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Konneh, Ismail I.

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The impact of entrepreneurship education and government support on SME performance in Montserrado County, Liberia

Student name:
Ismail I. Konneh

Student number:
2922343
2922343@students.wits.ac.za
+27(0)794575217

Supervisor:
Prof. Boris Urban

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KEYWORDS
Entrepreneurship, entrepreneurship education, government financial and non-financial support, external business environment, entrepreneurial alertness, SMEs, performance

ABSTRACT

Small and medium-sized enterprises (SMEs) are vital in driving employment, creating jobs, and overall growth of many economies worldwide. In Liberia, they account for nearly 80% of economic activities. However, their growth and sustainability face major challenges such as a competitive, resource-constrained business setting, and limited entrepreneurial knowledge among owners, leading to failure rates of 80–90% within the first year of operation. This study, considering these challenges, investigated the impact of entrepreneurship education (EE) and government support (GS) on SME performance (SMEP) in Montserrado County, Liberia. The conducive external business environment (CEBE) and Entrepreneurial alertness (EA) were examined as the moderating and mediating variables, respectively, in the relationship between EE and SMEP. A quantitative, descriptive cross-sectional design was used to gather primary data through structured surveys from 371 SME owners who had received EE or related trainings and GS. The data were analyzed using the IBM SPSS, employing descriptive statistics, exploratory factor analysis (EFA), correlation, regression, and structural equation modelling (SEM) to assess the relationships among variables and validate the study's hypotheses.

Findings revealed that EE significantly enhances SMEP, highlighting its crucial role in developing entrepreneurial capacity. However, neither a CEBE nor EA significantly moderated or mediated the EE and SMEP relationship. Also, both GS, government financial support (GFS) and government non-financial support (GNS) impacts were surprisingly found negative on SMEP. This points to weaknesses in policy implementation and support program design, emphasizing the urgent need for targeted reforms to promote the accessibility, relevance, and quality of GS, coupled with a stronger entrepreneurial ecosystem. The study recommends that the government should strengthen sector-specific advisory services, enhance inter-agency coordination, and do continuous monitoring to foster inclusive economic growth and SME resilience in Liberia's challenging post-conflict context.

DECLARATION

I, **Ismail I. Konneh**, confirm that this study is the result of my original work conducted under the supervision of my appointed academic supervisor, **Professor Boris Urban.** All published or unpublished sources used have been properly acknowledged, cited and referenced in accordance with the academic integrity policies at the University of the Witwatersrand in Johannesburg. This report is submitted in partial fulfilment of the Master of Management degree in Entrepreneurship and New Venture Creation to the above-mentioned University. It represents my independent effort and contribution to the entrepreneurship research, particularly within Liberia's SMEs development context. I further confirm that this report has not (either in whole or in part) been hand in for any other qualification such as a diploma or a degree, at this or another higher learning institution. Where assistance was received in the design, data collection, or analysis, this has been explicitly acknowledged in the relevant sections of the report. I take full responsibility for any errors or omissions contained in this work.

Name: Ismail I. Konneh

Signature: 

Signed at: Braamfontein, Johannesburg, South Africa

On the: 13th of October 2025

DEDICATION

I dedicate this paper primarily to Allah (SWT), whose mercy and guidance have sustained me through every challenge; to myself, for my resilience despite the obstacles I have encountered in life; and to my family, friends, loved ones, who have continuously inspired and supported me throughout this journey.

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LIST OF ACRONYMS

Acronym	Full Meaning
CEBE	Conducive External Business Environment
DT	Discovery Theory
EA	Entrepreneurial Alertness
EAT	Entrepreneurial Alertness Theory
EE	Entrepreneurship Education
GS	Government Support
GFS	Government Financial Support
GNS	Government Non-Financial Support
HCT	Human Capital Theory
RBV	Resource-Based View
SMEs	Small and Medium-sized Enterprises
SMEP	Small and Medium-sized Enterprises Performance

CHAPTER 1: INTRODUCTION

1.1 Statement of purpose

This quantitative study investigated the impact of entrepreneurship education (EE) and government support (GFS) on SME performance (SMEP). It also assessed the mediating effect of entrepreneurial alertness (EA) and the moderating role of a conducive external business environment (CEBE) on the relationship between EE and SMEP in Montserrado County, Liberia.

1.2 Background of the study

SMEs are key players in driving economic expansion worldwide. In low-income nations, they contribute massively to employment generation and poverty reduction (Enaifoghe & Ramsuraj, 2023; World Bank, 2025). According to the World Bank Group (2025), approximately 90% of businesses globally are accounted as SMEs. They account for over 50% of employment worldwide, about 40% of GDP in emerging markets, and generate 7 out of 10 jobs (United Nations, 2025; World Bank, 2025). In developing economies, their impact is even more pronounced through local production, economic diversification, and income generation (Alaghbari, 2022; Fajarika et al., 2024). In Africa, SMEs contribute about 80% of jobs and represent 40% of the continent's GDP (International Finance Corporation [IFC], 2023). This indicates their essential function in economic sustainability.

In Liberia, SMEs are instrumental for the effective operation and growth of the private sector. They contribute almost 80% of total economic activities in Liberia (African Development Fund, 2023). However, despite their crucial role, many SMEs in Liberia, which Montserrado is not an exception, face significant challenges that affect their long-term sustainability, overall performance, and sometimes lead to failure (Denton, 2020). These challenges are attributed to factors like limited entrepreneurship education (Denton, 2020; Diallo et al., 2023; Somwarbi, 2024), which may limit entrepreneurs' abilities to implement full entrepreneurship (Fayemi & Madueke, 2023). Also, the lack of proper government support towards Liberian SMEs are one of the major factors hindering the promotion of entrepreneurship in Liberia (Denton, 2020; Diallo et al., 2023). While SMEs are crucial globally and in Africa, their potential in

Liberia is affected by specific challenges rooted in its unique historical and economic context.

1.2.1 Liberia unique contextual background

The unique context for selecting Liberia for this study is due to its historical background, economic compositions, cultural dynamics, and regulatory environment. Liberia is a coastal nation in West Africa, situated along the Atlantic Ocean (Mellish, 2016). It has over 5.7 million people as of April 2025 (Worldometer, 2025). Liberia was founded in 1822 with the purpose of returning freed black slaves from the Americas and proclaimed independence in 1847 (Dennis, 2006), making it the first independent state in Africa (Joslin, 2002). Like many sub-Saharan African countries, Liberia is rich in several natural resources such as iron ore, gold, diamond, timber, and rubber (AfDB, 2024; Custers & Matthysen, 2009). Despite these riches, the country's economy continues to struggle. It had a GDP per capita of only $653.33 in 2023 (Trading Economics, 2025), and a GNI of $710 in the same year (World Bank, 2023 as cited in Trading Economics, 2025). The country experienced a civil conflict between 1989 and 2003, hampering its economic activities (Ballah & Kumar, 2025).

Despite Liberia’s significant progress in areas such as infrastructural development and security over the years, the long-lasting civil war, the Ebola, and the Corona Virus crises effects are still visible on various aspects of its economy (Flomo et al., 2023; Nnoma, 1997; Robinson, 2024). These crises have had lasting effects on the nation’s development and stability, leading to high domestic and foreign debt burdens, economic instability, and a poor education system (IMF, 2024; Santos & Novelli, 2017; World Bank, 2020). Additionally, these challenges have created a poor business environment, forcing many people and their families to consider business as only a strategy for survival (African Development Bank, 2023; World Bank, 2018; World Bank, 2023).

1.2.2 Justification for selecting Montserrado county specifically

Montserrado County was selected specifically for this study because it is the most densely populated county in Liberia (City Population, 2022). It had an estimated population of approximately 1.5 million people as of 2022 (Liberia Institute of Statistics and Geo-Information Services [LISGIS], 2022). This represents about one-third of

Liberia's current total population out of over 5.7 million (Worldometer, 2025). Montserrado County, located in the northwestern region of Liberia is the smallest county among the 15 counties in Liberia in terms of land area. It covers approximately 1,909 square kilometres (Corvah et al., 2023; LISGIS, 2022). The county is also home to Monrovia, Liberia's capital, which significantly contributes to the nation's economy activity. Therefore, it is considered as the centre of financial and regulatory activity within the nation (International Monetary Fund, 2021; Liberia National Investment Commission, 2025).

Although specific data on SMEs population in Montserrado County is unavailable, it is reasonable to infer that its economy is significantly driven by SMEs (Kiawu, 2021), because it hosts major urban centres like Paynesville city, the Townships of Congo Town, Westpoint, Garwolon, Gardnersville, Bardnersville, New Georgia, Dixville, Johnsonville, Caldwell and the Borough of New Kru Town. These urban centres are hubs for economic activity (Cities Alliance, 2020; Somwarbi, 2024). Given the concentration of these areas within Montserrado, it is likely that the county has the highest concentration of SMEs in the country, where it contributes substantially to its landscape. Considering Montserrado county's high population density and role as the administrative and financial centre of Liberia (City Population, 2022), the county presents a unique setting for studying various factors influencing SME performance.

1.3 Research problem

Despite SMEs significant contribution in Liberia's economy, their sustainability, growth, and overall performance continue to be major challenges. SMEs constitute nearly 80% of Liberia's economic activities (African Development Fund, 2023). Yet, many face challenges in sustaining long-term success because of a competitive market and limited resources (Denton, 2020; Diallo et al., 2023; Mabel, 2025; Mellish, 2016; World Bank, 2019). Notably, approximately 80% of all Liberian businesses hire less than 20 people, while only 13% employ between 20 and 100 (Diallo et al., 2023).

One significant problem identified is the lack of proper EE (Diallo et al., 2023), which is a tool crucial for empowering people with the skills, mindset, and resources to implement full entrepreneurship and navigate modern economy complexities (Park, 2024). It also enhances individuals' capabilities in business management, financial

literacy, and innovation-driven strategies (African Development Fund, 2023; Deng & Wang, 2023; Diallo et al., 2023; Mellish, 2016; Unger et al., 2011). Research has shown that such education can also improve business performance like its profitability and growth because it fosters problem-solving abilities and strategic thinking (Adeniyi et al., 2023; Ayatse, 2024; Kanaan-Jebna, et al., 2022; Nabi et al., 2017). This kind of education is lacking in Liberia, leading to many small business owners relying heavily on informal knowledge and experience (Denton, 2020), which is contributing to the high failure rate among SMEs, with 80–90% failing within the first year (African Development Fund, 2023).

Government support (GS) is another crucial challenge hindering SME performance (Denton, 2020; Diallo et al., 2023). Liberia's SMEs face limited financial and infrastructural assistance, a situation coupled with the country's fragile economic environment due to post-war recovery, the Ebola, and the Corona Virus crises (World Bank, 2020). Weak policy implementation and a fragile financial sector further constrain access to affordable credit. In 2015, only 14% of businesses had access to bank loans (African Development Bank, 2015). Moreover, less than 10% of commercial banks provide credit to SMEs, typically at high interest rates, while structural inefficiencies (e.g., risky lending practices, weak contract enforcement, and the lack of a reliable credit reference system) exacerbate these challenges (Pratt, 2015). Although these statistics date from 2015, the lack of updated data suggests that these financial constraints remain unchanged and continue to characterize the SME financing environment in Liberia today.

While entrepreneurship literatures have widely discussed EE and GS impacts on entrepreneurial activities independently (Matekenya & Moyo, 2022; Sanhokwe, 2022), empirical evidence on these factors' contributions on SMEP remain a major gap. Moreover, there is limited understanding of how these factors operate within Liberia's unique socio-economic and institutional context, which further compounds this gap. Lastly, there are a few research on the moderating and the mediating impacts of CEBE and EA, respectively on the relationship between EE and SMEP, mainly in post-conflict, and low-income countries like Liberia. The study contributes to filling these gaps as it provides empirical insights into the way these factors impact SMEP. The findings add to academic literature and offer policymakers and stakeholders effective

strategies to support SMEs and foster the growth of Liberia's economy in a sustainable way.

1.4 Research objectives

This study's broader objective was to investigate the impacts of EE, GFS, and GNS on SMEP, while also examining CEBE as a moderating factor and EA as a mediating factor in the relationship between EE and SMEP in Montserrado County, Liberia. To fulfil this, the below sub-objectives were investigated:

1. To investigate the extent to which a conducive external business environment (CEBE) moderates the relationship between entrepreneurship education (EE) and SME performance (SMEP) in Montserrado County, Liberia.
2. To investigate the extent to which entrepreneurial alertness (EA) mediates the relationship between entrepreneurship education (EE) and SME performance (SMEP) in Montserrado County, Liberia.
3. To investigate the impact of government financial support (GFS) on SME performance (SMEP) in Montserrado County, Liberia.
4. To investigate the effect of government non-financial support (GNS) on SME performance (SMEP) in Montserrado County, Liberia.

1.5 Significance of the study

Entrepreneurship literatures have widely discussed the role of EE and GS on entrepreneurial activities (Nabi et al., 2017; Okręglicka, 2015; Rose et al., 2006; Sevilla-Bernardo et al., 2022; Takwi et al., 2020; Tian et al., 2022; Urban, 2010; Venter & Urban, 2015). However, research on how these factors impact business performance, mainly SMEs growth remains limited, presenting gaps in current literature. Also, the way these factors operate within the unique socio-economic and institutional contexts, and worse of it all, in Liberia's context remain limited, further compounding these gaps. Additionally, there is limited research on how a CEBE moderates, and how EA mediates the relationship between EE and SMEP. This research expands current discourse of entrepreneurship on the selected variables by examining how they interact to improve SME performance in Montserrado County, Liberia. In doing so, the study adds empirical depth and generates locally relevant insights for policymakers, entrepreneurs, and researchers.

1.5.1 Theoretical review

This study is grounded upon five theories, namely: ***Human Capital Theory (HCT)*** (Becker, 1964)***,*** specifically the typology in entrepreneurship process (Marvel et al., 2016), ***Resource-based View (RBV)*** (Barney, 1991)***, Institutional Theory*** (Scott, 2001)***, Entrepreneurial Alertness Theory (EAT)*** (Kirzner, 1973), and ***Discovery Theory (DT)*** (Kirzner, 1997). These theories provide a multidimensional lens through which the study's constructs were examined.

Becker (1964) HCT suggests that investments in education and training are crucial for productivity and innovation. In entrepreneurship, this theory was extended by Marvel et al. (2016), who argue that human capital also comprises experiential learning, motivation, and the formation of social networks. This enriched perspective informs the construct of EE, pointing out that its effectiveness is a function of both cognitive skill development and the cultivation of entrepreneurial attitudes that enhance the skill to detect and act on entrepreneurial opportunities.

Building on this, Barney (1991) RBV contributes a strategic framework to this study. RBV posits that competitive advantage of an organization's is derived from its distinct internal capabilities and resources (Barney, 1991). This theory also partially informs the study's EE construct, emphasizing that it enhances assets (e.g., skills, knowledge, and social capital) that are intangible. This study also argues that these intangible assets enhancements facilitate EA (opportunity recognition and exploitation), leading to improved firm performance. The position of RBV is that investments in EE offer many competencies which. When these competencies coupled with effective resource management, they enable SME owners to deploy their internal capabilities in response to dynamic market conditions (Edwards, 2014; Venter & Urban, 2015).

Institutional Theory Scott (2001) adds another dimension, pointing out the role of government agencies aids in shaping organizational legitimacy and success. It argues that regulatory, cognitive, and normative structures create a framework within which organizations operate (Scott, 2001). In this study, institutional theory informs the constructs of GFS and GNS, arguing that favourable policies, regulatory compliance, and supportive cultural norms are crucial for fostering an entrepreneurial ecosystem. This perspective indicates that both formal (e.g., grants, tax incentives) and informal (e.g., mentorship, networking opportunities) GS mechanisms help legitimize SMEs,

lower operational risks, and create conditions that encourage the exploitation of recognized opportunities (Bruton et al., 2010).

EAT and DT proposed by Kirzner (1973, 1997) describe individuals' ability to be sensitive and exploit business opportunities others may unsee. It emphasizes the cognitive capability to scan, interpret, and respond to market signals (Tang et al., 2012). This theory informs the study construct of EA where it frames it as a complex concept that involves in "scanning and searching, association and connection, and evaluation and judgment" (Tang et al., 2012). This study emphasizes Tang et al. (2012) assertion about EA, where an entrepreneur with high alertness has high chances of identifying viable opportunities, adapt to changes, and innovate effectively. Thus, EA is central to venture creation and making strategic decision in dynamic market environments. These frameworks collectively offer a strong foundation for understanding the multi-layered influences of the selected factors on SMEP within Montserrado county.

1.5.2 Empirical contributions

This study's findings have practical implications for business and policy making. The study empirical findings provide thorough insights into EE's impact on the significance of equipping SME owners with the necessary skills to alert opportunities that can enhance their business performance. It also offers empirical insights into how the external environment play a role in moderating the relationship between EE and SMEP. It also informs policymakers on the effectiveness of current GS programs and contribute to designing more targeted interventions to improve the business environment in Liberia. Most importantly, it offers recommendations to business development organizations, training institutions, and investors seeking to improve SME growth in Liberia. This study does not definitively claim to close existing gaps. Instead, it contributes to the ongoing discussion surrounding the selected variables influence on SME performance in developing countries. The study does not refine existing theories as well. It instead merges these theoretical foundations with the findings to inform policy decisions with the aim of enhancing business practices in Liberia while adding to global entrepreneurship literature.

1.5.3 Methodological contributions

Methodologically, the quantitative design improves the precision and replicability of the selected variables impact on SME performance in least-developed nations' context. It also allows the study to add to the field by using a structured survey questionnaire to gather firsthand data to allow objective measurement and statistical validation of relationships between key variables. The study goes beyond simple correlations and investigate causal pathways. Additionally, the study refines existing measurement scales to allow contextual relevance in Liberia's unique business environment.

1.6 Delimitation of the study

According to Miles (2019), a study's delimitation is imposed to restrict its focus through carefully considered parameters and boundaries. This study has several delimitations. Firstly, the study is geographically specific to Montserrado County, Liberia. This implies that its findings are limited to this specific context. However, insights generated from this research have broader implications on other developing countries with similar socio-economic and institutional contexts. Secondly, although customer satisfaction, innovation, and employee engagement are part of the broader factors for measuring SME performance, this study does not primarily or specifically investigate these factors. Thirdly, this study focuses solely on individuals who own or operate small businesses whether in the formal or informal sector in Montserrado county, Liberia. It did not include established businesses, for example, businesses with 250 employees or more were totally excluded from the study, as these are considered large enterprises (OECD, 2025). This implies that the study was only limited to businesses that had below 250 employees to capture an accurate dynamic of the SME environment. These delimitations were strictly adhered to for research accuracy.

1.6.1 Implications for researchers, practitioners, and policymakers

The study findings provide valuable insights for academics, practitioners, and decision-makers. For researchers, it provides a new theoretical extension of the five theoretical foundations the study is built on by applying them specifically to the study's constructs. It also suggests for studies in the future to explore the contributions of these factors on SMEP more thoroughly, and in post-conflict and developing countries contexts by providing empirical evidence from Liberia.

For practitioners, whose primary focus is SME development through training and capacity-building programs, this study offers practical insights that can guide in designing programs to address unique problems and opportunities faced by SMEs. The findings respectively discuss the EA, and CEBE significant mediating and moderating roles on EE and SMEP relationship. It also discusses financial and non-financial assistance impact from the government on SMEs long-term growth and overall performance in Montserrado county, Liberia.

For policymakers, the study offers evidence-based insights into the significance of broader economic development strategies. It demonstrates the potential of the factors investigated on SME performance to support in designing policies to promote SMEs operation through targeted interventions. The study also provides recommendations on strategies that can help enhance the business setting, facilitate resource access, and foster sustainable economic development in Liberia.

1.7 Definition of terms

- **Entrepreneurship** involves developing new goods, services, or organizational processes by discovering, evaluating, and exploiting opportunities (Shane & Venkataraman, 2000). Joseph Schumpeter's (1934) work indicates that entrepreneurship involves innovation, where entrepreneurs introduce novel ideas and solutions that disrupt existing markets. Additionally, entrepreneurship involves risk-taking and resource mobilization to capitalize on identified opportunities (Venter & Urban, 2015). This diverse concept offers the dynamic nature of entrepreneurship as it emphasizes the vitality of both entrepreneurial alertness and the implementation of innovative practices to achieve economic success.

- **Entrepreneurship education (EE)** comprises both formal and informal training programs structured to empower individuals with skills, knowledge, and mindsets essential for creating, managing, and expanding a business (Botha, 2006; Chiromo et al., 2023; Welsh et al., 2016). This educational approach includes crucial topics like financial literacy, business planning, and regulatory compliance, promoting entrepreneurial thinking and resilience in the face of challenges (Miço & Cungu, 2023; Nabil et al., 2017). EE enhances innovation

and creativity, encouraging learners to identify opportunities and develop practical solutions (Katjiteo, 2024; Liñán et al., 2010; Rideout & Gray, 2013). Based on these, EE is expected to equip individuals to succeed in handling the business landscape ramifications.

- **Government support (GS)** includes financial and non-financial support (Ogujiuba et., 2022). According to Peters and Naicker (2013), GS comprises various initiatives and programs implemented by governmental bodies with the aim of assisting SMEs in overcoming challenges related to financing, training, and market access to foster their growth and sustainability. These initiatives include grants for research and development (Basit et al., 2022; Testa et al., 2019). They also include skills training programs, and financial incentives tailored to enhance competitiveness (Cravo & Piza, 2016; ILO, 2017; Lee, 2016; OECD, 2013; Sibiya & Kele, 2019). Additionally, government support facilitates networking opportunities and mentorship programs that empower SMEs to navigate complex business environments effectively (Alkahtani et al., 2020; Ramasimu et al., 2023; SME South Africa, 2024). Such comprehensive assistance is vital for fostering innovation and economic development within the SME sector.

- **Entrepreneurial alertness (EA)** is defined as an individual's cognitive capacity to notice, process, and interpret information that may signal the presence of potential entrepreneurial opportunities that others fail to recognize (Kirzner, 1973; Tang et al., 2012). EA is conceptualized by Tang et al. (2012) as a multidimensional construct comprising the abilities to *scan and search* for relevant information, *associate and connect* seemingly unrelated cues, and *evaluate and judge* the feasibility of emerging possibilities. Within this framework, EA represents a foundational cognitive mechanism through which individuals discern and make sense of potential opportunities in uncertain or dynamic environments.

- **External business environment** is the collection of external macro-environmental factors and conditions influencing the operations, strategies, and performance of businesses (Akpoviroro & Owotutu, 2018). It comprises economic, political, legal, technological, socio-cultural, and competitive

dimensions that organizations interact with but cannot control directly (Akpoviroro & Owotutu, 2018; Kotler & Armstrong, 2018; Liphadzi & Phuriwa, 2024). The EBE shapes opportunities and threats by affecting resource availability, market dynamics, regulatory compliance, and innovation capacity (Dess & Beard, 1984). It is dynamic and complex, requiring businesses to analyse and adapt continuously to changes to maintain sustainable competitive advantage (Morgunova & Bolkina, 2021). The conduciveness and variability of the external business environment significantly impact venture creation and growth in entrepreneurship research, mediating the effectiveness of entrepreneurial inputs such as education and support (Jonathan et al., 2022; Scott, 2001). Thus, understanding the external business environment is vital for contextualizing SMEP in different socio-economic settings.

- **Business (SME) performance** is a multidimensional construct defined as the operational ability to satisfy stakeholders' desires while achieving organizational objectives (Smith & Reece, 1998). It functions as a subset of overall organizational effectiveness (Venkataraman & Ramanujam, 1986). It also consists of both financial metrics (profitability, ROI) and non-financial dimensions (customer satisfaction, innovation) (Sethibe & Steyn, 2016). Performance measurement enables organizations to monitor current operations against strategic goals (Nur & Zulkiffli, 2014).

  For SMEs specifically, performance reflects their ability to efficiently utilize resources while maintaining adaptability in competitive environments (Bach et al., 2019; Gruenbichler et al., 2021). Effective performance management represents a comprehensive approach to realizing efficient business processes that create sustainable value (Ayun & Prihartono, 2025; Faozen & Sandy, 2024). Business or SME performance in this context focuses on profitability, and growth.

- **Small and medium-sized enterprises (SMEs)** are defined by their restricted scale regarding workforce, annual income, and market presence (IFC, 2020). They are defined differently across countries and industries, typically including firms with fewer than 250 employees and limited revenue or asset bases (International Labour Organization, 2019). This situates them between micro-

enterprises and large corporations. SMEs are essential for economic advancement and creating employment, mainly in economies trying to develop, where they often make up most of the business environment (IFC, 2020; OECD, 2024).

1.8 Assumptions

Several key assumptions were made in this study. Firstly, it was assumed that EE and GS have significant positive impact on SMEP in Montserrado county, Liberia. Improved access to EE was assumed to equip SME owners with the capabilities, skills, and strategic thinking necessary to identify and exploit new opportunities. Entrepreneurs who have received EE were assumed to have a greater ability to recognize and effectively leverage market opportunities, leading to better business outcomes than those without such education. Secondly, the study assumed that GFS and GNS are essential in enabling SMEs to thrive in a competitive economic environment. Thirdly, it assumed that EA is crucial to SME growth and overall performance, acting as a mediator between EE and SMEP. Additionally, the study assumed that Liberia's external business environment, if conducive, may moderate the link between EE and SMEP. Despite resource constraints, SMEs were assumed to have the potential to leverage internal resources through education and support. Lastly, it was assumed that findings from Montserrado County can provide valuable insights applicable to other areas with similar socio-economic conditions, contributing to a broader and deeper understanding of SME performance in least-developed nations.

1.9 Chapter summary

In summary, chapter 1 introduced the study by outlining the research problem, objectives, significance, and scope by establishing the contextual foundations for examining how EE and GS influence SME performance in Liberia. It also clarified key assumptions, delimitations, and definitions of terms central to the study. Building on this introductory chapter, the subsequent chapters systematically explore the literature, research methodology, empirical findings, discussion, and conclusions of the study, as outlined below:

- **Chapter 2** presents a comprehensive literature review on EE, EA, GS, and SME performance. It also develops the theoretical and conceptual frameworks and formulates the study's hypotheses.
- **Chapter 3** details the research methodology, including the research design, population, sampling procedures, data collection methods, measurement instruments, data analysis strategies, quality assurance considerations, and ethical procedures.
- **Chapter 4** reports the empirical findings of the study, including data screening, descriptive analyses, construct validity and reliability tests, correlation results, regression analyses, and hypothesis testing.
- **Chapter 5** provides an in-depth discussion of the results in relation to existing theory and empirical literature, interpreting the implications of each hypothesis outcome.
- **Chapter 6** concludes the study by summarizing the major findings, presenting practical and policy recommendations, identifying limitations, and proposing directions for future research.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Many entrepreneurship scholars have discussed the crucial role of EE and factors such as the external business environment and EA relationships with an entrepreneurial outcome such as performance. There has also been extensive entrepreneurship research on the relationship between GS and various entrepreneurial outcomes. This chapter discusses these factors with regards to their impact on SME performance grounded in both empirical findings, and theories. But before discussing these, it is crucial to first understand entrepreneurship broadly as a field of study. Thus, subsequent sections of this chapter begin with this before diving into the focal constructs.

2.2 Understanding entrepreneurship as a field of study

2.2.1 The multidisciplinary nature and historical roots of entrepreneurship

Entrepreneurship has evolved into a distinct and multidisciplinary field of study concerned with how individuals and organizations identify, create, and exploit opportunities to generate economic and social value. Historically rooted in economics, particularly in Schumpeter and the Austrian School works, entrepreneurship has broadened into a domain that embed insights from psychology, sociology, strategy, management, education, and institutional studies (Martínez-Martínez, 2022). Central to the field is the recognition that entrepreneurs act under conditions of uncertainty, mobilize scarce resources, and engage in innovative behaviour that stimulates firm growth and economic development (Shane & Venkataraman, 2000).

From an economic point of view, entrepreneurship is understood as a mechanism through which new combinations of resources, technologies, and markets emerge. Schumpeter (1934) emphasized entrepreneurs as “innovators” who introduce new products, processes, or business models that disrupt existing market structures. In contrast, the Austrian view, characterized by Kirzner (1973) notably, frames entrepreneurs as “alert” individuals who identify previously unnoticed opportunities. These perspectives collectively highlight opportunity recognition and innovation as foundational elements in entrepreneurial activity. While economic theories highlight opportunity and innovation, psychological and sociological perspectives deepen this

understanding by examining the individual and social factors shaping entrepreneurial behaviour.

2.2.2 Psychological and sociological contributions

Beyond economics, psychology contributes to understanding entrepreneurship by examining cognitive and behavioural traits such as risk-taking, proactiveness, creativity, self-efficacy, and resilience (Antončič & Antončič, 2023). These traits have been shown to influence not only whether individuals intend to start a business, but also how they respond to uncertainty, deal with setbacks, and persist in the face of challenges, with constructs such as internal locus of control and entrepreneurial self-efficacy emerging as particularly important predictors of entrepreneurial action and firm outcomes (Antončič & Antončič, 2023; Staniewski et al., 2025; Venter & Urban, 2015). For example, research on self-efficacy and risk propensity suggests that entrepreneurs with higher confidence in their own capabilities are more willing to pursue uncertain opportunities and to commit resources to new ventures, which in turn can enhance performance when combined with sound judgment and learning (Staniewski et al., 2025; Steenkamp et al., 2024; Venter & Urban, 2015). These insights help explain why individuals vary in their likelihood of engaging in entrepreneurial activities and how cognitive processes influence opportunity identification and decision-making.

Sociology extends this understanding by helping to clarify how social networks, cultural norms, and community structures shape entrepreneurial intentions and outcomes (Antončič & Antončič, 2023). Access to social capital through family, peers, mentors, and professional contacts can determine whether entrepreneurs obtain critical resources such as funding, information, and legitimacy at early venture stages. Studies have shown that strong and diverse networks support start-up development and competitiveness (Durda & Ključnikov, 2018). For example, access to trusted networks can influence funding opportunities, partnership formation, and the flow of valuable information, while societal attitudes toward failure and prevailing social norms have been found to significantly affect entrepreneurial intentions, particularly among students and youth (Hassan et al., 2022). Recent work also highlights how digital and social media platforms extend these networks, enabling entrepreneurs to cultivate wider communities, access new markets, and co-create ideas and innovations with

stakeholders beyond their immediate locality (Zhou, 2024). These individual and social insights are complemented by management and strategic perspectives that focus on how firms organize and deploy resources to achieve entrepreneurial success.

2.2.3 Management and strategic perspectives

Management and strategy literature add another important layer by examining the firm-level processes that support entrepreneurial success. These include resource orchestration, capability development, strategic positioning, and the pursuit of competitive advantage (Mostafiz et al., 2021). Resource orchestration comprises the structuring, bundling, and leveraging of resources and capabilities to create value and achieve strategic objectives, enabling firms to dynamically align their assets with environmental demands and competitive pressures (Saraswati et al., 2025; Mostafiz et al., 2021). SMEs, which form the backbone of many economies, often rely heavily on entrepreneurial capabilities to navigate competitive markets, adapt to environmental shifts, and sustain performance (Abdul-Azeez et al., 2024). Research demonstrates that networking capability, strategic renewal, and organizational flexibility are critical determinants of SME survival and growth, particularly in unstable business environments where the ability to reconfigure resources and respond to change becomes essential (Kiyabo & Isaga, 2020; Shah et al., 2019). These firm-level insights make entrepreneurship a critical lens for understanding not only individual behaviour but also organizational survival and growth.

Research on entrepreneurship management skills shows that entrepreneurs require a combination of financial management, human resource management, marketing, technical, leadership, and interpersonal skills to build and sustain viable ventures, especially in SME contexts (Mamabolo et al., 2017). These competencies enable SMEs to manage scarce resources effectively, recruit and develop talent, execute marketing strategies, and maintain operational efficiency under resource-constrained conditions typical of emerging markets (Kiyabo & Isaga, 2020; Mhlongo & Daya, 2023). Moreover, marketing capabilities, such as channel management, product development, market implementation, and market communication, have been shown to significantly affect SME competitive performance in emerging economies by enabling firms to better understand customer needs, respond to market dynamics, and

position themselves strategically against larger competitors (Oduro & Mensah-Williams, 2023).

From a strategic perspective, entrepreneurial firms must continually orchestrate and reconfigure resources, develop capabilities, and build networks to respond to environmental changes and competitive pressures (Chen et al., 2025; Cheng et al., 2025). Strategic positioning and the pursuit of competitive advantage are particularly critical, as entrepreneurial orientation, characterized by innovation, proactiveness, and risk-taking, has been empirically shown to enhance firm performance through its positive influence on competitive advantage (Kiyabo & Isaga, 2020; Mostafiz et al., 2021). Additionally, business model innovation serves as a strategic tool that enables SMEs to reconfigure their value propositions, revenue models, and operational structures to better exploit market opportunities and sustain competitive positions. Studies demonstrate that business model innovation positively influences firm performance both directly and through mediating mechanisms such as entrepreneurial orientation and competitive advantage (Gautam et al., 2025; Latifi et al., 2021).

Furthermore, strategic agility and dynamic capabilities enable SMEs to sense, seize, and reconfigure resources in response to changing market conditions. This allows them to maintain flexibility and adapt rapidly, qualities that are especially crucial in emerging economies characterized by institutional uncertainty and resource scarcity (Adomako et al., 2022; Ferreira et al., 2020). Collectively, these strategic and managerial perspectives reinforce that psychological traits and social structures only translate into performance when supported by effective managerial and strategic practices. Thus, entrepreneurship must be understood not only as individual action or social embeddedness, but also as a set of organizational capabilities and strategic orientations that enable firms to create, capture, and sustain value within complex and competitive environments.

2.2.4 Entrepreneurship education (EE) as a subfield

In recent decades, EE has emerged as a significant subfield, reflecting the growing belief that entrepreneurial skills can be taught, enhanced, and systematically developed. Peschl et al. (2020) demonstrate that EE does not only focus on business knowledge but also on fostering creativity, critical thinking, problem-solving, and opportunity recognition, competencies essential for navigating dynamic markets. They

advance seven essential and teachable entrepreneurial thinking skills (ET-7), including problem solving, tolerance for ambiguity, failing forward, empathy, creativity with limited resources, responding to critical feedback, and teamwork approach. These form the foundation of modern entrepreneurship pedagogy (Peschl et al., 2020). This growing emphasis on competency development aligns with broader human-capital-based arguments that education can improve productivity, innovation, and business performance (Kokkinopoulou et al., 2025).

However, research increasingly recognizes that EE effectiveness depends on both formal and informal learning pathways. Baručić and Umihanić (2016) distinguish between formal EE (classroom-based instruction), non-formal education (structured external programs), and informal learning (experiential exposure through family or entrepreneurial networks). Moreover, tertiary education significantly increases formal entrepreneurship by enhancing self-confidence, lowering perceived risk, and enabling critical thinking, though the effectiveness of entrepreneurship training is further enhanced when complemented by active learning methods such as practical exposure to business environments, case studies, business trips, and problem-solving exercises in simulated settings (Uddin et al., 2025). A comparative analysis of EE across developing countries shows that training is effective in molding future entrepreneurs and moulding managerial capacity and efficiency (Sajjad et al., 2018). But effectiveness varies substantially depending on pedagogical approach, institutional support, and local context.

2.2.5 Institutional and environmental systems in entrepreneurship

Crucially, education alone is insufficient. Ezekiel and Aliyu (2025) recognize that entrepreneurial activity does not occur in a vacuum but is embedded within broader institutional, political, and environmental systems. Factors such as regulatory frameworks, market stability, access to finance, and cultural norms influence entrepreneurs' ability to act on opportunities. Institutions, defined as the formal and informal rules that govern behavior in society, consist of regulatory institutions (laws, regulations, government support), normative institutions (values and norms supporting entrepreneurship), and cognitive institutions (shared beliefs and interpretations about entrepreneurship) (Scott, 2001). Research demonstrates that normative and cognitive institutional pillars positively correlate with firm performance (Mohammed, 2020).

Institutional voids and constraints are particularly salient in emerging and developing economies. An institutional void refers to the absence or underdevelopment of formal institutional infrastructure such as legal frameworks, regulatory bodies, and financial markets that are typically taken for granted in developed economies (Onwuzulike et al., 2024). In such contexts, firms face significant challenges enforcing contracts, protecting intellectual property, accessing reliable financial services, and obtaining skilled labor (Adomako et al., 2020). Regulatory frameworks and government policies substantially affect SME performance; however, burdensome registration procedures, high compliance costs, corruption, and inadequately designed regulatory systems in developing countries create barriers to formalization and growth (Nuni & Feika, 2023).

This systems-oriented view is particularly important in emerging, fragile, or developing economies where structural constraints may limit the translation of entrepreneurial intentions into performance. Wales et al. (2021) demonstrate that well-developed regulatory, normative, and cognitive institutions moderate the entrepreneurial orientation-performance relationship. In countries with well-developed legal and financial institutions where entrepreneurship is normatively supported, entrepreneurs achieve higher returns from entrepreneurial strategic postures (Wales et al., 2021). Conversely, in emerging economies characterized by institutional weaknesses, poor enforcement capacity, bureaucratic constraints, and limited access to supporting services, the benefits of EE and capability development may be substantially diminished (Mhlongo & Daya, 2023). Thus, the effectiveness of EE and entrepreneurial initiatives is fundamentally contingent on the institutional and environmental context within which entrepreneurs operate.

Collectively, these disciplinary perspectives establish entrepreneurship as a rich and multidimensional field. Rather than operating through isolated mechanisms, individual psychology, social networks, or organizational capabilities, entrepreneurial success emerges from the dynamic interplay of individual, organizational, and contextual factors. This integrative understanding is essential for the current study, which examines how entrepreneurship education (EE), entrepreneurial alertness (EA), government support (GS) mechanisms, and the external business environment (EBE) together shape SME performance (SMEP). The subsequent sections present literature review on the theoretical relationships and empirical evidence underlying each of

these key constructs. The review also examine both their individual relationships with business outcomes, their complex interactions within the Liberian SME context, and provide the foundation for the study's research hypotheses and analytical framework.

2.3 The relationship between EE, CEBE, and SMEP

2.3.1 Grounding the EE and SMEP relationship in HCT and RBV

HCT emphasizes that investing in education and training enhance productivity and innovation (Becker, 1964). In the entrepreneurial contexts, HCT suggests that education also comprises experiential learning, motivation, and the development of social networks (Marvel et al., 2016). Complementarily, RBV argues that the competitive advantage of an organization stem from its unique capabilities and internal resources (Barney, 1991). Within these frameworks, EE is often considered a transformative instrument for fostering entrepreneurs' capabilities and improving business outcomes. Several scholars and researchers have investigated the relationship, contribution or impact of EE on business performance (Ayatse, 2024; Cahyani et al., 2024; Fayemi & Madueke, 2023; Mahmood et al., 2021). The following subsections critically examine this relationship, drawing on HCT and RBV theoretical frameworks to interpret the empirical evidence.

2.3.2 HCT's perspectives

From HCT's perspective, EE is conceptualized as an investment in human capital that improves individual productivity and capacity to contribute meaningfully to economic activities (Becker, 1964; Mincer, 1974; Schultz, 1959). Monday (2024) indicates that such education provides individuals with the essential skills to innovate, efficiently manage resources, and meet market needs. In this sense, EE directly strengthens entrepreneurs' stock of human capital, which in turn should translate into improved business outcomes such as performance. Ahn and Winters (2021) support this theoretical underpinning, asserting that entrepreneurs with formal education are better prepared to navigate competitive markets. While this indicates the vitality of structured learning to developing analytical and strategic capacities, it risks overstating the role of formal education. Many entrepreneurial competencies are also developed through experiential practice and informal learning. Heinze (2020) describes this as "learning without pursuing a specific pre-formulated objective." For example, the willingness to

negotiate, which is a crucial entrepreneurial trait, often stems from prior experience (Artinger et al., 2015; Shaw et al., 2021).

2.3.3 Empirical evidence, and HCT's limitations

Empirical findings regarding the direct effect of EE on SMEP remain mixed. Nabi et al. (2017) reviewed empirical studies on EE and found that its influence on entrepreneurial intentions, which is a critical psychological mechanism and primary stage in venture creation, is commonly examined but not consistently positive. Their review highlights that while many studies report a positive relationship, the effects of EE on entrepreneurial intention vary across contexts, with some research indicating neutral or even negative impacts. In contrast, Amaliawati et al. (2019) provide evidence that entrepreneurs who participate in EE exhibit improved productivity and profitability, thereby linking education directly to firm-level outcomes. Nevertheless, Marecha (2020), in a study focused on Gauteng Province, South Africa, found no significant direct relationship between EE and SMEP. This discrepancy indicates a critical issue in entrepreneurship literature: *the oversimplification of the causal link between EE and entrepreneurial outcomes such as performance*.

Additionally, there may be contextual variables like socio-economic situations and market dynamics that may moderate this relationship. Arend et al. (2025) reinforce this by indicating that although EE can increase confidence and perceived competence, it does not guarantee improved outcomes. Such inconsistencies align with the limitations of HCT's linear assumptions that greater educational investment automatically yields higher performance (Marginson, 2019). Unlike HCT's assumptions, the empirical evidence suggests that the translation of EE into economic outcomes is context-dependent and may not hold in less conducive environments like Liberia. Thus, to overcome these limitations, HCT must be complemented by frameworks that account for business environmental contingencies. This necessitates the need to include RBV into the discussion.

2.3.4 RBV's perspective, limitations and the role of EBE

From RBV's viewpoint, EE-derived knowledge and skills, such as strategic acumen and analytical capacities, are intangible resources that enhance firm-specific capabilities and lead to superior outcomes (Barney, 1991; D'Oria et al., 2021),

supporting findings by Amaliawati et al. (2019). However, RBV, like HCT, faces a conceptual limitation. Its strong focus on internal resources overlooks external environmental influences, assuming that once unique resources are secured, their deployment and resulting advantage are internally determined. This assumption may fail in contexts where external environments are unstable, non-conducive or unsupportive, conditions common in emerging and transitional economies.

Empirical studies confirm that the value of EE-derived resources is contextually determined rather than intrinsic. Arokodare and Asikhia (2020) found that even highly valuable strategic resources may fail to yield performance gains when external conditions are unfavourable. In environments characterized by unreliable infrastructure or regulatory corruption, operational inefficiencies can offset internal gains, reinforcing that the effectiveness of EE is conditional on the external context. Given these theoretical limitations, integrating HCT and RBV necessitates the incorporation of a macro-level perspective that accounts for environmental contingencies. In this regard, the external business environment could be a critical contextual factor influencing how EE translates into performance outcomes. The external business environment (EBE) emerges as a crucial factor.

The external business environment (EBE) comprises economic, legal, institutional, technological, and socio-cultural conditions (Banham, 2010; Dess & Beard, 1984; Kotler & Armstrong, 2018; Liphadzi & Phuriwa, 2024). It determines the extent to which SMEs can access markets, mobilize resources, and compete effectively (Basson & Omoruyi, 2025; Garba, 2019). A stable, conducive or supportive environment encourages entrepreneurial growth (Rashid et al., 2025), whereas poor institutions and unpredictable markets undermine performance. This aligns with findings by Abdullah and Mansor (2018) and Arokodare and Asikhia (2020), who observed that the environment either enhances or hinders the link among entrepreneurial inputs and performance. A conducive external business environment (CEBE) thus plays an enabling role in translating entrepreneurial knowledge and skills into tangible outcomes.

RBV provides a complementary lens to this discourse, highlighting that EE enhances intangible resources such as knowledge and skills, but their contribution to competitive advantage depends on the ability to deploy them effectively within a supportive context

(D'Oria et al., 2021). A conducive EBE enables entrepreneurs to leverage these resources strategically, translating educational gains into superior performance.

Conversely, external constraints can restrict the conversion of these capabilities into tangible outcomes. As Arend et al. (2025) emphasized, EE alone does not guarantee improved results; Knowledge acquisition must indeed be complemented by an external factor to produce tangible performance outcomes. This exposes a fundamental weakness in RBV, as its inward emphasis on internal assets overlooks the environmental frictions that ultimately determine resource deployment effectiveness. Consequently, empirical evidence increasingly supports the EBE's integration as a complementary factor that influences how EE translates into measurable performance outcomes. Thus, it is necessary to investigate EBE as a moderating factor.

2.3.5 EBE as a contextual moderator

Several entrepreneurship scholars have investigated EBE moderating role on the relationship between an entrepreneurial factor and outcome (Abdullah & Mansor, 2018; Akhorshaideh & AL-Lozi, 2021; Pulka et al., 2021). Abdullah and Mansor (2018) found that the business environment moderated the link between entrepreneurial skills and small businesses performance in Iraq. Similarly, Arokodare and Asikhia (2020) found that the correlation between strategic entrepreneurship and firm performance was significantly moderated by the external environment in Lagos, Nigeria. Pulka et al. (2021) extended this debate by demonstrating that the link between government business support and SME performance was mediated by the external environment. While this strengthens the contingency perspective that outcomes depend on the supportiveness of the environment (Mahmud et al., 2021), their study does not clarify whether the same moderating dynamics apply to intangible resources such as those developed through EE.

Collectively, these studies indicate that HCT and RBV alone cannot fully explain EE's impact on SMEP. The interaction between internal capabilities and contextual contingencies must be considered a gap particularly relevant in fragile economies where environmental weaknesses may dilute EE's impact. This moderating effect is

particularly pronounced in Sub-Saharan Africa, where structural and institutional constraints shape how SMEs perform.

2.3.6 Sub-Saharan African and Liberia contexts

In Sub-Saharan Africa, empirical studies have also shown how environmental conditions influence SMEs disproportionately (Abor & Quartey, 2010; Mlotshwa & Msimango-Galawe, 2020; Okpara, 2011; Rungani & Potgieter, 2018). For instance, in Nigeria, SMEs face severe environmental challenges such as poor infrastructure and corruption, which significantly dampen performance despite high entrepreneurial drive (Okpara, 2011). Similarly, Abor and Quartey (2010) noted that institutional weaknesses hinder SMEs' growth even when owners were well-trained in Ghana. Such evidence indicates that even where human capital is developed through EE (HCT) and converted into intangible resources (RBV), weak external environments obstruct the translation of these assets into firm performance. This reinforces both the limitations of HCT and the environmental weaknesses of RBV, reinforcing the assumption that EE can only be impactful if accompanied by conducive external conditions.

Liberia presents a similar case, as SMEs in Montserrado County face systemic challenges, including unreliable electricity and fragile institutions (Lee et al., 2022; UNDP, 2024). Under such conditions, even entrepreneurs who have gone through EE may struggle to achieve growth. Moreover, business ecosystem studies emphasize that SMEs thrive within interconnected networks of suppliers, customers, and regulators rather than in isolation (Mlotshwa & Msimango-Galawe, 2020; Rungani & Potgieter, 2018). This indicates that SMEs' performance and growth depend on their ability to build and sustain cooperative relationships with other actors in the business ecosystem like suppliers, customers, and regulators.

The convergence of theoretical perspectives and empirical findings significantly supports the conclusion that EE, as a standalone intervention, is likely to be insufficient in environments marked by institutional and infrastructural deficits (Arend et al., 2025; D'oria et al., 2021; Marecha, 2020; Nabi et al., 2017). The acquisition of knowledge and confidence (HCT/RBV) must be complemented by a conducive external business environment (CEBE) to produce tangible performance gains. When the external environment is highly non-conducive, the investment in EE risks being functionally

negated, as the benefits are absorbed by the cost of compensating for environmental inadequacies. Only when the environment is conducive can SME owners strategically leverage the knowledge and skills gained from EE to accomplish a competitive sustainable advantage and subsequent performance enhancement. Hence, the below hypothesis was developed:

- ***H1:*** *The relationship between entrepreneurship education and SME performance* is positively moderated by a conducive external *business environment in Montserrado County, Liberia.*

2.4 Entrepreneurial alertness (EA), EE and SMEP

2.4.1 Foundational Concepts

Kirzner (1973, 1999) introduced EA and described it as a person's cognitive ability to recognize and be receptive to new business opportunities that others may overlook. Since then, it has become an essential concept in entrepreneurship theory and literature. Tang et al. (2012) recently conceptualized EA as a complex cognitive framework that consists of: "(*1) Scanning and searching, (2) Association and connection, and (3) Evaluation and judgment."* These three dimensions show the way entrepreneurs process information to recognize and exploit opportunities, which are core activities central to the entrepreneurial process (Lew et al., 2022; Sassetti et al., 2021). Numerous scholars have applied this three-phase model to study alertness, and many have confirmed the significance of alertness in recognizing opportunities (Lew et al., 2022; Sassetti et al., 2021; Urban, 2019). This framing directly reflects the core assumptions of both Entrepreneurial Alertness Theory (EAT) and Discovery Theory (DT), which argue that what distinguishes entrepreneurs is not privileged access to information but rather a heightened cognitive sensitivity that allows them to reconfigure available information into profitable opportunities (Kirzner, 1997; Tang et al., 2012).

2.4.2 Complementary perspectives of DT and EAT

Shane and Venkataraman (2000) considered entrepreneurial opportunities to be objective phenomena that occur independently, and alert individuals discover and act upon them by leveraging superior information and prior knowledge. This perspective reflects the logic of DT, which situates entrepreneurial action in their capability to

discover and take actions on opportunities already present in the environment (Kirzner, 1973). Kirzner (2009), building on Austrian School of Economics, also emphasizes alertness as a spontaneous, creative insight rather than deliberate search, positioning it as the key differentiator between entrepreneurs and non-entrepreneurs. Prior to that, Ardichvili et al. (2003) had already proposed that opportunity recognition arises from an interaction between EA, social networks, and prior knowledge, highlighting its dynamic and context sensitive. McCaffrey (2014) critiques the mechanistic interpretations of alertness, debating for a subjectivist approach where entrepreneurs construct opportunities through interpretation and judgment. This critique aligns more closely with EAT than with DT due to EAT's emphasis on alertness as a cognitive and interpretive capability rather than a passive discovery process (Kirzner, 1999, as cited in Karami et al., 2024). These discourses indicate and prove the relevance of Kirzner's (1973) concept that opportunity recognition and exploitation are not merely sequential activities but interrelated dimensions of alertness that transform latent ideas into actionable ventures. While DT frames opportunities as objectively existing, EAT highlights the entrepreneur's interpretive role in transforming signals into opportunities, making both theories foundational for understanding EA.

2.4.3 The role of EE in developing alertness

EE is frequently associated with improving this *"alertness,"* as it develops cognitive skills and domain-specific knowledge (Jiménez et al., 2015; Schultz, 1959). Shava and Matshaya (2022) emphasize that EE enhances cognitive ability and specific entrepreneurial skills that facilitates better opportunity recognition. However, they find that entrepreneurial culture partially mediates this relationship, which challenges DT's views on recognition as a vital but insufficient condition in entrepreneurship, since the broader institutional and cultural environment influences whether opportunities are acted upon (Park et al., 2025). Murad et al. (2024) finding support this, where they found that the correlation between entrepreneurial social networks, opportunity recognition, and entrepreneurial intentions was mediated by EE. While this highlights the layered role of EE, it risks overstating education's influence by downplaying the broader contextual and environmental factors that also shape entrepreneurial intentions.

Guo et al. (2016) extend this discourse as they found that opportunity recognition positively impacts SME performance, but only when mediated by business model innovation. This supports DT's focus on exploitation as the critical stage linking recognition to performance, while also challenging simplistic assumptions about EE's effects and reinforces the need to consider it impact in broader strategic and structural dynamics. Additionally, Liñán and Fayolle (2015) argue that experience is more predictive of future entrepreneurial behaviour than education alone. Their argument acknowledges EE's limitations in teaching the implicit knowledge often required for opportunity recognition, and knowledge that is usually gained through real-world exposure. EAT provides explanatory power here, as it highlights that experiential knowledge enriches entrepreneurs' interpretive judgments, something formal education alone cannot replicate (Kirzner 1973, 1999).

Also, EE has been demonstrated to enhance both confidence and risk tolerance among aspiring entrepreneurs (Jiménez et al., 2015; Othman et al., 2020). Such enhancements increase the likelihood that entrepreneurs will exploit objectively existing opportunities, as supported by DT (Alvarez & Barney, 2007; Eckhardt & Shane, 2003). This highlights disparities in entrepreneurs' ability to act on available information. Tian et al. (2022) emphasize that prior entrepreneurial experience often outweighs formal education in enhancing opportunity exploitation, which points to the practical limitations of EE. This critique resonates with EAT, which frames alertness as an interpretive process embedded in lived experience rather than a purely educational outcome (Kirzner, 1999, as cited in Karami et al., 2024).

2.4.4 EA as a bridge between theory and practice

In fragile environments such as Liberia, these theoretical perspectives become particularly relevant. For example, entrepreneurs may identify gaps in waste management or agriculture value chains, but without alertness to creatively mobilize informal networks, community labour, or recycled materials, such opportunities remain underexploited. This shows that DT explains the *"existence"* of opportunities, while EAT explains the *"translation*" of weak signals into actionable business models. Furthermore, experiential learning can enhance EA by helping entrepreneurs link theoretical constructs with lived market realities (Ramsey et al., 2023). In contexts where formal structures are weak, experiential pathways are critical as they allow

entrepreneurs to develop practical skills for recognizing non-obvious opportunities (Ardichvili et al., 2003; Tang, 2008). This aligns with EAT's interpretive foundations and adds nuance to DT by showing that discovery alone is insufficient unless combined with evaluative and adaptive judgment.

Importantly, Mahamotse and Msimango-Galawe (2024) in their study on South African youth entrepreneurs found that EA measured through the dimensions of evaluation and judgement have a straightforward influence on the profitability of businesses and, overall lead to enhancing their performance. This finding indicates that EA may also act as a bridge between knowledge acquisition and business performance by allowing entrepreneurs to evaluate and prioritize opportunities. These findings simplify the pathway by overlooking how external constraints such as capital access and market volatility, can limit the profitability of even well-evaluated opportunities. From the DT and EAT perspectives, it also risks overstating this link since DT highlights that recognizing opportunities does not automatically translate into successful exploitation when external barriers such as limited capital or volatile markets intervene (Shane & Venkataraman, 2000). Similarly, from an EAT standpoint, the evaluative and judgmental dimensions of alertness are not simply about cognitive prioritization but about strategically interpreting constraints and creatively allocating scarce resources (Kirzner, 1997; Tang et al., 2012).

Thus, EAT and DT embedded in entrepreneurship literature justify that EE does not directly guarantee SME performance. Instead, EE enhances EA, which either acts as the discovery mechanism that links knowledge to performance (DT) or as the interpretive process that transforms ambiguous signals into actionable ventures (EAT). In resource-constrained contexts like Liberia, it is this mediating role of EA, comprising both discovery and interpretation that connects EE to tangible business outcomes. Thus, the below was hypothesized:

- ***H2:*** *The relationship between entrepreneurship education and SME performance is positively mediated by entrepreneurial alertness.*

2.5 Government support (GS) and SMEP

2.5.1 Introducing GS and institutional theory

According to Law Insider (2025), “Government Support (GS) means tax incentives, incentives for the reduction of mandatory contributions, government grants, government-supported loans, and guaranties, trusts, or insurance provided by a government, irrespective of whether a private entity is wholly or partially responsible for management of the government support.” GS includes financial and non-financial supports (Ogujiuba et a., 2022). This section discusses current literatures on both GS aspects, and their relationship with SMEP. Grounded in Scott (2001) institutional theory, the discussion emphasizes the role of GS as a crucial component of the institutional environment, shaping organizational legitimacy and success by providing regulatory, normative, and cognitive frameworks within which organizations operate.

2.5.2 Government financial support (GFS) and SMEP

GFS is widely recognized as a catalyst for SME development, particularly in developing economies where access to credit is constrained. According to Jayeola et al. (2022), financial support from the government is instrumental in enhancing competitiveness and performance among SMEs. Yet, as highlighted by Nguyen-Thi-Huong et al. (2023), the literature surrounding this relationship is far from conclusive. The empirical findings range from strong associations between financial support and performance to negligible or indirect effects. This variability points to underlying complexities that merit deeper exploration, particularly through the lens of institutional theory, where GFS can be understood not merely as a transactional input but as a product of institutionalized norms, regulations, and practices that condition how support is accessed and utilized by organizations (Scott, 2001). For instance, as noted by Peter et al. (2018), bureaucratic ineffectiveness and unrealistic conditions attached to financial assistance, can diminish the effectiveness of such support. From the institutional theory perspective, this indicates that these inefficiencies reflect weak institutional capacity, which can constrain SMEs’ ability to leverage financial support effectively.

2.5.3 Institutional barriers and resource access

Government financial support operates within broader institutional contexts that either facilitate or constrain its effectiveness. Understanding these institutional dynamics requires examining the structural barriers and administrative inefficiencies that shape support outcomes for SMEs. Khan and Anuar (2017) argue that SMEs, unlike their larger counterparts, lack access to substantial debt financing, making government intervention not just helpful but necessary. This structural constraint reflects deeper institutional limitations that systematically restrict SMEs' access to resources, highlighting the critical role of formal institutions in either facilitating or constraining organizational performance (DiMaggio & Powell, 1983; Scott, 2001).

The imbalance in financial access reveals that resource provision alone is insufficient. Institutional theory suggests that targeted support mechanisms must not only provide financial resources but also align with formal rules, norms, and procedures to enhance organizational legitimacy (Alnaim & Metwally, 2024). When financial support is institutionally misaligned with existing organizational practices or regulatory frameworks, its impact is substantially diminished. Peter et al. (2018) provide empirical evidence of this misalignment, finding that while government financial support (GFS) significantly improves SME performance in theory, its delivery in practice is undermined by unrealistic bureaucratic processes, complex eligibility requirements, and limited reach. These administrative inefficiencies reflect weak institutional capacity, including inadequate administrative systems, overly rigid procedures, and poor coordination, that prevents SMEs from effectively accessing and utilizing available support.

From an institutional theory perspective, these constraints demonstrate that institutional design and enforcement critically determine whether SMEs can translate financial support into improved performance. The effectiveness of GFS therefore depends not merely on the number of resources provided, but on how support mechanisms are institutionally structured to align with SME needs, reduce bureaucratic burden, and enhance organizational legitimacy within the broader business ecosystem.

2.5.4 Direct and indirect effects of financial support

Beyond immediate resource provision, government financial support operates through both direct and indirect pathways to influence SME performance, a distinction that reveals the complex role of institutional legitimacy in mediating support outcomes.

Pergelova and Angulo-Ruiz (2014) distinguish between direct and indirect effects of financial support, complicating the narrative of straightforward resource-to-performance relationships. Their findings demonstrate that government guarantees, and equity financing may improve a firm's competitive position but not necessarily its immediate financial performance. This paradox suggests that institutional legitimacy, the extent to which firms conform to established norms and expectations within their business environment, can play a critical mediating role (Thomas & Lamm, 2012). Firms that receive financial support might leverage their enhanced legitimacy to attract customers or investors, which may then indirectly translate into improved performance. Thus, understanding the complexity of institutional contexts is crucial to interpreting the varied outcomes of government financial interventions.

This mediation mechanism reveals a fundamental insight: GFS effectiveness depends not only on the number of resources provided but also on how such support enhances a firm's legitimacy within the institutional environment, which in turn mediates its impact on performance. A comprehensive systematic review by Crawford et al. (2023), comprising 89 studies conducted between 2000 and 2021, affirms that government loans, guarantees, and credit lines significantly strengthen SME viability in global markets. However, they highlight the necessity of clearly defined policy objectives as a critical qualification. This finding aligns with institutional theory's position that the effectiveness of formal institutions depends on their clarity, coherence, and consistency. When policy goals are ambiguous or conflicting, the intended impact of financial support programs is substantially reduced, thereby limiting their utility to SMEs and undermining the investment of public resources.

2.5.5 Empirical evidence from developing economies

Empirical research from developing economies offers important insights into how institutional context shapes the effectiveness of GFS, with findings from Sub-Saharan

Africa particularly relevant to understanding SME performance dynamics in resource-constrained settings.

Olaniyi and Bayai (2023) found a one-to-one relationship between grant amounts and revenue growth in South African SMEs, suggesting a strong and direct impact of financial support. However, such findings warrant cautious interpretation. While the correlation is compelling, it does not account for institutional components that may moderate or mediate this relationship. For instance, when grants are allocated through transparent and inclusive processes, their impact is likely to be more profound than when they are subject to corruption or favouritism. This observation highlights that the quality of institutional implementation matters as much as the quantity of resources provided. Similarly, Rungani and Potgieter (2018) found that both public and private sector financial support significantly improve SME performance. However, the institutional conditions under which this support is administered remain underexplored in the literature. The effectiveness of private sector involvement, for example, may depend on regulatory frameworks that incentivize or compel private entities to support SMEs, suggesting that institutional design shapes support outcomes.

Thapelo (2020) reinforces the importance of financial aid in improving performance and promoting innovation among South African SMEs. This finding converges with institutional theory, as it suggests that well-designed support mechanisms can alter the institutional environment in ways that stimulate risk-taking and entrepreneurial behaviour (Park et al., 2025). Beyond financial provision alone, Lee et al. (2023) demonstrate that financial support improves financial satisfaction among recipients. However, this benefit is substantially offset by poor financial behaviours among recipients, implying that institutional support must also comprise financial literacy and behaviour change interventions to be fully effective. Thus, comprehensive support mechanisms addressing both resource provision and behavioural change are essential for maximizing SME performance outcomes.

While these studies offer valuable insights, a significant gap remains in their applicability to the Liberian context. Liberia's socio-economic and institutional environments are totally different from South Africa's or other better-studied developing economies. The country faces pervasive institutional weaknesses, including limited administrative capacity, corruption, and low-level financial inclusion

(AfDB, 2025). These conditions may limit the impact of GFS or render it inaccessible to the very SMEs it aims to assist. Hence, the below hypothesis was formulated:

- ***H3:*** *Government financial support has a positive impact on SME performance in Montserrado County, Liberia.*

2.5.6 Government non-financial support (GNS) and SMEP

Beyond financial assistance, governments also need to provide businesses non-financial support mechanisms like training, advisory services, and regulatory facilitation, which are crucial for SME development. Parasannath et al. (2024) assert that non-financial support policies also have direct impacts on SME performance. However, critics often contend that the efficacy of non-financial support is overstated, especially when such interventions are not well-tailored to the specific necessities of SMEs (Molope et al., 2024; Rungani & Potgieter, 2018). Molope et al. (2024) explicitly note that non-financial support programs often fall short when they are broad and not fit to the actual SMEs' needs, with customization recommended for greater effectiveness. Rungani & Potgieter (2018) also highlight that many SMEs do not see improvement from non-financial support, often due to issues like lack of awareness, mismatched support, or the failure to address the unique challenges SMEs face despite support availability.

From an institutional theory perspective, non-financial support can be viewed as a way of institutionalizing knowledge and practices that promote business efficiency and innovation (Njinyah et al., 2022), which could act as normative and cognitive mechanisms to shape SME owners' behaviour and expectations. Yet, their impact is highly context dependent. For instance, Owusu-Ansah et al. (2017) found only a moderate positive link between non-financial support and SMEP. The most effective forms of support they identified were business consulting and on-the-job training, which contributed to increased revenue and product quality. However, they also point out the importance of careful needs assessments and content evaluation (Owusu-Ansah et al., 2017). This suggests the need for institutions to adopt evidence-based approaches in designing and delivering support service for SMEs, emphasizing that evidence-based approaches help embed new norms and practices within SMEs to ensure that support services are effectively institutionalized and sustained within their organizational and environmental contexts, which aligns with institutional theory

(DiMaggio & Powell, 1983; Njinyah et al., 2022). But these does not guarantee immediate impacts, as their impacts depend on aligning these supports with the specific needs and context of the SMEs.

2.5.7 Regulatory compliance: connecting support to outcomes

Government non-financial support extends beyond training and advisory services to encompass regulatory frameworks that, when effectively implemented, can simultaneously enhance compliance and stimulate innovation among SMEs. Njinyah et al. (2022) found that regulatory compliance, often enforced through non-financial means, significantly enhances firm innovativeness in Sub-Saharan Africa. Rather than viewing compliance as a burden, their research demonstrates that support mechanisms improving regulatory adherence simultaneously foster innovation within SMEs. In this sense, non-financial support serves not merely to enable compliance but also to stimulate value-adding behaviour by establishing clear expectations and institutional frameworks within which firms must operate. Mashal (2017), in a study conducted in Jordan, further supports this integrated view by demonstrating that government policies and training programs, combined with competitive incentives, significantly improve SME performance. These forms of support function as institutional levers that guide firm behaviour toward more productive and competitive outcomes.

However, the transferability of these findings to the Liberian context remains uncertain, given the differing levels of institutional maturity, resource availability, and governance quality between Sub-Saharan Africa's better-developed economies and Liberia's fragile institutional environment. Institutional theory contributes critical nuance to this discussion by framing government non-financial support and regulatory compliance as institutional levers that create norms and expectations guiding SMEs toward innovative and productive behaviours. However, the theory simultaneously highlights a crucial limitation, as the effectiveness of such support depends fundamentally on the local institutional context, which can severely constrain outcomes in less mature environments (Akinloye et al., 2025; Balzano, Marzi, & Turzo (2024). This contextual contingency is particularly relevant for Liberia, where weak institutional capacity may limit the effectiveness of even well-designed non-financial support mechanisms.

2.5.8 Institutional limitations in resource-constrained contexts

While institutional theory emphasizes on the purpose of rules, norms, and cognitive frameworks in influencing organizational behaviour (DiMaggio & Powell, 1983; Scott, 2001), its application to resource-constrained economies such as Liberia is not emphasized on enough, revealing both opportunities and limitations in the theory. In well-developed contexts, GNS often institutionalizes best practices through training, advisory services, and compliance facilitation (Njinyah et al., 2022). However, in fragile environments like Montserrado County, Liberia, the capacity of institutions to design, implement, and monitor such support remains limited. According to Palepu and Khana (2020) and Hudson et al. (2019), institutional weaknesses in emerging economies often result in inconsistent implementation of support programs, thereby reducing their effectiveness. This implies that although training workshops may be organized, the lack of follow-up, inadequate tailoring to sector-specific needs, and limited monitoring mechanisms often mean that the knowledge imparted is not systematically embedded within SMEs.

Moreover, institutional voids, marked by weak regulatory enforcement, limited infrastructure, and fragmented support networks, tend to constrain the impact of non-financial support (Palepu & Khana, 2020). In Liberia, where governance structures are still merging, government advisory programs may face challenges in reaching SMEs located outside Monrovia. This might be leading to unequal access and weak institutionalization of practices. Nevertheless, non-financial support remains vital, as it helps SMEs navigate institutional voids by providing legitimacy and signalling credibility to stakeholders like investors and customers (Balzano et al., 2024). This legitimacy effect is particularly significant in Montserrado County, where trust in government institutions is often low (Franklin, 2024), yet small businesses that align with government-endorsed practices can gain reputational advantages, which is consistent with institutional theory suggestion that when governments offer consistent non-financial support, they help make business practices that normally foster competitiveness (DiMaggio & Powell, 1983). Such support could institutionalize record-keeping, customer service, and compliance behaviours that are often overlooked for SMEs in Liberia due to the scarcity of resource.

Consequently, the reviewed literature, and the theoretical underpinning of institutional theory justify that non-financial support has the potential to generate incremental improvements in SME performance even in contexts of institutional weakness by shaping norms and practices that foster long-term sustainability. Thus, government non-financial support, beyond financial support is likely to influence or impact SME performance in Montserrado County, Liberia positively. Thus, the below was hypothesized:

- ***H4:*** *Government non-financial support has a positive effect on SME performance in Montserrado County, Liberia.*

2.6 Analytical framework

Table 1 Analytical Framework (Summary of literature review)

Authors	**Aspect of Entrepreneurship**	**Relationship between factors and SME performance**	**Key findings**
Ayatse (2024); Cahyani et al. (2024); Fayemi & Madueke (2023); Mahmood et al. (2021); Monday (2024); Nabi et al. (2017); Amaliawati et al. (2019)	Entrepreneurship Education (EE)	Positive influence on SME performance (SMEP)	EE enhances skills, innovation, productivity, entrepreneurial intentions, and managerial knowledge.
Marecha (2020); Arend et al. (2025)	EE	No direct/indirect influence without context	EE increases confidence but does not guarantee improved SMEP.
Abdullah & Mansor (2018); Arokodare & Asikhia (2020); Pulka et al. (2021); Banham (2010); Rashid et al. (2025); D'Oria et al. (2021); Arend et al. (2025)	External Business Environment (CEBE) as moderator	Positive moderation strengthening EE and SMEP relationship	CEBE (economic, legal, socio-cultural, institutional) conditions affect the translation of EE into SMEP.
Kirzner (1973, 2009); Tang et al. (2012); Shane & Venkataraman (2000); Ardichvili et al. (2003); McCaffrey (2014)	Entrepreneurial Alertness (EA)	Critical for opportunity recognition and exploitation	EA enables entrepreneurs to identify, assess, and seize

			opportunities, which is vital for the success of SMEs.
Shava & Matshaya (2022); Murad et al. (2024); Guo et al. (2016)	EE and EA	EA mediates EE and SMEP	EA as mediator enhances the effect of EE by facilitating opportunity recognition and exploitation.
Jayeola et al. (2022); Khan & Anuar (2017); Peter et al. (2018); Olaniyi & Bayai (2023); Rungani & Potgieter (2018); Pergelova & Angulo-Ruiz (2014); Crawford et al. (2023)	Government financial support (GFS)	Positive impact on SMEP, context-dependent	GFS enhances SME competitiveness and viability, but effectiveness depends on institutional factors like bureaucracy and clear policy.
Parasannath et al. (2024); Owusu-Ansah et al. (2017); Njinyah et al. (2022); Mashal (2017); Palepu & Khana (2020); Hudson et al. (2019)	Government non-financial support (GNS)	Positive impact on SME performance	Non-financial support through training, advisory, and regulatory facilitation improves SME outcomes but depends on institutional capacity and context.

Source: Researcher's own work

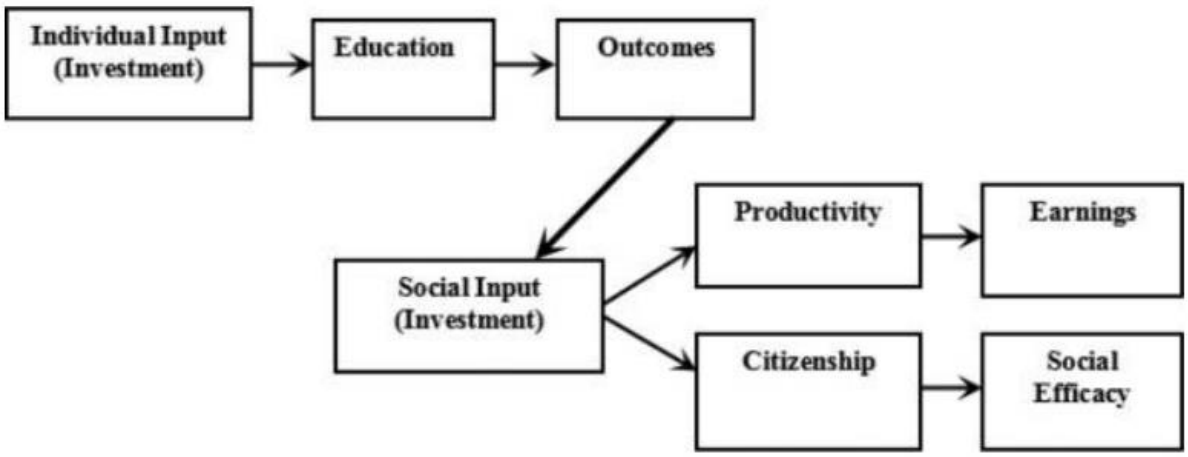
2.6.1 Theoretical framework

Human capital theory (HCT), Resource-based View (RBV), Institutional theory, Entrepreneurial Alertness Theory (EA) and Discovery Theory (DT) helped understand the link and impact between the studied entrepreneurial factors and SME performance as the literature review displayed. This section offers a more detailed review, and discussion on each theory, and their relevance to the entrepreneurial construct, factors or phenomenon investigated in this study.

2.6.1.1 Human capital theory (HCT)

HCT Becker (1964) as stated earlier, is the first theoretical foundation that underpins this research. HCT argues on the roles of investment in education and training in improving a person's productivity capacity, leading to personal and economic development (Almendarez, 2011; Burchi, 2006; Khaykin et al., 2020; Swanson & Holton, 2001, p. 110, as cited in Ahmed et al., 2017; Wuttaphan, 2017). The theory emphasizes that investing in education and skills development can have massive returns by enhancing innovation, productivity, and economic growth (Ross et al., 2024; Wirajing et al., 2023; Wuttaphan, 2017).

Figure 1: Model of human capital theory (HCT)



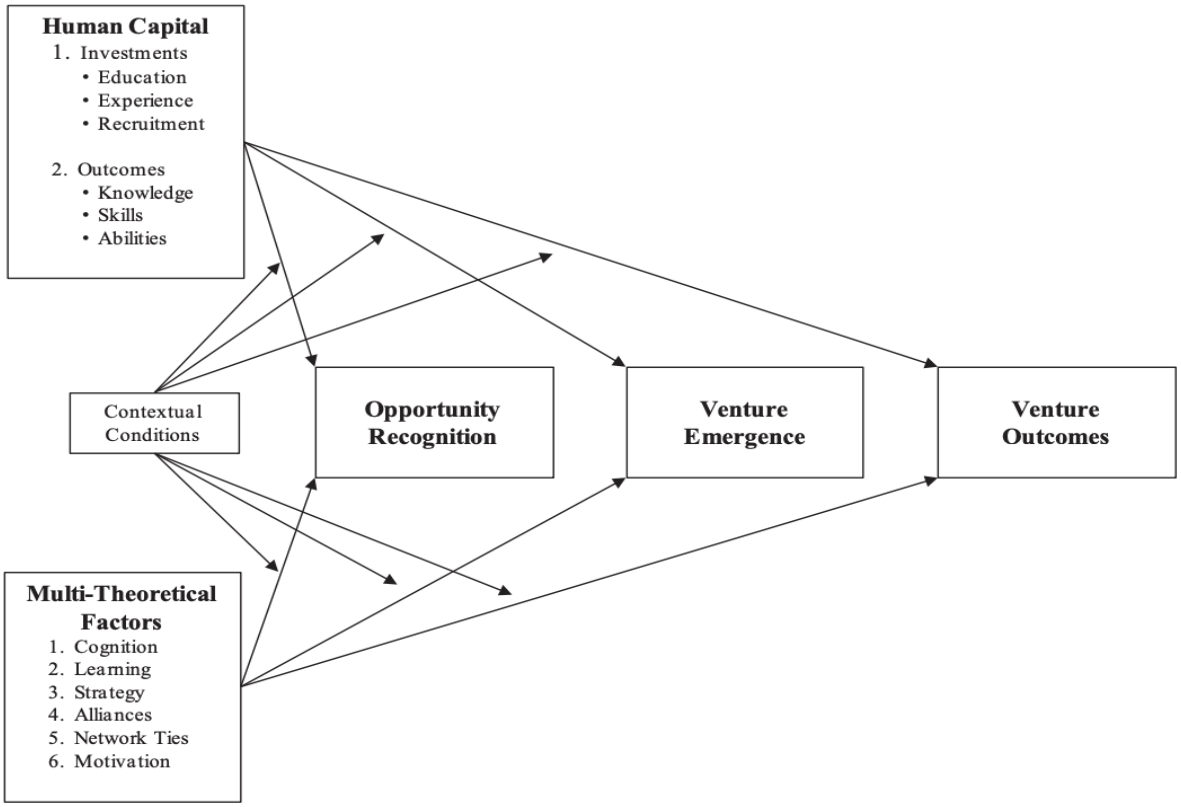
Source: Adapted from Swanson & Holton (2001, p.110), as cited in Ahmed et al. (2017)

2.6.1.2 HCT relationship with EE

In entrepreneurship Baum et al. (2001) and Frese et al. (2007), as cited in Unger et al. (2011) show a link between human capital, planning and venture, all crucial elements for entrepreneurship. Hechavarría and Ingram (2019), and He et al. (2024) linked EE to business sustainability, putting forward that entrepreneurs' cognitive abilities (Hechavarría & Ingram, 2019), which can be enhanced through education (He et. al., 2024), can enable them to more effectively operate in complex business environments (Hechavarría & Ingram, 2019). Several studies have also added to Becker's (1964) HCT. Some argue that educational investment has several significances, while others stand on the point that its benefits are not guaranteed or it is risky to invest in it (Liu, 2018; Oprean-Stan & Stan, 2015; Psacharopoulos, 1982; Voss et al. 2017).

However, Marvel et al. (2016) beautifully linked the HCT to the entrepreneurship process based on a typology model developed upon reviewing 109 articles in top management and entrepreneurship journals over 20 years (See figure 2). Building on Unger et al. (2011) contribution, the model indicates that human capital investments in areas like education, experience, and recruitment are significant in shaping entrepreneurial success (Marvel et al., 2016). Ahmad et al. (2023) support this, where they indicated that some of these investments, especially in education, offer outcomes like skills and knowledge. According to Baeta and Andreassi (2021), education is essential for recognizing business opportunities and venture development. Furthermore, multi-theoretical factors, such as the combination of motivation and network, impact this dynamic process (Marvel et al., 2016; Santos et al., 2014, p. 665; Venter & Urban, 2015; Wasim et al., 2023). Lastly, opportunity recognition and venture emergence are interdependent stages that result in different venture outcomes (Marvel et al., 2016; Venter & Urban, 2015). These discussions indicate that HCT is linked to EE since its emphasis is on the significance of "investments in education," making it well-fitted within this research.

Figure 2: Typology model of HCT in the entrepreneurship process



Source: Adapted from Marvel et al. (2016, p. 618)

2.6.1.3 The resource-based view (RBV)

According to Barney (1991), RBV put forward that a firm's internal resources and capabilities play a vital role in shaping its competitive edge and overall performance. The theory argues that long-term success can be achieved when organizations effectively leverage valuable, unique, and difficult to imitate resources (Komakech et al., 2024). Such resources may include tangible elements like financial and physical assets, as well as intangible ones such as human expertise, intellectual property, and organizational values or culture (Lubis, 2022; Utami & Alamanos, 2023). In entrepreneurial context, RBV stresses the importance of a business's internal resources in shaping its strategic decisions, innovation capabilities, and ultimately, its performance in the marketplace (Kero & Bogale, 2023; Madhani, 2009).

RBV has been widely applied to understand business performance, particularly among SMEs, which often face resource constraints compared to larger firms. According to Abu-Rumman et al. (2021), SMEs can use their unique internal resources, like managerial capabilities, entrepreneurial orientation, and strong social networks, to

navigate their resource limitations and improve their business outcomes. Focusing on these internal assets can aid SMEs set themselves apart from competitors, create value, and achieve long-term success.

Relating it directly to the field of entrepreneurship, RBV suggests that entrepreneurs who possess valuable resources like entrepreneurial skills, knowledge, and networks, are highly to recognize and take advantage of opportunities that lead to improved business performance (D'Oria et al., 2021; Fiet, 2002; Sirmon et al., 2007). For instance, human capital, including education, experience, and skills of the entrepreneur are crucial in a business's capability to innovate and adjust to evolving market conditions (Barney et al., 2001; Marvel et al., 2016). Entrepreneurs who can mobilize their human resources effectively tend to perform better, as they can execute strategies that lead to higher profitability and growth (Ketkar & Sett, 2009). The close links between RBV, and HCT made it well-suited in this study.

2.6.1.4 Entrepreneurial Alertness (EAT) and Discovery Theory (DT)

According to EAT as discussed earlier, individuals possess a unique cognitive ability to recognize opportunities that others may overlook due to heightened sensitivity to market anomalies and changes (Kirzner, 1997). This theory indicates that entrepreneurs are distinguished not by their access to information, but by their alertness to how existing information can be reconfigured into profitable opportunities (Kuckertz et al., 2017; Tang et al., 2012). Entrepreneurial alertness comprises scanning, association, and evaluation (Tang et al., 2012), which are cognitive dimensions that enable entrepreneurs to notice gaps, make novel connections, and judge the feasibility of potential ventures (Baron, 2006). This dynamic capability is foundational to the broader entrepreneurship **discovery theory (DT)**, another theoretical lens grounding this study due to its close conceptual alignment with alertness.

According to DT, entrepreneurial action is driven by the recognition of opportunities that exist in the marketplace but are not yet fully exploited (Kirzner, 1997). The theory advocates that entrepreneurs play an essential role in identifying gaps or inefficiencies in existing markets and discovering ways to capitalize on them (Alvarez & Barney, 2006). DT also focuses on how entrepreneurs spot and exploit opportunities that others might overlook, thereby contributing to business performance and economic

development (Klein, 2008). The theory emphasizes the significance of alertness, creativity, and the ability to spot opportunities in dynamic and uncertain environments (Shane, 2003; Shane & Venkataraman, 2000). In the context of business performance, DT suggests that firms with individuals highly alert to opportunities have higher chances of succeeding and outperforming their competitors (Alvarez & Barney, 2006). These entrepreneurs, through their ability to identify new opportunities or untapped markets, can innovate, introduce new products or services, and differentiate their business offerings (Shane & Venkataraman, 2000). As a result, businesses that engage in the discovery of new opportunities often experience increased market share, improved profitability, and long-term growth.

Moreover, the theory asserts that entrepreneurial opportunities discovery is not a static process but a continual cycle of exploration and exploitation (Shane & Venkataraman, 2000). Entrepreneurs who can successfully discover new opportunities and then effectively implement them can likely build a competitive edge and achieve high performance (Eckhardt & Shane, 2003). These discovered opportunities can be related to technological innovations, changes in consumer preferences, or regulatory shifts, all of which may lead to significant improvements in business performance (Venter & Urban, 2015). DT also links up with the concept of opportunity recognition, where entrepreneurs are seen as alert to potential market changes and equipped to identify opportunities that others cannot see (Kirzner, 1997; Kuckertz et al., 2017; Venter & Urban, 2015). This heightened level of awareness can result in faster decision-making, adaptability, and strategic choices that enhance business performance, particularly in dynamic and competitive environments (Kuckertz et al., 2017). Thus, the EA construct is grounded within the EAT and DT for their emphasis on alertness, recognizing and seizing opportunities.

2.6.1.5 Institutional Theory

According to institutional theory, organizations' behaviour and performance are influenced significantly by the institutional environment they operate in, including formal regulations, industry standards, and social norms (Scott, 2001). In relation to entrepreneurship, institutional theory focuses on how government institutional support in areas such as political, legal, economic, and cultural forces shape the strategies, structures, and performance of businesses (Bruton et al., 2010). These institutional

pressures affect entrepreneurs by dictating the rules of the game, influencing access to resources, and determining the legitimacy of their business activities (DiMaggio & Powell, 1983; Smets & Reihlen, 2012).

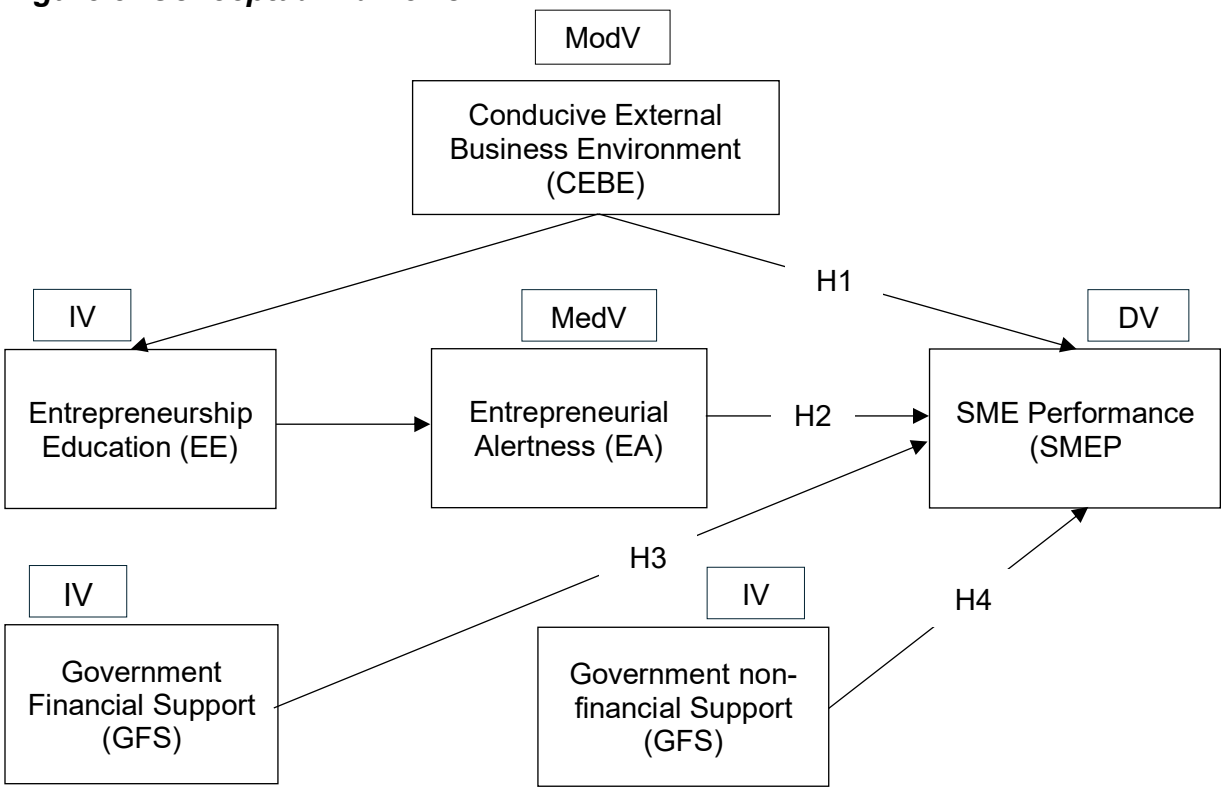
Institutional theory has extensively been applied to understand the way businesses reply to institutional support and how these responses affect their performance (Magnano et al., 2024). Entrepreneurs operating in institutional environments with strong government support policies often experience higher business performance due to access to resources such as financial support, infrastructure, and legal protection (North, 1990). For instance, in countries where the institutional environment promotes entrepreneurship through favourable policies, entrepreneurs are probably to engage in innovative activities, secure financing, and grow their businesses (Bhat & Khan, 2014).

Institutional theory also explains the role of institutional isomorphism, where organizations tend to adopt similar practices due to pressure from external forces, including government regulations, industry norms, or cultural expectations (Sakib, 2020; DiMaggio & Powell, 1983). For entrepreneurs, aligning their business practices with institutional norms can enhance their legitimacy to stakeholders like customers, investors, and regulatory bodies (Thomas & Lamm, 2012). According to Schuman (1995), this legitimacy often translates into improved business performance, as businesses that are perceived as credible and compliant with institutional expectations are more likely to attract investments, form partnerships, and expand their market share. This made the theory relevant for understanding the constructs of government financial and non-financial support due to its strong emphasis of government institution roles on business, justifying its significance to this study.

2.6.2 Conceptual framework

The below conceptual framework and hypotheses were developed based on the entire discussion in chapter 2.

Figure 3: Conceptual framework



2.6.2.1 Hypotheses

- **H1:** The relationship between entrepreneurship education and SME performance is positively moderated by a conducive external business environment in Montserrado County, Liberia.
- **H2:** The relationship between entrepreneurship education and SME performance is positively mediated by entrepreneurial alertness.
- **H3:** Government financial support has a positive impact on SME performance in Montserrado County, Liberia.
- **H4:** Government non-financial support has a positive effect on SME performance in Montserrado County, Liberia.

Table 2: Consistency matrix (Research hypotheses and objectives)

Research Topic: The impact of entrepreneurship education and government support on SME performance in Montserrado County, Liberia							
Main Objective: To investigate the impact of entrepreneurship education and government support on SME performance in Montserrado County, Liberia.							
Sub-Aims/Objectives	**Literature Review**	**Research Questions**	**Hypothesis**	**Variables (IV & DV)**	**Source of Data**	**Type of Data**	**Analysis**
1. To investigate the extent to which a conducive external business environment moderates the relationship between entrepreneurship education and SME performance in Montserrado County, Liberia.	Abdullah & Mansor (2018); Arokodare & Asikhia (2020); Pulka, et al. (2021); D'Oria et al. (2021); Arend et al. (2025)	1. To what extent does a conducive external business environment moderate the relationship between entrepreneurship education and SME performance in Montserrado County, Liberia?	H1: The relationship between entrepreneurship education and SME performance is positively moderated by a conducive external business environment in Montserrado County, Liberia.	IV: Entrepreneurship education DV: Performance ModV: conducive external business environment	Q2.1 to 2.4 Q4.1 to Q4.4 Q5.1 to Q5.4	Ordinal (7 Likert Scale)	Correlation analysis Multiple Regression with Interaction Terms
2. To investigate the extent to which entrepreneurial alertness mediates the	Kirzner (1973); Tang et al. (2012); Lew et al. (2022); Sassetti	2. To what extent does entrepreneurial alertness mediate the relationship between	H2: The relationship between entrepreneurship education and SME	IV: Entrepreneurship education	Q2.1 to 2.4	Ordinal (7 Likert Scale)	Correlation Analysis Structural

relationship between entrepreneurship education and SME performance in Montserrado County, Liberia.	et al. (2021); Shane & Venkataraman (2000)	entrepreneurship education and SME performance in Montserrado County, Liberia?	performance is positively mediated by entrepreneurial alertness in Montserrado County, Liberia.	DV: SME Performance MedV: Entrepreneurial Alertness	Q4.1 to 4.4 Q3.1 to Q3.3		Equation Modelling (SEM)
3. To investigate the impact of government financial support on SME performance in Montserrado County, Liberia.	Rungani and Potgieter (2018); Thapelo (2020)	3.To what extent does government financial support impact SME performance in Montserrado County, Liberia.	H3: Government financial support has a positive impact on SME performance in Montserrado County, Liberia.	IV: Government financial support DV: SME Performance	Q6.1 to 6.4 Q4.1 to Q4.4	Ordinal (7 Likert Scale)	Multiple Linear Regression Analysis
4. To investigate the effect of government non-financial support on SME performance in Montserrado County, Liberia.	Berthod (2018); Mashal (2017); Parasannath et al. (2024); Owusu-Ansah et al. (2017)	4. To what extent does government non-financial support effect SME performance in Montserrado County, Liberia.	H4: Government non-financial support has a positive effect on SME performance in Montserrado County, Liberia.	IV: Government non-financial support DV: SME Performance	Q7.1 to Q7.4 Q4.1 to Q4.4	Ordinal (7 Likert Scale)	Multiple Linear Regression Analysis

Keywords: Entrepreneurship education, SME performance, entrepreneurial alertness, government financial and non-financial support, government, external business environment, Montserrado County, Liberia

2.7 Chapter summary

This chapter has reviewed existing literatures on the role of EE, the CEBE, EA, GFS, and GNS influence on SME performance, blending the discussion in the theoretical underpinning. The discussion revealed that EE can enhance knowledge, skills, and attitudes necessary for SME growth, while a CEBE, through market dynamics, access to finance, and regulatory frameworks, can create both opportunities and constraints for SMEs. EA was shown to be a crucial mediator that enables SME owners to identify and exploit opportunities, while GFS and GNS support arise as vital factors in providing enabling policies, infrastructure, and resources to foster business development. However, the impact of all other variables on the dependent variables was found to be context dependent. For example, EE might show a positive impact on SME performance in top economies like South Africa, Nigeria, or Kenya, but its impact might be negative in low-income nations like Liberia, and others. The chapter also examined relevant theoretical perspectives, like Human Capital Theory (HCT), Resource-based View (RBV), Institutional Theory, Entrepreneurial Alertness Theory (EAT), and Discovery Theory (DT), which together offer a foundation for understanding how internal capabilities and external institutional arrangements shape SME trajectories. Building on these frameworks, an analytical model, which highlights the relationships among the study's key constructs and hypotheses was presented, followed by the restating of the study's hypotheses.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

A research design is a carefully thought-out plan for how to answer the research questions, and a methodology is the method used to carry out that plan (Sileyew, 2019). Research design and techniques are two different aspects that are closely related. A good research design ensures that the data researchers collect help in achieving the research questions or objectives (Khanday & Khanam, 2019). The approach, design, methods, and procedures used in this study for data gathering and analyse data are discussed and justified in this chapter.

3.2 Research approach

A quantitative approach, a research approach that inquire about human or social problems based on a theory testing (Creswell, 1994) was employed in this study. Quantitative studies comprise variables that can be numerically measured and analysed using statistical process to discover whether the theoretical predictions are true or not (Creswell, 1994; Rana et al., 2021). It also emphasizes objectivity, measurement, and statistical procedures to explain relationships among variables (Creswell, 2012; Creswell, 1994). The study employed a quantitative approach because it tested hypotheses to achieve the research objectives. These testing of hypothesis collectively helped to understand the collective impacts of EE, and GS on the SMEP, and to understand the mediating influence of EA, and the moderating effects of the CEBE on the connection between EE and SMEP. Since quantitative research allows generalization of findings to a larger population (Nikolopoulou, 2022), it was mainly significant for this study because the study dealt with SMEs in Montserrado Couty, Liberia, which has a higher population of over 80% of the country's population (UNDP, 2022; World Bank, 2020). This method was thus suitable because it was efficient and allowed for data to be gathered from a huge sample of respondents in a limited period (Creswell, 2014).

Although quantitative approach was used, it is also necessary to note that there were some limitations. This approach was unable to fully capture respondents' experiences and motivations since it only converted complex subjective experiences into numerical

data (Lim, 2024). Moreover, statistical analysis can identify correlations, but it cannot explain their causes or background (Janse et al., 2021), which was one of the limitations of this approach. Additionally, depending only on surveys can present response bias, which may compromised data reliability (Wetzel et al., 2015). Finally, the strict quantitative surveys framework restricts the identification emerging themes that could be further investigated using qualitative approaches (Tenny et al., 2022). Despite these limitations, quantitative approach was enough to strengthen the reliability and objectivity of the study because it provided clear, actionable insights to support the relationship between the variables.

3.3 Research design

A descriptive cross-sectional design was used. Descriptive cross-sectional research is a quantitative approach that carefully describes the characteristics, behaviours, and perceptions of a population at a single point in time without manipulating variables (Creswell, 2014; McCombes, 2019; Wang & Cheng, 2020). This design was effective in offering a clear and accurate indication of the impact of selected determinants on the performance of SMEs (Khanday & Kanaam, 2023). A descriptive cross-sectional research design helps in collecting quantifiable information at a single point in time that can be statistically analysed (Manjunatha, 2019; Wang & Cheng, 2020), making it suitable for this study due to the limited time.

Additionally, since there was a need for identifying patterns, trends, and relationships among variables, descriptive research design was essential for understanding the broader impact of the selected constructs on the performance of SMEs. Furthermore, comparative analysis between various groups within the target population is supported by descriptive research (Willie, 2024). Based on the study's variables, it was easy to examine variations, allowing the study to offer specific recommendations to SME owners, educators, and policymakers passionate about improving Liberia's business landscape.

3.4 Data collection methods

The study solely relied on primary data. Primary data is raw and unprocessed, original information that the researcher personally gathers (Stewart, 2025). Primary data includes interviews, case studies, observations, surveys, and questionnaires to meet

their needs (Ajayi, 2023). Primary data was collected for this study because it allows for real-time data to be collected (Ajayi, 2023; Costa, 2022; Institute for Work & Health, 2015). Real-time data are always specific to the researcher's needs, available in crude form, and are more accurate and reliable (Ajayi, 2023; Bryman, 2012). Since the study investigated specific factors impacting the performance of SMEs, and in the context of a specific area, primary data was crucial to gather firsthand insights from the target population (Stewart, 2025). Unlike secondary data, which may be outdated, or irrelevant, primary data allows for findings to be specific to the study's objectives and context, enhancing validity and reliability (Stewart, 2025).

The primary data gathered quantitative insights through structured survey questionnaires consisting only closed-ended questions. Closed-ended questions are essential for gathering quantifiable data on participants and current practices (Kabir, 2018). These questions were presented in Likert-scale format, allowing for patterns, correlations, and trends across responses to be identified (Saunders et al., 2019). This approach ensures consistency, enhances reliability, and minimizes subjective interpretation by using standardized response categories, making it appropriate for a quantitative study (Bhandari & Nikolopoulou, 2020; Karunarathna et al., 2024). The structured nature of the survey allowed for data to be collected efficiently from a large sample of SME owners in Montserrado County, Liberia. This reduced participant load while covering the comprehensiveness of research variables (Hansen & Świderska, 2023). Additionally, this design supports advanced statistical analyses such as correlation and regression analyses, and structural equation modelling to determine significant relationships between variables (Vandever, 2020). Using a single, comprehensive survey questionnaire aligns with the study's objective of systematically measuring the impacts of various variables, this method also allows objectivity, improves data reliability, and practical application of findings in policy and educational program development (Saunders et al., 2019). As a result, this approach was well-suited for this study.

3.5 Population and sample

3.5.1 Population

This population of this study was strictly SME owners operating within the formal and informal sectors in Montserrado county, Liberia, who have been exposed to EE or

related training and have received a form of GFS or GNS. These businesses are marked by numerous difficulties that affect their growth. According to the BTI (2025), over 85% of Liberia's workforce operates in the informal economy, and there are roughly over 10,000 formally registered SMEs in Liberia (Fund for African Private Sector Assistance & African Development Bank, 2023). Due to this economic landscape, this population was significant and diverse. However, this does not imply that the population size for this study was 85% or 10,000 of Liberia's population. The population size specifically for Montserrado County was unknown and was thus calculated using Cochran's formula since this is possible (Uakarn et al., 2021).

3.5.2 Sampling technique

A non-probability sampling method was adopted for this research, as it enabled the selection of participants without requiring every individual or element in the population to have an equal or known chance of inclusion. This approach was chosen because it is efficient, practical, and cost-effective for collecting data (Kim, 2022). Specifically, the study utilized a purposive sampling technique, which involves deliberately selecting respondents who meet criteria that align with the study's aims (Nikolopoulou, 2023; Campbell et al., 2020). This ensured that the data gathered directly addressed the research questions. Given that the investigation focused on SME owners who had benefited from EE, GFS, and GNS, the intentional selection of participants with this background provided relevant and insightful perspectives on how EE and GS influence SME performance.

3.5.3 Sample size

Due to the unknown population size of SMEs in Montserrado County, Liberia, as indicated in section 3.5.1, the sample size was determined using Cochran's formula. According to Uakarn et al. (2021), Cochran's formula is applicable when the population size is unknown. Cochran's formula is expressed as, $n=Z^2\times pq\div e^2$ (Uakarn et al., 2021). The formula defines n as the sample size, z as the Z table value at a 95% confidence level (1.96), e as the margin of error (5%), p as the estimated proportion of the population, and q as 1-p (Uakarn et al., 2021). Consequently, below was the sample size calculation:

3.5.4 Sample size calculation

Data

Z (confidence level) = 95% (On the Z table,95% = 1.96)

e (margin of error) = 5% (0.05)

p (population Proportion) = 50% (0.5)

q=1-p (population proportion

n (sample size) =?

Solutions

$n = Z^2 \times pq \div e^2$

$n = (1.96)^2 \times 0.5\ (1-0.5) \div (0.05)^2$

$n = 3.8416 \times 0.25 \div 0.0025$

$n = 0.9604 \div 0.0025$

$n = 384.16$

Sample size (n) = 384.16

Following the determination of the sample size, the plan (as indicated in the research proposal) was to select a designated percentage of the calculated sample size as the study's final sample size, provided it does not exceed one thousand (Bullen, 2013). Thus, the plan was to select 39% (150) of the 384-sample size suggested by Cochran's formula. This decision was made due to fear of logistical constraints, like resource limitations and anticipated lower response rates. This sample size was also considered to preserved statistical thoroughness without oversampling and was advantageous due to the challenges in reaching a substantial number of SME owners (Bullen, 2013). However, during the first week of the data collection process, it became apparent that it was possible to collect over 300 responses due to high quality response rates. This informed the decision to consider the previously calculated sample size of **384** as the study's sample size, instead of the 39% (150), with the plan of reaching data capacity at **300 or more** responses to facilitate a comprehensive representation of diverse business types and backgrounds within Montserrado's SME sector. In total, 371 valid responses were received, which was a big sample size enough for this study.

3.5.5 Sampling frame

The sampling frame, showing the expected responses (in the research proposal) compared with the actual responses collected across the different categories of SMEs in Montserrado County, Liberia are summarized in Table 3 below. The sampling figures are estimates by the researcher, based on preliminary field knowledge and SME sector distribution in Montserrado County, Liberia. There is limited publicly available data or formal sampling frames for SMEs in this context, likely due to scarce research and inadequate data collection infrastructure. Thus, estimates were necessary for practical and focused data collection to capture relevant SME categories.

Table 3: Sampling frame summary

Sample category	**Expected responses (ER)**	**Actual responses (AR)**
Service-based (e.g., hairdressing, car repair)	30	173
Retail	40	93
Agriculture	60	55
Manufacturing/Production	20	18
For-profit organizations	0	4
Others	0	28
Total sample (N)	**ER = 150**	**AR = 371**
Note: *The sampling technique employed for all sample category was purposive sampling technique*		

As indicated earlier, the study's initial sample size was 150, which was expected to come from four different business categories. But 371 valid responses were received across various business categories, which was more than double of the initial expected number. The service-based type accounted for most responses (173), followed by retail (93), agriculture (55), and manufacturing/production (18). Unexpectedly, responses were recorded from for-profit organizations (4) and other unspecified business types (28). This distribution provided a diverse and representative dataset for analysis.

3.6 The research instrument

Data was collected using a structured survey created using Qualtrics to gather quantitative data. The use of Qualtrics allowed a structured and reliable approach to data collection because it allows for controlled question sequencing, enhanced response validation, and accessibility across different digital platforms (Qualtrics, 2023). Since the study has 6 constructs, the data collection instrument was designed to capture all these constructs, with an additional section that collected demographic information. Thus, the survey instrument had 7 sections in total, and the below table summarizes how the constructs were structured in the data collection instrument:

Table 4: Constructs structured in Qualtrics

Constructs	No: of items	Survey items	Sources
1. Demographic	7	Q1.1 to Q1.7	Researcher
2. Entrepreneurship education	4	Q2.1 to Q2.4	Wardana et al. (2020)
3. Entrepreneurial alertness	3	Q3.1 to Q3.3	Tang et al. (2012)
4. Conducive External Business Environment	4	Q4.1 to Q4.4	Otto et al. (2023); Yepwi et al. (2025)
5. SME performance	4	Q5.1 to Q5.4	Garg et al. (2004)
6. Government financial support	4	Q6.1 to Q6.4	Crawford et al. (2023); Jayeola et al. (2022)
7. Government non-financial support	4	Q7.1 to Q7.4	Campeau and Kelly (2024); Surya et al. (2021)
Note: All instruments were adjusted to match the current study, except those from Tang et al. (2024)			

Due to the study's focus on measurable trends and statistical relationships, all survey questions were closed-ended. The demographic section was just normal multiple-choice responses, but the survey was designed and set up in a way that respondents could only select a single answer among multiple options. All other constructs were measured using 7-point Likert scale format, ranging from *"1=Strongly disagree to 7=Strongly agree."* This facilitated efficient data collection and analysis.

3.7 Data collection procedures

The data collection process was systematic and ethically grounded to ensure the accuracy, credibility, and inclusiveness of responses. The first step was to identify eligible participants from the target population. Eligibility criteria required participants to have been exposed to entrepreneurship education or related training at least once and must have received some form of financial or non-financial support from the government (Willam, 2024). Participants were identified through various channels, including social media platforms like Facebook and WhatsApp groups, LinkedIn, and local business networks, to ensure a diverse and representative sample. After participants were identified, a structured survey instrument was developed and administered using the Qualtrics platform. Efforts were made to ensure that the language and structure of the questionnaire were clear and accessible to respondents with varying levels of education and technological literacy.

Three trained research assistants were recruited to assist in facilitating data collection. These assistants received comprehensive ethics training to ensure compliance with ethical research standards and to safeguard respondents' confidentiality before data collection begins. Throughout the data collection period, weekly meetings were conducted with the assistants to provide guidance, address challenges encountered and ensure that high standards of data quality and integrity were maintained. This monitoring helped ensure that the data collection process was carried out effectively and ethically. A hybrid data collection strategy was used to ensure broad participation. While the survey was primarily distributed online via social media such as Facebook and WhatsApp groups, and LinkedIn, paper-based versions were administered by the three trained research assistants to SME owners with limited internet access through local business networks (Wilkinson & McTiernan, 2020). These responses were later input into the Qualtrics platform, and the physical copies were securely destroyed to maintain confidentiality.

3.8 Data analysis strategies and interpretation

The Statistical Package for the Social Sciences (SPSS) served as the primary tool for analyzing the collected data. This software was chosen for its proven efficiency in executing a range of descriptive and inferential statistical procedures. As highlighted by Rahman and Muktadir (2021), SPSS is particularly adept at managing extensive

and complex datasets, making it ideal for quantitative research designs. In this study, Qualtrics facilitated data collection, while SPSS supported analytical processing, together enhancing the reliability, validity, and reproducibility of the research (Sürücü & Maslakci, 2020). Descriptive statistics, such as frequencies, percentages, means, and standard deviations, were employed to provide a clear summary of participants' demographic details, including age, gender, education level, business sector, business category, duration of operation, and location. This step provided a baseline understanding of the study sample within Montserrado County, Liberia.

An Exploratory Factor Analysis (EFA) was carried out to identify the underlying dimensions of the constructs, grouping correlated items under their respective factors. The internal reliability of the measurement scales was verified using Cronbach's alpha. Thereafter, inferential statistical analyses, specifically Pearson's correlation and multiple regression, were conducted. The correlation analysis determined the nature and intensity of associations between variables, while regression analysis assessed how the independent variables (IVs) influenced the dependent variable (DV). To further test moderation and mediation relationships, Structural Equation Modelling (SEM) was performed using the AMOS extension of SPSS. This provided deeper insights into the moderating role of CEBE and the mediating effect of EA on the relationship between EE and SMEP. The analytical outcomes are presented in Chapter 4 using tables and figures, accompanied by interpretations aligned with the study's research objectives.

3.9 Study limitations and challenges

This study faced several key limitations that warrant explicit acknowledgment:

- **Self-reported performance data:** Reliance on participants' self-reported data introduced potential biases including social desirability bias and inaccurate recall, which compromised data reliability for subjective variables such as attitudes and perceptions (Bryman, 2016).
- **Purposive sampling bias:** The use of purposive sampling, targeting SME owners who had participated in EE or received GS, introduced selection bias and limited representation of the broader Montserrado County SME population, thereby reducing external validity (Creswell & Creswell, 2018).

- **Cross-sectional design limitations:** The cross-sectional research design captured only a single point in time, precluding the establishment of causal relationships between independent variables (EE, GS) and the dependent variable (SMEP). This methodological constraint fundamentally limits causal inference.
- **Geographic constraints:** The geographic scope restricted to Montserrado County, Liberia limits the generalizability of findings beyond this context-specific setting, necessitating caution in extrapolating results to other regions or countries.
- **SME sector heterogeneity:** The inherent diversity within the SME sector, comprising retail operations, service-oriented enterprises, and other business types, may not have been fully captured, as each subtype operates under distinct contextual challenges and opportunities (Williams & Horodnic, 2015).

3.10 Quality assurance

3.10.1 External Validity (Generalisability)

External validity was supported by selecting a different and representative sample of SME owners. This improved the generalizability of the findings. The study's objective was to provide insights that can be applied to Montserrado county and other areas in Liberia with similar characteristics. This included SME owners from a different sectors and business sizes. While the study focuses on a specific geographic area, the structured nature of the survey allowed generalizing the findings to broader populations within the context of Liberian SMEs.

3.10.2 Reliability

Reliability was maintained using standardized closed-ended questionnaires to ensure consistency during data collection across all respondents. The questions were carefully crafted out for clarity, concise, and free from ambiguity. This reduced the risk of diverse interpretations. This standardized approach also allowed the same responses to be reliably measured across different participants, and the data analysis was conducted using reliable statistical methods (Cronbach's alpha value greater than 0.7) to further reinforce the study's reliability.

3.10.3 Internal Validity

Internal validity was maintained by carefully designing the survey to make sure that the questions were directly in relation to the research objectives and minimize the influence of confounding variables. The study was structured to measure the impact and relationships between the independent and dependent variables without being unduly influenced by outside factors. The sample was purposely selected from a broad pool of SME owners. This provided results accurately reflect the impact and relationship between variables.

3.10.4 Objectivity

Objectivity was ensured via the use of closed-ended questions designed to be neutral and non-leading to make sure that participants are not influenced by the researcher's personal opinions or biases. Data analysis was carried out using objective statistical techniques. This allowed that conclusions were drawn purely based on the data gathered. This approach minimized the risk of subjective interpretation to ensure that the findings are grounded in empirical evidence rather than personal judgment, upholding the study's objectivity.

3.11 Ethical considerations

This study was conducted in accordance with established ethical research standards. Ethics clearance with ***ethics protocol number: WBS/EN2922343/146*** was obtained from the Wits Business School Ethics Committee constituted under the University Human Research Ethics Committee (Non-Medical) to ensure full compliance with institutional guidelines. The data collection instrument (Qualtrics survey form) included the university's official header, the study's introduction, the researcher's and the supervisor's full names and contact details. Participants were required to voluntarily give their consent on the survey introduction page before continuing with the rest of the survey. Participation was entirely voluntary, and respondents were informed of their right to decline participation or withdraw from the study at any point without penalty. They were also under no obligation to answer any questions they preferred to avoid.

To ensure confidentiality, all data were securely stored in password-protected Google Drive folders, accessible only to the researcher and the academic supervisor. Personal

identifiers and sensitive information were anonymized, and physical documents collected through paper-based surveys were securely destroyed after responses were transferred to the digital platform. Participants were informed that their responses would be used solely for academic and research purposes, including potential inclusion in academic publications and policy discussions. No excessive or disproportionate inducements were offered to encourage participation. Furthermore, the study took deliberate steps to avoid misleading participants or engaging in deceptive practices. The purpose of the research was clearly communicated throughout the process, and transparency was maintained at every stage. Participants who expressed interest were given the opportunity to review the draft research report and provide feedback prior to its finalization. Finally, the researcher ensured that all findings were reported honestly, without data manipulation or misrepresentation, to maintain the integrity and credibility of the research.

3.12 Chapter summary

This chapter described the methodology adopted to carry out the research. A quantitative research approach was employed to test hypotheses and establish statistical relationships, supported by a descriptive cross-sectional research design. Primary data were collected through structured surveys distributed via Qualtrics, combining online and paper-based methods to ensure inclusiveness. Closed-ended questions, particularly measured on a 7-point Likert scale, were used to capture responses across seven constructs, ensuring reliability and objectivity. The study population consisted of SME owners in both formal and informal sectors who had been exposed to EE and GS. Purposive sampling was applied, and sample size was determined using Cochran's formula, with 371 valid responses received. SPSS was employed to analyse data for descriptive and inferential statistics, while AMOS was used for structural equation modelling (SEM) to test mediation and moderation effects. Measures to ensure validity, reliability, and objectivity were emphasized, alongside strict ethical compliance, including informed consent, confidentiality, and integrity of reporting. This methodology provided a structured, reliable, and ethical approach to systematically assess the relationships between the study's constructs.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents the study's results. It begins with an explanation of the data cleaning and screening, its sample characteristics, and results from descriptive statistics, data validity, scale's reliability, correlation, regression, structural equation modelling and hypotheses testing.

4.2 Data quality / screening

The data was collected using Qualtrics and then exported into SPSS for statistical analysis, as indicated in Chapter 3. In total, there were 376 participants. However, after sorting the data into ascending orders in SPSS, it was found that 5 of these responses were significantly incomplete, therefore, they were cleared out. The remaining 371 responses went under thorough missing value analyses, and no missing values were identified. Thus, the dataset was thoroughly cleaned and screened for further statistical analysis.

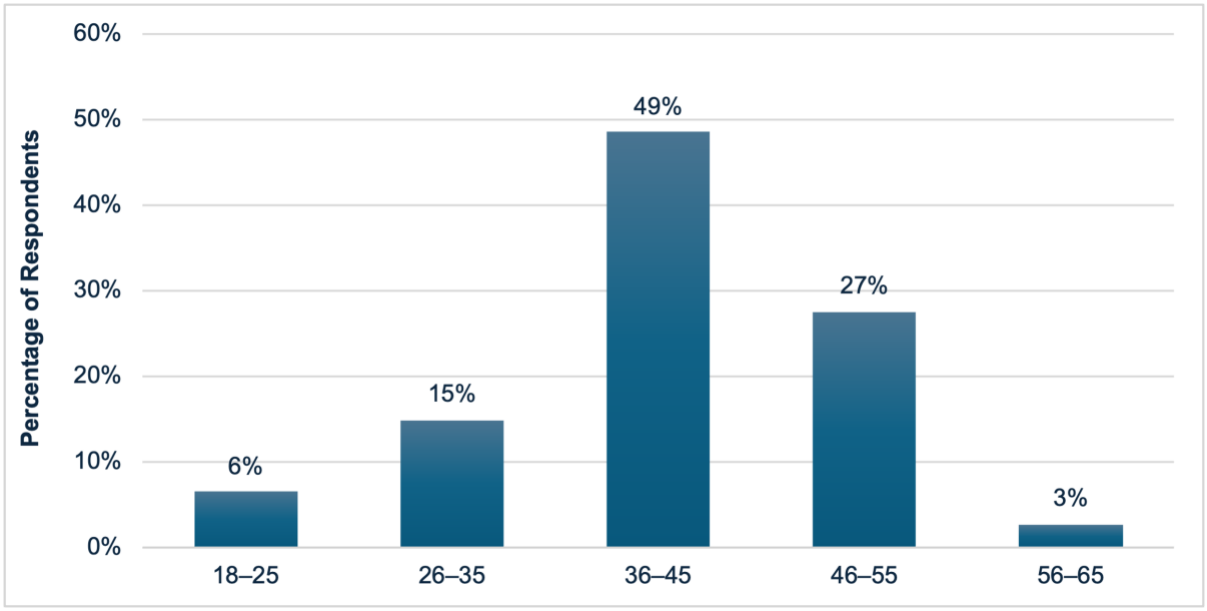
4.3 Sample characteristics

The sample consisted only SME owners/managers in Montserrado County, Liberia, who have had any form of exposure to entrepreneurship education (EE) or training and have received any form of government support (GS), whether financial support or non-financial support towards their business operation.

4.4 Demographics analysis

Respondents' demographic information such as their age group, gender distribution, educational level, sector their businesses operate in, the duration of the business operation, type of business they operate, and business location were collected as well. Based on these demographics' information collected, the study captures various range of participants. Thus, the demographic data is presented below in charts and/or tabular format with their descriptions.

Figure 4: Respondents age group



The above bar chart shows respondents age distribution. Results revealed that most respondents (49%), were between the ages of 36-45 age range, 27% between 46-55, 15% between 26-35, 6% between 18-25, and just 3% between 56-65.

Figure 5: Gender distribution

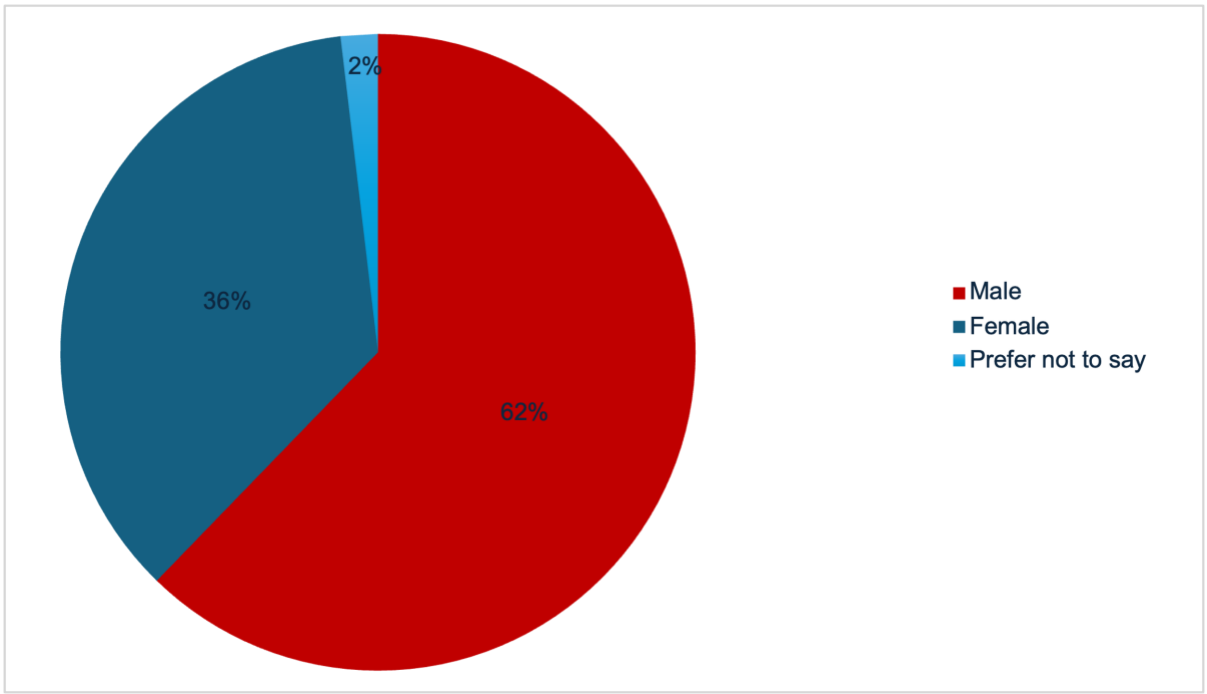
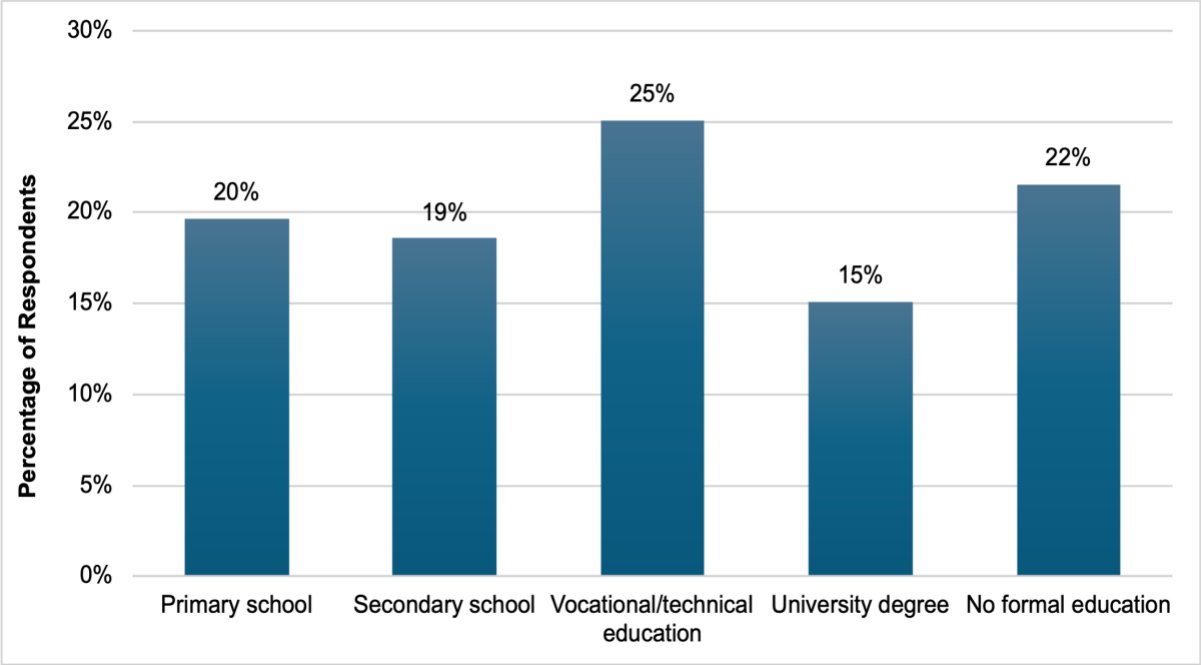


Figure 5 summarizes gender distribution. Most respondents were male (62%). There were many female respondents as well, comprising 36% of the sample, while 2% of the sample preferred to not disclose their gender.

Figure 6:Educational level



The highest level of education attained by respondents was vocational/technical education (25%) as shown in Figure 6. There was also a significant (22%) of respondents with no formal education. Furthermore, there was 20% of respondents who completed primary school, 19% who completed secondary school, and just 15% have a university degree.

Figure 7: Sectors of businesses

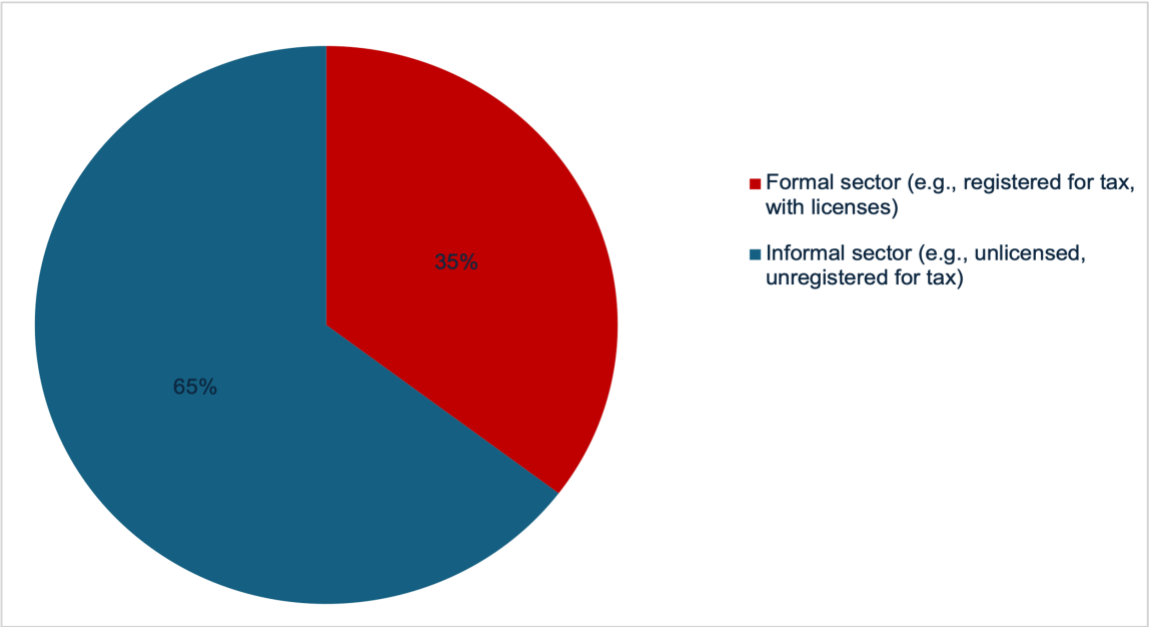
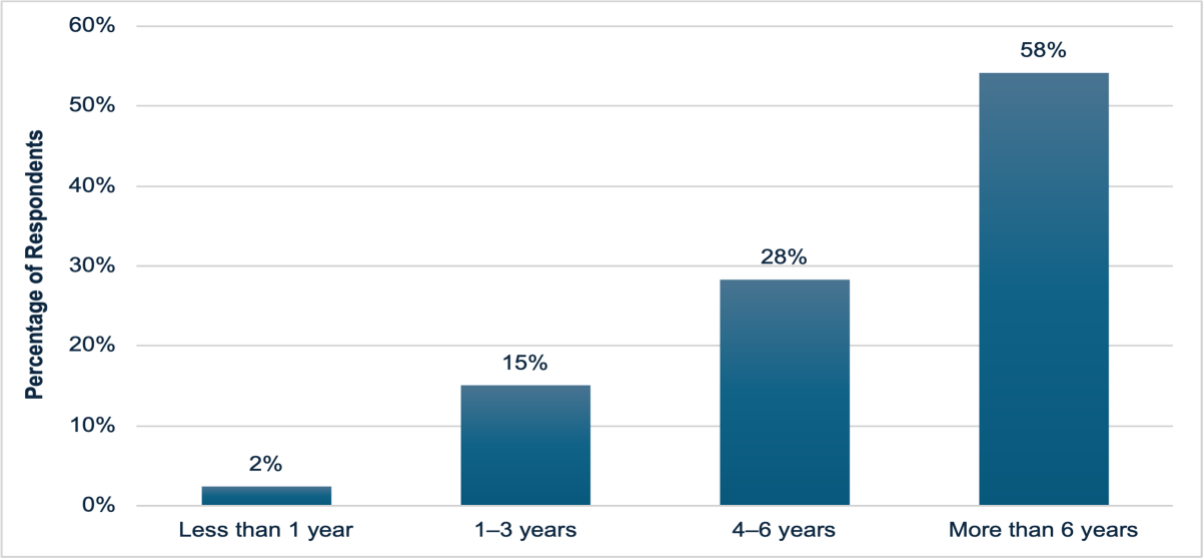


Figure 7 pie chart summarizes sectors in which respondents operate their businesses. According to the data, most respondents operate their SMEs within the informal sector, accounting 65%, while the remaining 35% operate within the formal sector in Montserrado County, Liberia.

Figure 8: Duration of business operation



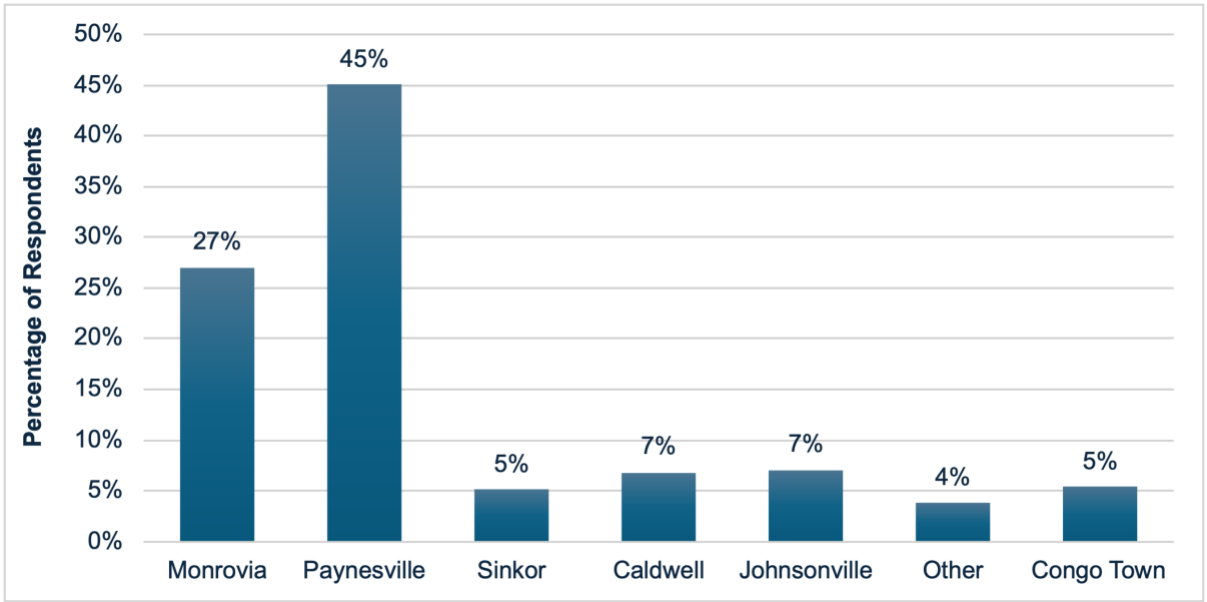
In Figure 8, the bar chart shows that most SME owners/managers (54%) had operated their SMEs for more than 6 years, 28% between 4-6 years, and 15% between 1-3 years. Only 2% had operated in less than a year.

Table 5: Type of business respondents operate

Type of business	Frequency	Percentage
Retail	93	25%
Service-based (e.g., hairdressing, car repair)	173	47%
Manufacturing/Production	18	5%
Agriculture	55	15%
For-profit organization	4	1%
Others	28	8%

The table above summarizes the type of businesses operated by respondents. The data shows that most SMEs, 47% service based businesses, followed by 25% retail. Also, 15% into agriculture, 5% into manufacturing/production, and 1% was for-profit organizations. The “for-profit organization” category refers to SMEs that operate as formal businesses primarily focused on generating profit, rather than fitting into the other specified sectors. There was also 8% from the “Others” category.

Figure 9: Geographic distribution of SMEs in Montserrado County, Liberia



The data, as summarized in Figure 9, presents the geographic distribution results of respondents. Results showed that the largest concentration of SMEs in Montserrado County are found in Paynesville City, accounting for 45% of all respondents, and Monrovia followed with 27%. Other areas such as 7% from Caldwell and Johnsonville

respectively, 5% from Congo Town and Sinkor respectively, and 4% from other areas in the county show smaller but notable representation.

Table 6: Summary of demographics characteristic

Characteristic	Frequency	Percentage
Respondents age group		
18-25	24	6%
26-35	55	15%
36-45	180	49%
46-55	102	27%
56-65	10	3%
Gender distribution		
Male	231	62%
Female	133	36%
Prefer not to say	7	2%
Level of education		
Primary school	73	20%
Secondary school	69	19%
Vocational /technical school	93	25%
University degree	56	15%
No formal education	80	22%
Sectors of businesses		
Formal sector	131	35%
Informal sector	240	65%
Duration of business operation		
Less than 1 year	9	2%
1-3 years	56	15%
4-6 years	105	28%
More than 6 years	201	54%
Type of business respondents operate		
Retail	93	25%
Service-based	173	47%
Manufacturing/ production	18	5%
Agriculture	55	15%
For-profit organizations	4	1%
Other	28	8%
Geographic distribution of SMEs in Montserrado County, Liberia		
Monrovia	100	27%
Paynesville	167	45%
Sinkor	19	5%
Caldwell	25	7%
Johnsonville	26	7%
Congo Town	20	5%
Other	14	4%

4.5 Descriptive statistics

The descriptive statistics for each construct's items were assessed. The results are summarized in tabular formats below.

Table 7: Descriptive statistics for EE

Items	n	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Mean	Std. Deviation
EE1 - Entrepreneurship education improved how I run my business.	371	5%	6%	2%	5%	15%	25%	41%	5.57	1.76
EE2 - Entrepreneurship workshops or training programs improved how I manage my business.	371	4%	6%	2%	6%	17%	25%	40%	5.64	1.65
EE3 - What I learned from entrepreneurship education helped me grow my business.	371	1%	7%	2%	7%	17%	24%	42%	5.73	1.53
EE4 - Entrepreneurship education has had a positive effect on my business's overall performance.	371	4%	5%	3%	6%	16%	25%	41%	5.65	1.65

As summarized in the above table, across all EE items (EE1 to EE4), most respondents were either "agreeing" or "strongly agreeing" that EE and related training have positively influenced SME owners/managers to run and manage their businesses, with combined positive responses ranging from 66% to 66%. Mean scores for all items are above 5.5, showing a generally favourable view toward EE among respondents. The relatively low standard deviations between 1.53 and 1.76 suggest moderate consensus among respondents.

Table 8: Descriptive statistics for EA

Items	n	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Mean	Std. Deviation
EA - I have frequent interactions with others to acquire new information.	371	18%	22%	18%	9%	14%	5%	14%	3.51	2.03
EA2 - I see links between seemingly unrelated pieces of information.	371	19%	23%	18%	9%	11%	5%	16%	3.50	2.07
EA3 - I can distinguish between profitable opportunities and not-so-profitable opportunities.	371	17%	20%	18%	11%	18%	6%	10%	3.50	1.90

For all EA items (EA1 to EA3), as summarized in Table 8, most responses are clustered around “strongly disagree,” “disagree,” and “somewhat disagree,” with negative responses ranging from 53% to 60%. This shows generally low levels of EA in terms of seeking information, making connections, and recognizing profitable opportunities as shown by the Mean scores for all items hovering around 3.5. The relatively high standard deviations (1.90 to 2.07) suggest variations of views among respondents.

Table 9: Descriptive statistics for SMEP

Items	n	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Mean	Std. Deviation
SMEP1 - My business’s sales revenue has increased steadily over the past year.	371	3%	8%	6%	8%	14%	28%	34%	5.43	1.71
SMEP2 - My business’s market share has grown over the past year.	371	3%	5%	5%	10%	15%	29%	34%	5.49	1.62
SMEP3 - My business’s profitability has improved in recent months.	371	3%	5%	4%	10%	16%	28%	36%	5.55	1.60
SMEP4 - Overall, my business’s financial performance is not very bad.	371	4%	5%	5%	8%	15%	28%	36%	5.49	1.69

Table 9 above summarizes respondents' perceptions of their SME performance. Most respondents were expressing positive sentiments, with "agree" and "strongly agree" responses, accounting for more than 60% across all four items (SMEP1 to SMEP4). This indicates that most SME owners/managers reported steady increases in sales revenue, growth in market share, improved profitability, and satisfactory overall financial performance over the past year. Mean scores for all items above 5.4 shows a general optimistic outlook on business outcomes. There is a moderate variation in responses as shown in the standard deviations value (1.60 to 1.71)

Table 10: Descriptive statistics for CEBE

Items	n	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Mean	Std. Deviation
CEBE1 - There is strong market demand for the products or services I offer.	371	18%	15%	11%	8%	22%	11%	15%	3.96	2.08
CEBE2 - Competition in my industry is fair and encourages innovation.	371	23%	11%	11%	6%	23%	11%	16%	3.89	2.16
CEBE3 - Government regulations that affect my business are easy to understand.	371	21%	13%	12%	9%	22%	9%	16%	3.85	2.12
CEBE4 - The regulatory environment (taxation, licensing, etc.) is favourable.	371	19%	16%	12%	7%	22%	9%	15%	3.85	2.09

Table 10 presents respondents' views on the conduciveness of the external business environment for their businesses. Respondents' perceptions were mixed to slightly negative across all four items (CEBE1 to CEBE4). Less than half of the respondents provided positive endorsements ("agree" or "strongly agree"). Negative responses ("strongly disagree," "disagree," or "somewhat disagree") outnumbered positive ones frequently, ranging from 44% to 50% across items, with Mean scores clustering around 3.9, which reflects a generally neutral to unfavourable assessment. Standard deviations are relatively high around 2.1, which indicates substantial variability in individual experiences.

Table 11: Descriptive statistics for GFS

Items	n	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Mean	Std. Deviation
GFS1 - There are government grants available to support small businesses.	371	32%	14%	25%	17%	4%	5%	3%	2.75	1.62
GFS2 - It is easy for small businesses to access government-backed loans.	371	32%	12%	26%	18%	4%	5%	3%	2.74	1.60
GFS3 - Government credit guarantee schemes are available for small businesses.	371	31%	12%	25%	19%	5%	6%	3%	2.84	1.63
GFS4 - Information on government financial support opportunities for small businesses is readily available to the public.	371	33%	12%	25%	16%	5%	5%	4%	2.78	1.66

In able 11 above, all four GFS items (GFS1 to GFS4), responses are predominantly negative. Most respondents were noted to have either “strongly disagree,” “disagree,” or “somewhat disagree” that government grants, loans, credit guarantees, or information about support are accessible. Positive responses were minimal, each below 15%. Mean scores range from 2.74 to 2.84. This indicates a largely unfavourable assessment of GFS. The standard deviations (approximately 1.6) reflect moderate variability.

Table 12: Descriptive statistics for GNS

Items	n	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Mean	Std. Deviation
GNS1 - The government provides training programs that support small business development.	371	30%	37%	13%	6%	2%	9%	4%	2.55	1.69
GNS2 - Government institutions offer clear guidance for complying with business regulations.	371	29%	37%	13%	7%	3%	8%	4%	2.57	1.68
GNS3 - The government creates opportunities for networking or knowledge-sharing among business owners.	371	30%	36%	12%	7%	4%	9%	2%	2.55	1.65
GNS4 - Non-financial support (e.g., training programs, networking events, business advisory services) from the government has helped improve my business operations.	371	24%	35%	13%	6%	3%	9%	5%	2.64	1.76

Table 12 above summarizes respondents' perceptions of GNS for small businesses. There were dominants of negative responses ("strongly disagree," "disagree," or "somewhat disagree") among respondents across all four items (GNS1 to GNS4). More than 75% of respondents expressed dissatisfaction with GNS. Positive responses ("agree" or "strongly agree") are limited, consistently below 15% for each item. Mean scores are low, ranging from 2.55 to 2.64, indicating an overall unfavourable assessment of GNS, such as training, guidance, networking, and advisory services. Standard deviations around 1.65 to 1.76 suggest moderate diversity in responses.

4.6 Validity of constructs

Exploratory Factor Analysis (EFA) was conducted to assess constructs validity and to assess the lack of common biases. Principal Axis Factoring (PAF) was employed as the extraction method during this process to determine the number of factors extracted, focusing on common variance and using squared multiple correlations as initial communality estimates (Grieder & Steiner, 2021). To allow factor correlation, Promax rotation method (with Kappa score of 4) was employed because items of the underlying constructs were expected to be interrelated (Ahmed & Maruod, 2025). Small coefficients were compressed at an absolute value below 0.4 to simplify the factor structure by focusing on significant loadings to ensure that only meaningful relationships between variables and factors were retained for clearer interpretation (Field, 2009).

All items measuring the constructs EE, EA, CEBE, GFS, GNS, and SMEP were included to assess both convergent and divergent validity. After construct validation, correlation and regression analyses were employed to examine the relationships between variables. To ensure the validity of these analyses, mainly the regression models, assumptions of linearity, homoscedasticity, and normality of residuals were assessed. Major results from the EFA, correlation, regression, and SEM are presented in the subsequent sections.

Table 13: KMO and Bartlett's test of sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.819
Bartlett's Test of Sphericity	Approx. Chi-Square	6015.118
	df	253
	Sig.	<0.001

The KMO measure of sampling adequacy and Bartlett's test of sphericity assessed the appropriateness of the sample for factor analysis (Field, 2009; Kaiser, 1974). The results, as shown in Table 13, provide key statistical evidence supporting the suitability of the data, measuring a value of 0.819, which exceeds the recommended value of 0.5 (Field, 2009). This indicates a good level of sampling adequacy (Field, 2009; Kaiser, 1974). It also suggests that the correlations among the variables are sufficient to justify the application of factor analysis (Field, 2009). Additionally, Bartlett's test of

sphericity produced a highly significant result for the Approx. Chi-Square (χ^2 = 6015.118, df = 253, $p < 0.001$). This significant p-value confirms that there are patterned relationships among variables. The KMO value of 0.819 combined with a significant Bartlett's test ($p < 0.001$) confirms that the dataset was appropriate for conducting factor analysis (Field, 2009).

Table 14: Communalities

Communalities		
	Initial	Extraction
EE1 - Entrepreneurship education improved how I run my business.	0.556	0.536
EE2 - Entrepreneurship workshops or training programs improved how I manage my business.	0.619	0.640
EE3 - What I learned from entrepreneurship education helped me grow my business.	0.629	0.696
EE4 - Entrepreneurship education has had a positive effect on my business's overall performance.	0.547	0.594
EA1 - I have frequent interactions with others to acquire new information.	0.733	0.845
EA2 - I see links between seemingly unrelated pieces of information.	0.719	0.737
EA3 - I can distinguish between profitable opportunities and not-so-profitable opportunities.	0.739	0.675
SMEP1 - My business's sales revenue has increased steadily over the past year.	0.602	0.597
SMEP2 - My business's market share has grown over the past year.	0.705	0.775
SMEP3 - My business's profitability has improved in recent months.	0.569	0.567
SMEP4 - Overall, my business's financial performance is not very bad.	0.552	0.549
CEBE1 - There is strong market demand for the products or services I offer.	0.790	0.750
CEBE2 - Competition in my industry is fair and encourages innovation.	0.794	0.761
CEBE3 - Government regulations that affect my business are easy to understand.	0.799	0.764
CEBE4 - The regulatory environment (taxation, licensing, etc.) is favorable.	0.795	0.788
GFS1 - There are government grants available to support small businesses.	0.602	0.563
GFS2 - It is easy for small businesses to access government-backed loans.	0.540	0.523
GFS3 - Government credit guarantee schemes are available for small businesses.	0.617	0.540
GFS4 - Information on government financial support opportunities for small businesses is readily available to the public.	0.638	0.632
GNS1 - The government provides training programs that support small business development.	0.739	0.749
GNS2 - Government institutions offer clear guidance for complying with business regulations.	0.738	0.726
GNS3 - The government creates opportunities for networking or knowledge-sharing among business owners.	0.749	0.755
GNS4 - non-financial support (e.g., training programs, networking events, business advisory services) from the government has helped improve my business operations.	0.656	0.603
Extraction Method: Principal Axis Factoring.		

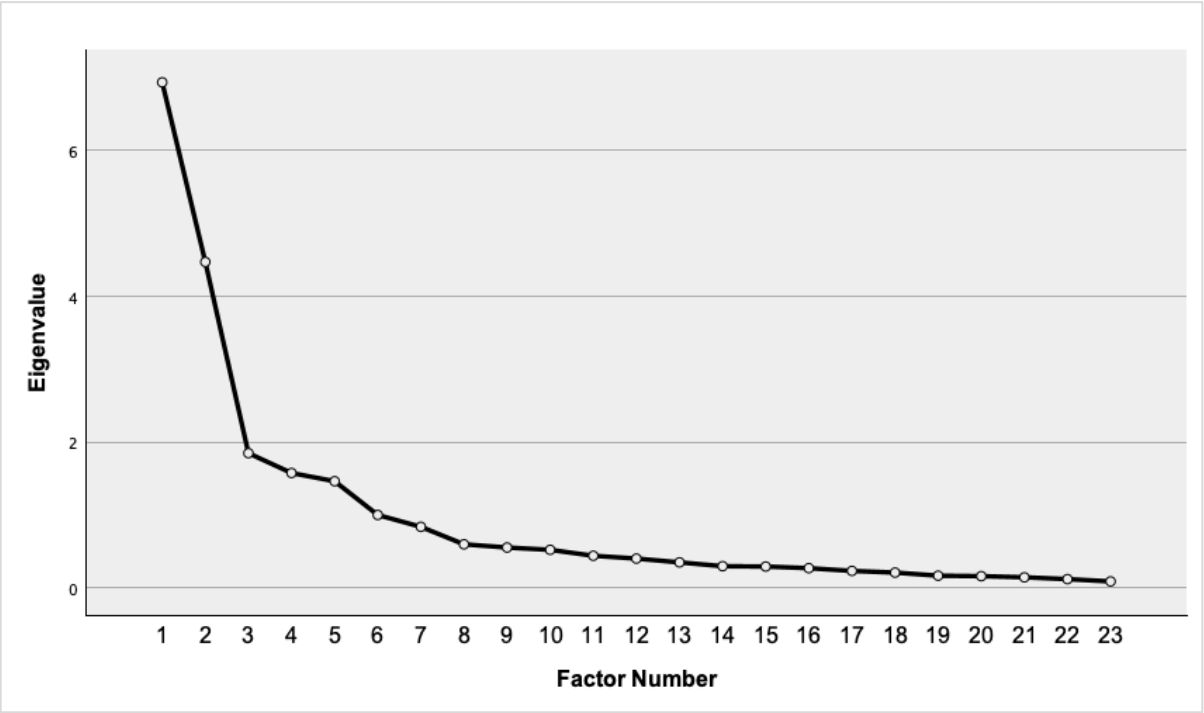
The EFA's communality results, as shown in Table 14, indicate the proportion of variance in each observed variable explained by the extracted factors. The extraction values range from 0.523 (GFS2) to 0.845 (EA1), suggesting that most variables were adequately represented by the retained factors. For example, EA1 (0.845) had the highest communality, meaning 84.5% of its variance was accounted for, while GFS2 has the lowest at 0.523, implying a weaker alignment with the latent constructs (Field, 2009).

Table 15: Total variance explained

Total Variance Explained							
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.938	30.163	30.163	6.582	28.618	28.618	4.007
2	4.473	19.446	49.610	4.224	18.367	46.986	5.009
3	1.849	8.039	57.649	1.502	6.532	53.518	4.322
4	1.577	6.856	64.505	1.230	5.348	58.866	4.612
5	1.464	6.364	70.869	1.125	4.893	63.759	4.337
6	1.001	4.352	75.221	0.702	3.052	66.811	3.454
7	0.838	3.645	78.866				
8	0.598	2.602	81.468				
9	0.554	2.410	83.878				
10	0.523	2.272	86.150				
11	0.441	1.919	88.069				
12	0.403	1.750	89.819				
13	0.350	1.524	91.343				
14	0.298	1.296	92.639				
15	0.293	1.275	93.914				
16	0.271	1.179	95.093				
17	0.233	1.014	96.107				
18	0.210	0.915	97.022				
19	0.168	0.730	97.752				
20	0.161	0.702	98.453				
21	0.146	0.633	99.087				
22	0.121	0.525	99.612				
23	0.089	0.388	100.000				
Extraction Method: Principal Axis Factoring.							
a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.							

The Total Variance Explained results in Table 15 revealed that six factors were extracted with their eigenvalues greater than one. This explains a cumulative variance of 66.811%. Initially, the first factor accounted for 30.163% of the variance, followed by the second (19.446%) and third (8.039%). After extraction, the first factor contributed 28.618% and the second (18.367%). Following rotation, the variance was more evenly distributed across the six factors, with the highest being Factor 2 (5.009) and the lowest being Factor 6 (3.454). This even distribution improves interpretability and reduces reliance on a dominant factor. The retained six-factor solution offers a meaningful representation of the dataset's structure.

Figure 10: Scree plot



The scree plot shows a sharp decline in eigenvalues from Factor 1 to Factor 6, after which the plot levels off, forming a distinct "elbow." This indicates that the first six factors account for most of the variance in the data, while the remaining factors contribute minimally and likely represent random noise. The position of the elbow at Factor 6 supports the retention of six factors, consistent with the criterion of eigenvalues greater than 1 and the results in the Total Variance Explained table (Field, 2009; Smyth & Johnson, n.d.). Therefore, six factors were retained for further analysis, as they capture the most meaningful variance in the dataset.

Table 16: Pattern matrix

Constructs	Items	Factor					
		1	2	3	4	5	6
Conducive External Business Environment (CEBE)	**CEBE4 -** The regulatory environment (taxation, licensing, etc.) is favorable.	0.939					
	CEBE3 - Government regulations that affect my business are easy to understand.	0.870					
	CEBE1 - There is strong market demand for the products or services I offer.	0.828					
	CEBE2 - Competition in my industry is fair and encourages innovation.	0.822					
Government Non-financial Support (GNS)	**GNS3 -** The government creates opportunities for networking or knowledge-sharing among business owners.		0.903				
	GNS1 - The government provides training programs that support small business development.		0.884				
	GNS2 - Government institutions offer clear guidance for complying with business regulations.		0.833				
	GNS4 - non-financial support (e.g., training programs, networking events, business advisory services) from the government has helped improve my business operations.		0.693				
SME Performance (SMEP)	**SMEP2 -** My business's market share has grown over the past year.			0.889			
	SMEP1 - My business's sales revenue has increased steadily over the past year.			0.779			
	SMEP4 - Overall, my business's financial performance is not very bad.			0.725			
	SMEP3 - My business's profitability has improved in recent months.			0.717			
Entrepreneurship Education (EE)	**EE3** - What I learned from entrepreneurship education helped me grow my business.				0.859		
	EE4 - Entrepreneurship education has had a positive effect on my business's overall performance.				0.819		
	EE2 - Entrepreneurship workshops or training programs improved how I manage my business.				0.743		
	EE1 - Entrepreneurship education improved how I run my business.				0.663		
Government Financial Support (GFS)	**GFS4 -** Information on government financial support opportunities for small businesses is readily available to the public.					0.813	
	GFS1 - There are government grants available to support small businesses.					0.749	
	GFS2 - It is easy for small businesses to access government-backed loans.					0.725	
	GFS3 - Government credit guarantee schemes are available for small businesses.					0.644	
Entrepreneurial Alertness (EA)	**EA1 -** I have frequent interactions with others to acquire new information.						0.969
	EA2 - I see links between seemingly unrelated pieces of information.						0.801
	EA3 - I can distinguish between profitable opportunities and not-so-profitable opportunities.						0.745
Extraction Method: Principal Axis Factoring. Rotation Method: Promax with Kaiser Normalization.[a]							
a. Rotation converged in 6 iterations.							

The pattern matrix results as presented in Table 16 shows the factor loadings of observed variables on six extracted factors. Rotation converged in six iterations, which indicates a stable factor structure. Factor 1 loaded strongly on CEBE items, including regulatory clarity and market conditions (e.g., CEBE4 = 0.939; CEBE3 = 0.870), aligning with external institutional support themes. Factor 2 reflects GNS items, with

high loadings such as GNS3 (0.903) and GNS1 (0.884), highlighting training, networking, and advisory support services. Factor 3 clusters SMEP indicators, with strong loadings for SMEP2 (0.889) and SMEP1 (0.779), signifying financial and market growth. Factor 4 represents EE with all items (EE1 to EE4) loading between 0.663 and 0.859. This indicates internal capacity building. Factor 5 captures GFS items like grants and loans (e.g., GFS4 = 0.813), while Factor 6 groups all EA items (e.g., EA1 = 0.969), which indicates cognitive capabilities. The pattern matrix results support both convergent and discriminant validity, confirming the presence of distinct, meaningful constructs (Bhandari, 2022; Field, 2009; Tavakol & Wetzel, 2020).

4.7 Scales reliability

The internal consistency reliability for the scales of each of the six retained construct was assessed using Cronbach's alpha, a widely accepted measure of internal consistency reliability (Taber, 2017). This statistic measures the extent to which all items within a scale are correlated, thereby indicating how consistently they represent the same underlying construct (Field, 2009). The results are presented in the table below.

Table 17: Scales reliability

No:	Constructs	Construct Items	Cronbach's Alpha (α) Score	Reliability Level
1	**EE -** Entrepreneurship Education	4	0.858	Good
2	**EA -** Entrepreneurial Alertness	3	0.893	Good
3	**SMEP -** SME Performance	4	0.862	Good
4	**CEBE** - Conducive External Business Environment	4	0.926	Excellent
5	**GFS -** Government Financial Support	4	0.828	Good
6	**GNS -** Government Non-financial Support	4	0.902	Excellent

The reliability levels of the loaded constructs are categorized as excellent, and good, based on the Cronbach Alpha scores. The constructs *CEBE (*α=0.926) and *GNS* (α=0.902), each with 4 items show excellent reliability scores. Such high Cronbach's alpha values indicate that these scales are highly consistent, reliable, and that the items within each scale effectively measured the same underlying constructs (Tavakol & Wetzel, 2020). The EE constructs with 4 items (α = 0.858), *EA* with 3 items (α=0.893), *SMEP* with 4 items (α=0.862), and GFS with 4 items (α=0.828) demonstrate good reliability. The alpha values greater than minimum acceptable level of at least 0.7 (Field, 2009), across all constructs indicate strong internal consistency

among items within each scale. This indicates that items collectively measure their respective constructs. Following scales' reliability testing, a composite scale was developed to consolidate various items into unified variables (Vehkalahti, 2000). These final variables, as summarized in Table 17, were used for further statistical analysis.

4.8 Correlation analysis

Pearson's correlation analysis was conducted to examine the strength and direction of the relationships between the variables. Table 18 summarized the correlation results along with the mean scores and standard deviation.

Table 18: Pearson correlations matrix with mean and standard deviation

Variables	Mean	SD	EE	EA	SMEP	CEBE	GFS	GNS
EE	22.59	5.534	1					
EA	10.51	5.448	-0.055	1				
SMEP	21.96	5.586	0.451**	-0.066	1			
CEBE	15.55	7.657	-0.135**	-0.508**	-0.110*	1		
GFS	11.11	5.308	-0.432**	0.303**	-0.384**	0.075	1	
GNS	10.30	5.979	-0.504**	0.086	-0.446**	0.216**	0.459**	1

Note. ** p < .01 (2-tailed). * p < .05 (2-tailed). Pearson correlation coefficients are shown.
N = 371 for all correlations.
SD = *Standard Deviation*

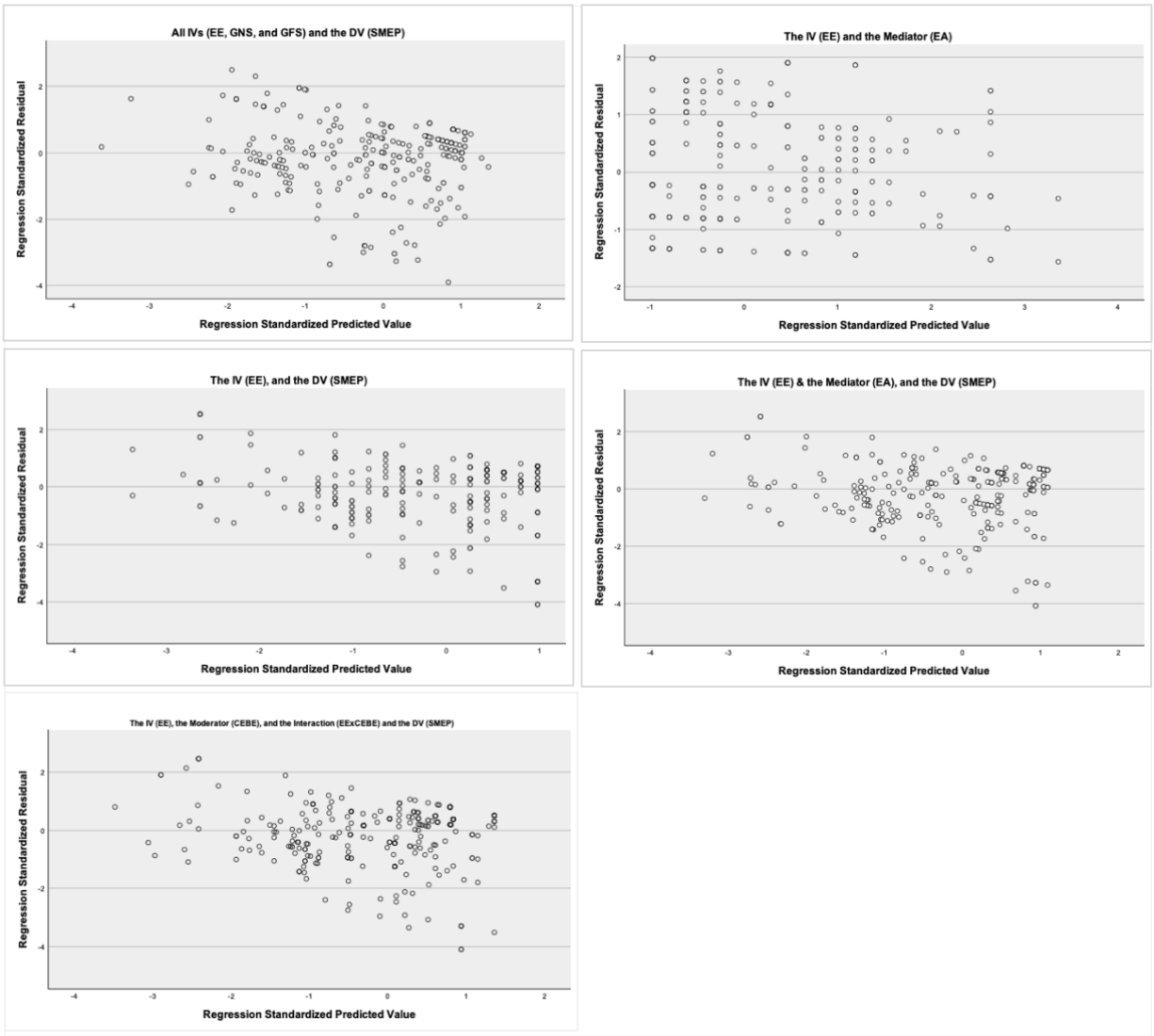
Results revealed that EE is positively and significantly correlated with SMEP (r = 0.451, p < .01), indicating that higher levels of EE are associated with better SMEP. EE is negatively and significantly correlated with GFS (r = -0.432, p < .01), GNS (r = -0.504, p < .01), and CEBE (r = -0.135, p < .01), suggesting that as EE increases, these factors tend to decrease. EA shows a positive and significant correlation with GFS (r = 0.303, p < .01) and a smaller positive correlation with GNS (r = 0.086, p < .05), while it is negatively and significantly correlated with CEBE (r = -0.508, p < .01). SMEP is negatively and significantly correlated with GFS (r = -0.384, p < .01), GNS (r = -0.446, p < .01), and CEBE (r = -0.110, p < .05), indicating that higher SMEP is associated with lower levels of these variables. All correlations were assessed using two-tailed tests at the 0.01 and 0.05 significance levels, and the direction of relationships is explicitly indicated by the sign of the coefficients.

4.9 Regression analysis

4.9.1 Regression assumptions (Test for linearity and homoscedasticity)

The figures below show the linearity test results:

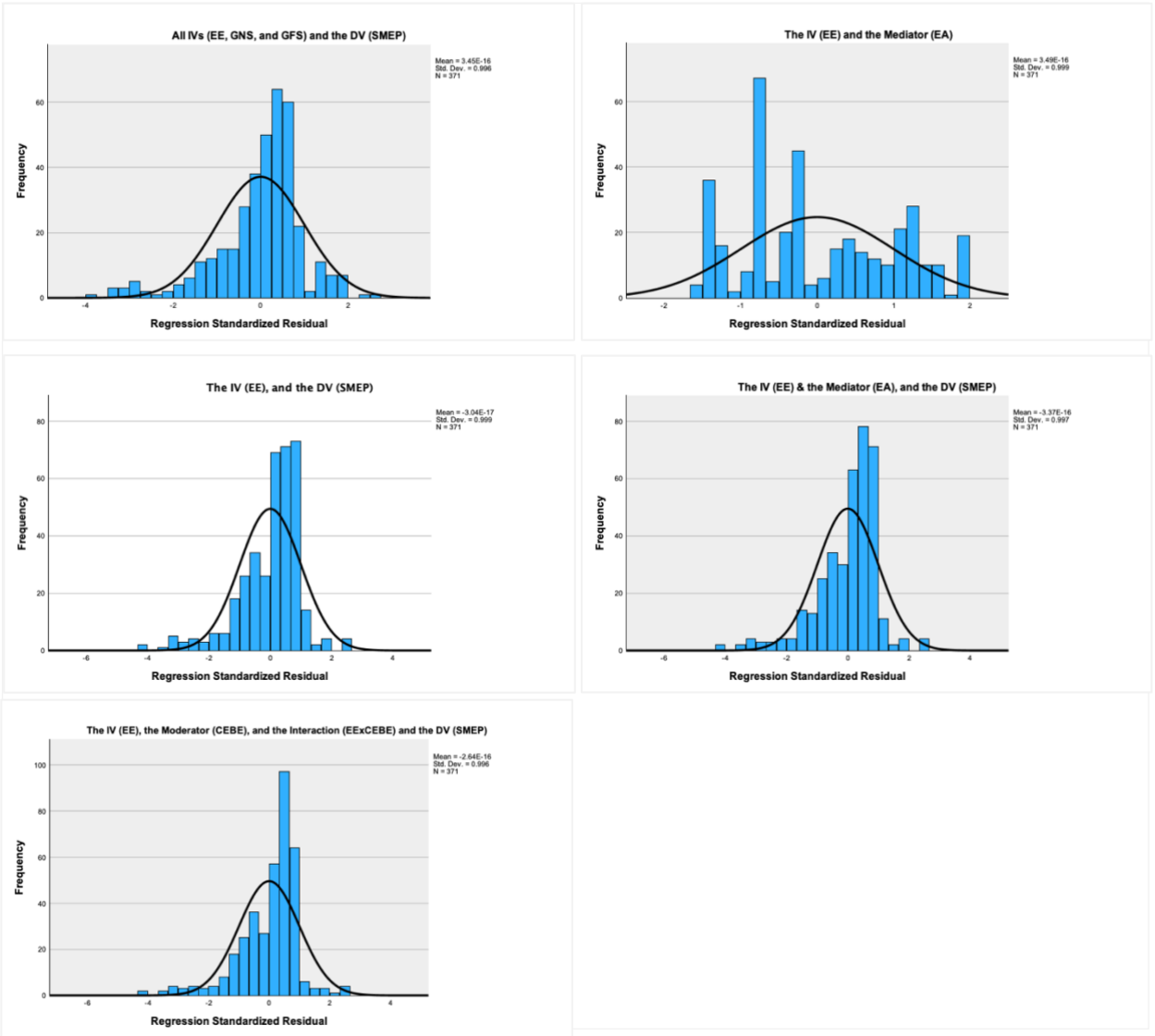
Figure 11: Scatterplot



Five scatter plots, as shown in Figure 11, were generated to assess the linearity and homoscedasticity assumptions required for regression analysis. These plots visualize the relationship between standardized residuals and predicted values for each regression model (Yang, 2012). In all five plots, the residuals appear randomly dispersed around zero, with no clear patterns or funnels, supporting the assumptions of linearity and homoscedasticity. This suggests that the residuals were approximately

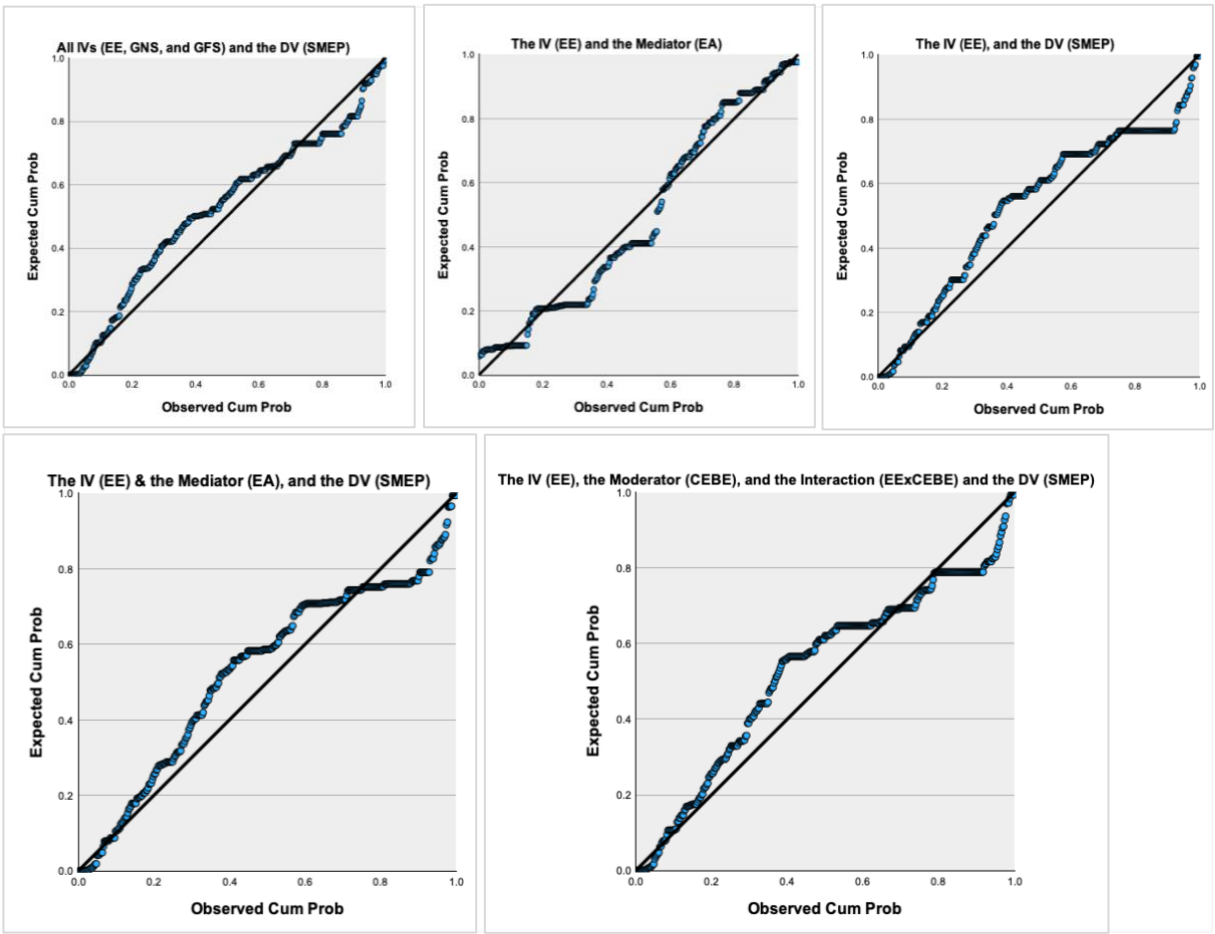
normally distributed, and the regression models were appropriately specified for the data (Field, 2009; Yang, 2012).

Figure 12: Regression normality test results (Histograms)



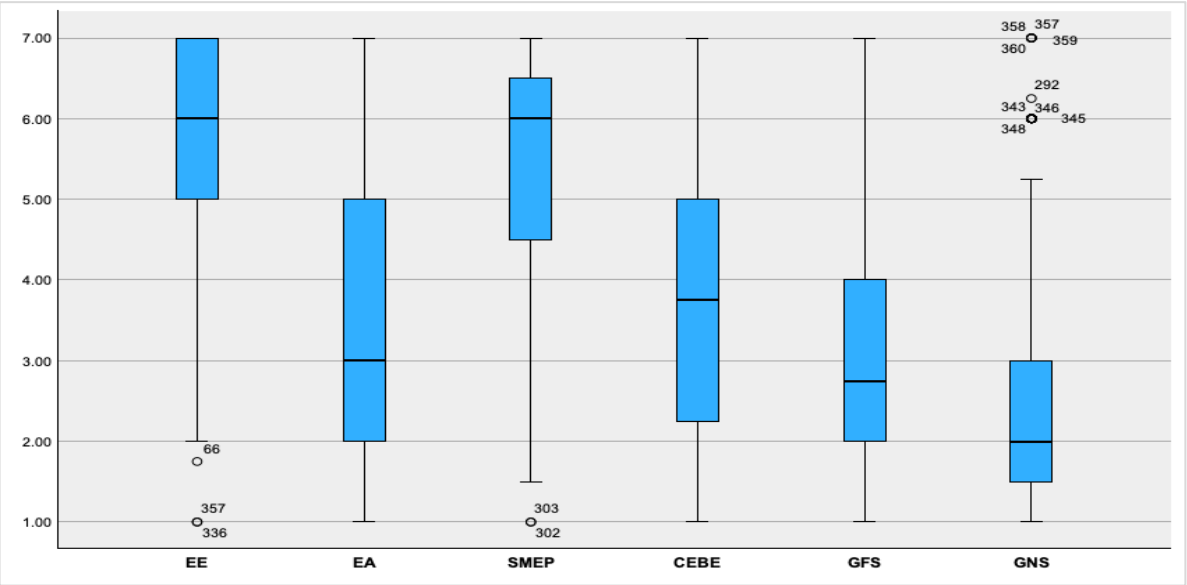
The histograms from all regression analyses show that the standardized residuals are generally bell-shaped and closely follow the normal distribution curve. This observation suggests that the assumption of normality for regression residuals is reasonably satisfied across all models tested (Das & Imon, 2016). The clustering of residuals around the centre, with gradual tapering at both extremes, indicates an absence of significant skewness or kurtosis. This strengthens the validity of the regression results and supports the reliability of statistical inferences drawn from the models (Das & Imon, 2016; Field 2009; Yang, 2012).

Figure 13: Regression standardized residual (Normal P-P Plots)



The Normal P-P plots of the standardized regression residuals for all regression analyses indicate how closely the residuals follow a normal distribution. In these plots, the points generally lie close to the diagonal line, which represents the expected cumulative probability if residuals were perfectly normally distributed. This close alignment across all five models provides strong visual evidence supporting the assumption of normality in the residuals. Such conformity indicates that the regression models meet this key assumption, thereby validating the reliability of the parameter estimates and statistical inferences drawn from these analyses (Field, 2009).

Figure 14: Boxplots



The boxplot shows response distributions across the six constructs. Entrepreneurship Education (EE) and SME Performance (SMEP) have high medians around 6 with limited variability, while Entrepreneurial Alertness (EA) and Government Financial Support (GFS) show wider spreads and more varied responses. External Business Environment has (CEBE) moderate median around 4, and Government Non-Financial Support (GNS) has the lowest median around 2 with several high outliers. No extreme outliers were identified, and Cook's distances were below 1. This indicates no influential cases. Thus, mild outliers present do not compromise the analysis's validity or robustness (French, 2022).

4.10 Hypothesis testing

As indicated earlier, various statistical analysis techniques, such as correlation, regression, and structural equation modelling (SEM) were employed to assess the study's hypotheses. According to Wisniewski and Brannan (2024), Correlation analysis aids in the identification of the strength and direction of relationship between 2 or more variables, while regression analysis is used to predict and comprehend how one or more independent variables influence a dependent variable. SEM is a very general, and powerful multivariate technique that uses a conceptual model, path diagram and system of linked regression-style equations to capture complex and dynamic relationships within observed and unobserved variables (Gunzler et al.,

2013). Although correlation results were partially useful, regression analysis, and SEM were, specifically the main techniques used to assess hypotheses 1 and 2 because these hypotheses have moderating and mediating variables, respectively. Pearson correlation and regression analyses were employed to assess hypotheses 3 and 4, because these hypotheses were directional or were one-tailed hypotheses. These methods were enough to identify the strengths and direction of relationship between H3 and H4 variables. Thus, the study's hypotheses are tested below and discussed with regards to each hypothesis.

4.10.1 Results pertaining to H1

Table 19: Moderation regressions – A CEBE positively moderates the relationship between EE and SMEP

Model Summary[b]

Models	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.461[a]	0.212	0.206	1.24445	0.212	32.979	3	367	<0.001	1.270

a. Predictors: (Constant), Interaction (EE x CEBE), CEBE, EE

b. Dependent Variable: SMEP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	153.221	3	51.074	32.979	<0.001[b]
	Residual	568.361	367	1.549		
	Total	721.582	370			

a. Dependent Variable: SMEP

b. Predictors: (Constant, Interaction (EExCEBE), CEBE, EE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.925	0.335		8,726	<0.001					
	EE	0.468	0.048	0.463	9.647	<0.001	0.451	0.450	0.447	0.930	1.075
	CEBE	-0.024	0.035	-0.034	-0.702	0.483	-0.110	-0.037	-0.330	0.943	1.061
	Interaction (EExCEBE)	-0.049	0.028	-0.086	-1.775	0.077	0.002	-0.092	-0.082	0.921	1.086

a. Dependent Variable: SMEP

The model including EE, CEBE, and their interaction term (EE x CEBE) produced an R value of 0.461, with an R Square of 0.212 and an adjusted R Square of 0.206. The standard error of the estimate was 1.24445. The model was statistically significant at $p<0.001$, with a Durbin-Watson statistic of 1.270. ANOVA results showed that the regression model had a regression sum of squares of 153.221 with 3 degrees of freedom and a mean square of 51.074. The residual sum of squares was 568.361 with 367 degrees of freedom, and the total sum of squares was 721.582. The model was statistically significant at $p < 0.001$. The unstandardized coefficient for the constant was 2.925, with SE=0.335), EE was 0.468 (SE=0.048), CEBE was –0.024 (SE=0.035), and the interaction term (EE x CEBE) was –0.049 (SE=0.028). The corresponding t values were 8.726, 9.647, –0.702, and –1.775, respectively. The significance values were less than .001 for the constant and EE, 0.483 for CEBE, and 0.077 for the interaction term.

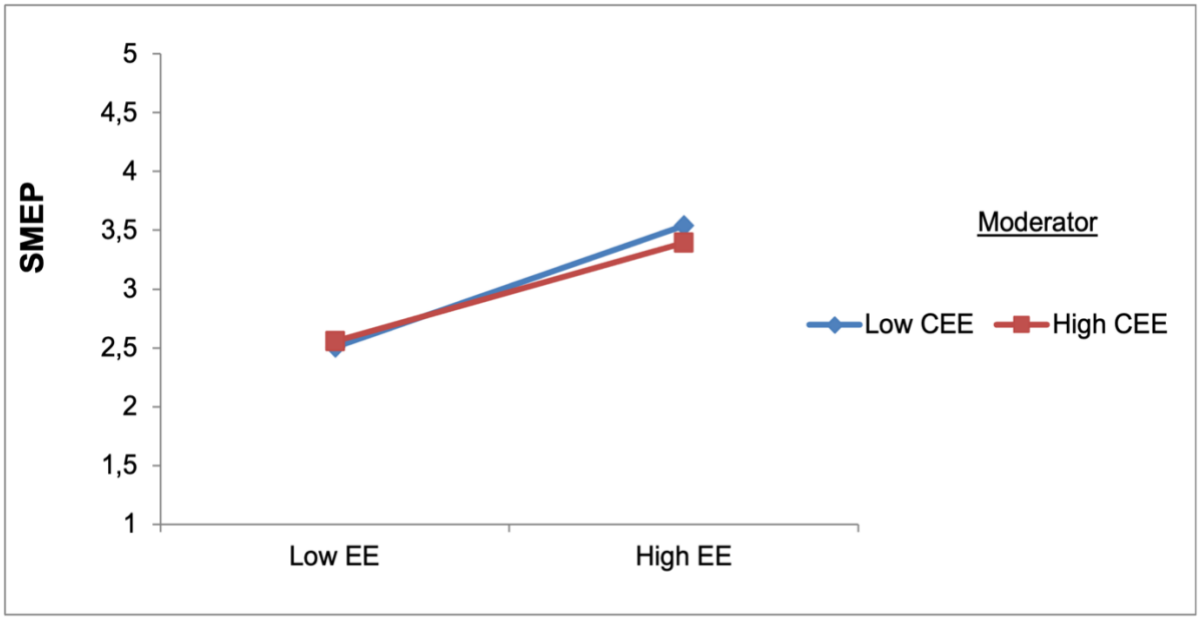
4.10.2 SEM results for moderation effects

Table 20: Summary from SEM analysis (Moderation effects

Relationship	Beta	C.R	P-value
EE->SMEP	0.468	9.686	0.000
CEBE->SMEP	-0.024	-0.705	0.481
EE*CEBE->SMEP	-0.049	-1.782	0.075

Like the regression results, SEM moderation analysis as shown in Table 20 revealed that EE significantly predicted SMEP (β=0.468, CR=9.686, $p<0.001$), while CEBE did not significantly predict SMEP (β=-0.024, CR=-0.705, $p=0.481$). The interaction term EE×CEBE also did not significantly predict SMEP (β=-0.049, CR=-1.782, $p=0.075$).

Figure 15: Interaction plot between EE and CEBE on SMEP



As shown in the plot in Figure 15, the relationship between EE and SMEP differs depending on the level of CEBE. Specifically, at higher levels of CEBE, the positive effect of EE on SMEP appears slightly stronger compared to lower levels of CEBE. However, this interaction was not statistically significant. This further strengthens the findings summarized in Table 20. These results indicate that the moderating effect hypothesized in H1 was not established. Thus, moderation effect *was not supported.*

4.10.3 Results pertaining to H2

For the effect of the mediator to be examined, a specific multiple regression analysis was conducted. This was conducted in three steps. First, a regression was conducted to test the direct effect of the IV (EE) on the Mediator (EA). Secondly, the total effects of the IV (EE) was tested on the DV (SMEP). Lastly, both the IV (EE) and the mediator (EA) were regressed to test their collective effect on the DV (SMEP) to complete this first part of the mediation analysis (MacKinnon et al., 2007). Model Summaries, ANOVAs, and Coefficients results from this multiple regression analysis are summarized in Table 21 below.

Table 21: Mediation regressions – EA positively mediates the relationship between EE and SMEP

Model Summary 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.055[a]	0.003	0.000	1.81565	0.003	1.100	1	369	0.295	0.629

a. Predictors: (Constant), EE
b. Dependent Variable: EA

Model Summary 2

2	0.451[a]	0.203	0.201	1.24835	0.203	94.035	1	369	<0.001	1.259

a. Predictors: (Constant), EE
b. Dependent Variable: SMEP

Model Summary 3

1	0.453[a]	0.205	0.200	1.24868	0.205	47.393	2	368	<0.001	1.257

a. Predictors: (Constant), EE, EA
b. Dependent Variable: SMEP

ANOVA 1

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.628	1	3.628	1.100	0.295[b]
	Residual	1216.446	369	3.297		
	Total	1220.074	370			

a. Dependent Variable: EA
b. Predictors: (Constant, EE

ANOVA 2

2	Regression	146.542	1	146.542	94.035	<0.001[b]
	Residual	575.040	369	1.558		
	Total	721.582	370			

a. Dependent Variable: SMEP
b. Predictors: (Constant, EA

ANOVA 3

3	Regression	147.793	2	73.896	47.393	<0.001[b]
	Residual	573.789	368	1.559		
	Total	721.582	370			

a. Dependent Variable: SMEP
b. Predictors: (Constant, EE, EA

Coefficients 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.909	0.397		9.854	<0.001					
	EE	-0.072	0.068	-0.055	-1.049	0.295	-0.055	-0.055	-0.055	1.000	1.000

a. Dependent Variable: EA

Coefficients 2

2	(Constant)	2.920	0.273		10.705	<0.001					
	EE	-0.455	0.047	-0.0451	9.697	<0.001	0.451	.451	.451	1.000	1.000

a. Dependent Variable: SMEP

Coefficients 3

3	(Constant)	3.045	.307		9.931	<0.001					
	EE	.453	.047	.448	9.631	<0.001	0.451	0.449	0.448	0.997	1.003
	EA	-.032	.036	-.042	-.896	0.371	-0.047	-0.047	-0.042	0.997	1.003

a. Dependent Variable: SMEP

In the model summaries as shown in Table 21, model 1 shows a weak correlation (R=0.055) between the IV on the Mediator, accounting for only 0.3% of the variance. The adjusted R Square was 0.000, with a standard error of 1.81565. The change in R square was 0.003, with an F-statistic of 1.100 at df1=1 and df2=369, which was not statistically significant (p = 0.295). The Durbin-Watson statistic was 0.629, suggesting potential positive autocorrelation. In model 2, a moderate positive correlation (R=0.451) was observed between the IV and the DV, explaining 20.3% of the variance (R Square = 0.203). The adjusted R Square was 0.201, with a standard error of 1.24835. The change in R Square was 0.203, and the F-statistic was 94.035 at df1 = 1 and df2=369, which was statistically significant (p<0.001). The Durbin-Watson statistic was 1.259, indicating no significant autocorrelation. In the last model (model 3) revealed a slightly improved correlation (R=0.453) of EE and EA on SMEP, accounting for 20.5% of the variance (R Square=0.205). The adjusted R Square was 0.200, with a standard error of 1.24868. The change in R Square was 0.205, with an F-statistic of 47.393 at df1=2 and df2=368, which was statistically significant (p<0.001). The Durbin-Watson statistic was 1.257, confirming no significant autocorrelation.

The ANOVA results are also summarized in Table 21. Model 1 shows that IV did not significantly predict the mediator. Model 2 shows that the IV has significant effect on the DV. Model 3 also shows a significant regression model with both predictors IV and mediator on the DV. The coefficients results are also summarized in Table 21. Model 1 shows that the IV had a non-significant negative effect on the mediator (B =-0.072, p=0.295). In Model 2, the IV predicted the DV (B=-0.455, p<0.001). In Model 3, the IV remained a significant predictor of the DV (B= 0.453, p<.001), while was not significant (B=-0.032, p=0.371). All VIF values indicated low multicollinearity (Akinwande et al., 2015).

Following the steps outlined by Baron and Kenny (1986) regarding regression analyses, further mediation testing using SEM was not warranted. The first condition for mediation requires a significant effect of the independent variable on the mediator (Baron & Kenny, 1986). Although the IV (EE) significantly predicted the DV (SMEP) in Model 2 and remained significant when EA was included in Model 3, EA itself was not a significant predictor of SMEP. The regression results indicate that EA does not mediate the relationship between EE and SMEP. Thus, H2 *was not supported.*

Therefore, progressing to SEM for mediation testing would have added no substantive value and may have introduced unnecessary complexity without theoretical or statistical justification (Hayes, 2013; Zhao et al., 2010).

4.10.4 Results pertaining to H3 and H4

This regression analysis tested the direct effect of the study's IVs (EE, GFS, and GNS) on the dependent variable to examine whether the IVs significantly predicts the DV (SMEP). The results are summarized in Table 22 below.

Table 22: Multiple regressions – GFS (H3), and GNS (H4) have a positive impact on SME performance in Montserrado County, Liberia.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.535[a]	0.286	0.281	1.18444	0.286	49.118	3	367	<0.001	1.289

a. Predictors: (Constant), GFS, GNS, EE
b. Dependent Variable: SMEP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	206.721	3	68.907	49.118	<0.001[b]
	Residual	514.861	367	1.403		
	Total	721.582	370			

a. Dependent Variable: SMEP
b. Predictors: (Constant), GFS, GNS, EE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	5.062	0.419		12.089	<.0001					
	EE	0.262	0.053	0.259	4.905	<0.001	0.451	0.248	0.216	0.695	1.439
	GFS	-0.169	0.054	-0.161	-3.132	0.002	-0.384	-0.161	-0.138	0.736	1.359
	GNS	-0.226	0.050	-0.242	-4.501	<0.001	-0.446	-0.229	-0.198	0.675	1.482

a. Dependent Variable: SMEP

The above table summarized results from the Model Summary, ANOVA, and Coefficients from the multiple regression analysis. In the Model Summary, the IVs shows an R value of 0.535 on the DV. The R Square value (0.286) shows that approximately 28.6% of the variance in SMEP is explained by the three predictors (GFS, GNS, and EE) included in the model. The Adjusted R Square accounts for the number of predictors and the sample size, was slightly lower at 0.281. The standard error of the estimate was 1.18444, and the Durbin-Watson statistic was 1.289. The

ANOVA results reveals that the model was statistically significant, with an F-value of 49.118 and a p-value less than 0.001. The regression sum of squares was 206.721, while the residual sum of squares was 514.861, out of a total sum of squares of 721.582. The significance level ($p<0.001$) validates the overall fit of the regression model (Shreffler & Huecker, 2023). The multiple regression model coefficients results reveal that EE shows a positive and significant effect on SMEP ($B=0.262$, $p<0.001$; $\beta=0.259$). In contrast, GFS ($B=-0.169$, $p=0.002$) and GNS ($B=-.226$, $p<0.001$) both have significant negative effects. The correlation values support these findings, with EE showing a moderate positive correlation ($r=0.451$), while both types of government support show negative correlations. All VIF values are below 2, thus, showing low multicollinearity issues (Akinwande et al., 2015).

In addition to the correlation results with regards to H3, which revealed a significant negative p value of –0.384, the regression analysis also revealed negatives Beta (B) and p values of 0.169, and 0.002 between GFS and SMEP respectively. These unexpected results contradict the hypothesis 3, which states that GFS has a positive impact on SME, indicating that H3 was not supported. Like results from H3, the correlation results regarding H4, which hypothesized that GNS would positively impact SMEP, revealed a significant negative p value of 0.446 between GFS and GNS, and the regression analysis revealed B value of negative 0.226, and a negative p value less than 0.001. This again opposed the hypothesised positive influence. Thus, H4 was not supported.

Table 23: Summary of hypothesis testing

Hypotheses tested	Result	Support Status
H1: The relationship between EE and SMEP is positively moderated by CEBE	Interaction p=0.075	Not Supported
H2: The relationship between EE and SMEP is positively moderated by EA	Mediation paths not significant	Not Supported
H3: GFS positively impacts SMEP	Negative effect, p=0.002	Not Supported
H4: GNS positively impacts SMEP	Negative effect, p<0.001	Not Supported

4.11 Chapter summary

Chapter 4 details the data screening procedures, sample demographics, and the construction and validation of the study's scales, which were all reliable based on the Cronbach's alphas. Descriptive statistics indicated general positive perceptions of EE and SMEP, but less favourable views of government support and the external business environment. Correlation analysis revealed significant relationships among key variables, while multiple regression, mediation, and moderation analyses further explored these associations. Regression analysis assumptions were found to be reasonably met based on diagnostic plots. The results demonstrated that EE had a significant positive effect on SMEP. However, neither GFS nor GNS improved SMEP. In fact, both showed significant negative correlations. The hypotheses regarding the mediating and moderating roles of EA and the CEBE, respectively were not supported, as the effects were statistically insignificant.

CHAPTER 5: DISCUSSION OF RESULTS

5.1 Introduction

This chapter discusses the study's empirical results presented in Chapter 4 in relations to the existing literature and the theories that underpin the study. It begins with summary of respondents' demographic information before analysing the tested hypotheses in detail, and concludes with synthesis of crucial insights, and outlining directions for policy and future research.

5.2 Respondents demographic profile

Respondents' demographic characteristics offer significant context for the interpretation of the study's findings, as studies have shown that personal and organizational attributes can significantly influence entrepreneurial behaviour and business outcomes (Li et al., 2022; Pinzón et al., 2021). The current study gathered valid data from 371 SME owners and/ or managers from Montserrado County, Liberia. This sample represents a broad range of age groups, education levels, business sectors, and experience.

Most respondents were in the middle-age range, with nearly half aged between 36 and 45 years, followed by those aged 46 to 55. This mature demographic somewhat contrasts with global trends where youth often dominate entrepreneurship (Global Entrepreneurship Monitor, 2024). However, the results reflect Liberia's post-conflict business environment where established experience plays a larger role. Educational attainment varied among respondents as many possessed vocational or technical education. But also, a substantial portion lacked formal schooling. This mixed educational profile is in line with prior research linking education to entrepreneurial capability, while also highlighting challenges faced by less formally educated entrepreneurs, such as SME owners in developing economies (Jiménez et al., 2015; Liñán et al., 2010; Nkonde & Utete, 2024).

Furthermore, most respondents' businesses were operating in the informal sector. Enterprises predominantly consisted of service-based and retail businesses. This aligns with SME characteristics in many developing countries where informality remains prevalent (Gómez-Cruz et al., 2024). The geographic concentration of SMEs

in urban centres like Paynesville and Monrovia shows broader economic patterns in Montserrado county, Liberia. The varied duration of business operation indicates a blend of both established and emerging entrepreneurs. This diverse demographic and business context provides a rich foundation for understanding the dynamics of entrepreneurship and SME performance in Montserrado County, which situates the study's findings within the unique challenges and opportunities of Liberia's evolving economic landscape.

5.3 Discussion of findings

The study's major findings as they relate to the four hypotheses are discussed in this section, with an integration of relevant literature and theoretical frameworks to provide a subtle interpretation.

5.3.1 Discussion pertaining to H1

The aim of the study with regards to hypothesis 1 was to investigate whether the relationship between entrepreneurship education (EE) and small and medium-sized enterprises performance (SMEP) is positively moderated by a conducive external business environment (CEBE). The results from both the multiple regression and structural equation modelling (SEM) analyses provide a nuanced understanding of this relationship. In the regression model, EE showed a strong, positive, and statistically significant effect on SMEP ($\beta = 0.468$, $p < 0.001$). In contrast, the CEBE variable showed a weak and negative, but statistically insignificant, relationship with SMEP ($\beta = –0.024$, $p = 0.483$). Similarly, the interaction term (EE × CEBE) was negative and insignificant ($\beta = –0.049$, $p = 0.077$). These results suggest that the hypothesised moderating role of CEBE on the EE and SMEP relationship was not supported. These findings were further confirmed by the SEM analysis, which provided almost identical coefficient estimates. Thus, while EE independently predicts SMEP, this relationship does not appear to be significantly moderated by CEBE, based on statistical results. These results require a thorough reflection in terms of both empirical literature and the theoretical framework that guides this study.

The significant positive coefficient for EE is consistent with the position of Human Capital Theory (HCT) that education and training enhance individuals' knowledge, skills, and productivity, thereby improving firm outcomes (Becker, 1964; Schultz,

1959). This finding supports previous research demonstrating that entrepreneurs who have received entrepreneurship education demonstrate improved business outcomes, with education enhancing both entrepreneurial intentions and overall business performance through measurable indicators of growth and success. (Ahn & Winters, 2021; Amaliawati et al., 2019). The strong statistical effect of EE found on SMEP in the study indicates that structured EE programs are crucial in enhancing SMEs performance in Montserrado county, Liberia, and confirms that EE contributes to strengthening the stock of human capital at both the individual and enterprise levels.

However, the significant absence of a moderating effect from CEBE introduces an essential dimension to this discussion. According to RBV, internal firm resources such as knowledge and skills can only yield sustained competitive advantages when effectively deployed within an enabling context (Barney, 1991; D'Oria et al., 2021). Therefore, one might expect that a supportive business environment marked by regulatory stability, infrastructure, and fair competition, would enhance the returns from EE. But the lack of a significant interaction effect suggests that in Montserrado County, the external conditions may not be properly developed to expand the benefits of EE. This finding challenges the assumption that the translation of educational inputs into performance outcomes occurs uniformly across contexts, supporting the idea that HCT and RBV must be complemented by environmental contingency perspectives (Arokodare & Asikhia, 2020; Mahmud et al., 2021).

From a theoretical standpoint, this result further exposes a structural weakness in RBV's inward-looking orientation. RBV assumes that once firms possess valuable, rare, inimitable, and non-substitutable resources, they can achieve superior performance (Barney, 1991; D'Oria et al., 2021). Yet, as indicated by the data, resource efficacy is not purely endogenous, it is constrained or enabled by external factors. In fragile economies such as Liberia, where institutions are weak, infrastructure unreliable, and corruption prevalent (Lee et al., 2022; UNDP, 2024), these external frictions diminish the ability of entrepreneurs to effectively use their acquired knowledge. The non-significant moderating effect of CEBE thus highlights that even when an individual develops strong human and intellectual capital through education, these assets may not translate into measurable performance gains if the macro- and meso-level conditions remain unfavourable.

Moreover, the negative direction of the interaction term, but, statistically insignificant, carries interpretive weight. It implies that in less conducive environments, additional EE programs may not necessarily provide higher performance. This could be because highly educated entrepreneurs may become more aware of inefficiencies and barriers in the system that obstruct their efforts, leading to frustration or reduced motivation. In such contexts, knowledge without corresponding conduciveness of the external business environment may create a capability-expectation gap, as SME owners may possess the skills to innovate but lack the enabling structures to effectively operationalize those skills. This finding resonates with Marginson's (2019) critique of HCT's linearity that increased education does not lead automatically to improved productivity or income, especially when contextual barriers exist.

The findings also offer insight into Liberia's broader developmental context. The country's post-conflict economy is characterized by underdeveloped infrastructure, weak institutional frameworks, and limited policy support for SMEs (UNDP, 2024). In such an environment, even when entrepreneurs acquire new competencies through education, they face practical barriers such as unreliable electricity, poor transport systems, and constrained access to credit facilities. These structural impediments reduce the effectiveness of EE in driving performance improvements. Thus, while the findings of the study show that EE provides entrepreneurs with the knowledge base to contribute to their business performance, the absence of a conducive business environment may be inhibiting the conversion of these capabilities into tangible outcomes, which could be a possible explanation for the non-significant moderating effect of CEBE on the EE and SMEP relationship.

A further critical reflection concerns the nature of the CEBE construct itself. The insignificance of CEBE and its interaction term may partly stem from the measurement approach. If CEBE was operationalized through perceptual indicators (e.g., entrepreneurs' subjective evaluations of the business climate), variations in perception may obscure the true structural deficiencies of the environment. Entrepreneurs accustomed to operating in challenging conditions may perceive their environment as moderately conducive compared to past experiences, resulting in response bias. This limitation indicates the importance of complementing subjective measures with

objective indicators to capture the multidimensional nature of environmental conduciveness.

Critically, these findings invite a reassessment of how EE programs are designed and delivered in fragile economies. The persistence of insignificant moderation effects suggests that without systemic reforms, educational interventions alone will have limited impact on enterprise growth. This aligns with the argument by Nabi et al. (2017) that EE often raises entrepreneurial intentions but fails to translate these intentions into sustained performance unless complemented by structural enablers. It also reinforces Arend et al.'s (2025) observation that education increases confidence and perceived competence but not necessarily business success in unstable environments. In essence, while human capital accumulation remains a necessary condition for enterprise development, it is not sufficient in the absence of a conducive ecosystem that allows these capabilities to be effectively utilized.

In theoretical terms, the findings regarding H1 demonstrates the need to incorporate HCT and RBV with environmental contingency frameworks to achieve a more holistic understanding of SMEP. The observed pattern of results (i.e., strong main effect for EE, insignificant effect for CEBE, and weak negative interaction), suggests that the interplay between individual-level capabilities and contextual enablers is asymmetrical. SME owners may learn, innovate, and strategize, but their efforts may always be constrained by systemic weaknesses beyond their control. The empirical evidence therefore supports the argument for a multilevel analytical model that situates entrepreneurial outcomes within both the micro-foundations of human capital and the macro-structures of the external business environment.

5.3.2 Discussion pertaining to H2

In H2, it was posited that EA would mediate the relationship between EE and SMEP. Like H1 results, while EE directly influenced SMEP, its effect on EA was also not significant, and EA itself was not a predictor of SMEP. This finding also contradicts theoretical expectations emerged from both EA theory and discovery theory that suggest that heightened alertness is a critical pathway through which education transform into improved performance.

EA has long been considered central to the entrepreneurial process, mainly in opportunity recognition and exploitation (Kirzner, 1973; Tang et al., 2012). The three dimensions outlined by Tang et al. (2012), (1) scanning and searching, (2) association and connection, and (3) evaluation and judgment, capture the cognitive steps that allow entrepreneurs to convert environmental indicator into feasible business opportunities. According to Shane and Venkataraman (2000), opportunities exist in the environment objectively but are acted upon only by alert individuals with the essential prior knowledge. Based on this perspective, EE is required to provide the human capital and cognitive training needed to improve alertness and thereby improve SMEP (Schultz, 1959; Shava & Matshaya, 2022).

The mediation absence in this study suggests that EE programs in Montserrado County, Liberia, may be insufficiently designed to improve the deeper cognitive dimensions of alertness. Many EE programs emphasize technical and business management skills but neglect perceptual and interpretive capabilities development needed for opportunity recognition (Fayolle & Liñán, 2014). This disconnect may explain why SMEP was improved directly by EE, but EE itself did not enhance EA. Instead of fostering heightened sensitivity to market outliers, education may instead equip entrepreneurs with practical business tools, such as bookkeeping, marketing, and resource management, that directly improve performance without necessarily increasing alertness.

Contextual considerations further support this interpretation. Kirzner (1997; 2009) highlighted the inherently dynamic and interpretive nature of alertness, which requires an environment rich in irregularities, gaps, and emergent opportunities. However, in Liberia, the weak institutional environment, low levels of market dynamism, and underdeveloped infrastructure (Mellish, 2016), may limit the relevance of alertness. SMEs may focus on survival strategies and reactive decision-making rather than seeking to proactively discover opportunity. This means that even if alertness exists, it does not transform into measurable performance outcomes. This aligns with Ardichvili et al. (2003) position that opportunity recognition is not merely cognitive but also dependent on social networks and prior knowledge. In resource-constrained environments like Liberia, alertness alone may be insufficient to drive SME performance without complementary structural supports.

From a theoretical perspective, the findings partially contradict discovery theory. According to Shane and Venkataraman (2000) and Eckhardt and Shane (2003), entrepreneurs succeed when they discover and exploit opportunities unseen by others, a process underpinned by alertness. The theory assumes a degree of environmental dynamism, which may be absent in Liberia, thereby weakening the relevance of EA as a mediator. The findings are more align with critiques of EE advanced by Liñán and Fayolle (2015), who argue that experience and prior knowledge are powerful predictors of opportunity recognition than formal education.

The results also suggest that alternative mediators may better capture the mechanisms through which EE impacts SMEP in Liberia. For instance, entrepreneurial self-efficacy or business network engagement could represent more immediate outcomes of education, aligning with Murad et al. (2024) and Guo et al. (2016) findings, which emphasize layered and interactive processes. In other words, while EE clearly improves SMEP, the pathway may avoid alertness and instead operate through enhanced confidence, social capital, or innovation capacity.

5.3.3 Discussion pertaining to H3

It was hypothesized in H3 that GFS would positively and directly impact SMEP. The results revealed a significant negative relationship between GFS and SMEP in Montserrado County, Liberia. This contradicts the study's hypothesis and much of the existing literature that public financial assistance is beneficial inherently to SMEs. This raises important questions regarding institutional conditions under which financial support can foster or hinder entrepreneurial outcomes.

Much of the existing literature emphasizes the positive impact of GFS on SME growth and competitiveness. Jayeola et al. (2022), Rungani and Potgieter (2018), and Thapelo (2020) all argue that financial from assistance governments helps SMEs overcome capital constraints, expand operations, and improve innovation. Similarly, Olaniyi and Bayai (2023) show that grants directly associate with revenue growth, while Lee et al. (2023) indicates that government support fosters financial satisfaction among entrepreneurs.

However, the negative relationship observed in this study aligns with increasing concerns regarding the effectiveness of financial support in weak institutional contexts.

As observed by Peter et al. (2018) and Prusa (2021), inefficiency, corruption, and bureaucratic hurdles can diminish the intended benefits of government programs. In Liberia, pervasive institutional weaknesses like limited administrative capacity, lack of transparency, and political patronage (Mellish, 2016) may lead to government support to be allocated poorly or delayed. From an institutional theory perspective (Scott, 2001), the failure does not lie in the resource itself, it lies in the institutional arrangements that governs its distribution. Thus, instead of enhancing performance, government financial programs may inflict additional compliance costs, foster dependency, or channel resources toward enterprises that are less productive, thereby limiting instead of enabling SME growth.

Another explanation could be the misalignment between the kind of financial support offered and the needs of SMEs. As emphasized by Angulo-Ruiz (2014), financial support without capacity-building to complement it measures often fails to improve business performance. In Liberia, where many SMEs operate informally with limited managerial capacity, access to credit or grants without training in financial literacy, market development, or innovation may result in misuse of funds. This interpretation corroborates with Lee et al. (2023), who further explains that financial support must be supplemented by interventions that improve financial behaviour to be effective. In the absence of such accompanying support, financial capital may not transform into competitive advantage.

The negative result may also reflect selection bias or reverse causality. SMEs struggling may be more likely to search or be targeted for government assistance. In other words, this means that poor performance stimulates access to financial support rather than the reverse. This perspective is consistent with Pergelova and Angulo-Ruiz (2014) findings, who differentiate between immediate and long-term effects of support. Government programs do not always offer immediate improvements in profitability or growth, but they may improve legitimacy and survival. If less performing businesses are represented among recipients disproportionately, the whole statistical relationship may occur negative despite the intent of the support being positive.

Another especially useful lens that interpret these findings is the Institutional theory. Scott (2001) and Bruton et al. (2010), all agreed that organizations operate within institutional environments shaped by formal rules, norms, and cultural expectations.

In contexts, where institutions are weak or not align, formal support mechanisms may not succeed in achieving their objectives. In Liberia, widespread corruption, limited regulatory enforcement, and lack of transparency can affect the delivery of financial programs. Instead of fostering entrepreneurial legitimacy and opportunity, government support may strengthen dependency, promote opportunism, or displace market-based financing mechanisms. In this kind of contexts, institutional pressures may create isomorphic behaviours where SMEs implement compliance methods to access funds instead of innovating or competing effectively (DiMaggio & Powell, 1983).

5.3.4 Discussion pertaining to hypothesis 4

H4 posited that government non-financial support (GNS) would positively impacts SMEP. But results showed that GNS exhibited a significant negative effect on SMEP in Montserrado County, Liberia. This contradicted the hypothesized positive relationship and challenges the broader agreement in the literature that non-financial support mechanisms like advisory services, training, infrastructure development, and policy facilitation, tend to improve SMEs by building their capacities and allowing more favourable business environments (Owusu-Ansah et al., 2017; Parasannath et al., 2024). While studies in other contexts have found these forms of support to be moderately or strongly beneficial to SME growth and sustainability, the opposite effect in Liberia suggests that contextual and institutional dynamics critically shape the effectiveness of such interventions.

Several explanations can be advanced for this unexpected negative result. One explanation lies in the limitation of institutional capacity and bureaucratic inefficiencies that characterize the governance system of Liberia (Gbatu, 2023). Non-financial support programs are often troubled by improper planning, poor delivery, and lack of meaningful follow-up. This may diminish their intended benefits because SME owners may receive training or advisory services that are generic, outdated, or irrelevant to their specific operational realities, thereby creating a mismatch between the support provided and their actual needs (European Commission et al., 2021). In this sense, the current study findings align with Molope et al. (2024) study that found that the effectiveness of non-financial support is frequently overstated when interventions are insufficiently tailored. Instead of entrepreneurs' empowerment, such poorly

implemented programs may cause frustration, waste of time, and lost productivity, which undermines business performance.

Institutional theory (Scott, 2001) provides a strong theoretical lens to interpret the results. While the intent of non-financial support is to strengthen institutional legitimacy by including knowledge, practices, and compliance mechanisms, in contexts of weak institutions, such support can instead intensify inefficiencies and mistrust (Njinyah et al., 2022). Liberia's institutional environment marked by fragmented coordination among support agencies, corruption, and informal economic practices (BTI, 2024; World Bank, 2025), may reduce the intended benefits of non-financial interventions. Rather than enhancing legitimacy, such programs may be perceived as intrusive, irrelevant, or even coercive, eroding SMEs' trust in government initiatives. Moreover, institutional isomorphism (DiMaggio & Powell, 1983) suggests that firms may incorporate practices just to comply with government expectations instead of because of their effectiveness. This compliance-oriented behaviour can result in superficial alignment with institutional pressures without genuine performance improvements.

Like what was observed in H3, SMEs that are underperforming may be more likely to seek out or be targeted for GNS, because they may be struggling or due to government agencies prioritizing weaker firms as recipients. This selection bias or reverse causality could be another possible explanation for H4. In such cases, the observed negative association may not reflect the inherent ineffectiveness of support itself but rather the underlying poor performance of the SMEs receiving it. Nevertheless, this selection dynamic still speaks to institutional shortcomings in how support programs are designed and allocated, as well as the lack of complementary monitoring and evaluation mechanisms.

5.4 Chapter summary

This chapter has discussed the study's empirical findings in line with existing literature and the theoretical frameworks. The demographic profile of the 371 valid responses revealed that most respondents were middle-aged and operating informal, service or retail-based enterprises. This reflects Liberia's unique post-conflict economic environment. These contextual factors help explain the study's outcomes. For H1, EE was found to significantly and positively influence SMEP, affirming HCT. However, the CEBE did not significantly moderate this relationship. This suggests that weak institutional and infrastructural supports in Liberia limit the ability of contextual conduciveness in enhancing educational impacts. H2 revealed that EA did not mediate the EE and SMEP relationship. These challenged assumptions of discovery theory and indicating that education improves performance through more practical channels rather than heightened alertness. The findings for H3 and 4 were especially counterintuitive. Both GFS and GNS were negatively associated with SMEP. From institutional theory perspective, this outcome indicates inefficiencies, poor program design, weak institutional capacity, and lack of alignment with the real needs of SMEs'. Thus, instead of enhancing legitimacy or providing strategic resources, government support mechanisms appear to impose burdens, foster dependency, or generate frustration among SME owners.

CHAPTER 6: CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This chapter presents the overall conclusions drawn from the empirical findings discussed in Chapter 5. Each hypothesis, research objective and research questions are revisited to provide clear, succinct conclusions grounded in the findings, literature, and theories. The chapter also offers informed recommendations aimed at policymakers, educators, and practitioners seeking to enhance the development of SMEs. These conclusions reflect the contextual realities of Liberia's SME sector and add to the broader discourse on entrepreneurship and public support efficacy in developing economies.

6.2 Conclusion pertaining to H1

H1 findings demonstrating that EE has a direct and significant impact on SMEP in Montserrado County confirms EE role as a powerful driver of entrepreneurial outcomes. This result emphasizes the vitality of human capital development, proving once again that education and training provide entrepreneurs with the skills and knowledge necessary to operate effectively, innovate, and sustain growth. In the context of Liberia, where access to formal capacity-building opportunities is limited, the value of EE becomes even more evident, as it equips business owners with the tools to overcome many immediate business challenges.

However, the hypothesis that a Conducive External Business Environment (CEBE) would enhance this relationship was not supported. The external environment, while theoretically and undeniably crucial, did not significantly strengthen or weaken the impact of education on performance. This outcome can be understood through the lens of two theoretical perspectives (HCT and RBV). HCT is strongly supported, as education was able to influence performance on its own, even in the absence of favourable external supports. On the other hand, the RBV, which emphasizes the need for intangible resources such as education to interact with complementary external assets, was not fully validated. In this case, the absence of reliable infrastructure, financial systems, and institutional backing meant that education itself carries the weight of influencing outcomes without reinforcement from the environment.

These findings suggest that EE should continue to be prioritized as a cornerstone of SME development, but its potential will remain limited until structural and institutional reforms can be pursued. A more enabling environment would allow the benefits of education to compound, creating stronger synergies between individual capabilities and external opportunities. In sum, while education has proven to be an important and reliable pathway to SMEP in Montserrado County, the absence of meaningful environmental support highlights the urgent need for policy and institutional reforms to unlock its full potential.

6.3 Conclusion pertaining to H2

H2 results indicate that while EE had a clear and positive effect on business outcomes, it did not significantly enhance EA, nor did EA itself emerge as a meaningful predictor of performance in this context. This challenges the assumption that alertness is a central cognitive mechanism through which education shapes entrepreneurial success. Instead, it appears that in Montserrado County, education equips entrepreneurs with practical business knowledge and operational skills that directly support performance, totally avoiding the pathways associated with alertness.

From a theoretical standpoint, this outcome raises important considerations. Entrepreneurial alertness theory (EAT) emphasizes the importance of cognitive processes such as scanning, associating, and evaluating signals in identifying opportunities (Tang et al., 2012). Yet, these dimensions may insufficiently be cultivated through the current design of entrepreneurship programs in Montserrado county, Liberia. Discovery theory (DT) also assumes the presence of dynamic environments where opportunities abound. But in Liberia, weak institutions, limited infrastructure, and a lack of competitive intensity may reduce the relevance of alertness as a performance driver.

These insights point to the need for a rethinking of both policy and practice. Programs need to move beyond technical instruction and integrate experiential and cognitive training that fosters opportunity recognition for education to influence outcomes through alertness. At the same time, alternative mechanisms like entrepreneurial self-efficacy, networking, and innovation capacity may better explain how education leads to improved performance in contexts marked by resource scarcity and institutional

weakness. In conclusion, H2 results indicate the robustness of education as a direct driver of SMEP while showing the limited role of alertness in environments where survival strategies outweigh proactive opportunity discovery.

6.4 Conclusion pertaining to H3

The significant negative impact of GFS on SMEP in Montserrado County revealed from H3 findings indicate that instead of GFS serving as a catalyst for growth, competitiveness, and enabling entrepreneurial progress, it appears to constrain. This result contradicts the widely held assumption that financial interventions are inherently beneficial, which instead suggests that in contexts with weak institutions and systemic inefficiencies, public financial aid may generate unintended adverse outcomes.

Several explanations account for this outcome. Inefficient program design, corruption, and lack of transparency can delay or dilute the benefits of financial support, which leaves many SMEs to be unable to capitalize on the resources when needed. Additionally, compliance burdens related to accessing funds may impose costs that exceeds potential benefits, mainly for small and informal enterprises with limited administrative capacity. Dependency is another concern, as businesses that rely heavily on government aid may fail to build sustainable business models, weakening entrepreneurial initiative and discouraging innovation. The possibility of reverse causality must also be considered, where underperforming or SMEs struggling are more likely to seek support, thereby creating a negative statistical relationship even if the intent of such programs is positive.

From a theoretical perspective, institutional theory provides an important lens for understanding these results. In environments where governance structures are weak, financial programs are often undermined by corruption, political patronage, and mismanagement. Instead of enhancing performance, government assistance may reinforce dependency or reward inefficiency, thereby distorting entrepreneurial behaviour.

6.5 Conclusion pertaining to H4

H4 finding runs counter to the initial assumption that services including training, advisory programs, infrastructure support, and policy facilitation would strengthen SME capacities and improve outcomes. Instead, the evidence indicates that these interventions, as currently structured, may be weakening rather than enabling entrepreneurial growth.

One key explanation lies in the weaknesses of institutional delivery. Non-financial programs in Liberia often struggle from poor design, fragmented implementation, and lack of effective monitoring or follow-up. Training may be overly generic, outdated, or poorly aligned with the operational challenges that SMEs face. This may be the reason why support appears to be irrelevant or burdensome. In many cases, participation in such programs may consume valuable time and resources without producing tangible benefits, leaving SME owners disillusioned and disengaged. Rather than building trust, these interventions may deepen scepticism toward government involvement in business support.

Institutional theory provides an important interpretive lens for understanding these outcomes. In fragile institutional environments such as Liberia, non-financial support can unintentionally reproduce inefficiencies and compliance-oriented behaviours. SMEs may participate in government programs primarily to satisfy institutional expectations rather than to enhance their own productivity. This pattern weakens institutional legitimacy and undermines the intended developmental role of government agencies. Furthermore, the negative relationship observed may reflect selection effects, where struggling firms are more likely to seek or receive government assistance, thereby reinforcing perceptions of ineffectiveness.

These findings indicate the urgent need for reforming how non-financial support programs are designed, implemented, and evaluated. A more context-specific, participatory, and performance-oriented approach, rooted in genuine capacity building and continuous monitoring, could transform government interventions from symbolic exercises into effective tools for SME growth and competitiveness in Liberia.

6.6 Recommendations

1. Strengthen and expand EE programs

Considering the robust positive impact of EE on SMEP in Montserrado County, policymakers and educational institutions must invest in accessible programs for both formally educated and informal entrepreneurs. This must be done by:

- Partnering with the University of Liberia and other educational institutions, the Monrovia Vocational Training Center (MVTC), and NGOs such as USAID Liberia to launch mobile EE units reaching rural-urban informal traders.
- Revising curricula to include Liberia-specific modules on opportunity recognition in post-conflict markets and entrepreneurial alertness amid economic volatility, piloting with 300 participants in Montserrado.
- Embedding experiential learning through mentorship from local SME success stories (e.g., rubber exporters) and real-world simulations of Liberia's import-export challenges, targeting 25% improvement in business performance metrics within one year.

2. Reform GFS mechanisms

The negative relationship found between GFS and SMEP indicates urgent reforms are needed for financial assistance programs in Montserrado County. Drawing from Rwanda and Tanzania models that reduced bureaucratic hurdles and improved transparency (CNBC Africa, 2024; Republic of Rwanda Ministry of Trade and Industry, 2020; National Economic Empowerment Council [NEEC], 2017), Liberian policymakers must redesign GFS by:

- Simplifying application processes to under 10 pages, ensuring disbursement within 30 days, and offering flexible funding terms tailored to SME sector needs rather than one-size-fits-all conditions.
- Introducing public-private partnerships to oversee fund management, requiring beneficiaries to submit quarterly progress reports tied to business milestones.
- Piloting repeat funding mechanisms only for SMEs demonstrating growth, encouraging self-sufficiency and continuous improvement rather than dependence.

3. Enhance quality and relevance of GNS

To address the negative impact of non-financial government support, Liberian authorities must reassess advisory, training, and infrastructure services to align with SME priorities. Drawing from South Africa's targeted interventions (South African Cities Network, 2023), this must be done by:

- Conducting SME surveys in Montserrado County within to identify priority needs, then training 50 government advisors in sector-specific expertise via a six-month certification program.
- Strengthening inter-agency coordination and including private sector and civil society partners as service delivery agents to increase efficiency and responsiveness to informal enterprises.
- Implementing monthly feedback loops and digital platforms for beneficiary input, with annual quality improvement targets of at least 20% increases in SME satisfaction scores.

4. Develop alternative mediating support mechanisms beyond EA

Since EA was not found to mediate the EE and SMEP relationship, interventions must focus on self-efficacy, business networking, and market access as alternatives. Research from Nigeria and South Africa demonstrates these are powerful mediators (Eister & Msimango-Galawe, 2024; Poi, 2023). The Liberian government, educational institutions, and training providers must:

- Launch confidence-building workshops and peer networking platforms for SME owners in Montserrado County, integrating digital tools for real-time market information access, and teach owners how to use these tools.
- Invest in capacity-building modules combining entrepreneurial mindset and business resilience training alongside EE content, ensuring holistic skill development.
- Pilot and evaluate these alternative pathways quarterly through randomized trials, scaling the most effective mechanisms to maximize SME revenue growth by 20-30% and improve survival rates.

5. Invest in improving the broader business environment

Although external business environment did not moderate the EE-SMEP relationship, strengthening the ecosystem remains critical for long-term SME sustainability in Montserrado County. Liberian authorities and development partners must prioritize:

- Fast-tracking public tenders for reliable electricity and roads in SME hubs, and digitizing business registration to complete in under 48 hours.
- Enacting anti-corruption protocols with independent audits and whistleblower protections, establishing dedicated SME protection units with specialized training for rapid dispute resolution.
- Tracking progress via biannual business environment indices to ensure reforms reduce transaction costs by at least 15% and attract private investment.

6. Promote data-driven policy and continuous evaluation

Governments and supporting agencies must institutionalize regular data collection, monitoring, and impact evaluation mechanisms for SME policies and programs in Montserrado County. They must:

- Launch a centralized SME database within, mandating quarterly data uploads from all support programs to enable responsive governance.
- Form tripartite committees (academia, government, practitioners) to conduct annual impact evaluations using standardized metrics like revenue growth and survival rates.
- Dedicate 5% of SME budgets to research and digital feedback tools for real-time policy refinements. This ensures resources are efficiently allocated and programs remain relevant in an evolving business landscape.

6.7 Suggestions for future research

Future studies should explore several dimensions to dig deeper into understanding factors influencing SME performance in Montserrado county, Liberia, and similar developing contexts. Longitudinal studies are recommended as a crucial method to capture dynamic changes over time in how EE, GS, and the external environment affect SME outcomes, offering insights into causal relationships and sustainability. Qualitative research employing interviews and case studies could complement quantitative analyses by revealing the lived experiences and contextual nuances of

SME owners regarding support and education, identifying specific barriers and service delivery gaps.

Additionally, future research should investigate alternative mediators and moderators like entrepreneurial self-efficacy, social networks, innovation capability, and access to digital technologies, with comparative analyses across sectors and urban-rural divides to uncover heterogeneities. More thorough examination of the impact of different types and quality levels of GFS and GNS is required to identify effective interventions and combinations. Expanding empirical work to other counties in Liberia and post-conflict African countries will improve generalizability and support regionally tailored to SME development strategies. These avenues will enrich the evidence base and guide more effective, context-sensitive entrepreneurship policy and practice in Liberia, Africa, and globally.

6.8 Overall conclusion

This study has provided essential insights into the complex factors influencing SME performance in Montserrado County, Liberia. Entrepreneurship education (EE) emerged as a key driver of improved SME outcomes. This indicates its vital role in building entrepreneurial capacity. However, neither the external business environment nor entrepreneurial alertness significantly affected or mediated this relationship. This indicates contextual challenges and potential gaps in current educational approaches. Notably, both government financial and non-financial support were found to negatively impact SME performance. This raises serious concerns about the design, delivery, and alignment of public support mechanisms within Montserrado county, Liberia's SME ecosystem. These findings reveal the urgent need for targeted reforms to government programs and a renewed focus on strengthening education and broader business conditions. Addressing these issues could harness the potential of Liberia's business to promote inclusive economic growth and resilience in a challenging post-conflict environment.

From a theoretical perspective, the Human Capital Theory (HCT) shows the importance of EE in enhancing entrepreneurial skills and capacities. But its application reveals limitations when external contextual factors and environmental constraints are unconducive for converting knowledge into performance. The RBV integration appears

weak in the context of Montserrado county, Liberia SME context. Additionally, Institutional Theory shows how institutional weaknesses, and governance challenges can derail the effectiveness of GS and the broader business environment, thereby limiting SME growth. Collectively, these theories emphasize that while EE is critical, its impact is contingent upon favourable external environments, resource orchestration, and robust institutional frameworks, all of which require strengthening to realize improved SME performance in Montserrado County. The complex interplay of EE, weak external business conditions, limited EA, and poorly aligned GS mechanisms suggests the urgent need for comprehensive reforms in Montserrado County, Liberia.

Thus, this study recommends that Liberian authorities and policymakers must improve the quality, accessibility, and relevance of non-financial support through tailored, sector-specific advisory services, stronger inter-agency coordination, involvement of private and civil society partners, and institutionalized continuous feedback and evaluation mechanisms to rebuild trust, ensure responsiveness, and better align support with the diverse needs and constraints of SMEs in Montserrado County, Liberia.

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APPENDICES

Appendix A: Research instrument

Start of Block: Introduction

Dear Sir/Madam,

My name is **Ismail I. Konneh,** a student researcher at the University of the Witwatersrand Business School (WBS). I am conducting a research study titled **"The Impact of Entrepreneurship Education and Government Support on SME Performance in Montserrado County, Liberia."** You are invited to participate in this study because your insights as an SME owner/operator are valuable to understanding how entrepreneurship education and government interventions influence business outcomes in Liberia. **Participation is completely voluntary.** You have the right to **decline or withdraw** from the study at any point without any consequences. Should you choose to participate, the survey will take **no more than 7 minutes to complete.** Your responses will be kept **strictly confidential** and used **solely for academic and research purposes**, which may include publication in academic journals or presentations. Any personal or sensitive data will be **anonymized and securely stored** at the Wits Business School Library for one year after the completion of the study. Access to both raw and summarized data will be restricted to myself, my research supervisor, and the WBS research committee. Should you wish to access the final report or have any concerns or questions about the study, you are welcome to reach out. I have obtained an ethics clearance from WBS, giving me permission to collect data. Thank you for your time and contribution to this important study.

Please note that this survey is for individuals who meet the following criteria:

1. You own or operate a business in Montserrado County, Liberia.
2. You have participated in any form of entrepreneurship education or training, and/or your business has received any form of support (financial or non-financial) from the government. If you meet these criteria, kindly proceed with the survey. Thank you for your willingness to contribute to this important study!

Consent **Declaration of Consent** To continue with this study, you are required to give your consent or willingness to participate in the study.

- ○ By filling out this survey, I agree and give my consent to participate in this study and am fully aware that my data will be used solely for research purposes. (1)

1. Demographics

Q1.1 What is your age group?

- ○ 18–25 (1)
- ○ 26–35 (2)
- ○ 36–45 (3)
- ○ 46–55 (4)
- ○ 56–65 (5)
- ○ Above 65 (6)

Q1.2 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary / third gender (3)
- ○ Prefer not to say (4)

Q1.3 What is the highest level of formal education you have completed?

- ○ Primary school (1)
- ○ Secondary school (2)
- ○ Vocational/technical education (3)
- ○ University degree (4)
- ○ No formal education (5)

Q1.4 What sector does your business operate in?

- ○ Formal sector (e.g., registered for tax, with licenses) (1)
- ○ Informal sector (e.g., unlicensed, unregistered for tax) (2)

Q1.5 How long have you been operating your business?

- ○ Less than 1 year (1)
- ○ 1–3 years (2)
- ○ 4–6 years (3)
- ○ More than 6 years (4)

Q1.6 What type of business do you operate?

- ○ Retail (1)
- ○ Service-based (e.g., hairdressing, car repair) (2)
- ○ Manufacturing/Production (3)
- ○ Agriculture (4)
- ○ For-profit organization (6)
- ○ Other (5)

Q1.7 Which part of Montserrado County is your business located?

- ○ Monrovia (1)
- ○ Paynesville (2)
- ○ Sinkor (3)
- ○ Congo Town (8)
- ○ Caldwell (4)
- ○ Johnsonville (6)
- ○ Other (7)

Table 24: Survey questions

2. Entrepreneurship education - Wardana et al. (2020), but instrument is adjusted							
Please indicate your level of agreement or disagreement with each of the following statements on a scale of 1 to 7. 1 = Strongly disagree, 2 = disagree, 3 = Somewhat disagree, 4 = Neither agree nor disagree, 5 = Somewhat Agree, 6 = Agree, and 7 = Strongly Agree	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2.1 Entrepreneurship education improved how I run my business.							
2.2 Entrepreneurship workshops or training programs improved how I manage my business.							
2.3 What I learned from entrepreneurship education helped me grow my business.							
2.4: Entrepreneurship education has had a positive effect on my business's overall performance.							
3. Entrepreneurial alertness - Tang et al. (2012)							
3.1: I have frequent interactions with others to acquire new information							
3.2: I see links between seemingly unrelated pieces of information.							
3.3: I can distinguish between profitable opportunities and not-so-profitable opportunities.							
4. SME performance - Garg et al. (2004)							
4.1 My business's sales revenue has increased steadily over the past year.							

4.2 My business's market share has grown over the past year.							
4.3 My business's profitability has improved in recent months.							
4.4 Overall, my business's financial performance is not very bad.							
5. Conducive external environment - Otto et al. (2023) and Yepwi et al. (2025)							
5.1 There is strong market demand for the products or services I offer.							
5.2: Competition in my industry is fair and encourages innovation.							
5.3: Government regulations that affect my business are easy to understand.							
5.4: The regulatory environment (taxation, licensing, etc.) is favorable.							
6. Government financial support - Crawford et al. (2023) and Jayeola et al. (2022)							
6.1 There are government grants available to support small businesses.							
6.2 It is easy for small businesses to access government-backed loans.							
6.3 Government credit guarantee schemes are available for small businesses.							
6.4 Information on government financial support opportunities for small businesses is readily available to the public.							

7. Government non-financial support - Campeau and Kelly (2024) and Surya et al. (2021)							
7.1 The government provides training programs that support small business development.							
7.2 Government institutions offer clear guidance for complying with business regulations.							
7.3 The government creates opportunities for networking or knowledge-sharing among business owners.							
7.4 Non-financial support (e.g., training programs, networking events, business advisory services) from the government has helped improve my business operations.							

Appendix B: 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/EN2922343/146
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

Project title	The impact of entrepreneurship education and government support on SME performance in Montserrado County, Liberia
Investigator / Researcher	Mr Ismail I Konneh
Nature of Project	MM in Entrepr & New Venture Creation
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.
Issue Date of Certificate	20/5/2025
Expiry date	Date of submission of the project / research report
Chairperson	Dr Ayanda Magida ☎ +27 11 717 3953 ✉ ayanda.magida@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

20/05/2025
Date: