to re-evaluate goal orientation, metacognitive knowledge, experience, and decision (Haynie & Shepherd, 2009).

1.7 Contribution of the study

Social enterprises (SEs) continue to play a crucial role in tackling some of the world pressing issues. However, ensuring the sustainability of these social enterprises poses a significant challenge which has attracted the interest from academics and practitioners (Kamaludin et al., 2021). Previous studies have identified external factors such as market acceptance, lack of diverse funding opportunities (Gimmon & Spiro, 2013) and social capital (Naranjo-Valencia et al., 2022) as key factors that challenge the sustainability of social enterprises.

While past studies have primarily focused on external factors influencing the sustainability of SEs (He et al., 2022), this study focuses on social entrepreneurs and their role in the sustainability of social enterprises. Furthermore, the study adopts the metacognitive awareness theoretical framework within the social entrepreneurship field, to investigate the role of social entrepreneurs' metacognitive awareness in the sustainability of their social enterprises. Existing studies have highlighted the significance of social entrepreneurs in sustaining their social enterprises, with social entrepreneurs' self-efficacy being identified as a significant predictor of the outcomes in social ventures ((Urban, 2015).

By situating an existing psychological theory, metacognition, within the field of social entrepreneurship, this study contributes to the theoretical expansion within the field. Its findings provide a novel perspective on predictors of sustainability in social enterprises and offers valuable insights on ways social entrepreneurs could utilize their metacognitive resources to effectively tackle complex problems(Ciambotti & Pedrini, 2021).

Moreover, by focusing on social enterprises in Nairobi, Kenya, this study addresses the growing need to contextualize entrepreneurship frameworks within developing countries (Schaefer et al., 2022). Thus, contributing towards closing the data gap that exists in the Kenya's social entrepreneurship landscape (Siemens Stiftung, 2020). The insights gained from this study also provide business development service providers, investors, governments and policy makers, with practical implications as they deepen their understanding on the support needed by social entrepreneurs in Kenya. By emphasizing the relevance of social entrepreneurs' metacognitive abilities in ensuring the sustainability of their social enterprises. Lastly, the findings highlight the importance of adopting a tailored approach towards training and supporting the needs of social entrepreneurs through the utilization of their metacognitive resources effectively within Kenya.

1.8 Delimitations of the Study

This study focused solely on social entrepreneurs located in Kenya, but particularly within its main capital city Nairobi excluding social entrepreneurs from other regions or countries. Additionally, the study included all the three typologies of social enterprises namely: for-profit, hybrid model and non-profit. Despite the fragmented definitions that exist within the field of social entrepreneurship, this study adopted a comprehensive approach that included all social entrepreneurs within Nairobi, whose social enterprises fell into any of the three models.

The concept of sustainability in social enterprises has been broadly defined, however this study conceptualizes and operationalizes sustainability of social enterprises as, enterprises that have consistent growth, significant impact, can financially sustain themselves, achievement of set goals and objectives, have increased market value (Bagnoli & Megali, 2011), several partnerships with other businesses, ability to operate independently from the founder, self-generation of funds and reliable external sources of funding (Urban, 2015).

1.9 Report Outline

The report will be presented in five chapters. The purpose of these chapters will be discussed briefly in this section.

• Chapter One: Introduction

This chapter provides background and context of the study, conceptual definition of terms and highlights the theories on which the study is centered on. The section also provides the motivation for the study, the research purpose and questions, the contribution and delimitations of the study.

• Chapter Two: Literature Review

Chapter two provides a comprehensive literature review on the metacognitive awareness model and sustainability of social enterprises. It delves into existing knowledge and theoretical frameworks on these two topics. The chapter then provides a summary table to highlight the key themes identified and finally provides a conceptual framework that illustrates the relationship between the different metacognitive dimensions (goal orientation, metacognitive knowledge, metacognitive experience, metacognitive choice and monitoring) and sustainability of SEs.

• Chapter Three: Research methodology

In the third chapter, the research methodology used in this study is discussed. The chapter goes over the different research paradigms that influenced the study. It goes on to discuss the research design, sampling method, research instrument and data collection methods used in this study, as well as how they were implemented. This section also discusses the data analysis approach, which includes the assumptions testing, validity and reliability testing and multiple regression analysis.

• Chapter Four: Discussion of the results

This chapter discusses the study's results based on findings from the data analysis. The section describes the sample characteristics as well as the results of the hypothesis assumption testing. Finally, the section presents and interprets the results of the Exploratory Factor Analysis (EFA) and multiple regression analysis.

• Chapter Five: Discussion, Conclusions and Recommendations

This chapter discusses the study's findings in relation to and comparison to existing literature and theories. Following that, the section highlights contributions, limitations, recommendations, and future research directions.

1.10 Conclusion

This chapter provides an introduction that sets the stage on the study's investigation on the role of social entrepreneurs' metacognitive awareness in the sustainability of social enterprises in Nairobi, Kenya. It provides the background of the study and highlights the importance of social enterprises within Kenya. The chapter also recognizes the significance of focusing on the sustainability of social enterprises by investigating the role of the social entrepreneurs themselves. The purpose of the study, research questions and conceptual definitions of key terms used are provided. Overall, this chapter establishes the foundation of the study and provides contributions based on its findings.

2 CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter provides a comprehensive review of the existing literature on metacognition specifically focusing on the different metacognitive dimensions; goal orientation, metacognitive knowledge, metacognitive choice, metacognitive monitoring, and metacognitive experience. It further examines the concept of sustainability in the context of social enterprises (SEs) and considers the different forms of sustainability that exist for SEs. Consequently, this chapter discusses the different theoretical frameworks that underpin this study.

2.2 Role of the Social Entrepreneur within Social Enterprises.

Social entrepreneurs play an important role in driving the social entrepreneurship process (Dees, 2012). Their intentions referred to as social entrepreneur intention, allow them to identify social opportunities and create social ventures (Dees, 1998). Empathy is identified as an important antecedent to their social entrepreneurship intent (Dees, 2012). Like commercial entrepreneurs, social entrepreneurs are creative disruptors and innovators (Schumpeter & Nichol, 1934), that tackle wicked problems (Rittel & Webber, 1973), despite their limited resources (Dees, 1998). Moreover, the challenging and complex environments they operate in, prompt them to be even more innovative (Dees, 1998). In the early stages of their social enterprises, social entrepreneurs assume multiple roles due to financial constraints (Venter et al., 2015), making their ability to make effective decisions pertinent in sustaining their ventures (Haynie et al., 2010). Their ability to mobilize resources and establish strategic relationships enables achieving their social goals and results in the expansion and growth of their SEs (He et al., 2022). Their abilities, skills, self-belief and self-efficacy have a significant influence on the sustainability of their SEs (Urban, 2015).

2.3 Sustainability of Social Enterprises

Social enterprises (SEs) sustainability refers to the ability of these enterprises to survive over time (Kamaludin et al., 2021). In addition, their ability to stay in business, financially support themselves and be resilient over time reflects SEs sustainability (Petison & Kantabutra, 2023). Sustainable social enterprises are characterized by their ability to develop and achieve viability in their operations (Kamaludin et al., 2021). Unlike commercial enterprises, SEs primary focus is on their social mission and the realization of this objective (Naranjo-Valencia et al., 2022).

Social enterprises environmental, financial, and social objectives (triple bottom line) ensures that the social impact created by SEs is sustainable (Kamaludin et al., 2021). The triple bottom line model, introduced by Elkington (1998), emphasizes that SEs focus on people, profit, and the environment leads to the enterprises sustainability (Kamaludin et al., 2021). Furthermore, this model integrates three dimensions of sustainability: financial, social and environmental (Kamaludin et al., 2021). Thus, sustainable social enterprises fulfill their commitments to clients, stakeholders and the community they serve (Kamaludin et al., 2021). Consequently, sustainable SEs finance their organizational operations and create lasting positive impact (Desiana et al., 2022). In summary, SEs strive to be sustainable by ensuring that their resources are well managed (Kamaludin et al., 2021). The three dimensions of sustainability (financial, social, and environmental) are discussed below.

2.3.1 Financial Sustainability

Social enterprises are under constant pressure of achieving financial sustainability (Ciambotti et al., 2023), as a result of the competitive nature of their social and financial goals (Doherty, Haugh, & Lyon, 2014). While financial sustainability is crucial for SEs as it enables them effectively manage their operations and sustain their social impact (He et al., 2022), SEs primary focus on its social goal rather than profit maximization, hinders their ability to compete for financial resources with commercial enterprises (Lumpkin, Moss, Gras, Kato, & Amezcua, 2013).

2.3.2 Social Sustainability

Social sustainability within organizations refers to their ability to meet present demands while considering the viability of these decisions in the future (Vallance et al., 2011). Businesses, seek to assess the welfare of the community within which they operate and ways to make positive contribution to the community they operate in (Young & Tilley, 2006). Social sustainability can be characterized into three types: development, bridge and maintenance (Vallance et al., 2011. However, the social sustainability of ventures often overlaps and conflict as they try to strike a balance between what people need versus what they want (Vallance et al., 2011). For social enterprises, social sustainability is important as they operate within communities and are guided by their social mission (Dees, 1998).

2.3.3 Environmental Sustainability

Environmental sustainability highlights the importance of social enterprises running their activities in ways that do not harm their community and the environment (Lumpkin et al., 2013). Moreover, environmental sustainability involves maintaining natural resources (Goodland, 1995) and addressing this global concern due to the rise in natural disasters and environmental changes (de Boer & Aiking, 2023). Social enterprises have been at the front of tackling these environmental challenges through innovative ways (He et al., 2022). Notably, there's an increasing emphasis on businesses to prioritize environmental sustainability and the impact they have on the environment (Lumpkin et al., 2013).

2.4 SEs Performance & Effectiveness

The evaluation of social enterprises' impact and performance is essential because, like commercial firms, SEs engage in entrepreneurial activities (Javed, Yasir, & Majid, 2019). While profit maximization may not be SEs primary goal, it's necessary in sustaining their operations (Martin & Osberg, 2007). The measurement of social enterprises' sustainability is critical to their survival (Javed et al., 2019) and can be measured through assessing their economic & financial performance, social effectiveness, and legitimacy (Bagnoli & Megali, 2011). Financial

performance includes profits, cash flows, economic and social value added (Bagnoli & Megali, 2011). Social enterprises' economic and financial performance expounds on SEs financial accountability and their adherence to economic and financial efficiency in achieving their social mission (Bagnoli & Megali, 2011).

SEs' social effectiveness, measures the quality and quantity of impact that social enterprises generate over time and considers input and output of its activities and the sustainability of the process (Bagnoli & Megali, 2011). An essential component to social enterprises' role as change agents in the social sector (Dees, 1998).

Lastly, legitimacy examines how social enterprises adhere to their own rules and legal norms appropriate to their work (Bagnoli & Megali, 2011). This is a critical measure for SEs as they operate in communities and their credibility and legitimacy allows them to attract external stakeholders and gain support for their work (Bagnoli & Megali, 2011).

2.5 Operationalizing Sustainability for Social Enterprises

Social enterprises' ability to survive and sustain their impact over time is vital to their success (Javed et al., 2019). According to the literature reviewed, this study operationalizes sustainable SEs as enterprises that maintain continuous growth, generate significant impact, financially sustain themselves, fulfill most of their set goals and objectives and have increased market value (Bagnoli & Megali, 2011). These enterprises also have several partnerships with other businesses, can fully operate without the support of the founder, rely on self-generated funds and have reliable external sources of funding (Urban, 2015).

2.6 Entrepreneur's Cognition

Various theories in the field of human cognition and psychology have provided insights on the thinking patterns of entrepreneurs. Entrepreneur's cognition (EC) refers to the knowledge structures entrepreneurs use when making critical decisions (Mitchell et al., 2002). It aims at examining why some individuals are able to recognize opportunities and succeed as entrepreneurs, while others do not (Baron, 2004). Furthermore, EC explores how entrepreneurs use simplified

thinking model to identify opportunities (Venter et al., 2015) and make decisions on what opportunities to pursue, how to mobilize resources and grow their venture eventually (Randolph-Seng et al., 2015). However, an entrepreneur's cognitive biases may impede the effectiveness of the decisions they make and hinder their venture's growth (De Winnaar & Scholtz, 2019). While EC focuses on how entrepreneurs think, advancements within the field explored how entrepreneurs think about thinking; metacognition (Jost et al., 1998). Metacognition refers to the higher-order process entrepreneurs use to select the best cognitive strategies (Haynie et al., 2010). This theory has gained traction within the entrepreneurship field due to the increasing need to understand how entrepreneurs navigate complex environments (De Winnaar & Scholtz, 2019). The metacognitive awareness model comprises of five dimensions namely: goal orientation, metacognitive knowledge, metacognitive experience, metacognitive choice and monitoring (M. Haynie & Shepherd, 2009). This model provides a framework to which this study investigates the role of social entrepreneurs' metacognitive awareness in the SEs sustainability.

2.7 Metacognition

Metacognition refers to the thinking of thinking (Jost et al., 1998). Unlike cognition, which focuses on how entrepreneurs think, metacognition outlines their thinking process before taking any decision task (Haynie & Shepherd, 2009). To be self-aware, think aloud, plan and be self-reflective is to think metacognitively (Guterman, 2002). This process describes how entrepreneurs employ various cognitive strategies based on their prior knowledge when selecting the best strategy in their environment (De Winnaar & Scholtz, 2019). Furthermore, metacognition is a conscious process (Nelson, 1996), that can be improved and learned through training and experience (De Winnaar & Scholtz, 2019). This conscious process highlights a person's ability to reflect, comprehend and control their learning (Schraw & Dennison, 1994) making understanding the process crucial, in determining whether it hinders or supports the quality of decisions made by entrepreneurs (Haynie & Shepherd, 2009).

Previous entrepreneurial studies have utilized the metacognitive awareness model to conceptualize an entrepreneur's mindset (Haynie et al., 2010). This framework encompasses five metacognitive dimensions including; goal orientation, metacognitive knowledge, metacognitive experience,

metacognitive choice and monitoring that expound on the level of an entrepreneur's metacognitive awareness (Haynie et al., 2010). An entrepreneur's metacognitive awareness is a critical resource in decision-making (De Winnaar & Scholtz, 2019), as it enables them control their cognitive processes and select the best cognitive strategies (Haynie et al., 2010).

Social entrepreneurs play a critical role in the decision making process for social enterprises, (Javed et al., 2019) such as resource mobilization, hiring new teams, managing partnerships and providing leadership (He et al., 2022), making their metacognitive awareness significant in steering their ventures towards sustainability.

Previous studies have explored the relevance of the metacognitive awareness model within the entrepreneurship field, with findings indicating that metacognitive knowledge is a significant predictor of entrepreneurial intentions (Urban, 2012). Additionally, findings establish that metacognitive awareness positively influences the adaptability of entrepreneur when making decision for their enterprises (Schraw & Dennison, 1994). In the context of social entrepreneurship, it's established that most social entrepreneurs inherently demonstrate awareness of their emotions particularly towards environmental and social causes, which fuels their creativity within the social entrepreneurial process (Schaefer et al., 2022). Thus, this study examines the relevance of the metacognitive awareness model among social entrepreneurs in Nairobi, Kenya and investigate the role the various dimensions play in the sustainability of social enterprises.

2.8 Summary of key themes on the sustainability of SEs and metacognitive phenomena

The summary table below provides some of the definitional developments that have occurred since the discussion on social entrepreneurship, sustainability of social enterprises and the metacognitive phenomenon began. Scholars have conceptualized the sustainability of social enterprises differently and Table 1 highlights this evolution. This study focuses on the key themes on metacognition and sustainability of social enterprises, as well as existing literature that act as a guide for this study.

Table 1: Summary of key themes on the sustainability of SEs and metacognitive phenomena

Author	Focal entrepreneurial phenomenon	Locus of entrepreneurship	Relationship between entrepreneurship phenomenon and strategy
Dees (1998)	Social entrepreneurship	Conceptualizing social entrepreneurship and social entrepreneur	Social entrepreneurship expands the understanding of the different domains in entrepreneurship
Dees (2012)	Role of social entrepreneurs	Social entrepreneur Intent	Understanding the driving force behind identifying social opportunity
Rittel & Weber (1973)	Social Entrepreneurship	Conceptualizing social problems as "wicked problems"	Understanding the nature of social problems informs solutions built to address the
Haynie & Shepherd (2009)	Metacognition models	Entrepreneurial metacognition	Entrepreneurs metacognitive awareness, can help understand how entrepreneurs think and behave

Nelson (1996)	Metacognition (conscious process	Conceptualize metacognition "Thinking of thinking"	Definition of thinking process that entrepreneurs adopt in decision making.
Mitchell et al., (2002)	Metacognition & knowledge structures	Differentiates metacognitions and cognition An entrepreneurial knowledge structures and high-order cognitive process	Understanding the thinking models that enable entrepreneurs make decisions.
Elkington (1998)	Sustainability (triple bottom line model)	Environmental, financial and social sustainability	Sustainability of enterprises
Bagnoli & Megali (2011)	Measuring of SEs performance and effectiveness	Economic & financial performance, social effectiveness, and legitimacy	Defines how SEs measure their performance and effectiveness
Urban (2015)	Sustainability of social enterprises	Funding reliable, stability of the SEs, self-generation of funds	Defines elements that define a sustainable social enterprise.

2.9 Metacognitive dimensions & Hypotheses

2.9.1 Goal Orientation

The goals of an entrepreneur significantly influence their behaviour and the decisions they make within their enterprises (De Winnaar & Scholtz, 2019). This metacognitive dimension establishes that, an entrepreneur's goals are shaped by their environment and motivations (Haynie & Shepherd, 2009). Furthermore, an entrepreneur's ability to set goals and continuously evaluate their performance enables them effectively achieve their goals (Haynie et al., 2010).

Similarly, social entrepreneurs make critical decisions within their social enterprises and the choices they make impact their ability to generate the positive impact they desire in the present and the future (Desiana et al., 2022). The social and financial goals of social entrepreneurs drive their entrepreneurial activities (He et al., 2022), making the sustainability of their social enterprises a prerequisite for their goals and environment. Previous studies have found that social entrepreneurs are driven by empathy, which leads them to adopt a social mission and activate their social entrepreneurship process (Dees, 1998). Additionally, social entrepreneurs with high self-belief and self-efficacy are better positioned to achieve social and financial goals set for their social enterprises (Urban, 2015). Considering this factors, this study proposes that social entrepreneurs' goal orientation positively influences the sustainability of their social ventures.

2.9.2 Metacognitive Knowledge

This metacognitive dimension highlights the degree to which entrepreneurs rely on what they already know about themselves and their tasks when making business decisions (Haynie & Shepherd, 2009). Previous studies established that, entrepreneur's metacognitive knowledge significantly influences their entrepreneurial intentions (Urban, 2012). Social entrepreneurs operate in a dynamic environment, therefore their ability to consciously tap into their metacognitive knowledge when selecting the most relevant cognitive strategies to is critical in

making decisions within their social enterprises (Haynie & Shepherd, 2009). Moreover, social enterprises measure their social impact incrementally as their social goals are realized overtime (Venter et al., 2015), making the ability of social entrepreneurs to tap into their metacognitive knowledge essential in sustaining their ventures. Metacognitive knowledge is considered an entrepreneurial resource that enables entrepreneurs adapt to dynamic environments (De Winnaar & Scholtz, 2019). As a result, the study's hypothesis proposes that social entrepreneurs' metacognitive knowledge positively influences the sustainability of their social ventures. This hypothesis is based on the understanding that the use of metacognitive knowledge by social entrepreneurs is critical in making effective decisions and navigating the challenges of sustaining their ventures over time.

2.9.3 Metacognitive Experience

Metacognitive experience refers to the degree to which entrepreneurs rely on their emotions and intuitions to form various cognitive frames that enable them interpret, plan and implement their goals (Haynie & Shepherd, 2009). This metacognitive dimension is important for entrepreneurs, as it enables them tap into their past experiences, control their cognitions and consider alternative cognitive strategies best suited for their environment (Haynie & Shepherd, 2009). Previous studies have established that, most social entrepreneurs have an awareness of their emotions, particularly towards environmental and social causes and this fuels their creativity within the social entrepreneurship process (Schaefer et al., 2022). However, findings have also established that metacognitive experience is not a predictor of entrepreneurial intention (Urban, 2012). In the context of social entrepreneurship, social entrepreneurs are involved in tackling "wicked problems", whose solutions are heavily dependent on social entrepreneur’s experience and judgment (Rittel & Webber, 1973, p. 163). Therefore, this study proposes that social entrepreneur’s metacognitive experience positively influences the sustainability of their social ventures.

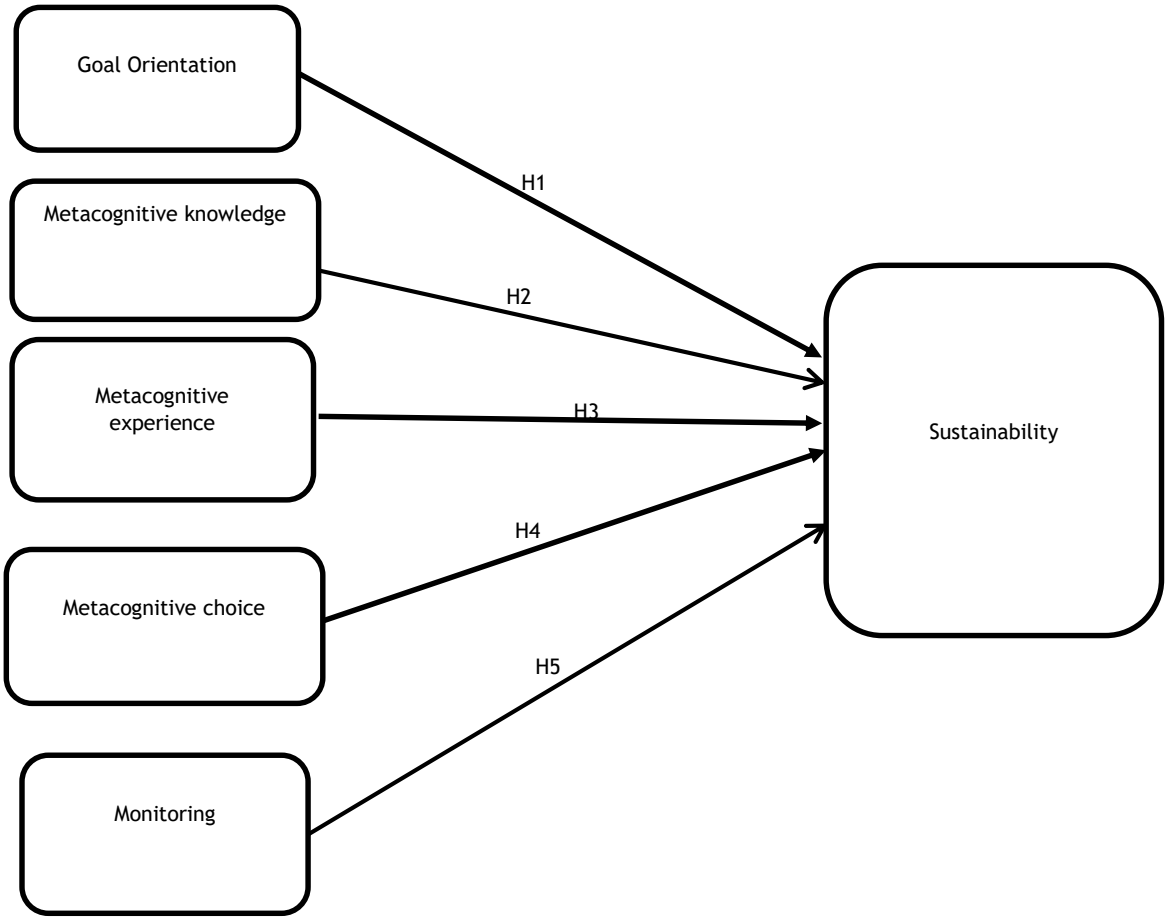
2.9.4 Metacognitive Choice

Social entrepreneurs are constantly faced with crucial decision-tasks within their social enterprises. Thus, their ability to deliberately and effectively pick the most suitable cognitive strategies and decisions is essential (Haynie et al., 2010). Metacognitive choice plays an important role in enabling entrepreneurs make effective decisions within their businesses (Haynie et al., 2010). It reflects the degree to which they deliberately choose among different decision frames (Haynie & Shepherd, 2009). This ability enables them interpret their dynamic environment and implement the best cognitive alternative (Haynie et al., 2010). Similarly, social entrepreneurs' metacognitive abilities have been identified to be a source of their creativity (Schaefer et al., 2022), enabling them effect social change through the innovative solutions they create. Based on this considerations, this study proposes that social entrepreneurs' metacognitive choice positively influences the sustainability of their social ventures.

2.9.5 Monitoring

Entrepreneurs' metacognitive monitoring involves their ability to self-reflect and utilize learnings from their past decision to inform their higher order thinking process (Haynie et al., 2010). This dimension focuses on an individual's ability to adapt in a changing environment through re-evaluating feedback from previous situations (Haynie & Shepherd, 2009). It allows entrepreneurs to evaluate the goals achieved or missed through the different decision frameworks they use, as a basis for improvement (Haynie & Shepherd, 2009). In the context of social entrepreneurship process, which involves various stages that actively engages social entrepreneurs in understanding the social context, identifying the social mission and opportunities to pursue, mobilizing resources and evaluating the impact (Venter et al., 2015), their ability to engage in self-reflection is essential in the effectiveness of their social enterprises. Therefore, this study proposes that social entrepreneur's metacognitive monitoring positively influences the sustainability of their social ventures.

Figure 1: Conceptual framework



2.10 Conclusion

This chapter begins with providing an overview of the role social entrepreneurs play in social enterprises. It then proceeds to define the concept of sustainability in the context of social enterprises. Furthermore, the chapter explores the metacognitive framework and its various dimensions: goal orientation, metacognitive knowledge, metacognitive experience, metacognitive choice and monitoring. The literature highlights a growing concern on the sustainability of social enterprises and emphasizes the crucial role that social entrepreneurs play in ensuring their social enterprises are sustainable. The literature also establishes the significance of the different metacognitive dimensions on the critical decisions made within social enterprises.

Five hypotheses were developed based on the reviewed literature;

- HQI- Metacognitive dimension of goal-orientation positively influences the sustainability of social enterprises in Nairobi.
- HQ2- Metacognitive dimension of knowledge positively influences the sustainability of social enterprises in Nairobi.
- HQ3- Metacognitive dimension of experience positively influences the sustainability of social enterprises in Nairobi.
- HQ4- Metacognitive dimension of choice positively influences the sustainability of social enterprises in Nairobi.
- HQ5- Metacognitive monitoring dimension positively influences the sustainability of social enterprises in Nairobi.

3 CHAPTER 3: RESEARCH METHODOLOGY

This chapter discusses the research methodology used to test study's hypotheses on the influence of different metacognitive dimensions on the sustainability of social enterprises in Nairobi, Kenya. The chapter also outlines the research paradigm, research design, research population and sampling techniques, data collection and data analysis adopted in the study.

3.1 Research Paradigm

According to Saunders, Lewis, and Thornhill (2009), research philosophy is the belief guiding knowledge development. On the other hand, research paradigm defines the beliefs that influence a researcher's intention and how they conduct their study (Lincoln, Lynham, & Guba, 2011). This study employed a quantitative methodology to empirically test the hypotheses developed in the previous chapter. A post-positivism view of the world rather a positivism view is adopted in this study as post-positivism believes that probable truth or facts exist (Lincoln et al., 2011). Besides, this paradigm is consistent with previous social and behavioral studies, deeming this approach most suitable for this specific research (Galawe, 2017).

3.2 Research design

The research design used in a study is determined by the research questions and objectives of a study (Vogt, 2008). A quantitative methodology was employed to empirically investigate the level of influence social entrepreneurs' metacognitive awareness has in the sustainability of social enterprises. This methodology proposes that researchers take an objective approach in their study, to avoid any biases (Szyjka, 2012). By adopting this approach, the researcher maintained an objective approach in their data collection and analysis.

This research adopted a survey and cross-sectional study design and capitalized on the use of a questionnaire as its primary source of data. The cross-sectional design allows a researcher to collect data at a specific point in time and determines patterns between the variables within a study (Bell, Harley, & Bryman, 2022), while the survey research design uses questionnaires that allows for the collection of data from a large population in a timely and cost-effective way (Story & Tait,

2019). These two research designs allowed the researcher to reach social entrepreneurs within Nairobi in a timely and effective way.

Similar studies have successfully employed these research designs in similar studies. For instance, previous research utilized the use of questionnaires to investigate the influence of different metacognitive dimensions on entrepreneurial intention (Urban, 2012), providing validation for the use of these designs within this study. The use of the quantitative approach and online questionnaires, however, is acknowledged to have limited the researcher's in-depth understanding of respondents' responses. Despite this limitation, the questionnaire was deemed the most effective tool for achieving the study's goals and objectives within the time frame and resources available.

3.3 Research Population and Sampling Method

3.3.1 Research Population

This research focused on social entrepreneurs based in Nairobi, Kenya as the population for the study. Within the social entrepreneurship field, there's a lack of consistent definitions (Monteiro, Sánchez-García, Hernández-Sánchez, & Cardella, 2022), therefore this study adopted social enterprises definition as social mission-driven firms that tackle social issues while achieving their financial objectives (Nwauche & Claeyé, 2022). The term "social entrepreneur" was defined as an individual who acts as a catalyst for change within the social sector (Dees, 1998).

Social enterprises can be classified within three typologies namely: for-profit, hybrid and non-profit (Venter et al., 2015). This study included social entrepreneurs from any of these typologies located in Nairobi. According to Siemens Stiftung (2020), Kenya had 85,600 social enterprises as of 2020, with its capital city Nairobi, having the highest rates of social entrepreneurial activities (British Council, 2017). This data informed the study's focus on social enterprises within Nairobi. The target population is defined as individuals within the population, that have similar characteristics, relevant to a study (Bell et al., 2022) . This study's target population was social entrepreneurs running social enterprises within Nairobi, Kenya and that aligned with the above

definitions of a social entrepreneur. Additionally, all social enterprises that belonged to any of the three typologies mentioned above were deemed relevant for the study.

3.3.2 Sampling Method

A sample represents the group within the population being investigated (Bell et al., 2022). This study employed non-probability sampling approaches: snowballing and convenience sampling, as its main sampling techniques. Snowballing sampling technique is used when its challenging to access the characteristics of individuals for a study (Bell et al., 2022). Considering the fragmented definitions within the social entrepreneurship field (Martin & Osberg, 2007), this study utilized the snowballing sampling technique to select its initial participants in Nairobi. These individuals had experience working with social entrepreneurs in Nairobi and some of them were social entrepreneurs running their own social enterprises within Nairobi. This initial group provided the researcher with additional contacts details of other relevant social entrepreneurs for the study. The snowballing method proved effective, as it provided the researcher with access to a large pool of social entrepreneurs and was cost-effective. Additionally, the researcher utilized social and networking platforms to attract individual social entrepreneurs who participated in the study. This convenience technique was beneficial in recruiting a relevant sample of individuals interested in the research subject within a limited timeframe (Field, 2017).

3.4 Sample Size

According to Siemens Stiftung (2020), the number of social enterprises in Kenya was 85,600 as of 2020. Determining the appropriate sample size for a study depends on the total population available for the study and the statistical procedures a researcher conducts (Field, 2017). In this study, the sample size was drawn from the total number of social enterprises mentioned in the Siemens Stiftung report. Considering a quantitative approach requires a larger sample size to reduce the errors in generalization of the target population (Bell et al., 2022), a substantial sample size was deemed necessary for the analysis (Galawe, 2017). It is important to note that there is no set rule of thumb for determining the exact sample size for a given study, which is a sampling limitation (Bell & Bryman, 2011). As a result of the quantitative nature of this study and the need

for a large sample size for robust data analysis, the target population was set at 300 social entrepreneurs in Nairobi, Kenya, representing approximately 35% of the estimated population of social entrepreneurs in Kenya, according to the Siemens Stiftung report.

3.5 Research instruments

In this study, an online questionnaire was adopted as the research instrument. The study also utilized the 36-item generalized Measure of Adaptive Cognition (MAC) instrument (Urban, 2012), to measure the different metacognitive dimensions. This instrument captured the different metacognitive dimensions (Independent variable) developed by Haynie and Shepherd (2009). For the dependent variable, sustainability, items were adapted from a previous study conducted by Urban (2015), that investigated the impact of social entrepreneurs' self-efficacy on the sustainability of social enterprises.

To conceptualize sustainability of social enterprises, the study utilized Bagnoli and Megali (2011), three measures of SEs performance namely financial performance, social effectiveness and legitimacy. The sustainability items on the questionnaire were rated on a 5-point Likert scale, ranging from “strongly agree” (5) to “disagree” (1) as indicated by Urban (2015). The metacognitive awareness items adopted a dasix-point scale, starting on the left with the statement "1= not very much like me" and ending on the right side with the statement " 6 = very much like me" (Urban, 2012, p.170). By utilizing items from previous studies, the validity and reliability of the research instrument was improved (Bell et al., 2022).

Table 2: Measures in the study

Construct	Source of literature	Dimensions	Comment on Instrument
Metacognitive awareness	Haynie & Shepherd (2009) Haynie et al., 2010	1. Goal Orientation 2. Metacognitive knowledge 3. Metacognitive experience 4. Metacognitive choice 5. Monitoring	This instrument capture the different metacognition dimensions (Independent variable) as developed by Haynie & Shepherd (M. Haynie & Shepherd, 2009)
Social enterprises' sustainability	Urban, (2012) Bagnoli & Megali (2011). Urban, (2015)	Financial Performance Social Effectiveness Legitimacy	Provides an operationalization on what sustainability amongst social enterprises is defined as within this study.

3.6 Procedure for Data Collection

This study employed a cross-sectional design and utilized a survey research approach. Initially, the researcher identified and purposively selected 30 individuals within the Nairobi entrepreneurship ecosystem. This included individuals working with social entrepreneurs and social entrepreneurs themselves. These initial participants provided recommendations of other social entrepreneurs relevant to the study. The primary data collection method used, was an online questionnaire, which was designed and administered through the Qualtrics platform.

For participant selection a convenience sampling method was utilized. The researcher leveraged social and networking platforms such as WhatsApp and LinkedIn to identify and recruit individuals relevant to the study objectives. Methods such as cold text messages and emails were used to reach potential participants for the study. The researcher provided continuous support to social entrepreneurs facing difficulties completing the online questionnaires, thus ensuring high-quality responses. Participants were given a two-week response time and gentle weekly reminders via LinkedIn improved the response rate.

Adopting an online questionnaire was a timely and cost-effective approach, that allowed the researcher to reach a larger number of social entrepreneurs in Nairobi. Moreover, the researcher also actively engaged in various activities, forums and events targeting social entrepreneurs in Nairobi for the purposes of reaching potential participants for the study. These efforts resulted in a total of 222 respondents, that participated in the study.

3.7 Data analysis Approach

Data analysis expounds on how data within a study is gathered and analyzed (Bell & Bryman, 2011). It entails cleaning of the data collected, testing the relationships between the variables and finally testing out the hypotheses generated within a study (Bell & Bryman, 2011). This process enables a researcher present the findings from their study (Bell & Bryman, 2011). In this study, the Statistical Package for Social Sciences (SPSS) software was used to conduct the statistical analysis. The data was collected and captured on Qualtrics and then transferred to SPSS for analysis. The researcher conducted a descriptive, correlational and multiple regression analysis to describe demographics of the sample as well as test the hypotheses generated. While regression enables a researcher test the dependence between variables, multiple regression analysis tests out the dependence of the dependent variable on each independent variable (Selvamuthu & Das, 2018). Multiple regression analysis was used in this study to test the dependence of sustainability of social enterprises on the different metacognitive awareness dimensions (goal orientation, metacognitive knowledge, metacognitive experience, metacognitive choice and monitoring).

3.8 Validity and Reliability

The extent to which the items included in a study are relevant and appropriate for measuring the intended constructs is referred to as research instrument validity (Bell & Bryman, 2011). External validity, on the other hand, refers to how well the chosen sample represents the larger population under study and it determines the study's findings' generalizability to other groups or situations (Khorsan & Crawford, 2014). Internal validity is concerned with determining the reliability of the research instrument itself (Khorsan & Crawford, 2014). Reliability, on the other hand, investigates the consistency and stability of the study's measurements (Bell & Bryman, 2011). Previously used research items were used in this study to improve the validity and reliability of the constructs being measured. To assess the constructs' validity, an exploratory factor analysis (EFA) was performed, which examined the underlying factors and dimensions in the data. Cronbach's alpha was also used to assess the internal consistency and reliability of the various factors, indicating how well the items within each construct consistently measured the same underlying concept. These procedures were used in the study to ensure the reliability and validity of the research instrument and its measurements.

3.9 Ethical considerations

Research ethics refers to the standard of behavior that a researcher must uphold when conducting their study (Bell & Bryman, 2011), which primarily involves respondents and individuals with whom they interact during their research (Bell & Bryman, 2011).

This study followed several ethical considerations. First, the study ensured that respondents provided informed consent to conduct the research by including a consent segment on the questionnaires used for the study. This principle requires that the researcher provide sufficient information so that the respondent understands the practical implications of participating in their study (Field, 2017).

Secondly, this study maintained the confidentiality of its respondents' information and ensured that no harm came to those who chose to participate in the study. Most importantly, the researcher was awarded an ethical clearance certificate from the Wits Business School research ethics committee,

indicating that all ethical considerations were followed throughout the study. The researcher's ethics protocol number is WBS/EN2632268/843.

3.10 Conclusion

This chapter provides a comprehensive breakdown of the research methodology used in this study. This study uses a quantitative approach and a post-positivist paradigm. The study focuses on social entrepreneurs in Nairobi and collects data primarily through an online questionnaire. Finally, the study employs descriptive, correlational and multiple regression analysis to empirically test the level of influence the various metacognitive awareness dimensions have in the sustainability of social enterprises in Nairobi.

4 CHAPTER 4: DISCUSSION OF THE RESULTS

4.1 Introduction

This research investigated the role of social entrepreneurs' metacognitive awareness in the sustainability of their social enterprises in Nairobi, Kenya. Following a thorough examination and review of the literature and the hypotheses developed. This chapter provides a detailed discussion of the findings from the empirical testing of the study's hypotheses. The chapter also discusses the exploratory factor analysis (EFA), reliability, assumption testing, correlation analysis and multiple regression analysis using data from the collected samples. Finally, a graphical representation of the results from the different analysis is presented and discussed.

- *HQI- Metacognitive dimension of goal orientation positively influences the sustainability of social enterprises in Nairobi.*
- *HQ2- Metacognitive dimension of knowledge positively influences the sustainability of social enterprises in Nairobi.*
- *HQ3- Metacognitive dimension of experience positively influences the sustainability of social enterprises in Nairobi.*
- *HQ4- Metacognitive dimension of choice positively influences the sustainability of social enterprises in Nairobi.*
- *HQ5- Metacognitive monitoring dimension positively influences the sustainability of social enterprises in Nairobi.*

4.2 Sample Characteristics

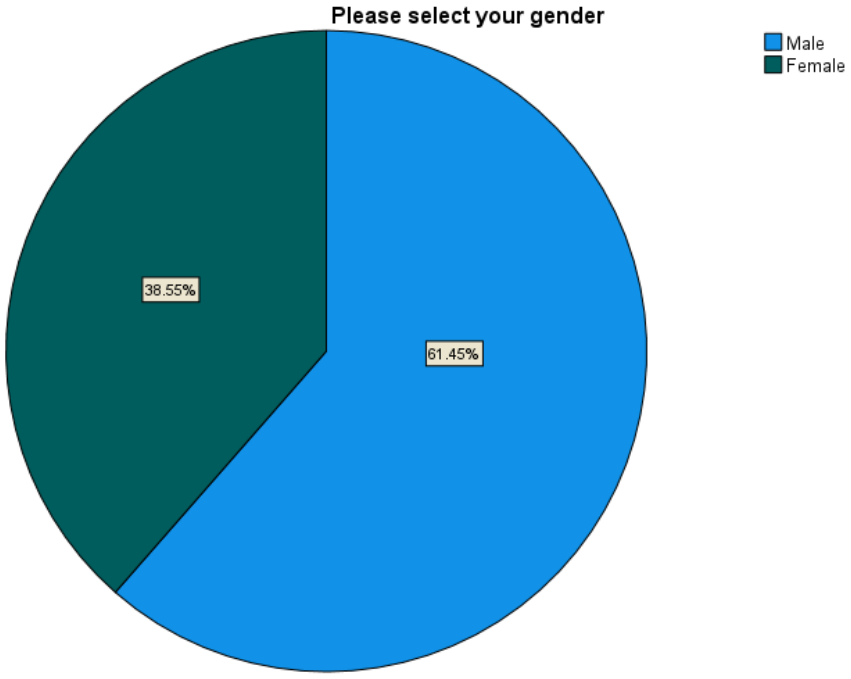
The demographic characteristics of the respondents are graphically presented and discussed in this section. The survey initially received 222 responses. However, 50 of these responses were disqualified because the social enterprises were not located in Nairobi. Furthermore, 89 responses were eliminated during the data cleaning and screening process due to missing values, incomplete

responses, empty responses and unengaged participation. After conducting the necessary cleaning and screening, a final sample of 83 responses remained that met all of the researcher's criteria for inclusion in the study. These 83 responses were used in the study for further analysis.

4.2.1 Gender Composition of Respondents

The respondents were asked to specify their gender; the results are shown in Figure 4.1.

Figure 4.1: Gender Composition of Respondents



According to the findings shown above, 61.45% of the respondents were male, while 38.55% were female, indicating that majority of the respondents were male.

4.2.2 Age Group

The findings of this study are consistent with the British Council report (2017), which indicates that Kenya's social entrepreneurship scene is in its early stages. The study adds to this by revealing that the social entrepreneurs leading ventures in this space are mostly young people. The

distribution of respondents across age groups is shown in Table 4.2. The age groups of 20-30 years, 31-40 years, and 41-50 years accounted for the following percentages: 60.2%, 33.7%, and 6.0%, respectively, according to the table. These figures show that young social entrepreneurs provided the majority of the study's responses.

Table 4.2: Age Group

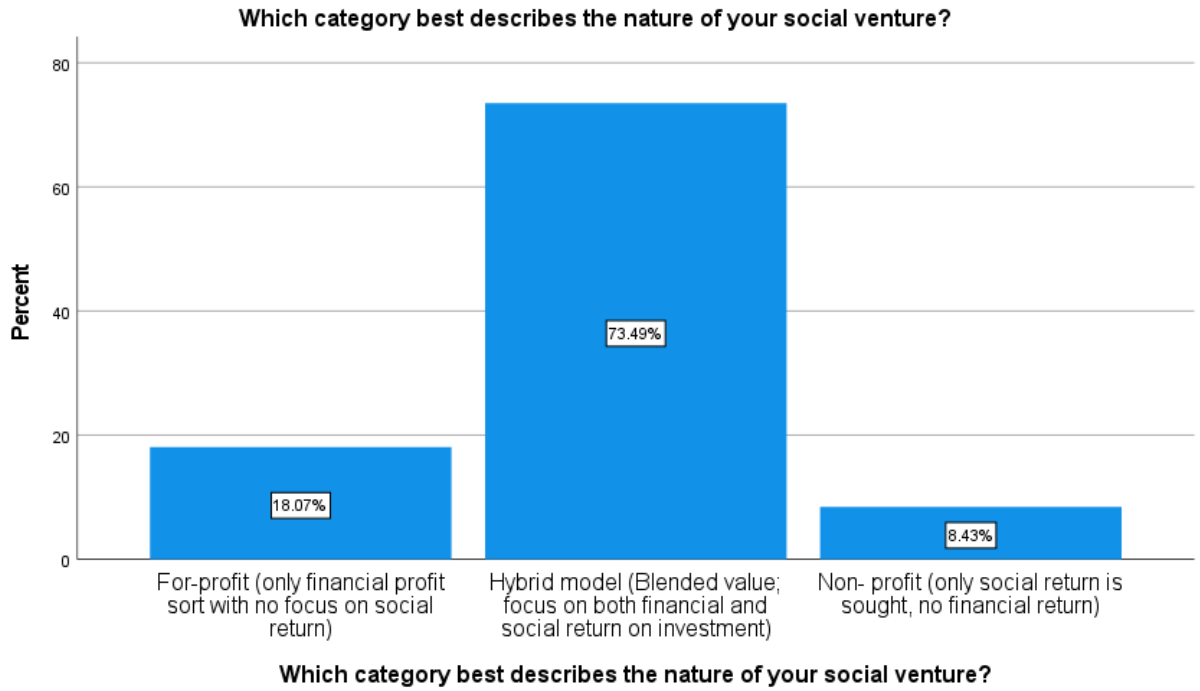
Please select your age category					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	20 - 30 years old	50	60.2	60.2	60.2
	31 - 40 years old	28	33.7	33.7	94.0
	41 - 50 years old	5	6.0	6.0	100.0
	Total	83	100.0	100.0	

Source: Primary data

4.2.3 Nature of Social Ventures

This study's sample of social entrepreneurs included various types of social ventures. The following are the distributions of social venture models among respondents: 73.49% chose a hybrid model, 18.07% a for-profit model and 8.43% a non-profit model. According to these findings, the majority of the sample respondents were social entrepreneurs running social ventures that aimed to create both social and financial value, blending social impact and financial sustainability (Doherty et al., 2014). Figure 4.3 expands on these findings by depicting the distribution and representation of various social venture models within the sample.

Figure 4.3: Nature of Social Ventures



Source: Primary data

4.2.4 Number of Years of Existence of the Social Venture

This study's data reveals how long the social enterprise have been in operation. 47% of the respondents' social ventures had been in operation for 3-5 years at the time of the study. In addition, 44.6% of the social ventures had been in operation for 0-2 years, indicating that they were relatively newer ventures. Finally, 8.4% of the social ventures had been in operation for six years or more, indicating that they were more established.

The table below summarizes the distribution of operational years:

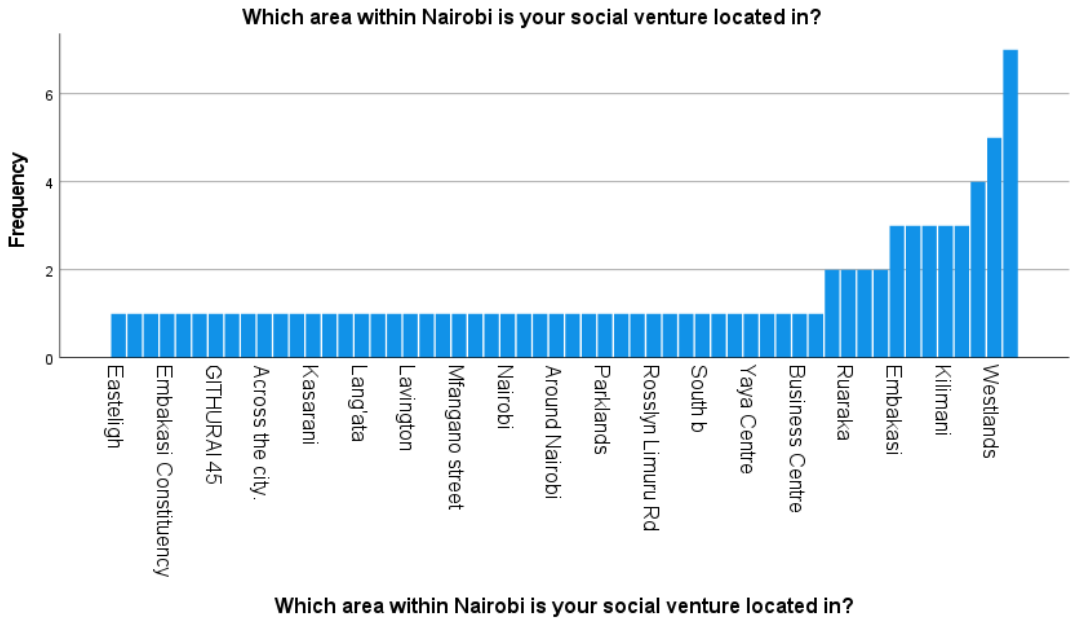
Table 4.3: Number of years of existence

How many years has your social venture been in existence					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2 years	37	44.6	44.6	44.6
	3-5 years	39	47.0	47.0	91.6
	6+ years	7	8.4	8.4	100.0
	Total	83	100.0	100.0	

4.2.5 Location

The study required that all respondent's social ventures be based in Nairobi. Interestingly, the majority of social enterprises represented in the study were located in Westlands, Kilimani, Embakasi, Ruaraka, Yaya Centre, Ngong Road, Kasarani, Kibera, and Karen, indicating areas in Nairobi with the most entrepreneurial activity.

Figure 4.4: Location of the Social Venture in Nairobi



Source: Primary data

4.2.6 Summary table for Respondents Characteristics

Table 4.4 provides a summary of the different demographic characteristics of respondents in the study.

Table 4.4: Respondents Characteristics

	Total Respondents (83)	**Percentage (100%)**
Gender		
Male	51	61.4
Female	32	38.6
Age (Years)		
20 – 30 years	50	60.2
31 – 40 years	28	33.7
41 – 50 years	5	6.0
Nature of social venture		
For profit model	15	18.1
Hybrid model	61	73.5
Non-profit model	7	8.4
Years of Existence		
0 – 2years	37	44.6
3 – 5years	39	47
6+ years	7	8.4
Location		
Westlands	5	6.0
Karen	4	4.8
Embakasi	3	3.6
Kasarani	3	3.6
Kibera	3	3.6
Kilimani	3	3.6
Ngong Road	3	3.6

4.3 Exploratory Factor Analysis (EFA)

This section presents the findings of the descriptive data analysis for the study. To examine the data validity and reliability, this study employed the statistical techniques; Exploratory Factor Analysis and Cronbach alpha. Furthermore, the hypothesis derived from the literature review is tested using correlational and multiple regression analysis.

To test the validity of the scales used to measure the IV (Metacognitive Awareness dimensions) and the DV (Sustainability), an exploratory factor analysis (EFA) was performed on SPSS. Field (2017), defines factor analysis as "the process of ensuring that items in a study correlate to the correct factor and measure what they are supposed to measure." The extraction method used in the study included the principal axis factoring method, Kaiser's criterion and a scree plot. Finally, the factor structure was optimized using the Promax oblique rotation method.

4.3.1 The Kaiser-Meyer-Olkin Measure and Bartlett Test (KMO & Barlett Test)

The Kaiser-Meyer-Olkin (KMO) sampling adequacy measure has a value of 0.829, as shown in Table 4.5. This value exceeds Galawe's (2017) minimum requirement of 0.5, indicating that the study's set of variables is suitable for factor analysis. As a result, the sample size used in this study was deemed significant and adequate for conducting the analysis. Furthermore, the factor loading determinant is calculated to be 0.006, indicating that the factors in the analysis are correlated. This is consistent with Field's (2017) threshold for factor correlation, which requires the determinant to be greater than 0.00001. Furthermore, as shown in Table 4.5, the Bartlett's Test of Sphericity yielded a value greater than 0.05, indicating that the correlation between the items is significant. According to Galawe (2017), a Bartlett's Test value greater than 0.05 establishes sufficient and significant item correlation for factor analysis.

Table 4.5: KMO and Barlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.829**
Bartlett's Test of Sphericity	Approx. Chi-Square	964.289
	Df	231
	Sig.	**<,001**

4.3.2 Communalities

Communalities describes items correlation and their variance (Field, 2017). Table 6.0 shows that the communalities for the different items were above 0.3, indicating the item correlation explain the variance adequately.

Table 4.6: Communalities

Metacognitive Dimensions	Initial	Extraction
GoalOrientation3	1.000	.804
GoalOrientation4	1.000	.873
GoalOrientation5	1.000	.822
MetacognKnowledge1	1.000	.699
MetacognKnowledge3	1.000	.625
MetacognKnowledge4	1.000	.829
MetacognKnowledge5	1.000	.683
MetacognKnowledge7	1.000	.831
MetacognExp3	1.000	.706
MetacognExp5	1.000	.779
MetacognChoice1	1.000	.746
MetacognChoice4	1.000	.713
MetacognChoice5	1.000	.792
MetacognMonitoring3	1.000	.618
MetacognMonitoring5	1.000	.686
MetacognMonitoring6	1.000	.600
Sustainability1	1.000	.581
Sustainability3	1.000	.611
Sustainability5	1.000	.563
Sustainability6	1.000	.664
Sustainability7	1.000	.741
Sustainability8	1.000	.667
Extraction Method: **Principal Component Analysis.**		

4.3.3 Total Variance Explained

Table 4.7 shows that the six extracted factors have a total variance of 71.061%, indicating the percentage to which these six factors represent what is happening in the rest of the data. The factors listed below meet the acceptable level of cumulative variance of 50% (Field, 2017).

Table 4.7: Total Variance Explained

Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**			**Rotation Sums of Squared Loadings[a]**
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**	**Total**
1	7.452	33.874	33.874	7.452	33.874	33.874	4.175
2	2.784	12.654	46.528	2.784	12.654	46.528	5.390
3	1.882	8.556	55.084	1.882	8.556	55.084	3.942
4	1.312	5.966	61.050	1.312	5.966	61.050	4.129
5	1.152	5.236	66.286	1.152	5.236	66.286	3.761
6	1.051	4.775	71.061	1.051	4.775	71.061	3.559
7	.782	3.556	74.617				

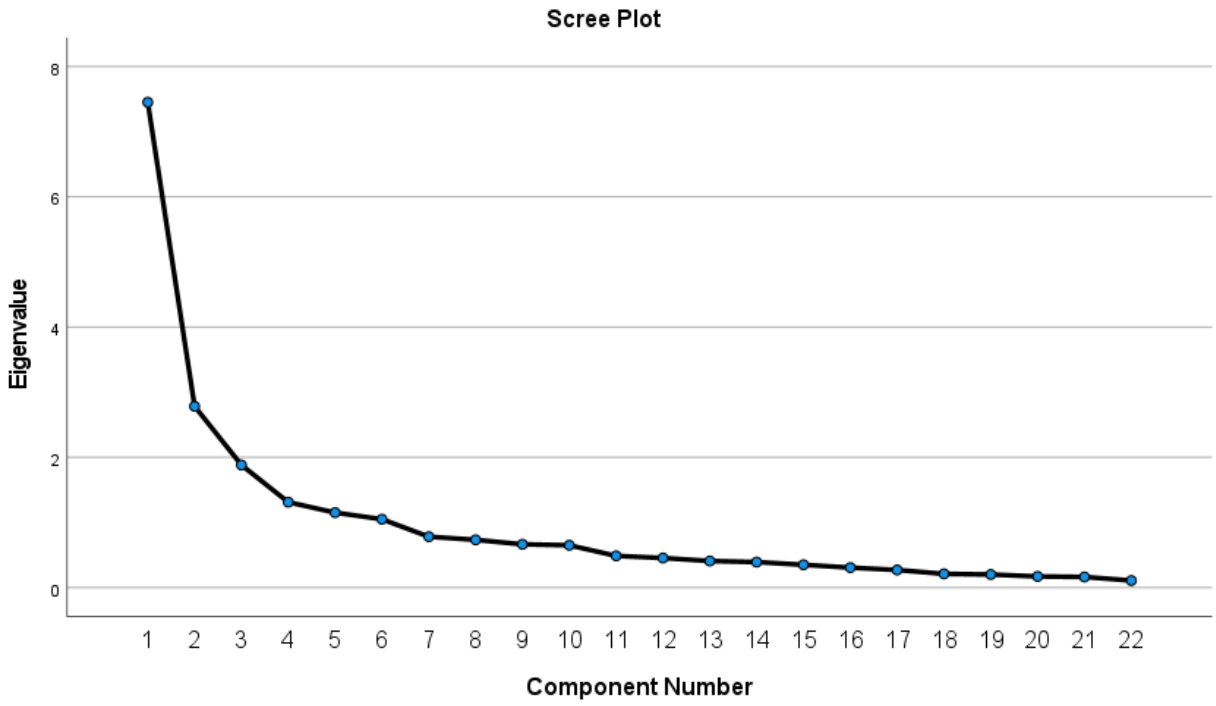
Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

4.3.4 Scree Plot

Figure 4.5 further shows the number of factors extracted at the different inflexion points. This analysis extracted six factors.

Figure 4.5: Scree Plot



4.3.5 Summary of Pattern Matrix

The rotation method used in this study was Promax and the Principal Axis Factoring Method. These methods assume that the items within each factor are correlated (Field, 2017). The initial factor analysis identified ten factors with eigenvalues greater than one. For the factor analysis, the analysis used a cut-off of 0.4. The researcher then eliminated all zero loadings and cross-loadings, leaving only six factors, as shown in Table 4.8. Furthermore, factors four and five each required the researcher to rename items on both factors based on the study's research instrument. Table 4.8 depicts the discovered and extracted factors.

Table 4.8: Pattern Matrix

Item	Component					
	1	2	3	4	5	6
Sustainability8	.822					
Sustainability6	.789					
Sustainability7	.755					
Sustainability3	.685					
Sustainability1	.650					
Sustainability5	.630					
GoalOrientation4		.939				
GoalOrientation5		.838				
GoalOrientation3		.808				
MetacognExp3		.766				
MetacognKnowledge4			.925			
MetacognKnowledge7			.874			
MetacognKnowledge5			.732			
MetacognChoice5				.894		
MetacognExp5				.775		
MetacognMonitoring3				.506		
MetacognKnowledge1					.730	
MetacognChoice4					.692	
MetacognChoice1					.684	
MetacognKnowledge3						.762
MetacognMonitoring5						.712
MetacognMonitoring6						.503

Extraction Method: **Principal Component Analysis.**

Rotation Method: **Promax with Kaiser Normalization.**[a]

a. Rotation converged in 7 iterations.

4.4 Reliability of Measurement Scale Results

The Cronbach Alpha coefficient measures the internal consistency of a research instrument (Bell et al., 2022). According, Cronbach's Alpha values less than 0.6 are deemed unacceptable, values between 0.6 and 0.65 are deemed undesirable, values between 0.65 and 0.7 are deemed minimally acceptable, values between 0.7 and 0.8 are deemed respectable and values between 0.80 and 0.90 are deemed excellent (Tonidandel, King, & Cortina, 2018). A Cronbach's Alpha was calculated for the six factors extracted in this study, demonstrating that all six factors were reliable. Table 4.9 summarizes the Cronbach Alpha coefficients for all six factors.

Table 4.9: Items Reliability (Cronbach Alpha)

Item	Number of Items	Cronbach Alpha	Comment
Sustainability	6	0.827	Accepted
Goal Orientation	3	0.896	Accepted
Metacognitive Knowledge	3	0.843	Accepted
Metacognitive Experience	3	0.790	Accepted
Metacognitive Choice	3	0.764	Accepted
Metacognitive Monitoring	3	0.688	Accepted

In addition, table 4.9 indicates that, sustainability (0.827), goal orientation (0.896) and metacognitive knowledge (0.843) had excellent scores. On the other hand, metacognitive experience (0.790) and metacognitive choice (0.764) had respectable scores whereas metacognitive monitoring (0.688) had a score of (0.688) which is less than 0.7. However, the scale was deemed reliable as the construct (metacognitive monitoring) was within the minimally acceptable range of 0.65- 0.7 (Tonidandel et al., 2018).

4.4.1 Sustainability

The main dependent variable scale, sustainability, was deemed highly reliable with a Cronbach Alpha coefficient of (=0.827). Moreover, Table 5.0 indicates that removal any of the items has no significant effect on the variables' Cronbach Alpha.

Table 5.0: Item total Statistics (Sustainability)

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Sustainability8	16.97	20.293	.585	.395	.802
Sustainability6	17.84	17.940	.693	.493	.777
Sustainability7	17.28	20.003	.627	.420	.794
Sustainability3	18.04	18.438	.585	.372	.805
Sustainability1	17.16	19.257	.604	.385	.798
Sustainability5	16.60	22.633	.523	.312	.817

Table 5.1 also highlights the inter-item correlations for sustainability and displays all the items correspond to their respective scales. Every inter-item correlation exceeds 0.3, thus, all scales exhibit convergent validity (Bell et al., 2022).

Table 5.1: Inter-Item Correlation (Sustainability)

Inter-Item Correlation Matrix						
	Sustainability8	**Sustainability6**	**Sustainability7**	**Sustainability3**	**Sustainability1**	**Sustainability5**
Sustainability8	1.000	.473	.497	.398	.377	.500
Sustainability6	.473	1.000	.546	.568	.528	.394
Sustainability7	.497	.546	1.000	.404	.509	.370
Sustainability3	.398	.568	.404	1.000	.446	.355
Sustainability1	.377	.528	.509	.446	1.000	.389
Sustainability5	.500	.394	.370	.355	.389	1.000

Source: Primary Data

4.4.2 Goal Orientation

The high-reliability scale (4 items; =0.889) for goal orientation was greater than 0.7. Furthermore, Table 5.2 confirms that deleting any item would result in no significant change, so the scale was kept. Table 5.3, on the other hand, emphasizes the inter-item correlations for goal orientation and shows that all items correspond to their corresponding scales. Finally, the inter-item correlation for this dimension is greater than 0.3, indicating that the scales are valid (Bell et al., 2022).

Table 5.2: Item-Total Statistics (Goal Orientation)

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
GoalOrientation4	10.07	3.143	.827	.687	.824
GoalOrientation5	10.12	3.547	.798	.648	.849
GoalOrientation3	10.05	3.559	.763	.585	.877

Table 5.3: Inter-Item Correlation Matrix (Goal Orientation)

Inter-Item Correlation Matrix			
	GoalOrientation4	**GoalOrientation5**	**GoalOrientation3**
GoalOrientation4	1.000	.785	.740
GoalOrientation5	.785	1.000	.701
GoalOrientation3	.740	.701	1.000

4.4.3 Metacognitive Knowledge

The reliability score for metacognitive knowledge was excellent (3 items =0.843), which was greater than 0.7. According to Table 5.4, removing item (metacognitive knowledge 5) would improve the scale. However, the item is kept because removing it would violate the minimum of three items per construct (Field, 2017).

Table 5.4: Item-Total Statistics (Metacognitive Knowledge)

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
MetacognKnowledge4	10.21	3.900	.758	.636	.734
MetacognKnowledge7	10.04	4.134	.776	.647	.719
MetacognKnowledge5	9.90	4.625	.603	.365	.880

Furthermore, because all correlational coefficients are greater than 0.3, Table 5.5 highlights the inter-item correlation for Metacognitive knowledge items and establishes convergent validity.

Table 5.5: Inter-Item Correlation (Metacognitive Knowledge)

Inter-Item Correlation Matrix			
	MetacognKnowledge4	**MetacognKnowledge7**	**MetacognKnowledge5**
MetacognKnowledge4	1.000	.787	.562
MetacognKnowledge7	.787	1.000	.579
MetacognKnowledge5	.562	.579	1.000

4.4.4 Metacognitive Experience

Metacognitive Experience was deemed reliable due to its Cronbach Alpha coefficient of (=0.790), which is greater than 0.7. Furthermore, Table 5.6 confirms that deleting any of the items would result in no significant change, so all of the items were retained. Table 5.7, on the other hand,

shows that all of the inter-item correlation coefficients are greater than 0.3. As a result, this construct is considered reliable and has convergent validity.

Table 5.6: Item-Total Statistics (Metacognitive Experience)

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
MetacognChoice5	9.83	3.239	.643	.434	.702
MetacognExp5	10.03	3.166	.679	.469	.663
MetacognMonitoring3	9.93	3.429	.573	.332	.775

Table 5.7: Inter-Item Correlation Matrix (Metacognitive Experience)

Inter-Item Correlation Matrix			
	MetacognChoice5	**MetacognExp5**	**MetacognMonitoring3**
MetacognChoice5	1.000	.633	.496
MetacognExp5	.633	1.000	.541
MetacognMonitoring3	.496	.541	1.000

Source: Primary Data

4.4.5 Metacognitive Choice

Metacognitive Choice had a reliability scale of (3 items; =0.764)), which is greater than 0.7, indicating that the construct is reliable. Furthermore, Table 5.8, indicates that removing any items would result in no significant change.

Table 5.8: Item-Total Statistics (Metacognitive Choice)

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
MetacognKnowledge1	10.10	2.968	.635	.404	.656
MetacognChoice4	10.55	2.807	.563	.321	.719
MetacognChoice1	10.60	2.337	.613	.388	.675

Table 5.9 shows the inter-item correlations for the metacognitive choice construct, indicating that all items correspond to their respective scales. Furthermore, every inter-item correlation is greater than 0.3, implying that all scales have convergent validity.

Table 5.9: Inter-Item Correlation Matrix (Metacognitive Choice)

Inter-Item Correlation Matrix			
	MetacognKnowledge1	**MetacognChoice4**	**MetacognChoice1**
MetacognKnowledge1	1.000	.513	.580
MetacognChoice4	.513	1.000	.492
MetacognChoice1	.580	.492	1.000

4.4.6 Metacognitive Monitoring.

The reliability scale for the metacognitive monitoring construct was less than 0.7 (3 items; =0.688). According to Table 6.0, removing the item (metacognitive knowledge 3) would improve the scale. However, the scale was not deleted because doing so would violate the rule of keeping a minimum of three items per construct (Field, 2017). Thus, the scale was retained as a reliable construct as it falls within the minimally acceptable range of 0.65-0.7. (Tonidandel et al., 2018).

Table 6.0: Item-Total Statistics (Monitoring)

Item-Total Statistics					
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
MetacognKnowledge3	10.04	2.765	.450	.204	.724
MetacognMonitoring5	9.72	3.738	.543	.348	.567
MetacognMonitoring6	9.81	3.510	.572	.370	.525

Furthermore, the inter-item correlation for metacognitive monitoring items demonstrates convergent validity, as all correlational coefficients are greater than 0.3, as shown on Table 6.1

Table 6.1: Inter-Item Correlation Matrix 1 (Metacognitive monitoring)

Inter-Item Correlation Matrix			
	MetacognKnowledge3	**MetacognMonitoring5**	**MetacognMonitoring6**
MetacognKnowledge3	1.000	.380	.416
MetacognMonitoring5	.380	1.000	.568
MetacognMonitoring6	.416	.568	1.000

4.4.1 Summary of Final Factors Extracted and their Reliabilities.

Table 6.2: Summary of factors extracted and their reliability (Cronbach Alpha)

Constructs	Items	1	2	3	4	5	6
Sustainability (DV)	*Sustainability8* - Our business has been able to increase in market value	**.822**					
	Sustainability6 - Our business is able to financially sustain itself	**.789**					
	Sustainability7 - Our business has been able to meet most of its set goals and objectives	**.755**					
	Sustainability3 - The organization is firmly in place. The initiative can stand without the support of the founder	**.685**					
	Sustainability1 - Initiative self-generates most of its funds, or outside funding is fairly reliable	**.650**					
	Sustainability5 - Our business has progressively been making a greater impact	**.630**					
Goal Orientation (IV1)	*GoalOrientation4* - I set specific goals before I begin a task		**.939**				
	GoalOrientation5 - I ask myself how well I've accomplished my goals once I've finished		**.838**				

	GoalOrientation3 - I set specific goals before I begin a task		**.808**				
	MetacognExp3 - I organize my time to best accomplish my goals		**.766**				
Metacognitive Knowledge (IV2)	*MetacognKnowledge4* - I find myself automatically employing strategies that have worked in the past			**.925**			
	MetacognKnowledge7- I try to use strategies that have worked in the past			**.874**			
	MetacognKnowledge5 - I perform best when I already have knowledge of the task			**.732**			
Metacognitive Experience (IV3)	*MetacognChoice5* - I ask myself if I have learned as much as I could have when I finished the task				**.894**		
	MetacognExp5 - I know what kind of information is most important to consider when faced with a problem				**.775**		
	MetacognMonitoring3 - I am aware of what strategies I use when engaged in a given task				**.506**		
Metacognitive Choice (IV4)	*MetacognKnowledge1* - I think of several ways to solve a problem and choose the best one					**.730**	

	MetacognChoice4 - I re-evaluate my assumptions when I get confused					**.692**	
	MetacognChoice1 - I ask myself if I have considered all the options when solving a problem					**.684**	
Metacognitive Monitoring (IV5)	*MetacognKnowledge3* - I think about how others may react to my actions						**.762**
	MetacognMonitoring5 - I find myself pausing regularly to check my comprehension of the problem or situation at hand						**.712**
	MetacognMonitoring6 - I ask myself questions about how well I am doing while I am performing a novel task						**.503**
Eigen Values		7.452	2.784	1.882	1.312	1.152	1.051
Cumulative Variance		33.874	46.528	55.084	61.050	66.286	71.061
Cronbach Alpha		0.827	0.896	0.843	0.790	0.764	0.688

4.5 Regression Assumption Testing

Certain assumptions must be met in order to perform regression analysis. First, the data in this study was tested for outliers, normality, and linearity. Thereafter, a multiple regression analysis was conducted.

4.5.1 Outliers testing

Figure 4.6 depicts the box and whisker plots for each variable. The (*) symbol indicates outliers. Outliers in the table below include Goal Orientation (45*), Metacognitive Knowledge (45*), Metacognitive Experience (74*) and (45*), Metacognitive Choice (53*) and (45*), and Metacognitive Monitoring (45*).

Figure 4.6: Box and Whisker (Outlier Testing)

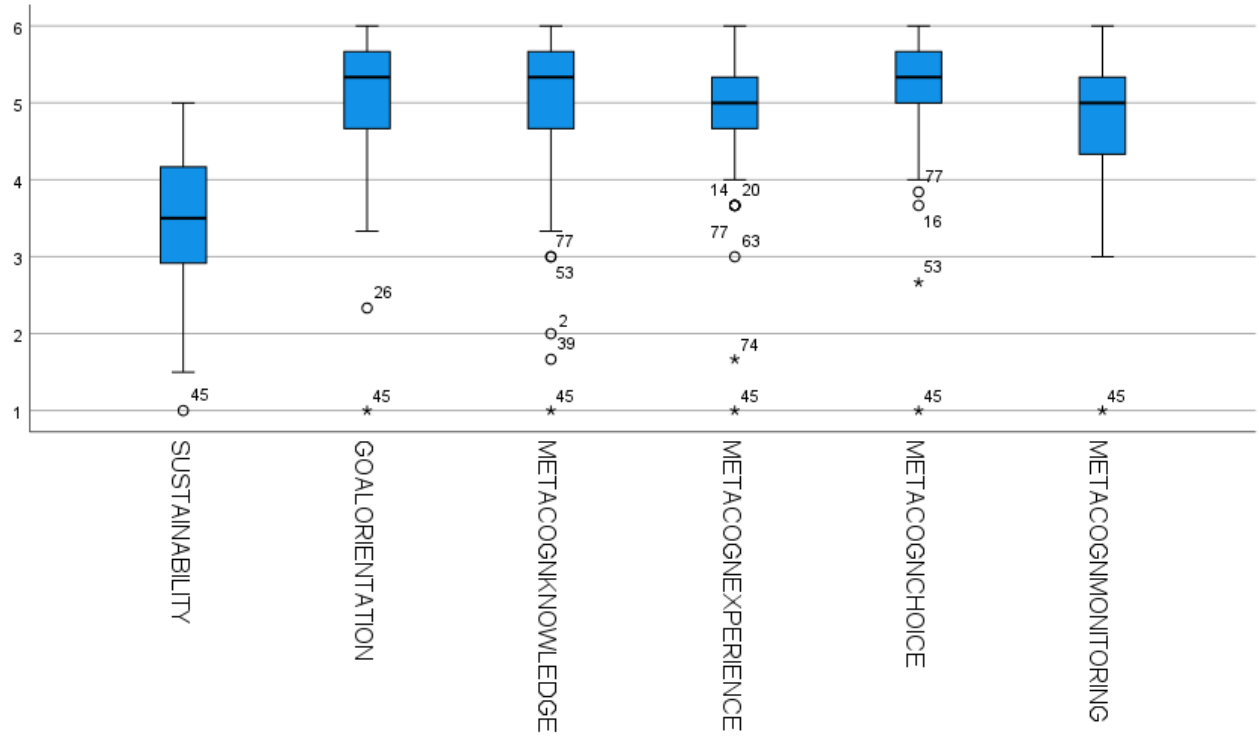
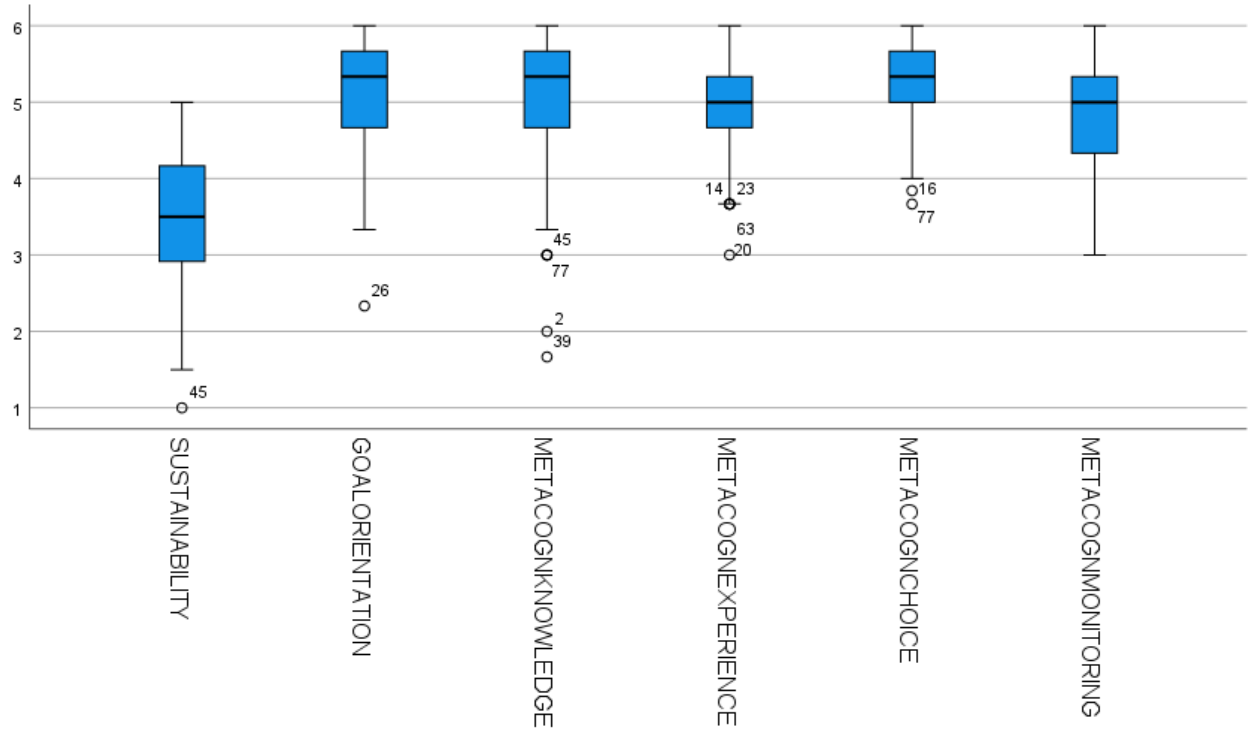


Figure 4.7: Box and Whisker (Outlier Cleaning)



To clean up the outliers, the researcher used extreme value tables and winsorizing. In addition, each outlier was replaced with either the lowest or highest value range. Figure 4.7 depicts the final Box and Whisker analysis.

4.5.2 Normality

To determine the normality of the data used in the study, a frequency analysis was performed to evaluate the skewness and kurtosis of the data. The analysis determined that the data met the normality assumptions because none of the variables had skewness scores of 3 or -3 and Kurtosis scores of 7 or -7. These requirements, determine the normality assumption of data used in a study (Field, 2017). Table 6.3 emphasizes this further.

Table 6.3: Normality Test

Statistics							
		Sustainability	**Goal Orientation**	**Metacognitive Knowledge**	**Metacognitive Experience**	**Metacognitive Choice**	**Metacognitive Monitoring**
N	Valid	83	83	83	83	83	83
	Missing	0	0	0	0	0	0
Mean		3.4630	5.0728	5.0483	5.0199	5.2608	4.9552
Median		3.5000	5.3333	5.3333	5.0000	5.3333	5.0000
Mode		3.67	5.00[a]	5.33	5.00	5.00	5.33
Skewness		-.347	-.842	-1.561	-.606	-.584	-.631
Std. Error of Skewness		.264	.264	.264	.264	.264	.264
Kurtosis		-.095	.431	2.791	.217	-.116	-.157
Std. Error of Kurtosis		.523	.523	.523	.523	.523	.523
Minimum		1.00	2.33	1.67	3.00	3.67	3.00
Maximum		5.00	6.00	6.00	6.00	6.00	6.00
Sum		287.43	421.04	419.01	416.65	436.64	411.28
a. Multiple modes exist. The smallest value is shown							

4.5.3 Linearity test

Pearson correlation analysis is used in the study to determine the linearity data used in this study. Furthermore, this analysis is used because the data is normally distributed (Bell et al., 2022). The Pearson correlation coefficient for each variable in the study was less than one, indicating that the model was linear. Table 6.4 shows the detailed results of the variable correlation.

Table 6.4: Correlation Coefficients

	1	2	3	4	5	6
1. Sustainability	1					
2. Goal Orientation	.269*	1				
3. Metacognitive Knowledge	.018	.163	1			
4. Metacognitive Experience	.335**	.442**	.234*	1		
5. Metacognitive Choice	.252*	.378**	.300**	.482**	1	
6. Monitoring	.092	.403**	.219*	.396**	.347**	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

4.6 Correlation Analysis

Correlation analysis is used to determine the relationship between variables (Field, 2017). The Pearson correlation analysis is used in this study to determine the relationship between the dependent variable (sustainability) and the independent variables (metacognitive awareness). This analysis was also used to determine the significance of these relationships. According to Field (2017), correlation coefficients of varying magnitude can be classified as small (1 or above), medium (3 or above), or large (5 or above). Table 6.5 elaborates on the relationship between each variable. The section that follows provides detailed result on the correlation efficient for each metacognitive dimension variable and sustainability, as well as the significance of the relationships.

4.6.1 Goal Orientation & Sustainability

The correlation analysis establishes that there is a positive relationship between sustainability and goal orientation. In addition, the magnitude of the relationship is small (.269*) and is statistically significant at a p-value of 0.05.

4.6.2 Metacognitive Knowledge & Sustainability

Sustainability and metacognitive knowledge on the other hand, have a positive relationship. The magnitude of the relationship is small (.018) and is not statistically significant.

4.6.3 Metacognitive Experience & Sustainability

Metacognitive experience and sustainability have a positive relationship. The magnitude of this relationship is moderate (.335**) and is statistically significant at a p-value of 0.01.

4.6.4 Metacognitive Choice & Sustainability

Metacognitive choice and sustainability have a positive relationship. However, the magnitude of this relationship is small (.252*) as it's correlation coefficient is below 0.3. The relationship between these two variables is statistically significant at a p-value of 0.05.

4.6.5 Metacognitive Monitoring & Sustainability.

The correlational analysis established a positive relationship exists between metacognitive monitoring and sustainability. The magnitude of this relationship is small (.092) and statistically insignificant.

4.7 Regression Analysis

The multiple regression analysis investigated the relationship between the independent variables (goal orientation, metacognitive knowledge, metacognitive experience, metacognitive choice and metacognitive monitoring) and the dependent variable (sustainability). The tables below display the results of this analysis.

Table 6.5: Model Summary

Model Summary[b]					
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	.391[a]	.153	.097	.83038	1.864
a. Predictors: Constant, Metacognitive Monitoring, Metacognitive Knowledge, Goal orientation, Metacognitive Choice, Metacognitive Experience					
b. Dependent Variable: Sustainability					

According to Table 6.5, the five independent variables (metacognitive monitoring, metacognitive knowledge, goal orientation, metacognitive choice and metacognitive experience) explain approximately 15.3% of what is happening to sustainability.

Table 6.6: ANOVA

ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	9.554	5	1.911	2.771	.024[b]
	Residual	53.094	77	.690		
	Total	62.648	82			
a. Dependent Variable: Sustainability						
b. Predictors: (Constant), Metacognitive Monitoring, Metacognitive Knowledge, Goal orientation, Metacognitive Choice, Metacognitive Experience						

Furthermore, the significance level (.024) for the ANOVA model (shown in Table 6.6) is less than the 0.05 threshold, indicating that the model is statistically significant. This indicates that the model's five metacognitive awareness variables have a significant influence on the sustainability of social ventures.

Table 6.7: Regression Coefficients

Coefficients[a]										
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**	**95,0% Confidence Interval for B**		**Collinearity Statistics**	
		B	**Std. Error**	**Beta**			**Lower Bound**	**Upper Bound**	**Tolerance**	**VIF**
1	(Constant)	.870	.963		.904	.369	-1.047	2.787		
	Goal Orientation	.175	.135	.160	1.294	.199	-.094	.445	.722	1.385
	Metacognitive Knowledge	-.082	.107	-.086	-.769	.444	-.294	.130	.890	1.124
	Metacognitive Experience	.343	.167	.265	2.047	.044	.009	.676	.659	1.518
	Metacognitive Choice	.188	.188	.126	.996	.322	-.188	.563	.691	1.447
	Metacognitive Monitoring	-.119	.141	-.102	-.849	.399	-.399	.161	.755	1.325
a. Dependent Variable: Sustainability										

4.7.1 Regression Results

4.7.1.1 Hypothesis 1 (Goal Orientation & Sustainability)

This section examines the findings of Hypothesis 1. According to the regression analysis, social entrepreneurs' goal orientation has a 16% positive influence on the sustainability of their social enterprises, as shown in Table 6.7. However, because the p-value is greater than 0.05, this

influence is not statistically significant. As a result, the hypothesis that goal orientation of social entrepreneurs positively influences the sustainability of social enterprises in Nairobi was not supported.

4.7.1.2 Hypothesis 2 (Metacognitive Knowledge & Sustainability)

The regression results on Hypothesis 2 indicate that social entrepreneurs' metacognitive knowledge negatively influences the sustainability of their social ventures by 8.6% as shown on Table 6.7. In addition, this influence is not statistically significant, as its p-value (.444) exceeds the required threshold 0.05. Thus, the hypothesis that social entrepreneurs' metacognitive knowledge positively influences the sustainability of social enterprises in Nairobi was not supported. This is because the model suggests that a social entrepreneur's metacognitive knowledge negatively influences the sustainability of their social ventures, moreover, this influence is statistically insignificant.

4.7.1.3 Hypothesis 3 (Metacognitive Experience & Sustainability)

According to regression results in Table 6.7, social entrepreneurs' metacognitive experience positively influences the sustainability of their social enterprises by 26.5%. Furthermore, this effect is statistically significant because its p-value (.044) is less than 0.05. As a result, the hypothesis that social entrepreneurs' metacognitive experience positively influences the sustainability of social enterprises in Nairobi was accepted. It's important to note that metacognitive experience is the only dimension established as a predictor for sustainability in social enterprises.

4.7.1.4 Hypothesis 4 (Metacognitive Choice & Sustainability)

The regression results for Hypothesis 4 show that, social entrepreneurs' metacognitive choices positively influence the sustainability of their social enterprises by 12.6%, as shown in Table 6.7. However, because the p-value (.322) is greater than 0.05, this influence is not statistically significant. As a result, the hypothesis that social entrepreneurs' metacognitive choices positively influence the sustainability of social enterprises in Nairobi was not supported.

4.7.1.5 Hypothesis 5 (Metacognitive Monitoring & Sustainability)

Finally, regression analysis on Hypothesis 5 established that, social entrepreneurs' metacognitive monitoring negatively influences the sustainability of their social enterprises by 10.2% as shown on Table 6.7. Furthermore, this influence is not statistically significant as its p-value (.399) is greater than 0.05. Therefore, the hypothesis that social entrepreneurs metacognitive monitoring positively influences the sustainability of social enterprises in Nairobi was not supported.

4.8 Conclusion

This chapter presents the results of the statistical analysis conducted in the study. The sample consisted of 83 respondents, with 61.45% being men and 38.55% being women. Following that, an Exploratory Factor Analysis (EFA) was performed, which extracted six factors: sustainability, goal orientation, metacognitive knowledge, metacognitive experience, metacognitive choice and monitoring. These factors align with the conceptual framework and existing literature discussed in Chapter 2. The reliability of the identified constructs was assessed and the relevant statistical results are presented in this chapter.

Assumption testing was performed and the results confirmed that the data used in the study met the assumptions for a normal distribution, absence of outliers and linearity, as previously stated. Correlation analysis was also used to investigate the relationship between the dependent variable (sustainability) and the independent variables (metacognitive awareness dimensions). The study found no significant relationship between metacognitive knowledge and sustainability, nor between metacognitive monitoring and sustainability. Furthermore, at a p-value of 0.05, the correlation between metacognitive choice and sustainability, as well as goal orientation and sustainability, was found to be of small magnitude but statistically significant. The study's analysis established only one hypothesis to be significant at a p-value of 0.01, that is, social entrepreneurs' metacognitive experience positively influences the sustainability of social enterprises in Nairobi.

Finally, the chapter focused on the multiple regression analysis, to which four hypotheses were rejected, and only one was accepted. This is highlighted below.

- *Metacognitive dimension of goal orientation positively influences the sustainability of social enterprises in Nairobi* **was not supported.**
- *Metacognitive dimension of knowledge positively influences the sustainability of social enterprises in Nairobi* **was not supported.**
- *Metacognitive dimension of experience positively influences the sustainability of social enterprises in Nairobi* **was accepted.**
- *Metacognitive dimension of choice positively influences the sustainability of social enterprises in Nairobi* **was not supported.**
- *Metacognitive dimension of choice positively influences the sustainability of social enterprises in Nairobi* **was not supported.**

5 CHAPTER 5: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter focuses on a detailed discussion of the study's findings, conclusion and recommendations. The discussions highlight the demographic profile of the study's respondents, results from hypothesis testing and provides summary of the findings, practical implications, limitations and future research areas.

5.2 Demographic Profile of Respondents

The study's findings support the notion that social enterprises in Nairobi are primarily led by young social entrepreneurs between the ages of 20 and 30. These social enterprises adopt a hybrid model, emphasizing the creation of both social and economic value. It is worth noting that the social entrepreneurship scene in Kenya, particularly in Nairobi, is still in its early stages and continues to grow. Nairobi, the capital city, has the highest concentration of entrepreneurial activity (Siemens Stiftung, 2020). According to this study, the majority of Nairobi's social enterprises are in their early and growth stages of operations. Geographically, these social enterprises are located near the city's central business district (CBD), within areas such as Westlands, Karen, Kilimani, Ngong Road, Ruaraka, and Embakasi.

5.3 Discussion of the findings

The following section presents the findings of each hypothesis tested in the study, which investigated the influence social entrepreneurs' metacognitive awareness has in the sustainability of social enterprises in Nairobi, Kenya.

5.3.1 Goal Orientation and Sustainability

HQI: Metacognitive dimension of goal orientation positively influences the sustainability of social enterprises in Nairobi.

The findings of this study indicate that goal orientation is not a significant predictor of sustainability in social enterprises in Nairobi. These results are contradictory, given that social entrepreneurs are typically driven by their motivation to balance their social enterprises' social and financial goals (Dees, 1998). These objectives are influenced by their actions and decisions (De Winnaar & Scholtz, 2019). This disparity suggests a potential low level of utilization of the goal orientation dimension amongst social entrepreneurs in Nairobi, Kenya. It is important to note that an entrepreneur's level of metacognitive awareness can influence their access to this resource as well their decision making (J. M. Haynie et al., 2010).

5.3.2 Metacognitive Knowledge and Sustainability

HQ2: Metacognitive dimension of knowledge positively influences the sustainability of social enterprises in Nairobi.

According to the findings of this study, social entrepreneurs' metacognitive knowledge has no significant influence on the sustainability of their social enterprises. This finding contradicts previous research that emphasizes the importance of metacognitive knowledge in enabling entrepreneurs to adapt to complex business environments (Haynie & Shepherd, 2009) and improve enterprise performance (Cho & Jung, 2014). However, the findings of this study suggest that social entrepreneurs in Nairobi, Kenya may not be effectively utilizing metacognitive knowledge when making critical decisions in their ventures.

5.3.3 Metacognitive Experience and Sustainability

HQ3: Metacognitive dimension of experience positively influences the sustainability of social enterprises in Nairobi.

The findings of this study suggest that, social entrepreneurs' metacognitive experiences have a positive influence on the sustainability their social enterprises. Social entrepreneurs driven by intrinsic motivations, rely on their unique experiences, emotions and intuitions to enable them make effective decisions within their social enterprises (Haynie & Shepherd, 2009). Their metacognitive experiences enable them interpret their social world (Earley & Ang, 2003). Additionally, their ability to understand their feelings towards the social causes they tackle, fuels their creativity and enables them generate new ideas (Schaefer et al., 2022). Social entrepreneurs' metacognitive abilities help them navigate difficulties they face within their businesses (Schaefer et al., 2022). This study also indicates that social entrepreneurs have a high inclination to utilize their metacognitive experiences when making decisions, further highlighting that their metacognitive experiences predict the sustainability of their social enterprises.

5.3.4 Metacognitive Choice and Sustainability

HQ4: Metacognitive dimension of choice positively influences the sustainability of social enterprises in Nairobi.

The findings of this study indicate that social entrepreneurs' metacognitive choice does not predict the sustainability social ventures in Kenya. The relationship between metacognitive choice and sustainability was deemed statistically insignificant. Metacognitive choice is associated with enabling entrepreneurs select the most suitable decision framework and adapt to the business environment (Haynie et al., 2010). However, in this study, the findings reveal that the sustainability of social enterprises is not influenced by this dimension. These findings suggest that social entrepreneurs are less likely to utilize their metacognitive choice when making decisions within their ventures. The findings of this study are consistent with a previous study by Urban (2012), which also found that metacognitive choice does not predict entrepreneurial intentions.

5.3.5 Metacognitive Monitoring and Sustainability

HQ5: Metacognitive monitoring dimension positively influences the sustainability of social enterprises in Nairobi.

According to Guterman (2002), metacognitive thinking entails individuals thinking aloud, planning, and engaging in self-reflection. In the context of entrepreneurship, social entrepreneurs use metacognitive monitoring to reflect on their strategies and understand why certain approaches are preferred over others (De Winnaar & Scholtz, 2019). However, the findings of this study indicate that social entrepreneurs' metacognitive monitoring does not have a significant influence on the sustainability of their social enterprises in Nairobi, Kenya. Furthermore, the findings indicate that social entrepreneurs are less likely to use this dimension when making business decisions.

5.4 Conclusion

Social entrepreneurs' metacognitive awareness makes a difference in the sustainability of their social enterprises (SEs). This study sought to unravel the role of social entrepreneurs' metacognitive awareness in the sustainability of their social enterprises in Nairobi, Kenya. The findings of this study established that social entrepreneurs' metacognitive experience has a positive influence on the sustainability of their social ventures. However, goal orientation, metacognitive knowledge, metacognitive choice and monitoring were not found to be significant predictors of sustainability in social enterprises.

This study's findings support the notion that social entrepreneurs are motivated by intrinsic motivations. Moreover, the study discovered that social entrepreneurs heavily rely on their abilities, emotions, unique experiences and intuition (known as metacognitive experience) when making business decisions. These findings are consistent with previous research, which suggests that social entrepreneurs' perceptions of their feelings, values, and beliefs have a significant impact on their decisions (Schaefer et al., 2022). Furthermore, it is known that factors such as proximity to a problem and previous experiences influence social entrepreneurial intentions (Wanyoike & Maseno, 2021). Additionally, social entrepreneurs'

intuition is critical in detecting nuances, developing creative ideas thus facilitating social change (Schaefer et al., 2022).

Running a social enterprise entail navigating a variety of challenges and making informed decisions within an entrepreneurial environment (De Winnaar & Scholtz, 2019). The role of social entrepreneurs in the operation and management of social enterprises is critical. Their metacognitive experience improves their ability to function effectively in dynamic business environment (Earley & Ang, 2003). Furthermore, their decision-making abilities have a significant impact on their ability to achieve economic, financial, and social objectives (Bagnoli & Megali, 2011). The findings of this study support the notion that, social entrepreneur's metacognitive experiences influence their ability to achieve these objectives within their social enterprises. Given the conflicting nature of their social mission and financial objectives (Hahn & Knight, 2021), social entrepreneurs must use this metacognitive resource to approach these goals with an innovatively (Ciambotti & Pedrini, 2021).

The findings of this study also establishes that goal orientation, metacognitive knowledge, metacognitive choice and monitoring are not significant predictors of sustainability of social enterprises in Nairobi. These findings suggest that social entrepreneurs in Nairobi could have low levels of metacognitive awareness. Supporting the claim made by De Winnaar and Scholtz (2019) that higher levels of metacognitive awareness enable entrepreneurs to effectively access and utilize metacognitive resources such as goal orientation, metacognitive knowledge, metacognitive choice, and monitoring. However, this study also identifies a gap in literature, regarding the role of metacognitive awareness in social entrepreneurship and its impact on the sustainability of social ventures. As a result, the study serves as a foundation for future research aimed at advancing the investigation on the level of metacognitive awareness among Kenyan social entrepreneurs.

5.5 Contribution and Recommendation

This study makes an important contribution to the field of social entrepreneurship by investigating the role of social entrepreneurs' metacognitive awareness in the long-term success of their ventures. It advances theoretical understanding of social entrepreneurship by shedding light on the relationship between metacognitive awareness and sustainability in the context of social enterprises. Social entrepreneurs face complex challenges that necessitate novel

problem-solving approaches (Ciambotti & Pedrini, 2021) and their ability to address these challenges has a direct effect on the impact they create (He et al., 2022). This study provides a new perspective and expands the theoretical understanding of metacognitive awareness in the field of social entrepreneurship by investigating the link between social entrepreneurs' metacognitive awareness and the sustainability of their ventures. Furthermore, it sheds light on how social entrepreneurs adapt to changing environments, broadening our understanding of their decision making practices.

The study's focus on Nairobi and Kenya fills a significant data gap in its social entrepreneurship landscape, particularly in the African context (Siemens Stiftung, 2020). The study contributes to a better understanding of the unique characteristics and dynamics of social entrepreneurship in developing countries through examining social entrepreneurs and social enterprises in this specific context. This is critical for contextualizing entrepreneurship frameworks and theories in order to better support social entrepreneurs in these regions (Schaefer et al., 2022). The study's findings provide valuable insights into the nature of social entrepreneurship in Kenya and contribute to the overall knowledge and understanding of the country's growing social entrepreneurship landscape.

The involvement of business service providers, investors, government, and policymakers is critical in supporting social enterprises (Ciambotti et al., 2023). The findings of this study have practical implications for these stakeholders, deepening their understanding of the support required by social entrepreneurs. One significant finding of this study is the low level of metacognitive awareness among Kenyan social entrepreneurs. Metacognition is a conscious and iterative process that can be improved through education and training (Haynie et al., 2010). As a result, this finding highlights the importance of stakeholders working together to raise social entrepreneurs' metacognitive awareness. It also emphasizes the importance of tailoring training and support to the specific needs of Kenyan social entrepreneurs. Furthermore, this finding stresses the importance of diversifying the nature of support provided to social entrepreneurs, moving away from providing only external support such as access to funding and towards including more social entrepreneur focused support.

The application of the entrepreneurs' metacognitive model in the field of entrepreneurship is well-established, but the findings of this study suggest that its applicability may vary depending on the specific context and form of entrepreneurship, such as social entrepreneurship. As a

result, it is suggested that the theoretical framework be expanded and adapted to accommodate the unique contexts in which social enterprises operate. This emphasizes the importance of considering the specific characteristics and dynamics of social entrepreneurship when applying existing theoretical frameworks and encourages researchers and practitioners to explore and develop theories that are more aligned with the context of social enterprises.

5.6 Limitations and future research

The study's sample size of 83 participants may limit the findings' generalizability to a larger population of social entrepreneurs. Future research should consider using a larger sample size to improve external validity and generalizability of findings on social entrepreneurs' metacognitive awareness. Furthermore, the use of an online questionnaire in this study may have limited the number and diversity of respondents reached within the timeframe. To overcome this limitation, researchers could use other data collection methods, such as interviews or focus groups, to gather more in-depth and diverse insights from social entrepreneurs.

The application of metacognition in the field of social entrepreneurship, particularly in the African context, is still in its early stages, with few studies investigating the role of social entrepreneurs' cognitions in creating innovative ventures (Schaefer et al., 2022). To fill this research gap, future studies should delve deeper into understanding the role of social entrepreneurs' metacognitive awareness throughout the social entrepreneurial process. It would be interesting to investigate how social entrepreneurs' metacognitive awareness influences their decision-making, problem-solving and adaptation to the challenges they face.

Given the nature of the constructs involved (metacognitive dimensions), future research could benefit from a qualitative approach to gain a more nuanced understanding of the metacognitive awareness phenomenon in social entrepreneurs. Researchers would be able to investigate the subjective experiences, perceptions and strategies used by social entrepreneurs in utilizing their metacognitive abilities using qualitative methods such as interviews or case studies. This qualitative approach can provide rich and detailed insights into social entrepreneurs' metacognitive processes and decision-making strategies in real-life situations.

REFERENCES

Bagnoli, L., & Megali, C. (2011). Measuring Performance in Social Enterprises. *Nonprofit and voluntary sector quarterly*, *40*(1), 149-165. doi:10.1177/0899764009351111

Barbosa, S. D., Kickul, J., & Smith, B. R. (2008). The road less intended: Integrating entrepreneurial cognition and risk in entrepreneurship education. *Journal of Enterprising Culture*, *16*(04), 411-439.

Baron, R. A. (2004). The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions. *Journal of business venturing*, *19*(2), 221-239.

Bell, E., Harley, B., & Bryman, A. (2022). *Business research methods*: Oxford university press.

Cho, Y. S., & Jung, J. Y. (2014). The Relationship Between Metacognition, Entrepreneurial Orientation, and Firm Performance: An Empirical Investigation. *Academy of Entrepreneurship Journal*, *20*(2), 71-86. Retrieved from https://www.proquest.com/scholarly-journals/relationship-between-metacognition/docview/1645727115/se-2?accountid=15083

Ciambotti, G., & Pedrini, M. (2021). Hybrid Harvesting Strategies to Overcome Resource Constraints: Evidence from Social Enterprises in Kenya. *Journal of business ethics*, *168*(3), 631-650. doi:10.1007/s10551-019-04256-y

Ciambotti, G., Pedrini, M., Doherty, B., & Molteni, M. (2023). Unpacking social impact scaling strategies: challenges and responses in African social enterprises as differentiated hybrid organizations. *International Journal of Entrepreneurial Behavior & Research*, *29*(11), 25-57.

de Boer, J., & Aiking, H. (2023). Pro-environmental food practices in EU countries strongly suggest mutually reinforcing improvements in gender equality and environmental sustainability. *Appetite*, *180*, 106350.

De Winnaar, K., & Scholtz, F. (2019). Entrepreneurial decision-making: new conceptual perspectives. *Management Decision*.

Dees, J. G. (1998). The meaning of social entrepreneurship. In: Kauffman Center for Entrepreneurial Leadership.

Dees, J. G. (2012). A tale of two cultures: Charity, problem solving, and the future of social entrepreneurship. *Journal of business ethics*, *111*(3), 321-334.

Desiana, P. M., Ma'arif, M. S., Puspitawati, H., Rachmawati, R., Prijadi, R., & Najib, M. (2022). Strategy for Sustainability of Social Enterprise in Indonesia: A Structural Equation Modeling Approach. *Sustainability, 14*(3), 1383.

Doherty, B., Haugh, H., & Lyon, F. (2014). Social enterprises as hybrid organizations: A review and research agenda. *International journal of management reviews, 16*(4), 417-436.

Earley, P. C., & Ang, S. (2003). Cultural intelligence: Individual interactions across cultures.

Field, A. (2017). *Discovering Statistics Using Ibm Spss Statistics+ Webassign*: Sage Publications.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *American psychologist, 34*(10), 906.

Galawe, N. J. (2017). *Endogenous and exogenous risk factors in the success of South African small medium enterprises.* University of the Witwatersrand, Faculty of Commerce, Law and Management …,

Germak, A. J., & Robinson, J. A. (2014). Exploring the Motivation of Nascent Social Entrepreneurs. *Journal of Social Entrepreneurship, 5*(1), 5-21. doi:10.1080/19420676.2013.820781

Gimmon, E., & Spiro, S. (2013). Social and Commercial Ventures: A Comparative Analysis of Sustainability. *Journal of Social Entrepreneurship, 4*(2), 182-197. doi:10.1080/19420676.2013.777359

Goodland, R. (1995). The concept of environmental sustainability. *Annual review of ecology and systematics*, 1-24.

Guterman, E. (2002). Toward dynamic assessment of reading: Applying metacognitive awareness guidance to reading assessment tasks. *Journal of Research in reading, 25*(3), 283-298.

Hahn, T., & Knight, E. (2021). The ontology of organizational paradox: A quantum approach. *Academy of management review, 46*(2), 362-384.

Haynie, J. M., Shepherd, D., Mosakowski, E., & Earley, P. C. (2010). A situated metacognitive model of the entrepreneurial mindset. *Journal of business venturing, 25*(2), 217-229.

Haynie, M., & Shepherd, D. A. (2009). A measure of adaptive cognition for entrepreneurship research. *Entrepreneurship Theory and Practice, 33*(3), 695-714.

He, T., Liu, M. J., Phang, C. W., & Luo, J. (2022). Toward social enterprise sustainability: The role of digital hybridity. *Technological Forecasting and Social Change, 175*, 121360.

Javed, A., Yasir, M., & Majid, A. (2019). Is social entrepreneurship a panacea for sustainable enterprise development? *Pakistan Journal of Commerce and Social Sciences (PJCSS), 13*(1), 1-29.

Jost, J. T., Kruglanski, A. W., & Nelson, T. O. (1998). Social metacognition: An expansionist review. *Personality and Social Psychology Review, 2*(2), 137-154.

Kamaludin, M. F., Xavier, J. A., & Amin, M. (2021). Social Entrepreneurship and Sustainability: A Conceptual Framework. *Journal of Social Entrepreneurship*, 1-24. doi:10.1080/19420676.2021.1900339

Khorsan, R., & Crawford, C. (2014). External validity and model validity: a conceptual approach for systematic review methodology. *Evidence-Based Complementary and Alternative Medicine, 2014*.

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited. *The Sage handbook of qualitative research, 4*(2), 97-128.

Lumpkin, G. T., Moss, T. W., Gras, D. M., Kato, S., & Amezcua, A. S. (2013). Entrepreneurial processes in social contexts: how are they different, if at all? *Small Business Economics, 40*(3), 761-783. doi:10.1007/s11187-011-9399-3

Martin, R. L., & Osberg, S. (2007). Social entrepreneurship: The case for definition. In: Stanford social innovation review Stanford.

Mitchell, R. K., Busenitz, L., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2002). Toward a theory of entrepreneurial cognition: Rethinking the people side of entrepreneurship research. *Entrepreneurship Theory and Practice, 27*(2), 93-104.

Monteiro, A. A., Sánchez-García, J. C., Hernández-Sánchez, B. R., & Cardella, G. M. (2022). Social Entrepreneurship Conceptual Approaches. *Encyclopedia, 2*(2), 1004-1018.

Naranjo-Valencia, J. C., Ocampo-Wilches, A. C., & Trujillo-Henao, L. F. (2022). From Social Entrepreneurship to Social Innovation: The Role of Social Capital. Study Case in Colombian Rural Communities Victim of Armed Conflict. *Journal of Social Entrepreneurship, 13*(2), 244-277. doi:10.1080/19420676.2020.1770317

Nelson, T. O. (1996). Consciousness and metacognition. *American psychologist, 51*(2), 102.

Nwauche, S., & Claeyé, F. (2022). Institutional Voids: An Impediment to Social Enterprises in the Achievement of the Sustainable Development Goals in South Africa. *Journal of Social Entrepreneurship*, 1-23. doi:10.1080/19420676.2022.2117729

Petison, P., & Kantabutra, S. (2023). A Quest for a Sustainable Social Enterprise Model: The Case of Amphawa Chaipattananurak, the Kingdom of Thailand. *Sustainability, 15*(1), 326.

Randolph-Seng, B., Mitchell, R. K., Vahidnia, H., Mitchell, J. R., Chen, S., & Statzer, J. (2015). The microfoundations of entrepreneurial cognition research: toward an integrative approach. *Foundations and Trends® in Entrepreneurship, 11*(4), 207-335.

Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences, 4*(2), 155-169.

Schaefer, K., Corner, P. D., & Kearins, K. (2022). How Social Entrepreneurs' Metacognition Shapes Socioeconomic Change Toward Sustainability-as-Flourishing. In *World Scientific Encyclopedia Of Business Sustainability, Ethics And Entrepreneurship* (pp. 225-254): World Scientific.

Schraw, G., & Dennison, R. S. (1994). Assessing metacognitive awareness. *Contemporary educational psychology, 19*(4), 460-475.

Schumpeter, J. A., & Nichol, A. J. (1934). Robinson's economics of imperfect competition. *Journal of political economy, 42*(2), 249-259.

Selvamuthu, D., & Das, D. (2018). *Introduction to statistical methods, design of experiments and statistical quality control*: Springer.

Story, D. A., & Tait, A. R. (2019). Survey research. *Anesthesiology, 130*(2), 192-202.

Szyjka, S. (2012). Understanding research paradigms: Trends in science education research. *Problems of Education in the 21st Century, 43*(1), 110-118.

Tonidandel, S., King, E. B., & Cortina, J. M. (2018). Big data methods: Leveraging modern data analytic techniques to build organizational science. *Organizational research methods, 21*(3), 525-547.

Urban, B. (2012). A metacognitive approach to explaining entrepreneurial intentions. *Management Dynamics: Journal of the Southern African Institute for Management Scientists, 21*(2), 16-33.

Urban, B. (2015). Evaluation of social enterprise outcomes and self-efficacy. *International journal of social economics, 42*(2), 163-178. doi:10.1108/IJSE-03-2013-0071

Vallance, S., Perkins, H. C., & Dixon, J. E. (2011). What is social sustainability? A clarification of concepts. *Geoforum, 42*(3), 342-348. doi:https://doi.org/10.1016/j.geoforum.2011.01.002

Venter, R., Urban, B., Beder, L., Oosthuizen, C., Reddy, C., & Venter, E. (2015). *Entrepreneurship: theory in practice*: Oxford University Press Southern Africa.

Vogt, W. P. (2008). The dictatorship of the problem: Choosing research methods. *Methodological Innovations Online, 3*(1), 1-17.

Wanyoike, C. N., & Maseno, M. (2021). Exploring the motivation of social entrepreneurs in creating successful social enterprises in East Africa. *New England Journal of Entrepreneurship*.

York, J. G., O'Neil, I., & Sarasvathy, S. D. (2016). Exploring Environmental Entrepreneurship: Identity Coupling, Venture Goals, and Stakeholder Incentives. *Journal of management studies, 53*(5), 695-737. doi:10.1111/joms.12198

Young, W., & Tilley, F. (2006). Can businesses move beyond efficiency? The shift toward effectiveness and equity in the corporate sustainability debate. *Business Strategy and the Environment, 15*(6), 402-415.

APPENDIX A: CONSISTENCY MATRIX

Table 6.8: Consistency Matrix

		Main Objective; To investigate the level of influence social entrepreneurs' metacognitive awareness has on the sustainability of social enterprises' in Nairobi, Kenya.					
Objectives	**Literature review**	**Research questions**	**Hypotheses**	**Variables**	**Source of data**	**Type of data**	**Analysis**
To investigate the level of influence an entrepreneurs' metacognitive dimension-goal orientation has on the sustainability of social enterprises in Nairobi.	Haynie & Shepherd (2009) Haynie et al., 2010 Urban, (2012)	To what extent does metacognitive dimension-goal orientation influence the sustainability of social enterprises in Kenya.	Metacognitive dimension of goal orientation positively influences the sustainability of social enterprises in Nairobi.	**IV1**-Goal orientation **DV**-Sustainability	Questionnaire (Q5 – Q9)	Ordinal data (5-point Likert scale) & Dasix-point scale	Descriptive, correlation and multiple regression analysis
To investigate the level of influence an entrepreneurs' metacognitive knowledge has on the	Haynie & Shepherd (2009)	To what extent does metacognitive knowledge influence the sustainability of social	Metacognitive dimension of knowledge positively influences the sustainability of social	**IV1**-Metacognitive Knowledge	Questionnaire (Q10 – Q20)	Ordinal data (5-point Likert scale) &	Descriptive, correlation and multiple regression analysis

sustainability of social enterprises in Nairobi.	J.M. Haynie et al., 2010 Urban, (2012)	enterprises in Nairobi.	enterprises in Nairobi.	**DV**- Sustainability		Dasix-point scale	
To investigate the level of influence an entrepreneurs' metacognitive experience has on the sustainability of social enterprises in Nairobi.	M. Haynie & Shepherd (2009) J.M. Haynie et al., 2010 Urban, (2012)	What influence does metacognitive experience have on the sustainability of social enterprises in Nairobi.	Metacognitive dimension of experience positively influences the sustainability of social enterprises in Nairobi	**IV1**- Metacognitive experience **DV**- Sustainability	Questionnaire (Q21 – Q28)	Ordinal data	Descriptive, correlation and multiple regression analysis
To investigate the level of influence an entrepreneurs' metacognitive choice has on the sustainability of social	M. Haynie & Shepherd (2009) J.M. Haynie et al., 2010	To what extent does metacognitive choice influence the sustainability of social enterprises in Nairobi.	Metacognitive dimension of choice positively influences the sustainability of social enterprises in Nairobi.	**IV1**- Metacognitive choice **DV**- Sustainability	Questionnaire (Q29 – Q33)	Ordinal data (5-point Likert scale) &	Descriptive, correlation and multiple regression analysis

enterprises in Nairobi.	Urban, (2012)					Dasix-point scale	
To investigate the level of influence an entrepreneurs' metacognitive monitoring has on the sustainability of social enterprises in Nairobi.	M. Haynie & Shepherd (2009) J.M. Haynie et al., 2010 Urban, (2012)	To what extent does metacognitive monitoring influence the sustainability of social enterprises in Nairobi.	Metacognitive monitoring dimension positively influences the sustainability of social enterprises in Nairobi.	**IV1**-Monitoring **DV**-Sustainability	Questionnaire (Q34 – Q41)	Ordinal data (5-point Likert scale) & Dasix-point scale	Descriptive, correlation and multiple regression analysis

APPENDIX B: RESEARCH INSTRUMENT

Table 6.9: Research Instrument

Sustainability						
Question: Thinking of yourself, how true or untrue it is that you:	Strongly Agree	Somewhat disagree	Slightly untrue	Neutral	Somewhat agree	Strongly agree
1. Initiative self-generates most of its funds, or outside funding is fairly reliable	1	2	3	4	5	6
2. The initiative has entered several partnerships with businesses or has a few important ones	1	2	3	4	5	6
3. The organization is firmly in place.	1	2	3	4	5	6

The initiative can stand without the support of the founder						
4. Our business has been experiencing growth	1	2	3	4	5	6
5. Our business has progressively been making a greater impact	1	2	3	4	5	6
6. Our business is able to financially sustain itself	1	2	3	4	5	6
7. Our business has been able to meet most of its set goals and objectives.	1	2	3	4	5	6
8. Our business has been able to increase in market value	1	2	3	4	5	6

Generalized measure of adaptive cognition						
Question: Thinking of yourself, how likely or unlikely it is that you:	Not very much like me	Not like me	Slightly unlike me	Slightly like me	Much like me	Very much like me
Goal orientation						
5. I often define goals for myself	1	2	3	4	5	6
6. I understand how accomplishment of a task relate	1	2	3	4	5	6

s to my goals.						
7. I set specific goals before I begin a task	1	2	3	4	5	6
8. I ask myself how well I've accomplished my goals once I've finished	1	2	3	4	5	6
9 When performing a task, I frequently assess my progress against my	1	2	3	4	5	6

objectives						
Metacognitive knowledge						
10. I think of several ways to solve a problem and choose the best one	1	2	3	4	5	6
11. I challenge my own	1	2	3	4	5	6

assum ptions about a task before I begin							
12. I think about how others may react to my actions	1		2	3	4	5	6
13. I find myself automatically employing strategies that have worked in the past	1		2	3	4	5	6
14. I perform best when I already have knowledge of the task	1		2	3	4	5	6
15. I create my own examples to make informatio n more meaningf ul	1		2	3	4	5	6

16. I try to use strategies that have worked in the past	1	2	3	4	5	6
17. I ask myself questions about the task before I begin	1	2	3	4	5	6
18. I try to translate new information into my own words	1	2	3	4	5	6
19. I try to break problems down into smaller components	1	2	3	4	5	6
20. I focus on the meaning and significance of new information	1	2	3	4	5	6
Metacognitive experience						
21. I think about what I really need to accomplish before I begin a task	1	2	3	4	5	6

22. I use different strategies depending on the situation	1	2	3	4	5	6
23. I organize my time to best accomplish my goals	1	2	3	4	5	6
24. I am good at organizing information	1	2	3	4	5	6

ANNEXURE A: INSTRUMENT (Cont.)

Generalized measure of adaptive cognition cont.						
	Not very much like me	Not like me	Slightly unlike me	Slightly like me	Much like me	Very much like me

Metacognitive experience cont.						
25. I know what kind of information is most important to consider when faced with a problem	1	2	3	4	5	6
26. I consciously focus my attention on important information	1	2	3	4	5	6
27. My "gut" tells me when a given strategy I use will be most effective	1	2	3	4	5	6
28. I depend on my intuition to help me formulate strategies	1	2	3	4	5	6
Metacognitive choice						

29. I ask myself if I have considered all the options when solving a problem	1	2	3	4	5	6
30. I ask myself if there was an easier way to do things after I finish a task	1	2	3	4	5	6
31. I ask myself if I have considered all the options after I solve a problem	1	2	3	4	5	6
32. I re-evaluate my assumptions when I get confused	1	2	3	4	5	6
33 I ask myself if I have learned as much as I could	1	2	3	4	5	6

have when I finished the task						
Monitoring						
34. I periodically review to help me understand important relationships	1	2	3	4	5	6
35. I stop and go back over information that is not clear	1	2	3	4	5	6
36. I am aware of what strategies I use when engaged in a given task	1	2	3	4	5	6
37. I find myself analyzing the usefulness of a given strategy	1	2	3	4	5	6

while engaged in a given task						
37. I find myself pausing regularly to check my comprehension of the problem or situation at hand	1	2	3	4	5	6
40. I ask myself questions about how well I am doing while I am performin g a novel task	1	2	3	4	5	6
41. I stop and reread when I get confused	1	2	3	4	5	6

APPENDIX C: ETHICS CLEARANCE CERTIFICATE

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/EN2632268/843
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

Project title	The role of social entrepreneurs' metacognitive awareness on the sustainability of social enterprises in Nairobi, Kenya.
Investigator / Researcher	Ms Susan Maina
Nature of Project	MM in Entrepr & New Venture Creation
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed confidentialty.
Issue Date of Certificate	2022-10-10
Expiry date	Date of submission of the project / research report
Chairperson	Prof Anthony Stacey ☎ +27 11 717 3587 +27 82 880 4531 anthony.stacey@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

14.10.2022
Date:

APPENDIX D: ADDITIONAL RESULTS

Table 7.0: Extreme Values

Extreme Values				
			Case Number	Value
GOALORIENTATION	Highest	1	4	6.00
		2	7	6.00
		3	10	6.00
		4	11	6.00
		5	18	6.00[a]
	Lowest	1	45	1.00
		2	26	2.33
		3	52	3.33
		4	70	3.67
		5	64	3.67[b]
METACOGNKNOWLEDGE	Highest	1	3	6.00
		2	5	6.00
		3	7	6.00
		4	8	6.00
		5	16	6.00[a]
	Lowest	1	45	1.00
		2	39	1.67
		3	2	2.00
		4	77	3.00
		5	53	3.00
METACOGNEXPERIENCE	Highest	1	7	6.00
		2	10	6.00
		3	11	6.00

		4	18	6.00
		5	25	6.00[a]
	Lowest	1	45	1.00
		2	74	1.67
		3	63	3.00
		4	77	3.67
		5	23	3.67[b]
METACOGNCHOICE	Highest	1	10	6.00
		2	11	6.00
		3	12	6.00
		4	18	6.00
		5	23	6.00[a]
	Lowest	1	45	1.00
		2	53	2.67
		3	16	3.67
		4	77	3.84
		5	9	4.00
METACOGNMONITORING	Highest	1	25	6.00
		2	28	6.00
		3	32	6.00
		4	37	6.00
		5	43	6.00[a]
	Lowest	1	45	1.00
		2	46	3.00
		3	77	3.33
		4	72	3.33
		5	48	3.33

a. Only a partial list of cases with the value 6,00 are shown in the table of upper extremes.

b. Only a partial list of cases with the value 3,67 are shown in the table of lower extremes.

Table 7.1: Descriptive Statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
SUSTAINABILITY	3.4630	.87407	83
GOALORIENTATION	5.0728	.79651	83
METACOGNKNOWLEDGE	5.0483	.91117	83
METACOGNEXPERIENCE	5.0199	.67461	83
METACOGNCHOICE	5.2608	.58546	83
METACOGNMONITORING	4.9552	.75113	83

Figure 4.8: Histogram

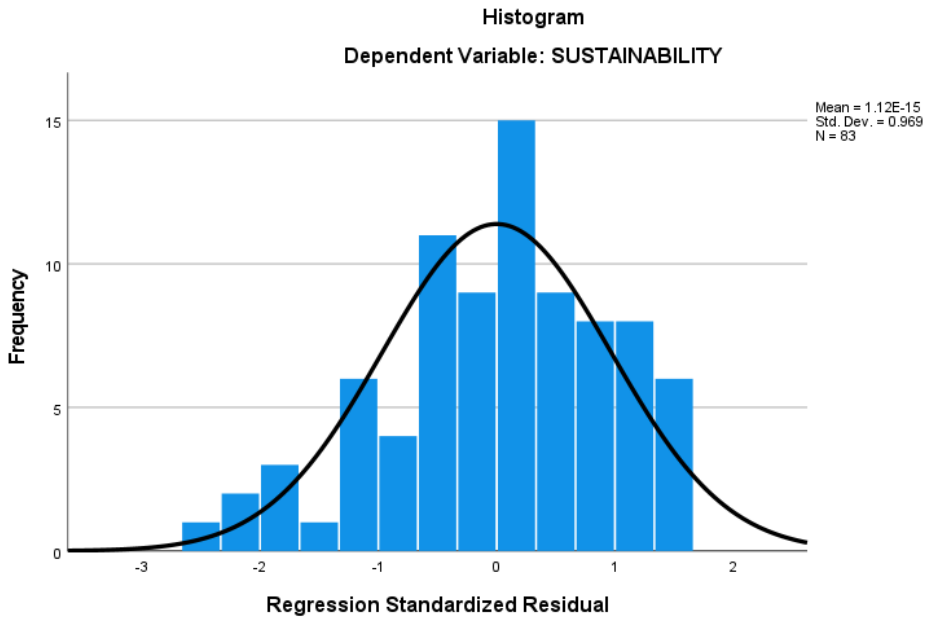


Figure 4.9: Normal P-P Plot

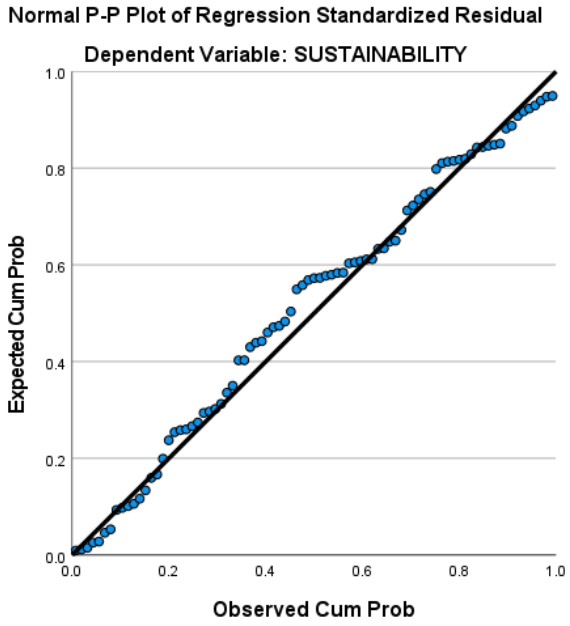


Figure 5.0: Scatterplot