

**ENTREPRENEURIAL LEARNING BEHAVIOR, DIGITAL ADOPTION AND
BUSINESS RESILIENCE OF WOMEN OWNED SMALL AND MEDIUM
ENTERPRISES IN KAMPALA CAPITAL CITY, UGANDA**

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**A DISSERTATION SUBMITTED TO THE DIRECTORATE OF RESEARCH
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REQUIREMENTS FOR THE AWARD OF A MASTER
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DECLARATION

I Atuheire Dorcus, declare that this dissertation is my original work and has never been presented in any institution of higher learning for any academic award. Any material used and is not my original work the authors have been acknowledged.

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APPROVAL

This is to certify that this dissertation titled “*Entrepreneurial learning behavior, Digital adoption, and Business resilience of women owned SMEs in Kampala Capital City*” has been under our supervision and we hereby approve it for submission to Directorate of Research and Graduate Training for examination.

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Date:

DEDICATION

This dissertation is dedicated to my husband Rev. Anthony Kamukama who encouraged and inspired me to upgrade my studies and went ahead to pay tuition. More so, I dedicated this research report to my parents Mr. Livingstion Tumwesigye and Mrs. Jenifer Tumwesigye for always cheering me up and the morale support.

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LIST OF ABBREVIATIONS

CVI	Content Validity Index
DCT	Dynamic Capabilities Theory
LRA	Lord's Resistance Army
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Scientists
UTAUT	Unified Theory of Acceptance and Use of Technology

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ABSTRACT

The study focused on examining the relationship between entrepreneurial learning behavior, digital adoption, and business resilience of women owned SMEs in Kampala Capital City. The study was guided by four objectives which are to examining the relationship between entrepreneurial learning behavior and business resilience, the relationship between digital adoption and business resilience in of women owned SMEs in Kampala Capital City, the relationship between entrepreneurial learning behavior and digital adoption in women owned SMEs in Kampala Capital City and the mediating role of digital adoption between entrepreneurial learning behavior and business resilience of women owned SMEs in Kampala Capital City. The study employed a cross-sectional survey research design with a quantitative research approach. The study targeted a sample size of 375 participants which was determined following (Krejcie & Morgan, 1970) statistical table but 291 participants managed to respond back showing a response rate of 77.6 percent. The women-owned businesses were selected using systemic sampling technique. Data was collected using a closed-ended questionnaire and analysis was done using Social Package for Social Scientists to produce means, standard deviation, relationships and regression. The study findings revealed entrepreneurial learning behavior had a significant and positive relationship with business resilience at ($r = .427^{**}$, $P < 0.01$), digital adoption was also significantly and positively related with business resilience at ($.886^{**}$, $P < 0.01$) and there was significant relationship between entrepreneurial learning behavior and digital adoption at ($r = .435^{**}$, $P < 0.01$). From the regression analysis, the combined constructs of entrepreneurial learning behavior and digital adoption, collectively accounted for 81.4% (Adjusted R Square = .814) of the variance in business resilience. Sing Beta values, the results also revealed that besides entrepreneurial learning behavior positively predicts business resilience, it was insignificant at (Beta = **.017**, $p = .328 > 0.05$) and digital adoption was also found to be positively and significantly predicted business resilience at (Beta = **.802**, $p = .000 < 0.05$). For the mediating variable, Sobel Test showed Z value = 41.02329414 with Std Error = 0.0233168 with significant value of (p -value = $0.000 < 0.05$) was registered which indicated that introduction of digital adoption in the equation as a mediator significantly mediates the relationship between entrepreneurial learning behavior and business resilience of women owned SMEs. It was recommended that the Ministry of ICT should prioritize initiatives aimed at enhancing digital literacy and access to technology among women entrepreneurs. Additionally, policymakers should support initiatives that provide women-owned SMEs with resources and support to effectively leverage digital tools and platforms for customer communication and online marketing. The researcher recommended that management of SMEs prioritize investment in digital literacy and technology adoption initiatives for their workforce. This includes providing training programs to equip employees, with the necessary skills to operate computers effectively and utilize digital tools for business operations, customer communication, and marketing purposes. Additionally, SME management should ensure access to reliable internet infrastructure to facilitate seamless online engagement and leverage various social media platforms for effective customer outreach and product promotion.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents the background to this study, statement of problem, objectives, research question, hypotheses, scope of study, conceptual framework, significance and justification and operational definition of key term.

Businesses that need to survive for long time and be successful need to have higher probability adjusting to disruptions, rebounding more quickly, and maintaining their competitive edge as means of remaining resilient (Rahman, Islam, & Hassink, 2019). Business resilience encompasses an organization's capacity to anticipate, prepare for, respond to, and adapt to gradual changes and sudden disruptions with the aim of surviving and thriving (Deloitte, 2018). It involves the ability to foresee and plan for changes, as well as the capability to effectively address unforeseen events such as natural calamities, pandemics, and other disruptions that can impact business operations. However, there is a lack of comprehensive understanding regarding the specific strategies that businesses can employ to enhance this resilience. While Kebede et al. (2021) and Jaspreet and Varun (2019) highlighted that there is potential for entrepreneurial learning behavior and digital adoption to improve business resilience and it remains necessary to delve into the intricate relationship between these variables.

1.2 Background to the study

This section presents historical background, theoretical background, conceptual background and contextual background.

1.2.1 Historical background

Over the course of history, the concept of business resilience has evolved in response to numerous events and crises. Its origins can be traced back to the early 1800s during the period known as the depression, specifically from 1819 to 1822. This era was characterized by a burst of speculative land bubble and a contraction of credit, which posed significant challenges for businesses to maintain their operations (Bierman & Smidt, 2012). Another notable depression, referred to as the Long Depression, occurred from 1854 to 1873, originating in the United States but with global ramifications. During this time, more than half of businesses worldwide collapsed, triggering an

extended period of economic contraction (James, 1993). The impact of the Second World War in the 1940s further shaped the development of strategies to cope with disruptions. Many businesses were affected by the war, leading to the creation of contingency plans such as backup suppliers, alternative manufacturing locations, and diversified transportation methods (Gallagher, 2003; Pitt & Goyal, 2004).

In recent decades, the importance of business resilience has grown due to various factors including natural disasters, cyber-attacks, and economic instability. For instance, the business resilience was profoundly impacted by the economic crunch of 2008-2009. This crisis revealed vulnerabilities in the business landscape and put organizations' ability to withstand and recover from severe economic shocks to the test. The origins of the economic downturn can be traced back to the housing bubble in the United States. During the early 2000s, the housing market experienced a rapid expansion driven by lenient lending practices and the securitization of mortgages (Reinhart & Rogoff, 2009). The effects of the economic downturn were far-reaching and severe. Financial institutions faced insolvency, necessitating government interventions like bailouts and emergency liquidity measures. Stock markets worldwide witnessed significant declines, resulting in the erosion of trillions of dollars in shareholder wealth. Business struggles led to soaring unemployment rates, triggering layoffs and reduced consumer spending. Numerous households faced financial distress due to plummeting home values and an increase in mortgage defaults (Blanchard & Quah, 2010).

The earthquake and tsunami in Japan in 2011 and the COVID-19 pandemic both had significant repercussions on businesses across Asia, prompting companies to swiftly adapt their operations and supply chains to mitigate the impact of these disasters. This involved pivoting towards online sales and delivery (Rokosz & Karwowski, 2015; PWC, 2020). In Africa, business resilience has long been a critical issue due to challenges such as political instability, inadequate infrastructure, economic volatility, and social unrest (African Development Bank, 2019). African businesses have prioritized resilience as a means to manage risks and adapt to the challenges they face (Agbibo & Agbibo, 2018). Some companies have successfully adjusted to the changing environment by implementing measures like remote working, enhanced hygiene protocols, and product diversification (World Bank, 2021)

In Uganda, business resilience encompasses several key elements. However, it was mostly realized after gaining independence in 1962. The country faced economic challenges marked by political unrest, economic mismanagement, and policy fluctuations, which adversely affected businesses (African Development Bank, 2019). The 1971 Amin coup resulted in significant political instability and economic challenges in Uganda. The regime implemented policies that included nationalization, expropriation, and expulsion of foreign-owned businesses, leading to a decline in private sector activity. Many businesses faced disruptions, loss of assets, and limited access to financing, which negatively impacted business resilience (Ofcansky, 1987). The 1980-1986 Guerrilla war, led by the National Resistance Army (NRA) had a profound impact on business resilience in Uganda. The war resulted in widespread destruction of infrastructure, displacement of people, and disruption of economic activities. Businesses faced challenges such as reduced consumer demand, supply chain disruptions, and insecurity, which hampered their resilience and ability to recover (Mamdani, 2002). However, in the 1990s, Uganda implemented significant economic reforms aimed at creating a more business-friendly environment, attracting foreign investment, and stimulating growth. This led to increased private sector participation and fostered resilience among businesses.

Despite periods of political instability, such as the civil war in the 1980s and the insurgency by the Lord's Resistance Army (LRA), businesses in Uganda demonstrated resilience by adapting, exploring alternative markets, and diversifying operations (African Development Bank, 2019; World Bank, 2020). External shocks, like the global financial crisis of 2008, tested businesses' resilience, but they were able to adjust strategies, explore new markets, and diversify products to withstand the impact. Natural disasters, including floods, droughts, and landslides, have also posed challenges to businesses, particularly in agriculture, but they responded with resilience measures such as investing in irrigation systems, adopting climate-smart practices, and diversifying income sources (World Bank, 2020). Lastly, the COVID-19 pandemic presented unprecedented challenges worldwide, and businesses in Uganda showcased resilience by embracing digital solutions, transitioning to online platforms, and exploring new business models (World Bank, 2022). These shocks didn't spare the women owned businesses. Therefore, this study examined how entrepreneurial learning behavior and digital adoption related with business resilience of women owned SMEs in Kampala Capital City.

1.2.2 Theoretical background

The study was guided by two theories of the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Dynamic Capabilities Theory (DCT). Firstly, Unified Theory of Acceptance and Use of Technology was developed by Venkatesh, Morris, Davis, and Davis in (2003). It was introduced as a comprehensive theory that integrates several existing theories to explain individuals' acceptance and use of technology. The UTAUT proposes that four key constructs influence users' acceptance and use of technology: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. Additionally, three moderating factors of gender, age, and experience are considered in the model (Venkatesh et al., 2003; Wang, Liao & Chen, 2018).

UTAUT assumes that technology acceptance is a rational decision-making process influenced by certain key factors and considers that user acceptance and use behavior are influenced by a combination of individual and social factors (Jiang, Klein & Carr, 2019). The theory is based on the strength of Comprehensive integration, Broad applicability, Empirical support and Flexibility. Wang et al. (2018) revealed that UTAUT integrates and synthesizes various existing theories and models, providing a unified framework for understanding technology acceptance. The model has been applied in diverse contexts and across different technologies, demonstrating its versatility and has been validated and supported by numerous empirical studies, enhancing its credibility and generalizability and it can be extended and adapted to incorporate additional factors and contextual variations (Chen et al., 2012).

Nevertheless, the theory has been criticized in that UTAUT primarily focuses on rational and utilitarian aspects of technology acceptance, potentially overlooking psychological and emotional factors (Wang et al., 2018). Furthermore, Jiang et al. (2019) the model does not explicitly account for changes in acceptance and usage behavior over time and places strong emphasis on the relationship between behavioral intention and actual behavior, assuming a direct and linear connection hence failing fully capture the complex interplay of individual, social, and contextual factors specific to certain technologies or user groups.

The study also adapted the Organizational Learning Theory, developed by James G. March and Johan P. Olsen, emerged in the late 1970s and early 1980s. The theory posits that organizations are adaptive systems capable of learning from experiences, mistakes, and successes. It suggests that learning occurs through a continuous process of detecting errors (single-loop learning) and reevaluating underlying assumptions and values (double-loop learning) (March & Olsen, 1976). The theory assumes that organizations seek to improve decision-making and performance through learning, balancing exploitative learning (improving existing routines) and exploratory learning (searching for new knowledge) (Argyris & Schön, 1978). However, this theory has been criticized due to its lack of clear definitions and difficulties in empirical measurement of learning (Addison-Wesley; Crossan, Lane & White, 1999). Nonetheless, Organizational Learning Theory is relevant to study as it helps understand how entrepreneurial ventures adapt, optimize knowledge, and respond to challenges, influencing their ability to bounce back and thrive in uncertain environments.

However, to overcome the weaknesses of the UTAUT and Organizational Learning Theory, the study will be centered on the Dynamic Capabilities Theory (DCT), which was initially advanced by Teece, Pisano, and Shuen in (1997). The key idea from the theory is that in order for a business to maintain a competitive advantage and remain in operation, it must establish and apply dynamic capabilities. The theory states that to remain resilient, the business need to have capacity to detect and react to environmental changes, restructure its resources and abilities, and ultimately shape its competitive position (Helfat & Peteraf, 2015). The theory involves three essential processes: sensing opportunities and threats, seizing opportunities, and reconfiguring the organization's resources and abilities. Through these processes, businesses like supermarkets can adapt and align their resources and capabilities to achieve their strategic objectives (Helfat & Peteraf, 2015).

To remain competitive and adaptable in a constantly evolving work environment, businesses must comprehend both opportunities and threats. This necessitates the development of capabilities through digital adoption, entrepreneurial learning behavior, which include sensing opportunities and threats, restructuring strategies and structures which ultimately enhances business resilience (Kurtz & Varvakis, 2016). The relevance of this theory to the study lies in its ability to explore both internal and external resources and entrepreneurial competencies in response to changes in

the business environment. It will be utilized to assess the relationship between entrepreneurial learning behavior, digital adoption and business resilience.

1.2.3 Conceptual background

The study was guided by three variables which are entrepreneurial learning behavior, digital adoption and business resilience of women owned SMEs. Entrepreneurial learning behavior refers to the process through which entrepreneurs acquire knowledge, skills, and attitudes that enable them to identify and exploit business opportunities, adapt to market changes, and foster innovation (Keen & Knapp, 2012). It encompasses activities such as information-seeking, networking, experimentation, and reflection. What is known about entrepreneurial learning behavior is that it plays a vital role in the success and growth of entrepreneurs and their ventures (Bosma et al., 2012). However, there are still aspects of entrepreneurial learning behavior that remain unknown and require further investigation. Firstly, the specific mechanisms and processes through which entrepreneurial learning behavior influences entrepreneurial outcomes and business resilience need to be better understood. While there is evidence of the positive relationship between entrepreneurial learning behavior and business resilience, the underlying mechanisms involved require more exploration. However, in this study, entrepreneurial is looked in the dimensions of self-assessment, collaboration, adaptability, and perseverance.

Digital adoption refers to the process of fully embracing and utilizing digital technologies within an organization or by individuals to maximize their benefits and achieve desired outcomes (Nikolopoulos, 2018). It involves understanding, implementing, and optimizing digital tools, platforms, and processes to enhance productivity, efficiency, and effectiveness. It is known that digital adoption has gained significant importance in today's rapidly evolving technological landscape. It enables organizations and individuals to remain competitive, adapt to changing market conditions, and leverage the full potential of digital solutions (Mettler & Rohner, 2017). However, while the short-term benefits of digital adoption are well-documented, what is not known its long-term impact on businesses. Therefore, understanding digital adoption is crucial for SMEs to optimize the benefits and outcomes of digital technologies fully. In this study, digital adoption has been looked at inform of digital literacy, access to digital infrastructure and usage of digital tools.

Business resilience refers to the capacity of an organization to foresee, prepare for, react to, and adjust to gradual changes and sudden disruptions, with the aim of surviving and thriving (Deloitte, 2018). It encompasses the ability to anticipate, prepare for, and adapt to alterations, as well as effectively respond to unforeseen circumstances like natural disasters, cyberattacks, pandemics, and other incidents that can impact operations. Similarly, PwC (2021) disclosed that business resilience is increasingly crucial as companies confront a growing array of risks, such as cyber threats, natural calamities, disruptions in the supply chain, and pandemics. However, what remained unclear was how businesses of various sizes and sectors perceive and prioritize the resilience of their operations. This study examined business resilience by examining its dimensions of diversification, and financial stability.

1.2.4 Contextual background

The study focused on the women-owned SMEs in Uganda. Small and Medium Enterprises owned by women (WoSMEs) have remained a great area of interest in scholarly works, due to massive involvement of women in the sector since industrial revolution, though Women owned SMEs did not flourish until 19th century (Guloba, Ssewanyana & Birabwa, 2017). With women economic empowerment, WoSMEs have since increased in Uganda. Scholars including Kim (2018) have defined WoSMEs with over 51 percent of their operations owned, controlled and run on basis of women entrepreneurial traits (Grinfeld et al., 2020). In spite of a rising inertia to start businesses, resilience of WoSMEs has not picked as like that of men (Chambwera, MacGregor & Baker, 2021)

Women-owned businesses in Uganda have encountered significant challenges over the past three years, with their business resilience being greatly threatened by the COVID-19 pandemic. Despite making efforts to embrace digital technology and learn from the experiences of other countries, a substantial portion of SMEs, approximately 70%, witnessed a decline in sales during the pandemic. Moreover, more than half of women-owned SMEs struggled to fulfill their rent obligations and other operational costs, leading to store closures, and about 40% were forced to shut down and exit the business industry altogether (Uganda Retailers Association, 2021). However, it remains unclear how the entrepreneurial learning behavior and digital adoption of these women-owned businesses are related to their business resilience. Thus, it was essential for the researcher to

examine the interconnectedness that exists between entrepreneurial learning behavior, digital adoption, and the business resilience of women-owned SMEs specifically within the context of Kampala Capital City.

1.3 Statement of the problem

Women-owned enterprises face challenges during pandemic times. Women-owned enterprises globally have faced significant challenges during sudden shocks with 24% and 42% of women owned businesses closing during the COVID-19 pandemic in UK and USA respectively (World Bank, 2022). Despite an expected growth rate of 5.2% from 2020 to 2025 in Africa, the pandemic caused a decline in sales and profits for many SMEs mostly those owned by women worldwide. The outbreak of the COVID-19 pandemic affects many businesses in Africa, with sales of women-owned enterprises dropping by 80% in some countries (Nkundabanyanga et al., 2020). The closure of physical stores made some women owned businesses shift towards online trading by adopting new business models and technologies to remain competitive (Kebede et al., 2021). In Uganda, women owned businesses have faced significant challenges in the past three years, with the COVID-19 pandemic posing a major threat to their business resilience. Despite adopting digital technology and learning from other countries' experiences, around 70% of women-owned enterprises experienced a decline in sales during the pandemic. Additionally, more than 50% of women-owned enterprises struggled to pay rent and had to close their stores, and 40% had to close and exit the business industry (Uganda Retailers Association, 2021). This study investigated how entrepreneurial learning behavior and digital adoption predicts business resilience of these women owned businesses in Kampala Capital City in Uganda.

1.4 Purpose of the Study

The purpose of this study was to examine the relationship between entrepreneurial learning behavior, digital adoption, and business resilience of women owned SMEs in Kampala Capital City.

1.5. Research objectives

- i) To examine the relationship between entrepreneurial learning behavior and business resilience of women owned SMEs in Kampala Capital City.

- ii) To explain the relationship between digital adoption and business resilience in of women owned SMEs in Kampala Capital City.
- iii) To examine the relationship between entrepreneurial learning behavior and digital adoption in women owned SMEs in Kampala Capital City.
- iv) To assess the mediating role of digital adoption between entrepreneurial learning behavior and business resilience of women owned SMEs in Kampala Capital City.

1.6 Research questions

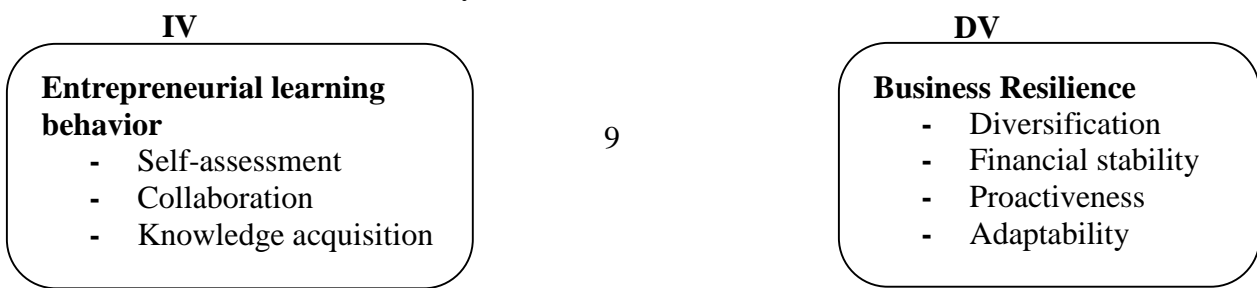
- i) What is the relationship between entrepreneurial learning behavior and business resilience of women owned SMEs in Kampala Capital City?
- ii) What is the relationship between digital adoption and business resilience of women owned SMEs in Kampala Capital City?
- iii) How is entrepreneurial learning behavior and digital adoption in women owned SMEs in Kampala Capital City related?
- iv) What is the mediating role of digital adoption in the relationship between entrepreneurial learning behavior and business resilience in of women owned SMEs in Kampala Capital City?

1.7 Hypotheses

- Ho₁: There is no significant relationship between entrepreneurial learning behavior and business resilience of women owned SMEs in Kampala Capital City.
- Ho₂: There is no significant relationship between digital adoption and business resilience of women owned SMEs in Kampala Capital City.
- Ho₃: There is no significant relationship between entrepreneurial learning behavior and digital adoption in women owned SMEs in Kampala Capital City?
- Ho₄: Digital adoption does not significantly mediate the relationship between entrepreneurial learning behavior and business resilience of women owned SMEs in Kampala Capital City.

1.8 Conceptual framework

This shows the link between the study variables.



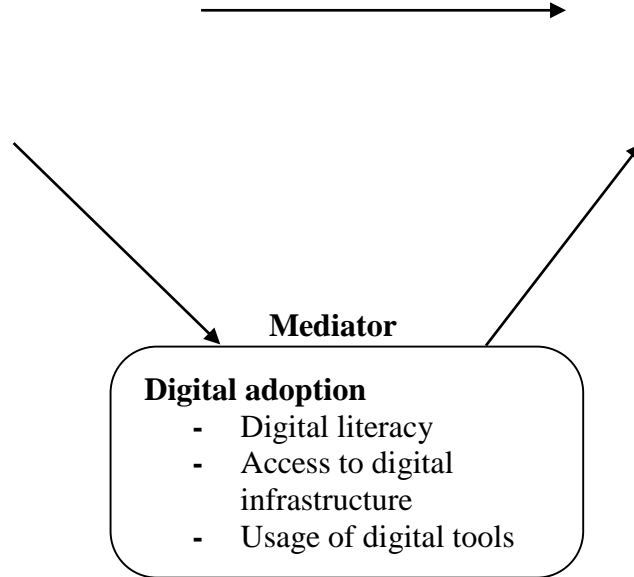


Figure 1: The conceptual framework

Source: (Peter & Michael, 2002; Denis, Mary & Gerard, 2010; Viswanath, James & Xin, 2012; Gursoy, Chi & Lu, 201; Jaspreet & Varun, 2019; Ritchie & Jiang, 2019)

Description of the conceptual model

The entrepreneurial learning behavior was measured based on Peter & Michael (2002) and Denis, Mary & Gerard (2010) in form of self-assessment, collaboration, and knowledge acquisition. On the other hand, digital adoption was based on Viswanath, James & Xin (2012) Jaspreet & Varun (2019) looked at in terms of digital literacy, access to digital infrastructure and usage of digital tools. The business resilience measured basing on Ritchie & Jiang (2019) and Gursoy, Chi & Lu (2013) in form of diversification, financial stability, proactiveness and adaptability.

1.9 Scope of the study

1.9.1 Geographical scope

The study was conducted in Kampala Capital City considering all the five divisions of Nakawa, Makindye, Lubaga, Kawempe and Kampala central. This was considered because it's the capital city of Uganda where majority of businesses including women owned SMEs were located and where majority of women businesses were failing.

1.9.2 Content scope

The study focused on business resilience of women owned SMEs because there is the continued failure of women owned businesses regardless of increased entrepreneurial learning programs extended to women and digital adoption, which made women remain less empowered as they continue mostly being dependents on their husbands.

1.9.3 Time scope

The study focused on literature from different events including 2008-2009 Global economic crisis, 2011-2012 Walk to Work in Kampala by Opposition Parties, 2015-2016 Election Violence, and 2019-2022 Covid-19 Global Pandemic that threatened the resilience of many women owned businesses in Kampala Capital City. The study was conducted in a period of one year and that is between the months of May-2023 to May-2024.

1.10 Significance of the study

Academia: The study may contribute to academic research by expanding the knowledge base on the relationship between entrepreneurial learning behavior, digital adoption, and business resilience among women-owned SMEs. It may fill gaps in existing literature and provide empirical evidence to support or challenge existing theories and frameworks. It may also act a source of literature for future related studies.

Policy makers: The Policy makers may use the findings of the study to develop targeted policies and initiatives that support women entrepreneurs in adopting digital technologies and fostering entrepreneurial learning behavior. This includes providing financial incentives, training programs, and mentorship opportunities to promote digital adoption and enhance business resilience among women-owned SMEs. The study may also provide evidence-based insights for policymakers to design policies that address the specific challenges faced by women entrepreneurs, such as gender biases, access to finance, and limited networking opportunities.

Women Entrepreneurs: The findings may empower women entrepreneurs by highlighting the importance of entrepreneurial learning behavior and digital adoption in enhancing their business resilience. It may encourage women to actively engage in learning, embrace digital tools and

technologies, and leverage them to overcome challenges and seize opportunities. The study may identify best practices and success stories of women-owned SMEs that have successfully integrated digital technologies into their business operations. This may serve as inspiration and provide practical guidance to women entrepreneurs seeking to enhance their digital capabilities and resilience.

Development Partners: Understanding the factors that contribute to business resilience among women-owned SMEs may help development partners design more effective policy interventions and support women programs. By identifying the specific needs and challenges faced by women entrepreneurs, development partners can tailor their initiatives to address those barriers and promote the resilience of women-owned businesses.

1.11 Justification of the study

Businesses that effectively embrace entrepreneurial learning behavior and digital technologies are more likely to adapt to disruptions, recover faster, and sustain their competitive advantage (Rahman, Islam, & Hassink, 2019). However, businesses mostly businesses owned by women when faced shocks and disaster fail to be resilient and collapse. However, what was not known was how these two variables of entrepreneurial learning behavior and digital technologies adoption influence business resilience mostly women owned businesses. Therefore, this current study was necessary to examine the relationship between entrepreneurial learning behavior, digital adoption, and business resilience of women owned SMEs in Kampala Capital City.

1.12 Operational definitions of concepts

Entrepreneurial learning behavior: It is understood as the process through which individuals, particularly entrepreneurs, acquire knowledge, skills, and attitudes necessary for entrepreneurial success (Bosma et al., 2012).

Digital adoption: This is understood as the process of integrating and utilizing digital technologies and tools within a business (Nikolopoulos, 2018).

Business resilience: This is understood as business's ability to withstand and recover from disruptions, shocks and challenges (Deloitte, 2018).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature reviews on the relationship between entrepreneurial learning behavior, digital adoption, and business resilience of women owned SMEs in Kampala Capital City, with focus on both local and international sources. This is presented in form of theoretical review, conceptual review, empirical review and literature gap.

2.2 Theoretical review

The research was guided by two theoretical frameworks: the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Dynamic Capabilities Theory (DCT). The Unified Theory of Acceptance and Use of Technology, developed by Venkatesh, Morris, Davis, and Davis in 2003, provides a comprehensive model that integrates multiple existing theories to explain how individuals accept and use technology. This model posits four key factors that influence technology acceptance: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. Additionally, the model considers three moderating factors: Gender, Age, and Experience (Venkatesh et al., 2003; Wang et al., 2018).

The UTAUT assumes that the acceptance of technology is a rational decision-making process influenced by specific key factors. It recognizes that user acceptance and use behavior are influenced by a combination of individual and social factors (Jiang et al., 2019). The theory's strength lies in its comprehensive integration, broad applicability, empirical support, and flexibility. Wang et al. (2018) have demonstrated that UTAUT integrates and synthesizes various existing theories and models, providing a unified framework for understanding technology acceptance. The model has been successfully applied in diverse contexts and across different technologies, showcasing its versatility. Moreover, it has been validated and supported by numerous empirical studies, enhancing its credibility and generalizability. UTAUT can also be extended and adapted to incorporate additional factors and contextual variations (Chen et al., 2012).

However, UTAUT has faced criticism for primarily focusing on the rational and utilitarian aspects of technology acceptance, potentially neglecting psychological and emotional factors (Wang et al., 2018). Furthermore, Jiang et al. (2019) point out that the model does not explicitly account for changes in acceptance and usage behavior over time. It also places strong emphasis on the relationship between behavioral intention and actual behavior, assuming a direct and linear connection, thereby failing to fully capture the complex interplay of individual, social, and contextual factors specific to certain technologies or user groups.

The study also incorporated the Organizational Learning Theory, developed by James G. March and Johan P. Olsen in 1970s. This theory posits that organizations function as adaptive systems capable of learning from experiences, mistakes, and successes. It suggests that learning takes place through a continuous process of detecting errors (single-loop learning) and reassessing underlying assumptions and values (double-loop learning) (March & Olsen, 1976). The theory assumes that organizations strive to enhance decision-making and performance through learning, striking a balance between exploitative learning (improving existing routines) and exploratory learning (seeking new knowledge) (Argyris & Schön, 1978). However, critics have pointed out the theory's lack of clear definitions and challenges in empirically measuring learning (Addison-Wesley; Crossan, Lane & White, 1999). Nonetheless, the relevance of Organizational Learning Theory in this study lies in its capacity to illuminate how entrepreneurial ventures adapt, optimize knowledge, and respond to challenges, thereby influencing their ability to rebound and flourish in uncertain environments.

To address the limitations of UTAUT and Organizational Learning Theory, the study was centered on the Dynamic Capabilities Theory (DCT) initially proposed by Teece, Pisano, and Shuen in 1997. The core idea of DCT is that businesses must establish and apply dynamic capabilities to maintain a competitive advantage and adapt to changing environments. According to this theory, for a business to remain resilient, it needs the capacity to detect and react to environmental changes, restructure its resources and abilities, and ultimately shape its competitive position (Helfat & Peteraf, 2015). The theory encompasses three essential processes: sensing opportunities and threats, seizing opportunities, and reconfiguring the organization's resources and abilities. Through these processes, businesses, such as supermarkets, can adapt and align their resources and capabilities to achieve their strategic objectives (Helfat & Peteraf, 2015).

In order to stay competitive and adaptable in a constantly evolving work environment, businesses must grasp both opportunities and threats. This necessitates the development of capabilities through digital adoption and entrepreneurial learning behavior, which includes sensing opportunities and threats and restructuring strategies and structures. These actions ultimately enhance business resilience (Kurtz & Varvakis, 2016). The relevance of the Dynamic Capabilities Theory to the study lies in its ability to explore both internal and external resources and

entrepreneurial competencies in response to changes in the business environment. It was employed to assess the relationship between entrepreneurial learning behavior, digital adoption, and business resilience.

2.3 Conceptual review

This section capture the conceptual review based on the study variables.

2.3.1 Entrepreneurial learning behavior

Entrepreneurial learning behavior refers to the proactive acquisition and application of knowledge, skills, and competencies by entrepreneurs. It involves continuous learning, seeking new information, and developing the necessary capabilities to adapt to changing business environments and achieve entrepreneurial success (Ucbasaran et al., 2013). Entrepreneurial learning behavior is crucial for entrepreneurs as it enables them to identify and capitalize on opportunities, navigate challenges, and improve their overall performance.

(i) Self-assessment

Self-assessment is a form of entrepreneurial learning behavior that involves the process of reflecting on one's own skills, competencies, strengths, weaknesses, and experiences (Morrison et al., 2013). It allows entrepreneurs to evaluate their performance, identify areas for improvement, and make informed decisions regarding their business ventures. Self-assessment plays a critical role in entrepreneurial learning and development.

(ii) Collaboration

Collaboration is an essential aspect of entrepreneurial learning behavior. It refers to the process of individuals or organizations working together to achieve a common goal or outcome (Chesbrough et al., 2016). Entrepreneurs who engage in collaboration recognize the value of leveraging the knowledge, skills, and resources of others to enhance their own learning and increase their chances of success.

(iii) Knowledge acquisition

Knowledge acquisition is the process of obtaining and incorporating new information, insights, and expertise into an individual's or organizations existing knowledge base (Deng, Xu, & Zhang, 2019). This process involves the collection, interpretation, and assimilation of data, facts, and experiences from various sources, such as research, practical experience, and external knowledge repositories (Nonaka & von Krogh, 2019). It is a fundamental element in learning, decision-making, and problem-solving, serving as the foundation for the development of expertise and the ability to adapt to changing circumstances.

2.3.2 Digital adoption

Digital adoption refers to the process by which individuals, organizations, or societies integrate digital technologies into their everyday activities and workflows (Kumar et al., 2020). It involves embracing and effectively utilizing digital tools, platforms, and technologies to enhance operational efficiency, improve customer experiences, and drive innovation. Digital adoption encompasses the integration and use of digital technologies to achieve specific goals and outcomes.

(i) Digital literacy

Digital literacy is a critical component of digital adoption. It refers to the ability to use and understand digital technologies effectively, including the skills and knowledge required to navigate, evaluate, and utilize digital tools and information (Erstad, 2017). Digital literacy encompasses the skills, knowledge, and competencies needed to effectively engage with digital technologies.

(ii) Access to digital infrastructure

Access to digital infrastructure is a critical aspect of digital adoption. It refers to the availability and affordability of the necessary physical and technological components required to connect to and utilize digital technologies (Gillwald et al., 2020). It includes components such as reliable internet connectivity, adequate bandwidth, hardware devices (e.g., computers, smartphones), and software applications. Access to digital infrastructure is crucial for enabling individuals and organizations to fully participate in the digital economy, access digital services, and leverage the benefits of digital technologies (World Bank, 2016).

(iii) Usage of digital tools

The usage of digital tools is a key aspect of digital adoption. It refers to the active utilization of various software applications, platforms, and technologies to enhance productivity, communication, collaboration, and decision-making (Li et al., 2020). The usage of digital tools encompasses the active utilization of technology-based applications and platforms to perform tasks, access information, communicate, and collaborate. It involves leveraging digital technologies to streamline processes, automate tasks, improve efficiency, and enhance the overall user experience.

2.3.3 Business resilience

Business resilience is the capacity of an organization to withstand and recover from adverse events and disruptions while maintaining its core functions and delivering value to stakeholders (Linnenluecke & Griffiths, 2020). It involves the ability to adapt to changing circumstances, mitigate risks, and seize opportunities. Business resilience is crucial for long-term success and sustainability, enabling organizations to survive and thrive in turbulent and uncertain times.

(i) Diversification

Diversification is a strategy employed by businesses to enhance their resilience and reduce vulnerability to external shocks and uncertainties. It is the process of expanding a company's operations into new markets or product/service offerings that are distinct from its existing core business (Markides & Williamson, 2021). It aims to reduce the risk of over-reliance on a single market or product, thereby enhancing the resilience of the business. Diversification allows companies to tap into new revenue streams, access different customer segments, and spread risk across multiple areas of operation.

(ii) Financial stability

Financial stability is a crucial aspect of business resilience. According to Rafferty and Zou (2020), it refers to the ability of a company to maintain a solid financial position, withstand financial shocks, and sustain its operations over the long term. Financial stability involves maintaining a healthy financial position characterized by sufficient liquidity, profitability, and solvency. It

enables businesses to navigate economic downturns, unexpected expenses, or disruptions without jeopardizing their ongoing operations.

(iii) Proactiveness

Proactiveness is a critical aspect of business resilience. It refers to an organization's ability to anticipate, initiate, and respond to potential challenges and opportunities in a proactive manner (Lumpkin & Dess, 2011). Being proactive enables businesses to stay ahead of the curve, identify emerging trends, and take preemptive actions to mitigate risks and capitalize on favorable conditions.

(iv) Adaptability

Adaptability is a crucial form of entrepreneurial learning behavior that enables entrepreneurs to navigate and thrive in dynamic and unpredictable business environments. It refers to the ability to adjust strategies, approaches, and mindsets in response to changes, challenges, and new opportunities (Rae & Carswell, 2010). Entrepreneurs who exhibit adaptability are more likely to learn from their experiences, embrace change, and proactively seek innovative solutions to address emerging market demands.

2.4 Empirical review

The empirical review captures the relationship between the study variables while following the order of study objectives.

2.4.1 Entrepreneurial learning behavior and business resilience of women owned SMEs

A study conducted by Ngoc et al. (2019) focusing on women entrepreneurs in Vietnam demonstrated that the learning behavior of entrepreneurs significantly contributes to the resilience of women-owned SMEs. The research highlighted that women entrepreneurs who engage in learning from various sources, including formal training programs, mentorship, networking, and personal experiences, are better equipped to navigate challenges and adapt their businesses accordingly. Similarly, Maiti and Das (2019) explored the relationship between entrepreneurial learning behavior and resilience among women entrepreneurs in India and found that

entrepreneurial learning positively influences business resilience. By engaging in learning, women entrepreneurs are able to identify and seize opportunities, acquire new knowledge, and build networks that enhance their adaptive capacity and ability to recover from setbacks. Additionally, Ahsan and Adnan (2020) conducted a study on women entrepreneurs in Bangladesh and revealed that these entrepreneurs relied on family and community networks for learning and support, which helped them adapt to challenges and build resilient businesses.

Chilisa and Van der Westhuizen (2019), who examined the experiences of women entrepreneurs in Botswana, found that entrepreneurial learning behavior, including self-reflection, experiential learning, seeking advice, and networking, played a critical role in building the resilience of women-owned SMEs. The study emphasized the importance of both formal and informal learning processes in enhancing business resilience. In a study on women entrepreneurs in Kenya, Mutuku, Odero-Wanga and Ali-Olubandwa (2015) highlighted the significance of entrepreneurial learning behavior in overcoming obstacles and building resilience. Learning from experiences, seeking knowledge through training programs and mentorship, and networking with other entrepreneurs were identified as important strategies for enhancing business resilience.

Erakleous et al. (2019) revealed that women entrepreneurs who actively seek opportunities for learning, such as attending training programs, networking events, or accessing business resources, can gain valuable knowledge and expertise. This knowledge acquisition contributes to their ability to adapt to changing circumstances and enhance their business resilience. Similarly, Njoku & Akpomera (2020) found that continuous learning and exploration of new approaches enable women entrepreneurs to develop problem-solving skills, creativity, and innovation. This adaptability allows them to effectively navigate challenges, seize opportunities, and adjust their business strategies in response to changing market conditions or unforeseen events, thereby enhancing their resilience. Furthermore, Mwambi et al. (2019) found that women entrepreneurs who engage in continuous learning are more likely to develop a better understanding of potential risks and uncertainties associated with their businesses. Learning from past experiences and the experiences of others enables them to make informed decisions, develop contingency plans, and take calculated risks, thereby contributing to the overall resilience of their businesses.

Hughes et al. (2018) revealed that entrepreneurs who engage in continuous learning are better equipped to identify and respond to market challenges, adapt their strategies, and seize new opportunities. Learning-oriented entrepreneurs actively seek knowledge and acquire new skills that enhance their problem-solving abilities and enable them to navigate uncertainties. This mindset of building resilience facilitates the long-term sustainability of businesses. Similarly, Nuwagaba & Marchettini (2020) found that women entrepreneurs in Uganda who view failure as an opportunity for learning and growth are better equipped to handle uncertainties and adjust their businesses accordingly. The ability to learn from failure and uncertainty is associated with greater business resilience in women-owned SMEs in Uganda. Additionally, Nuwagaba & Marchettini (2020) highlighted the importance of access to training programs, mentorship, financial support, and favorable regulatory frameworks in enhancing entrepreneurial learning and subsequently contributing to business resilience. The authors emphasized the significance of supportive ecosystems and policy environments in promoting the resilience of women-owned SMEs in Uganda.

2.4.2 Digital adoption and business resilience of women owned SMEs

Milakovich et al. (2020) discovered that the adoption of digital technologies plays a significant role in enhancing the resilience of small and medium-sized enterprises (SMEs) owned by women. By embracing digital tools, businesses can improve their efficiency, expand their market reach, and adapt more effectively to changes in the market. Digital technologies provide the means to automate processes, gather and analyze data for informed decision-making, and establish online platforms for engaging with customers (Milakovich et al., 2020). These capabilities contribute to business resilience by increasing agility, reducing costs, and enabling diversification. Similarly, a report by Deloitte (2021) highlighted those businesses that embrace digital technologies experience a 26% increase in productivity compared to their counterparts. The report further revealed that digital adoption allows women-owned SMEs to streamline their operations, automate processes, and decrease manual workloads. This leads to enhanced efficiency, cost savings, and the ability to strategically allocate resources, resulting in increased resilience to market fluctuations and external shocks.

According to a report by the International Trade Centre (2018), the adoption of digital technologies provides new opportunities for women-owned SMEs by facilitating access to a broader customer base and markets beyond their localities. Online platforms, social media, and e-commerce enable businesses to reach a wider audience and attract customers from different geographical locations. This diversification of markets reduces dependence on a single market and contributes to greater resilience to regional economic fluctuations. In a related report, the African Development Bank (2019) demonstrated that digital adoption enhances market access for women-owned SMEs in Africa. Digital technologies help overcome geographical limitations, connect businesses with potential customers, and facilitate online sales and marketing efforts. This expanded market access increases growth opportunities and resilience. Arach & Ategeka (2019) also found similar results, revealing that SMEs in Uganda can overcome geographical limitations and expand their customer base by leveraging digital platforms, e-commerce, and social media. Digital technologies enable them to reach customers beyond their localities and tap into both domestic and international markets.

Digital adoption plays a crucial role in facilitating access to financial resources for women-owned SMEs, which is essential for business resilience. The World Bank (2020) reported that online platforms, crowdfunding, and digital lending services offer alternative sources of capital, reducing reliance on traditional financial institutions. Additionally, digital tools enable businesses to efficiently manage cash flow, track expenses, and demonstrate financial transparency, thereby enhancing their credibility and attractiveness to investors or lenders. Similarly, the International Trade Centre (2018) revealed that digital financial services in Uganda, such as mobile banking and digital payment solutions, provide alternative sources of capital and facilitate easier access to loans and investment opportunities. This improved access to finance empowers women entrepreneurs to invest in their businesses, manage cash flow, and withstand economic shocks, ultimately enhancing business resilience.

According to the United Nations Economic and Social Commission for Asia and the Pacific (2020), access to digital training programs and capacity-building initiatives empowers women entrepreneurs to effectively leverage technology, improve competitiveness, and enhance business resilience. Similarly, a report by the World Bank Group (2020) highlighted that digital adoption

can enhance the operational efficiency of women-owned SMEs in Uganda. By adopting digital tools and technologies, businesses can streamline their operations, automate processes, and optimize resource allocation. Digital solutions for inventory management, accounting, and customer relationship management contribute to improved efficiency and data-driven decision-making (World Bank Group Report, 2020). Additionally, Omoding et al. (2021) revealed that digital adoption enables women-owned SMEs in Uganda to be more agile and adaptable to changing market conditions. Digital technologies provide real-time market insights, enable rapid communication with customers, and facilitate quick adjustments to strategies and offerings. This agility allows women entrepreneurs to respond swiftly to emerging challenges.

2.4.3 The relationship between entrepreneurial learning behavior and digital adoption in women owned SMEs

Mekonnen and Yoseph (2019) investigated the relationship between entrepreneurial learning and the digital adoption of women-owned small and medium enterprises (SMEs) in Ethiopia. Their research findings indicated a positive association between entrepreneurial learning and the adoption of digital technologies by women entrepreneurs. The study emphasized the significance of women entrepreneurs actively engaging in various learning activities to enhance their digital adoption. These learning activities included attending training programs, workshops, and networking events specifically designed to promote entrepreneurial skills and knowledge. By participating in these learning opportunities, women entrepreneurs were able to acquire valuable insights and practical expertise related to digital technologies and their applications in business (Mekonnen & Yoseph, 2019). Furthermore, they revealed one of the key findings of the research was that women entrepreneurs who actively engaged in entrepreneurial learning were more likely to adopt digital technologies in their SMEs. The study revealed that these women entrepreneurs were better equipped to understand the benefits and potential of digital tools and were more confident in integrating them into their business operations. This enhanced digital adoption, in turn, contributed to improved efficiency, competitiveness, and overall growth of their enterprises.

In a comparative study conducted by Ramadani, Gërguri-Rashiti, and Dana (2020), the focus was on exploring the relationship between entrepreneurial learning and intentions among women entrepreneurs. The findings of the study indicated a positive correlation between entrepreneurial

learning behavior and the inclination of women entrepreneurs to adopt digital tools. Women entrepreneurs who exhibited higher levels of entrepreneurial learning behavior were more likely to embrace and utilize digital technologies in their businesses. This connection suggested that entrepreneurial learning plays a significant role in shaping women entrepreneurs' attitudes and intentions towards digital adoption. Ramadani, Gërguri-Rashiti, and Dana (2020) further emphasized the importance of entrepreneurial learning in enhancing women entrepreneurs' digital literacy and confidence. Through engaging in learning activities, such as attending workshops, training programs, and entrepreneurial development initiatives, women entrepreneurs had the opportunity to acquire the necessary knowledge and skills to effectively navigate the digital landscape. They concluded that by actively participating in entrepreneurial learning, women entrepreneurs were able to expand their understanding of digital tools and technologies, including their potential benefits and applications in business contexts. This increased digital literacy empowered them to make informed decisions about adopting and integrating digital technologies into their entrepreneurial ventures.

In a study conducted by Chong (2016) in Malaysia, the focus was on investigating the relationship between entrepreneurial learning, self-efficacy, and intention among women and men entrepreneurs. The findings of the study revealed a positive correlation between entrepreneurial learning and digital adoption behavior in both women and men entrepreneurs. The research highlighted that engaging in entrepreneurial learning activities positively influenced the propensity of entrepreneurs to adopt digital technologies in their businesses. The study emphasized the role of entrepreneurial learning programs and initiatives in enhancing the digital adoption capabilities of women-owned small and medium enterprises (SMEs). By actively participating in learning activities such as workshops, training programs, and educational initiatives, women entrepreneurs were able to acquire the necessary knowledge, skills, and confidence to embrace digital technologies. Furthermore, Chong (2016) indicated that entrepreneurial learning positively influenced self-efficacy among women and men entrepreneurs. In the context of digital adoption, entrepreneurial learning enhanced the entrepreneurs' self-efficacy, making them more confident in their ability to effectively utilize digital tools and technologies in their business operations.

2.4.4 The mediating role of digital adoption between entrepreneurial learning behavior and business resilience in of women owned SMEs

Kuckertz et al. (2019) found that the relationship between entrepreneurial learning behavior, digital adoption, and business resilience in women-owned SMEs is mutually reinforcing, with digital adoption mediating this relationship. Entrepreneurial learning behavior plays a crucial role in facilitating the adoption and effective utilization of digital technologies, leading to improved operational efficiency, expanded market reach, and enhanced agility. Simultaneously, digital adoption strengthens business resilience by providing access to new markets, enhancing decision-making through data analytics, and enabling rapid adaptation to changing circumstances (Kuckertz et al., 2019). This interplay between entrepreneurial learning behavior, digital adoption, and business resilience creates a positive feedback loop that fosters sustained growth.

Similarly, Ho et al. (2018) discovered an interconnected and mutually reinforcing relationship between entrepreneurial learning behavior, digital adoption, and business resilience in women-owned SMEs. Entrepreneurial learning behavior empowers women entrepreneurs to embrace digital technologies and leverage them effectively. In turn, digital adoption enhances business resilience by improving operational efficiency and responsiveness to the market (Ho et al., 2018). The combination of entrepreneurial learning behavior and digital adoption creates a symbiotic relationship, wherein learning behavior drives the adoption of digital technologies, which, in turn, strengthens business resilience.

Namakula et al. (2021) highlighted the significance of entrepreneurial learning behavior in promoting the adoption and effective utilization of digital technologies among women-owned SMEs, subsequently enhancing business resilience. Through continuous learning, women entrepreneurs are more likely to embrace digital tools and leverage them to improve their business operations, resulting in increased operational efficiency, market responsiveness, and adaptability (Namakula et al., 2021). This interdependence between entrepreneurial learning behavior and digital adoption establishes a positive feedback loop, where learning behavior drives the adoption of digital technologies, further enhancing business resilience.

Adekunle et al. (2021) revealed that the combined relationship between entrepreneurial learning behavior, digital adoption, and business resilience is likely to exhibit similar dynamics in women-owned SMEs in Africa as in other regions. Entrepreneurial learning behavior, characterized by the proactive acquisition and application of knowledge and skills by entrepreneurs, facilitates the adoption and effective utilization of digital technologies. Women entrepreneurs who engage in continuous learning are more inclined to embrace digital tools and leverage them to enhance their business operations. By adopting digital technologies such as e-commerce platforms, digital marketing, and data analytics, women-owned SMEs can improve operational efficiency, expand market reach, and enhance their ability to adapt to market changes (Adekunle et al., 2021). This, in turn, contributes to business resilience by promoting agility, reducing costs, and enabling diversification. In this context, digital adoption acts as a mediating variable between entrepreneurial learning behavior and business resilience in women-owned SMEs.

2.5 Summary gaps

The existing literature provides insights into the relationship among entrepreneurial learning behavior, digital adoption, and business resilience in women-owned SMEs. While these relationships have been explored in developed countries like America, Europe, Asia, and certain African countries such as Nigeria and South Africa, limited studies have been conducted in Uganda (Ahsan & Adnan, 2020; Chilisa & Van der Westhuizen, 2019; Njoku & Akpomera, 2020; Milakovich et al., 2020; Ngoc et al., 2019; Maiti & Das, 2019; Kuckertz et al., 2019; Ho et al., 2018). Consequently, there is a dearth of research that integrates all three variables of entrepreneurial learning behavior, digital adoption, and business resilience, particularly focusing on women-owned SMEs. Although the reviewed literature highlights numerous studies conducted in various contexts, it fails to capture a comprehensive examination of the relationships within the specific context of Uganda, particularly in women-owned SMEs. Hence, the existing information cannot be readily applied to explain the variables of interest in Uganda and the specific context of women-owned SMEs. Furthermore, some of the studies were quantitative in nature hence lacking the quantitative aspect which this study sought to study. Consequently, this study aimed to address this gap in the literature by investigating the relationship between entrepreneurial learning behavior, digital adoption, and business resilience in women-owned SMEs within the Kampala Capital City.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The research examined the relationship between entrepreneurial learning behavior, digital adoption, and business resilience of women owned SMEs in Kampala Capital City. This section provides an overview of the methodology to be employed in the study, encompassing the research approach, research design, population, study sample, and data collection methods. Furthermore,

the chapter encompasses aspects such as data processing, analysis procedures, and ethical considerations relevant to the study.

3.2 Research approach

The research adopted a quantitative approach, which involves gathering numerical data. This approach aimed to produce impartial results that can be applied to a broader population. By utilizing the quantitative approach, the researcher aimed to examine the correlations between entrepreneurial learning behavior, digital adoption, and business resilience among women-owned SMEs in Kampala Capital City.

3.3 Research design

In this study, the researcher used a cross-sectional survey design, which involves gathering data from multiple individuals at a single point in time using the same tool (Kothari, 2014). This design was chosen due to its ability to efficiently collect a large amount of data from the field. This design aimed to determine whether changes in one variable are associated with changes in another variable, without manipulating any of them or establishing causation (Creswell, 2018). The emphasis was put on testing correlations and predictability of independent variable to the dependent variable.

3.4 Study population

The study population comprised of women-owned enterprises in Kampala Capital City. The population mainly considered women-owned enterprises that at least five people have existed for more than one year. In this study, the unit of analysis was women-owned enterprises while the unit of inquiry was women owning those business enterprises in Kampala Capital City.

Table 3.1: Number of SMEs owned by women dealing in trade in Kampala Capital City

Division	Number
Rubaga	2840
Central	8932
Nakawa	1682
Makindye	2359

Kawempe	2075
Total	17888

Source: A report on Uganda Business Register 2018/19 (UBOS)

3.5 Sample size determination

The sample size was considered basing on Krejcie, and Morgan (1970) as presented below and one respondent was selected from each SME.

Table 3.2: Sample size of the study

Division	Number	Samples size
Rubaga	2840	60
Central	8932	186
Nakawa	1682	35
Makindye	2359	50
Kawempe	2075	44
Total	17888	375

Source: A report on Uganda Business Register 2018/19 (UBOS)

3.6 Sampling techniques

The study employed a systemic sampling technique to select women owned SMEs. Systemic sampling is a probabilistic method where the specific Nth number of the items in the population was picked to take part in the study (Bryman, 2018). Women owned enterprises in every division were assigned numbers after obtaining lists from KCCA and then Nth which was specifically 3rd in this study was considered. This was that on account of 1, 2, 3, the third (3rd) enterprise was considered for the study and the process continued until the sample size number was reached. The study focused on the owners of the businesses, as they possess extensive knowledge about the entrepreneurial learning behavior, digital adoption, and business resilience of their businesses.

3.7 Data collection methods

Data collection in this study involved the use of a survey questionnaire. As noted by Amin (2005), a questionnaire survey is a data collection technique that consists of a series of concise questions, including both open-ended and closed-ended items, to elicit prompt responses from participants.

Questionnaires are commonly used in surveys to encourage a high response rate (Creswell, 2018). However, in this study, closed-ended questionnaires were developed to gather data from the field. Surveys were widely employed and convenient for research purposes (Iwaniec, 2019), particularly in studies that aim to examine relationships. This method was suitable for studies with a large sample size, such as this one, and is particularly appropriate when participants are geographically dispersed (Bryman, 2018). The questionnaire method saved time and provided broad coverage, making it a suitable choice for this study.

3.8 Data collection instruments

The data collection tool employed in this study was a questionnaire. Mugenda and Mugenda (2013) define a questionnaire as a formal set of questions or statements designed to gather information from respondents to achieve research objectives. Questionnaires are commonly used for collecting quantitative data (Bryman, 2018). In this study, a closed-ended questionnaire was utilized to ensure that respondents provide specific and relevant information. The questionnaire encompassed the sections of general participant information and study objectives. The questions will be structured on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Leavy (2017) also highlights that questionnaires employing the Likert scale are easy to administer and provide a suitable basis for analysis. The selection of the questionnaire was based on its convenience, ability to yield a high response rate, and the confidentiality it offers during the data collection process (Sekaran, 2013).

3.9 Data collection procedure

Once the data collection tools were approved, the data collection commenced. The researcher obtained an introductory letter from Kyambogo University to formally introduce herself and seek permission from relevant authorities, such as KCCA, to conduct the study on women-owned SMEs in Kampala Capital City. With the necessary approvals in place, data was collected to pre-test the tool. The research tool went a pretest on 20 women-owned SMEs who were not included in the main study. After the pretesting phase, the researcher proceeded to recruit and train three research assistants who assisted in the data collection process.

3.10 Data quality control

3.10.1 Validity

In this study, the validity of the research tool was assessed through face and content validity indices. The supervisor reviewed the tools to ensure face validity, which refers to the extent to which the questions or items on the scale appear to measure what they are intended to measure (Bhandari, 2022). Additionally, content validity was assessed, which pertains to the relevance and appropriateness of the questionnaire items in measuring the intended constructs (Bhandari, 2022). Two supervisors carefully examined the tools to assess if they effectively measure the desired variables. Based on their feedback, the researcher made necessary revisions to the tools. The revised tools were then reviewed by two research experts, who were the research supervisors at Kyambogo University and evaluate the relevance (R) or irrelevance (IR) of the tool items based on the factual content of the questions. The Content Validity Index (CVI) was calculated using the formula: $CVI = R / (R + IR)$. All the items scored above 0.7 as recommended by (Almanasreh et al., 2019). Therefore, study variables were valid and appropriate for the research.

3.10.2 Reliability

In research, tool reliability refers to its ability to consistently yield dependable results across different situations and circumstances (Creswell, 2018). The reliability of the research tool in this study was assessed through a pre-test involving 20 individuals who were not part of the main study. The data collected during the pre-test was entered into the Statistical Package for Social Sciences (SPSS) Ver. 23 to conduct a Cronbach's alpha test, which measures the internal consistency or homogeneity of the test items. This test helped determine the extent to which the items in the tool measured the same or similar constructs. For each variable construct, scored a Cronbach's alpha above 0.7 which indicated that the tool was reliable, this was in line with the recommendation by (Basu, 2021).

3.11 Data analysis

The collected data underwent a thorough editing process to ensure consistency and accuracy. After the data was edited, it was entered into SPSS for analysis. The analysis involved the use of descriptive and inferential statistics, which are widely accepted methods in research (Bell et al., 2022). Descriptive statistics was employed to present the frequencies and percentages of

respondents' demographic data. Additionally, means and standard deviations were utilized to provide a clear presentation of the study variables. To investigate the relationships between variables and predict the effect of independent variables on dependent variables, correlations were run to show the relationship while multiple regression analysis were conducted to determine the predictability levels of entrepreneurial learning behavior and digital adoption on business resilience. Inferential statistics were suitable for determining relationships between variables (Bryman, 2018). The regression results were used to test the predetermined hypotheses at a significance level (p-value) of 0.05. The beta coefficients (R) and coefficient of determination (Adjusted R²) was utilized to ascertain the relationships between the study variables. The quantitative findings were presented in tables.

To analyze the mediating effect of digital adoption between entrepreneurial learning behavior and business resilience, the researcher used the MacKinnon's approach (MacKinnon, 2009). The researcher collected data on the relevant variables and run three separate regression models. The first model assessed the effect of entrepreneurial learning behavior on digital adoption (path a). The second model examined the effect of entrepreneurial learning behavior on business resilience (path c). The third model assessed the direct effect of entrepreneurial learning behavior on business resilience, while controlling for digital adoption (indirect effect - path ab). To formally test the mediation effect, the researcher calculated the indirect effect (ab) by multiplying the coefficients of path a and path b from the regression models. Using Sobel Test, the researcher estimated the standard error and confidence intervals of the indirect effect to determine its significance.

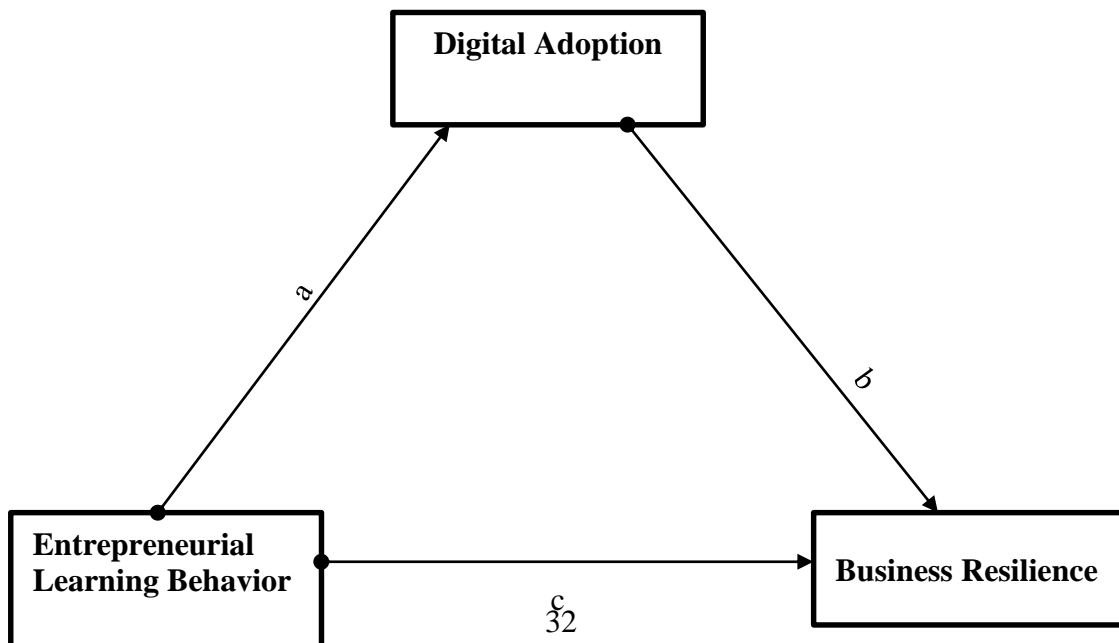


Figure 2: Mediation effect structure for the study variables

If the confidence interval does not include zero, the researcher revealed that digital adoption mediates the relationship between entrepreneurial learning behavior and business resilience in women-owned SMEs in Kampala Capital City.

The researcher conducted factor analysis to reveal hidden patterns, connections, and dimensions within a dataset of each study variable. This was done with the aim of reducing dimensionality and improves the interpretability and credibility of research outcomes.

3.12 Measurement of study variables

Entrepreneurial learning behavior

The entrepreneurial learning behavior in this study was measured basing on constructs of self-assessment, collaboration, adaptability and perseverance as advanced by different scholars such as (Peter & Michael, 2002; Denis, Mary & Gerard, 2010). The items measuring the variable were ranked on a five-point Likert scale, where “5-strongly agree, 4-agree, 3-neutral, 2-disagree and 1-strongly disagree”.

Digital adoption

In this study, digital adoption was measured basing on item such as digital literacy, access to digital infrastructure and usage of digital tools as put forward (Viswanath, James & Xin, 2012; Jaspreet & Varun, 2019). The tool solicited responses basing on a five (5)-point Likert scale anchored: “5-strongly agree, 4-agree, 3-neutral, 2-disagree and 1-strongly disagree”.

Business resilience

The business resilience was measured using dimensions of diversification, financial stability and proactiveness as suggested by (Ritchie & Jiang, 2019; Gursoy, Chi & Lu, 2013). The items was

ranked on a five-point Likert scale, where “5-strongly agree, 4-agree, 3-neutral, 2-disagree and 1-strongly disagree”.

3.13 Ethical considerations

The study considered the following ethical considerations as per (Yin, 2014)

The researcher upheld all private data, details and opinions from respondents, anonymous. All information were kept under lock and used exclusively for academic purposes and directly on study objectives.

Furthermore, confidentiality of the respondents’ views and opinions was considered, the researcher ensured responses provided in questionnaires are used for only academic purposes. Names or other information that may expose the respondent were not included anywhere on the tool.

The privacy of the participants was upheld. Participants were not allowed to fill questionnaire in groups, it was done separately.

Before engaging any participant, the researcher first sought informed consent. The purpose, objectives and mode of participation was elaborated to participants. Only participants that voluntarily consented participated.

Plagiarism is a serious academic offense, and it is imperative to maintain a high standard of academic integrity throughout the research process and documentation. In this study, all relevant literature sources were duly acknowledged and cross-referenced to give proper credit to the original authors. To ensure the originality of the study proposal, a similarity check was conducted using Turnitin, adhering to the acceptable level set by Kyambogo University of 20% similarity.

3.14 Study limitation

- i) The study utilized self-reporting measures, which was influenced by response bias. Response bias refers to the tendency of participants to provide inaccurate or socially desirable responses, potentially leading to biased results. To mitigate this bias, the researcher employed survey methods that ensure participant anonymity or confidentiality.

By guaranteeing anonymity or confidentiality, the study reduced social desirability bias and encourages participants to provide more honest and genuine responses.

- ii) The participants at some point altered their responses due to ethical constraints or their awareness of being observed, commonly known as the Hawthorne effect. To address this limitation, the researcher strictly adhered to ethical guidelines and ensures that informed consent was obtained from all participants. Additionally, strategies such as debriefing were employed to minimize participant biases and enhance the validity of the findings. These measures helped to create a conducive environment for participants to provide genuine and unbiased responses, thereby strengthening the overall integrity of the study.

- iii) The challenge of language barriers in attaching the intended meaning to the questions in the questionnaire was arise. Nevertheless, this concern was addressed by employing research assistants who were responsible for interpreting the questions to the respondents.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF STUDY FINDINGS

4.1 Introduction

This chapter captures the presentation, analysis and interpretation of the study findings. The finding specifically captured the descriptive statistics on demographic characteristics of the respondents and then followed findings on objectives which included examining the relationship between entrepreneurial learning behavior and business resilience of women owned SMEs, the relationship between digital adoption and business resilience in of women owned SMEs, the relationship between entrepreneurial learning behavior and digital adoption in women owned SMEs and the mediating role of digital adoption between entrepreneurial learning behavior and business resilience of women owned SMEs.

4.2 Response rate

Table 4.1 below presents the number of women owned SMEs that participated in the study.

Table 4.1: Response rate

Nature of business	Target	Acquired	Response Rate (%)
Rubaga	60	38	63.3
Central	186	142	76.3
Nakawa	35	34	97.1
Makindye	50	42	84.0
Kawempe	44	35	79.5
Total	375	291	77.6

Results from Table 4.1 above indicate that the response rate was 77.6 percent which was representative of the sample women owned SMEs where the owner of the business was selected to take part in the study. This was way above the 70 percent threshold, as recommended by the (Gutmacher Institute, 2006). Therefore, the responses were good enough for the study findings to be generalized across all women-owned businesses in Kampala City

4.3 Demographic characteristics of respondents,

4.3.1 Marital status of the respondents

Figure 3 below presents the marital status of the respondents that took part in study.

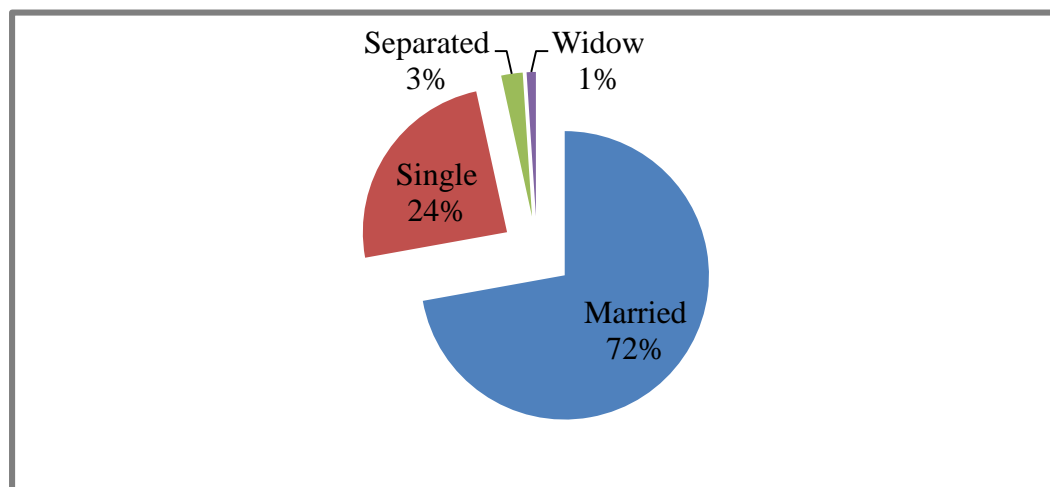


Figure 3: Marital status of the respondents

Source: Field data, 2023

Figure 3 above shows 72 percent were married, 24 percent were single, 3 percent had separated while the remaining one 1% were widows. This shows that majority were married with responsibility to finance or cater for hence pushing them to start businesses.

4.3.2 Age of the respondents

Table 4.2 presents the age of the respondents.

Table 4.2: Age of the respondents

Age of respondent	Frequency	Percent
18-27	22	7.6
28-37	62	21.3
38-47	67	23.0
48-57	73	25.1
58 and above	67	23.0
Total	291	100

Source: Field data, 2023

Table 4.2 above shows that 25.1 percent were 48-57 years, 23.0 percent were 38-47 years, and 58 and above, 23.4 percent were 18-27, while 7.6 percent were 18-27 years. This shows majority of the respondents were above 40 years. This implied that most respondents were in their mature enough with families to start small businesses to support their families.

4.3.4 Highest level of education of the respondents

Figure 4 below presents the education level of the respondents.

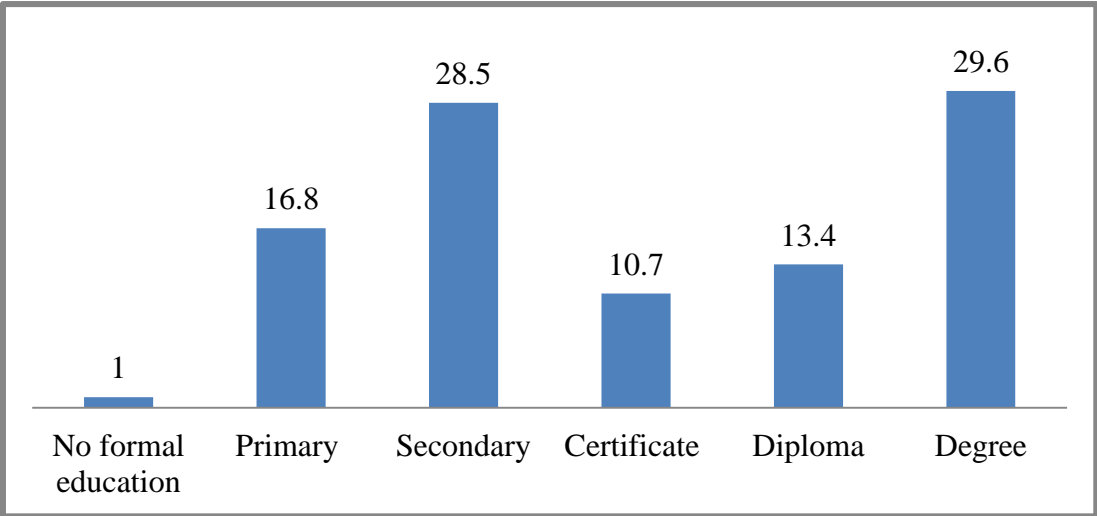


Figure 4: Education level of the respondents

Source: Field data, 2023

Figure 4 shows that 29.6 percent of the respondents had degrees, 28.5 percent held secondary, 16.8 percent had primary level, 13.4 percent had diplomas, 10.7 percent had certificate while 1.0 percent had no formal education. This indicate that most of the participants were educated an indication that educated business women can easily analyze different situations at hand and move the business forward.

4.3.4 Number of employees

Figure 5 below presents the number of employees.

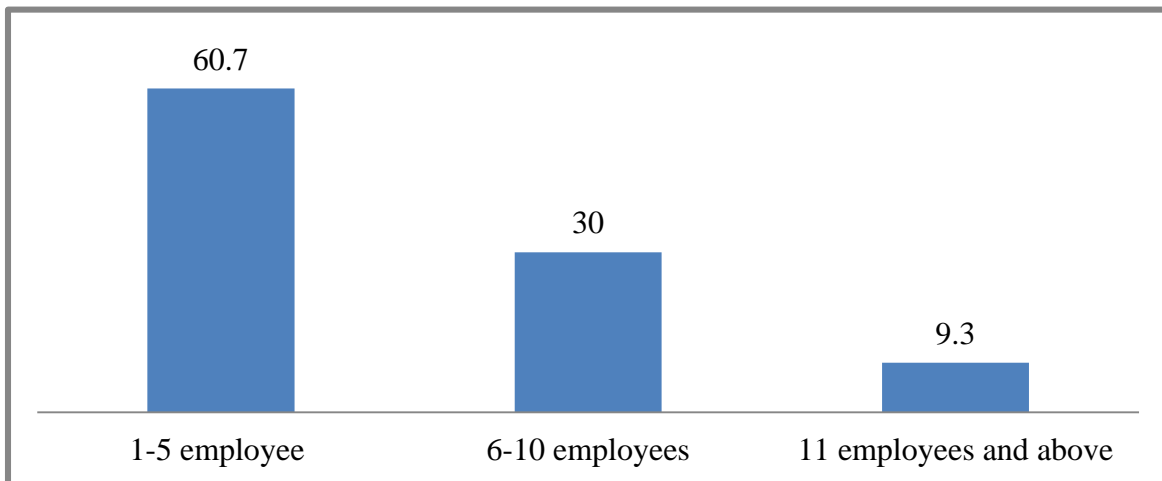


Figure 5: Number of staff in the business

Source: Field data, 2023

Figure 5 above shows that 60.7 percent of the business had 1-5 employees 30 percent had 6-10 employees and 9.3 percent had more 11 employees and above. This shows that majority of the business had a bigger number of staff members. This helped the business to effectively serve their clients

4.3.5 Number of years spent running the business

Table 4.3 below presents the Number of years spent running the business.

Table 4.3: Number of years spent running the business

Number of Years	Frequency	Percent
1-5 years	201	69.1
6-10 years	52	17.9

11 years and above	38	13.1
Total	291	100

Source: Field data, 2023

Results in Table 4.3 above revealed that 69.1 percent of the business had been existence for 1-5 years, 17.9 percent had spent 6-10 years while 13.1 percent had spent 11 years and above. This showed most of the businesses had spent in existence for more a year which means the owners had some skills and knowledge of running and maintaining their businesses.

4.4 Descriptive statistics basing on the study variables

The descriptive statistics were presented in regard to the study variables. The findings were presented in the order of entrepreneurial learning behavior, digital adoption and business resilience.

4.4.1 Responses for entrepreneurial learning behavior

The descriptive statistics in this section presents the responses regarding entrepreneurial learning behavior. All participants were requested to rank their responses using Likert Scale and the findings were subsequently analyzed using means, and standard deviations for interpretation. The extracted mean were compared to the grand mean to ascertain the level of agreement or disagreement towards the item.

Table 4.4: Responses for entrepreneurial learning behavior

Entrepreneurial Learning Behavior	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>
<i>Self-assessment</i>				
I always assess my strength against my competitors	1	5	3.57	1.524
I always assess the threats to my business	1	5	3.42	1.430
I always carry out market assessment to know my the market trends	1	5	3.62	1.345
I always assess my business operations to identify possible risks	1	5	3.39	1.391
<i>Grand Mean and SD</i>			3.50	1.42
<i>Collaboration</i>				
I always engage some external partners for strategic reasons	1	5	2.50	1.207
I sometimes leverage on external expertise for new ideas	1	5	2.60	1.321
All my employees are involved in the decision-making process	1	5	3.17	1.560

I always encourage open communication among my employees	4	5	4.38	.486
I always encourage knowledge sharing among the my employees	3	5	4.21	.651
Grand Mean and SD			3.37	1.05

Knowledge acquisition				
I always invest in training for their employees, fostering knowledge acquisition and skill development	1	5	3.25	1.431
I always carry out market research to stay informed about market trends	3	5	4.18	.634
I always benchmark the best practices from other businesses	1	5	3.71	1.296
I partners with other businesses to leverage knowledge resources and expertise	1	5	3.59	1.184
Grand Mean and SD			3.68	1.14

Source: Field data, 2023

From Table 4.4 above, regarding self-assessment, it was regarded as essential since it scored a grand mean of (3.50) and standard deviation equivalent (1.42) and the most significant were that SMEs owns always assessed their strength against their competitors and they always carried out market assessment to know their market trends. Regarding collaboration was also regarded as essential with the high grand mean of (3.37) and standard deviation equivalent (1.05) and the most significant factor were that SMEs owners always encouraged open communication among their employees and always encouraged knowledge sharing among the their employees. Knowledge acquisition was also essential since it scored a grand mean of (3.68) and standard deviation equivalent or below (1.14) and the most essential items were that SMEs owners always carried out market research to stay informed about market trends and also benchmarked the best practices from other businesses.

4.4.2 Responses for digital adoption

Regarding digital adoption, the respondents were requested to rank their responses on Likert Scale and the findings were analyzed in form of means, and standard deviations for interpretation. The means were compared to the grand mean to determine the level of agreement or disagreement towards the statement.

Table 4.5: Responses for digital adoption

Digital Adoption	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>
<i>Digital literacy</i>				
I have the basic skills to operate my business using a computer	1	5	2.98	1.482
I understand how to effectively reach my desired audience online	1	5	2.88	1.534
I understand how to trade online using different digital tools	1	5	2.67	1.425
I understand how to do online marketing	1	5	2.39	1.283
I embrace a culture of digital continuous learning	1	5	2.88	1.507
<i>Grand Mean and SD</i>			2.76	1.45
<i>Access to digital infrastructure</i>				
I have access to reliable internet	1	5	2.59	1.232
I have access to computers to run my business	1	5	2.43	1.302
I use a computerized system to run my business operations	1	5	1.97	1.053
I leverage different social media platforms	1	5	3.77	1.289
I have access to different digital data storage	1	5	2.03	1.126
I have access to digital data backup storage	1	4	1.88	.838
<i>Grand Mean and SD</i>			2.45	1.14
<i>Usage of Digital Tools</i>				
I communicate with my customers using digital platforms	1	5	2.50	1.258
Customers make orders online	1	5	1.85	.868
I market my products online	1	5	2.54	1.295
I have system that track customer feedback	1	5	1.99	.927
I have a system that tracks my business daily/weekly sales	1	5	2.09	1.062
All my business payments are made digitally	1	5	1.93	.913
<i>Grand Mean and SD</i>			2.15	1.05

Source: Field data, 2023

Results in Table 4.5 above shows digital literacy was less essential element with a grand mean of (2.17) and standard deviation equivalent of (1.45) and the most significant items were that SMEs

owners had the basic skills to operate using business using a computer, they understood how to effectively reach their desired audience online and some embraced a culture of digital continuous learning. Access to digital infrastructure was found to be less essential having scored a low grand mean of (2.45) and standard deviation equivalent (1.14), however there was the a significant item that some SMEs leveraged different social media platforms. On the issue of usage of digital Tools, it was less significant having scored a low grand mean of (2.15) and standard deviation equivalent (1.05). This showed to the larger extent most of people running the SMEs were not using digital tools.

4.4.3 Responses for business resilience

Under business resilience the respondents were also requested to rank their responses on Likert Scale and the findings were analyzed in form of means, and standard deviations for interpretation where the mean values were compared to the grand mean to ascertain the level of agreement or disagreement towards the statements presented to respondents.

Table 4.6: Responses for business resilience

<i>Business Resilience</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>
<i>Diversification</i>				
My business trades in different products to attract more customers	1	5	3.02	1.361
I target different customer segments to increase business outreach	1	5	3.22	1.418
I established different outlets for business to be near the customers	1	5	1.86	.942
I use different modes of advertising both off-line & on-line to reach all my clients	1	5	2.44	1.278
I have strategic partnerships to upscale my business opportunities	1	5	2.15	1.074
<i>Grand Mean and SD</i>			2.45	1.21
<i>Financial stability</i>				
My business has diverse revenue streams to increase sources of revenue	1	5	2.32	1.234
I have access to multiple funding options to invest in my business	1	5	1.75	1.058
My business has the capacity to meet all its financial obligation whenever they fall due	1	5	2.22	1.193
My business has good profits which has led to expansion of the business	1	5	2.06	1.114
My business has diversified customer base to increase sources of revenue	1	5	2.71	1.402

My business always has adequate working capital	1	5	2.32	1.200
My business has consistent revenue growth over time	1	5	2.44	1.217
Grand Mean and SD			2.26	1.20
Proactive posture				
The business has the capacity to address any type of disruption whenever it occurs	1	5	2.18	1.120
I developed a risk plan for my business	1	5	2.00	.938
I have proactive communication channel to reach my clients	1	5	2.26	1.204
I always prioritize new ideas for product/service improvement	1	5	2.32	1.297
I developed a strategic plan that focus on achieving the business objectives	1	5	2.55	1.273
Grand Mean and SD			2.26	1.17
Adaptability				
I offer a range of products or services that quickly adapt by shifting more demanding and challenging times	2	5	3.80	1.061
I have flexible business structure that can easily respond to market shifts or unforeseen events	1	5	3.42	1.250
I have the ability to adjust and optimize supply chains in response to changes in demand, disruptions, or logistical challenges.	1	5	2.47	1.238
I'm always ready to adopt and integrate new technologies and software that improve business operations and facilitate remote work.	1	5	2.54	1.160
Grand Mean and SD			3.06	1.18

Source: Field data, 2023

From Table 4.6 above, diversification as a form of business resilience was less essential having scored a lower grand mean of (2.45) and standard deviation equivalent (1.21). However, some items that made up diversification. For instance, businesses were trading in different products to attract more customers and they targeted different customer segments to increase business outreach. The issue of financial stability was also less essential with grand mean of (2.26) and standard deviation equivalent (1.20). This meant that most of the SMEs owned by the women were not financial stability. Regarding the proactive posture, it was also less essential since it scored a lower grand mean of (2.26) and standard deviation equivalent (1.17). This meant that among the SMEs there was less proactive posture by women running the SMEs. Lastly, adaptability found to be essential since it scored a high grade mean of (3.06) and standard deviation equivalent or below (1.18) and the most significant items were that SMEs offer a range of products or services that quickly adapt by shifting more demanding and challenging times and they had flexible business structure that can easily respond to market shifts or unforeseen events.

4.5 Factor analysis

The researcher conducted factor analysis to reveal hidden patterns, connections, and dimensions within a dataset, aiming to reduce dimensionality and improve the interpretability and credibility of research outcomes. By pinpointing latent variables and simplifying intricate data arrangements, factor analysis streamlines decision-making processes, enabling greater focus and insight.

4.5.1 Entrepreneurial learning behavior

The information in the table 4.7 shows the factor analysis results for entrepreneurial learning behavior.

Table 4.7 Factor analysis for entrepreneurial learning behavior

<i>Items</i>	<i>Self-assessment</i>	<i>Collaboration</i>	<i>Knowledge acquisition</i>
I always assess my strength against my competitors	.778		
I always assess the threats to my business	.882		
I always carry out market assessment to know my the market trends	.778		
I always assess my business operations to identify possible risks	.888		
I always engage some external partners for strategic reasons		.852	
I sometimes leverage on external expertise for new ideas		.749	
All my employees are involved in the decision-making process		.769	
I always encourage open communication among my employees		.651	
I always encourage knowledge sharing among the my employees		.765	
I always invest in training for their employees, fostering knowledge acquisition and skill development			.722
I always carry out market research to stay informed about market trends			.652
I always benchmark the best practices from other businesses			.727
I partners with other businesses to leverage knowledge resources and expertise			.764
Eigen Values	2.9	3.5	2.7
Variance (%)	66.3	79.7	61.6

Table 4.7 depicted above presents the outcomes of assessing entrepreneurial learning behavior through the constructs of self-assessment, collaboration, and knowledge acquisition. Concerning self-assessment, the foremost item exhibited a dominance of (.888), while each factor explained 66.3 percent of the data variance, indicating a relatively modest portion of variability. Additionally, the Eigenvalue of (2.9), surpassing one, highlighted the significance of the associated factors. In

relation to collaboration, the primary item demonstrated a dominance of (.852), with each factor elucidating 79.7 percent of the data variance, signaling a relatively low degree of variability. Notably, an Eigenvalue of (3.5), exceeding one, suggested the continued significance of other pertinent factors. Lastly, concerning knowledge acquisition, the principal item exhibited a dominance of (.764), with each factor explaining 61.6 percent of the data variance, indicating a relatively modest variability. Furthermore, the Eigenvalue of (2.7), surpassing one, highlighted the importance of the associated factors.

4.5.2 Digital adoption

The information in the table 4.8 shows the factor analysis results for digital adoption.

Table 4.8: Factor analysis for digital adoption

<i>Items</i>	<i>Digital literacy</i>	<i>Access to digital infrastructure</i>	<i>Usage of Digital Tools</i>
I have the basic skills to operate my business using a computer	.757		
I understand how to effectively reach my desired audience online	.775		
I understand how to trade online using different digital tools	.770		
I understand how to do online marketing	.614		
I embrace a culture of digital continuous learning	.777		
I have access to reliable internet		.703	
I have access to computers to run my business		.742	
I use a computerized system to run my business operations		.799	
I leverage different social media platforms			
I have access to different digital data storage		.729	
I have access to digital data backup storage		.729	
I communicate with my customers using digital platforms			.695
Customers make orders online			.689
I market my products online			.686
I have system that track customer feedback			.751
I have a system that tracks my business daily/weekly sales			.731
All my business payments are made digitally			.841
Eigen Values	2.8	3.3	2.5
Variance (%)	65.8	78.3	61.5

Table 4.8 indicates that measurement of digital adoption through three constructs: digital literacy, access to digital infrastructure, and usage of digital tools. In terms of digital literacy, the most notable item yielded a loading of (.777), with each factor elucidating 65.8 percent of the data variance, suggesting a relatively limited degree of variability. Moreover, Eigenvalues of (2.8), surpassing one, highlighted the importance of the related factors. Regarding access to digital infrastructure, the dominant item contributed to a loading of (.799), while each factor explained 73.3 percent of the data variance, indicating a relatively modest level of variability. With an Eigenvalue of (3.3), exceeding one, these findings highlighted the significance of other pertinent factors. Lastly, concerning the usage of digital tools, the predominant factor displayed a loading of (.841) and explained 61.5 percent of the data variance, suggesting a relatively modest degree of variability. Additionally, Eigenvalue results of (2.5), surpassing one, emphasized the importance of other associated factors.

4.5.3 Business resilience

The information in the table 4.9 shows the factor analysis results for business resilience

Table 4.9: Factor analysis for business resilience

<i>Items</i>	<i>Diversification</i>	<i>Financial stability</i>	<i>Proactive posture</i>	<i>Adaptability</i>
My business trades in different products to attract more customers	.694			
I target different customer segments to increase business outreach	.678			
I established different outlets for business to be near the customers	.635			
I use different modes of advertising both off-line & on-line to reach all my clients	.733			
I have strategic partnerships to upscale my business opportunities	.792			
My business has diverse revenue streams to increase sources of revenue		.826		
I have access to multiple funding options to invest in my business		.763		
My business has the capacity to meet all its financial obligation whenever they fall due		.846		
My business has good profits which has led to expansion of the business		.831		
My business has diversified customer base to increase sources of revenue		.837		
My business always has adequate working capital		.863		
My business has consistent revenue growth over time		.845		
The business has the capacity to address any type of disruption whenever it occurs			.859	
I developed a risk plan for my business			.831	
I have proactive communication channel to reach my clients			.845	
I always prioritize new ideas for product/service improvement			.874	

I developed a strategic plan that focus on achieving the business objectives				.817
I offer a range of products or services that quickly adapt by shifting more demanding and challenging times				.699
I have flexible business structure that can easily respond to market shifts or unforeseen events				.825
I have the ability to adjust and optimize supply chains in response to changes in demand, disruptions, or logistical challenges.				.822
I'm always ready to adopt and integrate new technologies and software that improve business operations and facilitate remote work.				.837
Eigen Values	2.4	3.5	2.7	2.7
Variance (%)	68.6	73.0	64.5	62.0

From the data presented in Table 4.9 above, business resilience was evaluated using four constructs: diversification, financial stability, proactive posture, and adaptability. Regarding diversification, the primary indicator exhibited a loading of (.792), with each factor explaining 68.6 percent of the data's variance, indicating a relatively modest level of variability. Additionally, Eigenvalues of (2.4), surpassing one, highlighted the significance of these factors. Concerning financial stability, the dominant factor displayed a loading of (.863) and explained 73.0 percent of the data variance, suggesting a moderately low level of variance. The Eigenvalue of (3.5), exceeding one, implies the continued relevance of other associated factors. Regarding proactive posture, the primary factor showed a loading of (.874) and explained 64.5 percent of the data variance, indicating a moderate level of consistency. Moreover, Eigenvalue results of (2.7), surpassing one, emphasized the importance of further exploring related factors. Finally, in terms of adaptability, the leading factor exhibited a loading of (.837) and explained 62.0 percent of the data variance, suggesting a relatively modest level of variability. Furthermore, Eigenvalue results of (2.7), exceeding one, highlighted the significance of other corresponding factors in the study.

4.6 Reliability of the study variables

After data collection of the main the study researcher ran the reliability of the study variables and these were presented in Table 4.10 below.

Table 4.10: Reliability test of tools

Construct	Item tested	Alpha values
Entrepreneurial Learning Behavior	13	.984
Digital Adoption	17	.990

Business resilience	21	.994
Average	17	.989

The results were entered into SPSS Ver. 23, and tested for their reliability basing on the Cronbach reliability test scores (alpha values). The study variables were considered reliable because Alpha Values above 0.7 as recommended (Mugenda & Mugenda, 2013).

4.7 Correlation analysis

Pearson correlation was run using SPSS Ver. 23 and was used to investigate the relationship between entrepreneurial learning behavior, digital adoption, and business resilience of women owned SMEs in Kampala Capital City were presented in the Table 4.11 below.

Table 4.11: Correlation results on relationship between variables

Items	Mean	S.Dev	ELB	DA	BR
Entrepreneurial Learning Behavior (ELB)	3.506	1.133	1		
Digital Adoption (DA)	2.433	1.135	.435**	1	
Business resilience (BR)	2.479	1.134	.429**	.886**	1

** Correlation is significant at the .01 level (2-tailed).

4.7.1 Entrepreneurial learning behavior and business resilience

From the correlation results in Table 4.11 above revealed that entrepreneurial learning behavior had a significant and positive relationship with business resilience at ($r = .427^{**}$, $P < 0.01$). This means that any positive adjustment in entrepreneurial learning behavior will lead to increase in business resilience.

4.7.2 Digital adoption and business resilience

Furthermore, digital adoption was also significantly and positively related with business resilience at ($.886^{**}$, $P < 0.01$). This means that any positive adjustment in digital adoption will lead to increase in business resilience.

4.7.3 Entrepreneurial learning behavior and digital adoption

There was a relationship between entrepreneurial learning behavior and digital adoption at ($r = .435^{**}$, $P < 0.01$). This means that any positive adjustment in entrepreneurial learning behavior will lead to increase in digital adoption.

4.8 Regression analysis

This study used a regression analysis to evaluate the predictability levels of entrepreneurial learning behavior and digital adoption on business resilience.

4.8.1 Regression model

A linear regression analysis was conducted, and the results are presented in Table 4.12 below.

Table 4.12: The predictive level of entrepreneurial learning behavior and digital adoption on business resilience

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.072	.021		3.438	.001
Entrepreneurial Learning Behavior	.014	.023	.017	.980	.328
Digital Adoption	.709	.014	.802	1.418	.000
Model Summary					
Adjusted R Square	.814				
ANOVA (F-Statistics)	2.38904, P=.000 < 0.05				
Dependent Variable: Business Resilience					

The results presented in Table 4.12 indicate that the combined influence of entrepreneurial learning behavior and digital adoption explains 81.4% of the variance in business resilience, as reflected by the adjusted R Square value of .814. This suggests that the model is highly effective in predicting business resilience, while the remaining 18.6% of the variance is likely to be influenced by other factors not examined in this study. The overall model fit was validated by a significant F-value ($F = 2.38904$, $p = .000$), confirming the statistical significance and robustness of the regression model.

When analyzing the individual contributions of the constructs, the Beta values provide deeper insights. Although entrepreneurial learning behavior showed a positive relationship with business

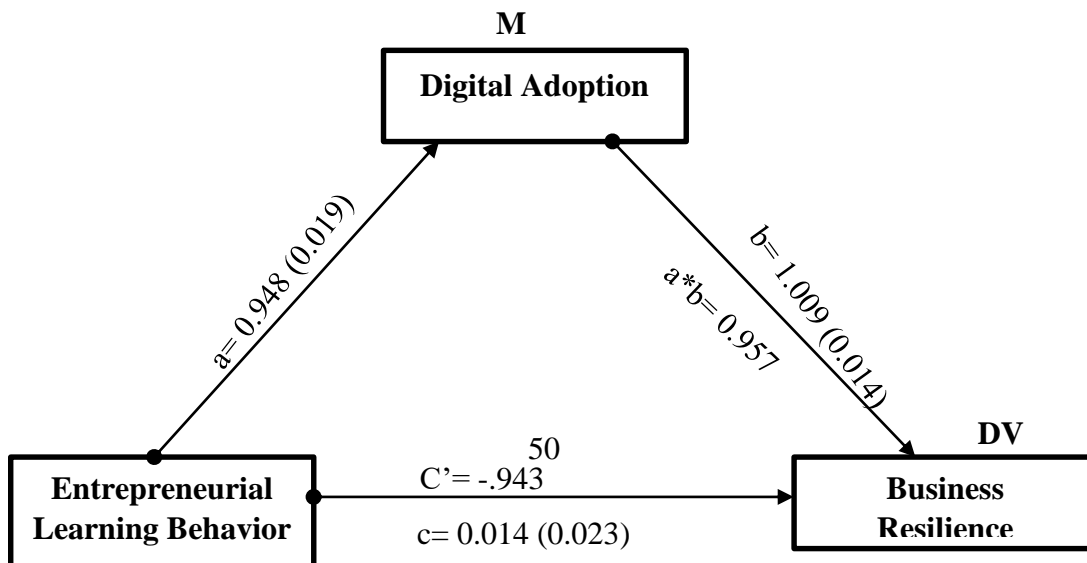
resilience, its impact was statistically insignificant ($\text{Beta} = .017, p = .328 > 0.05$). This indicates that changes in entrepreneurial learning behavior, whether increasing or decreasing, have low influence on business resilience, with each unit change in entrepreneurial learning behavior resulting in only a 0.017 change in business resilience.

In contrast, digital adoption was found to be a strong and statistically significant predictor of business resilience ($\text{Beta} = .802, p = .000 < 0.05$). This implies that for every unit increase in digital adoption, business resilience increases by 0.802, highlighting the substantial role digital adoption plays in enhancing business resilience. Conversely, a decrease in digital adoption by one unit would lead to a corresponding 0.802 decline in business resilience. This highlights the critical importance of digital adoption as a key factor in strengthening business resilience.

4.9 The mediating effect of digital adoption on the relationship between entrepreneurial learning behavior and business resilience in women owned businesses

The researcher conducted a mediation analysis to examine how entrepreneurial learning behavior is related to business resilience via digital adoption. In order for the mediation testing to yield valid results, it is essential to follow specific steps outlined by Baron and Kenny (1986), which include;

- i) Establishing a relationship between the independent variable (IV) and the dependent variable (DV)
- ii) Establishing a relationship between the independent variable (IV) and the mediator (M)
- iii) Establishing a relationship between the mediator (M) and the dependent variable (ID)
- iv) Assesse the effect of the mediator (M) on the relationship between the independent variable (IV) and the dependent variable (DV)



IV

Figure 6: The mediating effect of digital adoption on the relationship between entrepreneurial learning behavior and business resilience in women owned businesses

Table 4.13: Results for mediation effect from Sobel, Aroian and Goodman Tests

Input		Test Statistics	Std. Error	p-Value	
A	0.948	Sobel Test	41.02329414	0.0233168	0.000
B	1.009	Aroian Test	41.02062492	0.02331832	0.000
S _a	0.019	Goodman Test	41.02596388	0.02331528	0.000
S _b	0.014				

The results in Table 4.13 above, Sobel Test showed Z value = 41.02329414 with Std Error = 0.0233168 with significant value of (p-value = 0.000 < 0.05). Then Aroian Test showed Z value = 41.02062492 with Std Error = 0.02331832 with significant value of (p-value = 0.000 < 0.05) and Goodman Test showed Z value = 41.02596388 with Std Error = 0.02331528 with significant value of (p-value = 0.000 < 0.05). The tests scored positive and significant Z-values which meant all these three test of (Sobel, Aroian and Goodman tests) indicated that introduction of digital adoption in the equation as a mediator significantly mediates the relationship between entrepreneurial learning behavior and business resilience of women owned SMEs. Given that after introducing in digital adoption as a mediator, the direct effect drastically reduced from C= 0.014 to C' = -.943 which is even negative showed that digital adoption *fully mediated* the relationship between entrepreneurial learning behavior and business resilience of women owned SMEs.

4.10 ANOVA of demographic characteristics on study variables

The researcher ran the ANOVA of the demographic characteristics on the entrepreneurial learning behavior, digital adoption and business resilience independently.

Table 4.14: Showing the ANOVA of demographic characteristics of entrepreneurial learning behavior

		Sum of Squares	df	Mean Square	F	Sig.
Sex	Between Groups	48.476	1	48.476	43.282	.000 ^a
	Within Groups	323.682	289	1.120		
	Total	372.158	290			
Marital Status	Between Groups	174.229	1	174.229	254.396	.000 ^a
	Within Groups	197.929	289	.685		
	Total	372.158	290			
Age of respondent	Between Groups	332.781	1	332.781	2.44203	.000 ^a
	Within Groups	39.377	289	.136		
	Total	372.158	290			
Highest level of education	Between Groups	346.479	1	346.479	3.89903	.000 ^a
	Within Groups	25.679	289	.089		
	Total	372.158	290			
Number of employees	Between Groups	61.417	1	61.417	57.120	.000 ^a
	Within Groups	310.741	289	1.075		
	Total	372.158	290			
Numbers years running the business	Between Groups	309.454	1	309.454	1.42603	.000 ^a
	Within Groups	62.704	289	.217		
	Total	372.158	290			

Source: Field Data 2023

From the ANOVA results in Table 4.14 shows that all the demographic characteristics sex, marital status, age of respondent, highest level of education, number of employees and numbers years running the business were significant in influencing entrepreneurial learning behavior having scored P-value = .000 < 0.05. This means that there was no difference in how respondents perceived entrepreneurial learning behavior.

Table 4.15: Showing the ANOVA of demographic characteristics on digital adoption

		Sum of Squares	df	Mean Square	F	Sig.
Sex	Between Groups	25.701	1	25.701	21.351	.000 ^a
	Within Groups	347.880	289	1.204		
	Total	373.582	290			
Marital Status	Between Groups	247.809	1	247.809	569.413	.000 ^a
	Within Groups	125.773	289	.435		
	Total	373.582	290			
Age of respondent	Between Groups	310.851	1	310.851	1.43203	.000 ^a
	Within Groups	62.731	289	.217		
	Total	373.582	290			
Highest level of education	Between Groups	323.284	1	323.284	1.85803	.000 ^a
	Within Groups	50.298	289	.174		
	Total	373.582	290			
Number of employees	Between Groups	139.645	1	139.645	172.514	.000 ^a
	Within Groups	233.937	289	.809		
	Total	373.582	290			
Numbers years running the business	Between Groups	345.474	1	345.474	3.55203	.000 ^a
	Within Groups	28.108	289	.097		
	Total	373.582	290			

Source: Field Data 2023

The ANOVA results in Table 4.15 above also shows that all the demographic characteristics sex, marital status, age of respondent, highest level of education, number of employees and numbers years running the business were significant in influencing digital adoption having scored P-value = .000 < 0.05. This means that there was no difference in how respondents perceived digital adoption.

Table 4.16: Showing the ANOVA of demographic characteristics on business resilience

		Sum of Squares	df	Mean Square	F	Sig.
Sex	Between Groups	25.631	1	25.631	21.336	.000 ^a
	Within Groups	347.172	289	1.201		
	Total	372.803	290			
Marital Status	Between Groups	248.313	1	248.313	576.452	.000 ^a
	Within Groups	124.490	289	.431		
	Total	372.803	290			
Age of respondent	Between Groups	307.796	1	307.796	1.36803	.000 ^a
	Within Groups	65.008	289	.225		
	Total	372.803	290			
Highest level of education	Between Groups	319.101	1	319.101	1.71703	.000 ^a
	Within Groups	53.702	289	.186		
	Total	372.803	290			
Number of employees	Between Groups	147.579	1	147.579	189.368	.000 ^a
	Within Groups	225.224	289	.779		
	Total	372.803	290			
Numbers years running the business	Between Groups	349.402	1	349.402	4.31503	.000 ^a
	Within Groups	23.401	289	.081		
	Total	372.803	290			

Source: Field Data 2023

In Table 4.16 above, the ANOVA results also showed that all the demographic characteristics sex, marital status, age of respondent, highest level of education, number of employees and numbers years running the business were significant in influencing business resilience having scored P-value = .000 < 0.05. This means that there was no difference in how respondents perceived business resilience.

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter captures the discussion of the findings, conclusion and recommendations. This was done in line with the study objectives which included examining the relationship between entrepreneurial learning behavior and business resilience of women owned SMEs, the relationship between digital adoption and business resilience in of women owned SMEs, the relationship between entrepreneurial learning behavior and digital adoption in women owned SMEs and the mediating role of digital adoption between entrepreneurial learning behavior and business resilience of women owned SMEs.

5.2 Discussion

5.2.1 Entrepreneurial learning behavior and business resilience

There is a positive and significant relationship between entrepreneurial learning behavior and business resilience. This happens when the management of SMEs conducts self-assessment by always assessing their strength against the competitors, assessing the threats to their business, carrying out market assessment to know the market trends and assessing their business operations to identify possible risks. These assessments are crucial as they provide SMEs with valuable insights into their competitive landscape, market dynamics, and operational vulnerabilities, thereby empowering them to make informed decisions, proactively mitigate risks, and cultivate resilience in an ever-evolving business environment.

Furthermore, collaboration was integral to the operations of the SMEs, as owners consistently sought out external partners for strategic purposes, capitalized on external expertise to generate new ideas, engaged employees in decision-making processes, fostered open communication within the organization, and encouraged knowledge sharing among staff members. This collaborative approach facilitated the pooling of diverse perspectives, skills, and resources, enabling the SMEs

to tap into a broader range of insights and capabilities. By fostering a culture of collaboration, these SMEs were able to enhance innovation, decision-making agility, and organizational effectiveness. Moreover, it promoted employee engagement, satisfaction, and retention, contributing to a positive work environment and ultimately strengthening the overall resilience and competitiveness of the businesses.

In addition, knowledge acquisition played a pivotal role in the operations and resilience of these SMEs, as they prioritized investing in training initiatives for their employees, nurturing continuous learning and skill development within the organization. Additionally, they conducted regular market research to stay abreast of evolving market trends, enabling them to make informed strategic decisions. Furthermore, they actively benchmarked against best practices from other businesses, seeking to adopt and adapt successful strategies to their own operations. Moreover, they fostered strategic partnerships with other businesses to leverage knowledge resources and expertise, thereby enhancing their competitive advantage. This emphasis on knowledge acquisition facilitated the cultivation of a dynamic and adaptable workforce, enabled proactive response to market changes, and contributed to sustained innovation and growth.

The study findings resonated with those of Chilisa and Van der Westhuizen (2019), who investigated the experiences of women entrepreneurs and underscored the pivotal role of entrepreneurial learning behavior in bolstering the resilience of women-owned SMEs. This behavior, encompassing self-reflection, experiential learning, seeking advice, and networking, emerged as essential components for navigating challenges and sustaining business viability. Notably, the study emphasized the significance of both formal and informal learning processes in fortifying business resilience. These findings align closely with the research conducted by Bwisa, Wafula, and Namusonge (2015), which further accentuated the importance of entrepreneurial learning behavior in overcoming obstacles and fostering resilience. Their study highlighted the effectiveness of learning from experiences, engaging in knowledge acquisition through training programs and mentorship, and fostering connections with fellow entrepreneurs as critical strategies for enhancing business resilience. These collective insights underscore the indispensable role of continuous learning, networking, and experiential knowledge acquisition in equipping women-

owned SMEs with the adaptive capacity necessary to thrive in dynamic and challenging business environments.

5.2.2 Digital adoption and business resilience

The study findings show significant and positive correlation between digital adoption and the resilience of women-owned businesses. This relationship is evident when management possesses digital literacy, including proficiency in computer operation, effective online audience engagement, online trading utilizing diverse digital tools, online marketing strategies, and a commitment to continuous digital learning. Consequently, such businesses demonstrate agility in adapting their product offerings swiftly during challenging times, maintain a flexible business structure capable of responding to market shifts and unforeseen events, optimize supply chains to address changes in demand, disruptions, or logistical challenges, and remain proactive in adopting and integrating new technologies and software to enhance operational efficiency and facilitate remote work. This highlights the critical importance of digital literacy and adoption for women-owned enterprises in navigating dynamic business landscapes and fostering resilience in the face of evolving challenges and opportunities.

Moreover, the availability of digital infrastructure was integral and this evident through access to reliable internet connectivity, provision of computers essential for conducting business operations, utilization of computerized systems to streamline business processes, access to various digital data storage solutions, and implementation of digital data backup mechanisms. This facilitated the establishment of proactive communication channels to engage clients effectively, development of comprehensive risk management plans to mitigate potential business disruptions, cultivation of organizational resilience to address diverse challenges as they arise, and a readiness to embrace and integrate emerging technologies and software solutions aimed at enhancing operational efficiency and supporting remote work arrangements. The significance of this access to digital infrastructure lies in its pivotal role in empowering businesses to adapt to the demands of the digital age, optimize their operational capabilities, and navigate uncertainties with agility, thereby fostering long-term sustainability and growth in an increasingly digitized business landscape.

Furthermore, the utilization of digital tools played a crucial role in bolstering the resilience of women-owned businesses, enabling effective communication with customers through digital platforms, facilitating online ordering for certain customers, facilitating digital payments, and implementing systems to track customer feedback. Consequently, these businesses experienced an expansion in their ability to target diverse customer segments, enhancing their outreach and market penetration. Moreover, they established multiple outlets to ensure proximity to customers and responsiveness to their needs. Additionally, the readiness to adopt and integrate new technologies and software solutions further enhanced business operations and supported remote work arrangements. The significance of leveraging digital tools lies in their capacity to enhance customer engagement, streamline business processes, expand market reach, and foster adaptability in an ever-evolving business landscape, thereby contributing to the resilience and sustainability of women-owned enterprises.

These findings align with the research conducted by Milakovich et al. (2020), which demonstrates the significant role of digital technology adoption in enhancing the resilience of small and medium-sized enterprises (SMEs) owned by women. Through the integration of digital tools, businesses can enhance their operational efficiency, extend their market reach, and adapt more readily to shifting market dynamics. Digital technologies offer avenues for process automation, data collection, analysis for informed decision-making, and the establishment of online platforms for customer engagement. These capabilities bolster business resilience by fostering agility, reducing operational costs, and facilitating diversification strategies. Similarly, the findings resonate with those of Deloitte (2021), which underscored a 26% increase in productivity among businesses embracing digital technologies compared to their counterparts. The report further elucidated that digital adoption enables women-owned SMEs to streamline operations, automate processes, and alleviate manual workloads, consequently enhancing efficiency, reducing costs, and enabling strategic resource allocation. This, in turn, augments resilience to market volatility and external disruptions.

5.2.3 Entrepreneurial learning behavior and digital adoption

There is a positive and significant relationship between entrepreneurial learning behavior and digital adoption. This correlation is cultivated through proactive self-assessment practices

conducted by SME management, encompassing evaluations of competitive strengths, identification of potential threats, comprehensive market assessments to grasp trends, and thorough evaluations of internal operations to mitigate risks. Consequently, this commitment to self-assessment fosters proficiency among SME management in various digital competencies, including adeptness in computer operation, effective online audience engagement, utilization of diverse digital tools for online trading, implementation of impactful online marketing strategies, and a steadfast dedication to continuous digital learning. The significance of this relationship lies in its ability to empower SMEs to adapt to evolving market dynamics, enhance operational efficiency, and capitalize on digital opportunities, thereby fostering long-term competitiveness and sustainability in the digital era.

Moreover, collaboration played a fundamental role in the operations of the SMEs, with owners actively seeking external partnerships for strategic initiatives, leveraging external expertise to foster innovation, involving employees in decision-making processes, promoting transparent communication within the organization, and facilitating knowledge sharing among staff members. This collaborative approach facilitated enhanced access to reliable internet connectivity, provision of necessary computers for seamless business operations, adoption of computerized systems to optimize workflows, utilization of diverse digital data storage solutions, and implementation of robust digital data backup mechanisms. The importance of collaboration in this context lies in its ability to promote synergy, innovation, and knowledge exchange within the organization, ultimately enhancing operational efficiency, resilience, and competitiveness in an increasingly digitalized business environment.

Furthermore, the acquisition of knowledge played a pivotal role in the operations and resilience of these SMEs, as they prioritized investment in training initiatives to foster continuous learning and skill development among their employees. Concurrently, they conducted regular market research to remain informed about evolving market trends, facilitating informed strategic decision-making. This dedication to knowledge acquisition empowered effective communication with customers through digital platforms, facilitating online ordering, digital payments, and the implementation of systems for tracking customer feedback. Consequently, these businesses witnessed an expansion in their capacity to target diverse customer segments, amplifying their outreach and market

penetration. The importance of knowledge acquisition lies in its ability to equip SMEs with the insights and capabilities necessary to adapt to changing market dynamics, enhance customer engagement, and sustain competitiveness in a dynamic business landscape.

The study findings align with those of Mekonnen and Yoseph (2019), who explored the correlation between entrepreneurial learning and digital adoption among women-owned small and medium enterprises (SMEs) in Ethiopia. Their research revealed a positive link between entrepreneurial learning activities and the adoption of digital technologies by women entrepreneurs. The study underscored the importance of women entrepreneurs actively participating in diverse learning opportunities, such as training programs, workshops, and networking events tailored to enhance entrepreneurial skills and knowledge. Through engagement in these learning activities, women entrepreneurs gained valuable insights and practical expertise concerning digital technologies and their business applications. Moreover, the study highlighted that women entrepreneurs who actively pursued entrepreneurial learning were more inclined to embrace digital technologies within their SMEs. These entrepreneurs demonstrated a heightened understanding of the benefits and potential of digital tools, along with increased confidence in integrating them into their business operations. Consequently, this enhanced digital adoption led to improvements in efficiency, competitiveness, and overall growth of their enterprises.

5.2.4 The mediating role of digital adoption between entrepreneurial learning behavior and business resilience

Entrepreneurial learning behavior and business resilience exhibit a robust and positive correlation. SMEs, through continuous knowledge acquisition, fostering collaboration, and regular self-assessment, enhance their resilience by diversifying their operations, maintaining financial stability, adopting a proactive posture, and demonstrating adaptability. However, the integration of digital adoption into this equation serves as a significant mediator, substantially influencing the relationship between entrepreneurial learning behavior and business resilience within women-owned SMEs. By enhancing employees' digital literacy, facilitating access to digital infrastructure, and promoting the utilization of digital tools, digital adoption not only empowers SMEs to effectively navigate the challenges of the digital era but also reinforces their capacity to respond swiftly to evolving market demands and disruptions. This underscores the crucial importance of

incorporating digital technologies into entrepreneurial learning initiatives, as it amplifies SMEs' resilience, fosters innovation, and bolsters their competitiveness in an increasingly digitalized business landscape.

The study findings aligned with some of previous research, including the work of Kuckertz et al. (2019), revealing a mutually reinforcing relationship between entrepreneurial learning behavior, digital adoption, and business resilience within women-owned SMEs, with digital adoption acting as a key mediator. Entrepreneurial learning behavior plays a pivotal role in facilitating the adoption and effective utilization of digital technologies, resulting in improved operational efficiency, expanded market reach, and heightened agility. Concurrently, digital adoption enhances business resilience by facilitating access to new markets, bolstering decision-making processes through data analytics, and enabling rapid adaptation to changing circumstances. This dynamic interplay among entrepreneurial learning behavior, digital adoption, and business resilience establishes a positive feedback loop that fosters sustained growth and competitiveness within women-owned SMEs.

5.3 Conclusions

The study concluded that digital adoption is the major predictor of business resilience of women owned SMEs because most of the women running the businesses had the basic skills to operate business using a computer, understood how to effectively reach the desired audience online and had embraced a culture of digital continuous learning. Furthermore, their access to reliable internet infrastructure enabled them to leverage various social media platforms for customer communication and effective online marketing of their products. This highlights the pivotal role of digital literacy and access to technology in empowering women entrepreneurs to navigate challenges and sustain their businesses in an increasingly digital marketplace. This shows the importance of continuous digital learning and skill development to ensure that women-owned SMEs can effectively harness the benefits of digitalization for long-term success and growth.

5.4 Recommendations

The researcher made the following recommendations

The researcher recommended that Ministry of ICT should prioritize initiatives aimed at enhancing digital literacy and access to technology among women entrepreneurs. This could include implementing targeted training programs to improve basic computer skills, facilitating access to reliable internet infrastructure in underserved areas, and promoting a culture of continuous digital learning. Additionally, policymakers should support initiatives that provide women-owned SMEs with resources and support to effectively leverage digital tools and platforms for customer communication and online marketing. By investing in these areas, women entrepreneurs will be empowered to navigate the challenges of the digital marketplace and realize their full potential for long-term success and growth.

The researcher recommended that management of SMEs prioritize investment in digital literacy and technology adoption initiatives for their workforce. This includes providing training programs to equip employees, with the necessary skills to operate computers effectively and utilize digital tools for business operations, customer communication, and marketing purposes. Additionally, SME management should ensure access to reliable internet infrastructure to facilitate seamless online engagement and leverage various social media platforms for effective customer outreach and product promotion. Embracing a culture of continuous digital learning within the organization will be vital to staying competitive in today's digital marketplace and sustaining long-term growth. By investing in digital skills development and technology infrastructure, SME management can empower women entrepreneurs and their businesses to thrive amidst evolving challenges.

5.5 Areas for further research

The researcher put forward the following areas for future research studies:

- i) Investigating the relationship between access to finance, funding opportunities, and the resilience of women-owned SMEs.

- ii) Examining gender disparities in access to digital technology and skills development programs among SMEs in Kampala.

- iii) Evaluating the effectiveness of government policies, support programs, and interventions aimed at fostering digital entrepreneurship and resilience among women-owned SMEs in Kampala.

- iv) Lastly, the current study was conducted on women-owned SMEs, therefore, same study examining the relationship between entrepreneurial learning behavior, digital adoption, and business resilience can focus on other sectors of business other than women owned SMEs.

REFERENCES

- Addison-Wesley; Crossan, M. M., Lane, H. W., & White, R. E. (1999). An Organizational Learning Framework: From Intuition to Institution. *Academy of Management Review*, 24(3), 522-537.
- Adekunle, S. O., Akingbade, W. A., & Amujo, O. E. (2021). Digital adoption and performance of women-owned small and medium enterprises in Nigeria. *International Journal of Entrepreneurship and Small Business*, 43(2), 264-283.
- African Development Bank. (2019). *Women's entrepreneurship and financial inclusion: Empowering women through access to finance*. African Development Bank Group.
- Ahmad, N. H., & Seet, P. S. (2019). Entrepreneurial learning and business performance: The mediating role of innovation in women-owned small and medium enterprises. *Journal of Business Research*, 101, 785-795.
- Almanasreh, E., Jawabreh, O., & Tawafsheh, O. (2019). Quantitative and qualitative research methods in psychology. In C. O. Arrey (Ed.), *Handbook of Research Methodologies and Design in Neuroentrepreneurship* (pp. 151-164). IGI Global.
- Amin, A. (2005). The good city. *Built Environment*, 31(4), 317-319.
- Arach, A., & Ategeka, J. (2019). *Digital inclusion of women entrepreneurs in Uganda*. In Proceedings of the 3rd International Conference on Computing and Sustainable Societies (COMPASS 2019) (pp. 1-7).
- Argyris, C., & Schön, D. A. (1978). *Organizational Learning: A Theory of Action Perspective*.
- Basu, A. (2021). *Research methods for management and social sciences*. Sage Publications.
- Bell, E., Bryman, A., & Harley, B. (2022). *Business research methods*. Oxford University Press.
- Bhandari, S. (2022). *Handbook of research methods in entrepreneurship*. Edward Elgar Publishing.
- Bierman, L., & Smidt, S. (2012). The Use of Historical Data in Management Accounting Research. *The Oxford Handbook of Accounting History*, 213-238.

- Bosma, N., Hessels, J., Schutjens, V., Praag, M. V., & Verheul, I. (2012). Entrepreneurship and role models. *Journal of Economic Psychology*, 33(2), 410-424.
- Bryman, A. (2018). *Social research methods*. Oxford University Press.
- Cardon, M. S., Gregoire, D. A., Stevens, C. E., & Patel, P. C. (2019). Measuring entrepreneurial learning: A review and research agenda. *Entrepreneurship Theory and Practice*, 43(3), 457-482.
- Chambwera, M., MacGregor, J., & Baker, L. (2021). The impacts of climate change on women-owned micro, small, and medium-sized enterprises in low-income countries: A systematic review. *World Development Perspectives*, 22, 100277.
- Chatterjee, S., & Brown, K. G. (2018). Entrepreneurial learning from failures: An interpretive phenomenological analysis of women entrepreneurs. *Journal of Small Business Management*, 56(3), 480-501.
- Chen, L., Gillenson, M. L., & Sherrell, D. L. (2012). Enticing online consumers: An extended technology acceptance perspective. *Information & Management*, 49(5), 262-274.
- Chesbrough, H., Vanhaverbeke, W., & West, J. (2016). *New frontiers in open innovation*. Oxford University Press.
- Creswell, J. W. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications.
- Cuypers, I. R., & Martin, X. (2017). How do firms adapt? A fuzzy-set analysis of the role of cognition and capabilities in industry evolution. *Strategic Management Journal*, 38(6), 1266-1287.
- Deloitte. (2018). *Business resilience: Is your strategy evolving fast enough?* Retrieved from: <https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/risk/ch-en-risk-business-resilience-pov.pdf>.
- Deng, J., Xu, L. D., & Zhang, G. (2019). The Journey to Smart Manufacturing: A Perspective on Learning and Knowledge Management. *IEEE Transactions on Engineering Management*, 66(4), 596-603.
- Denis, J. L., Mary, J., & Gerard, V. (2010). Entrepreneurial learning from failure: An interpretive phenomenological analysis. *Journal of Business Venturing*, 25(5), 534-549.

- Erstad, O. (2017). Digital competence in teacher education: Policy implications and guidelines for future-oriented teacher education. *Nordic Journal of Digital Literacy*, 11(1), 7-20.
- Gallagher, M. (2003). Resilience, vulnerability, and the human condition. Pitt, M. M., & Goyal, S. (2004). The role of entrepreneurship in economic growth. *Journal of Development Economics*, 75(2), 329-347.
- Gillwald, A., Fuchs, R., & Ndiwalana, A. (2020). The State of ICT in Uganda: *Findings from the ITU ICT Country Profiles 2019*. Research ICT Africa.
- Grunfeld, L. A., Nnam, N. M., Onyeakusi, E. F., & Omoregie, A. I. (2020). Women-owned small and medium enterprises and access to finance in Sub-Saharan Africa: A systematic review. *Entrepreneurship Research Journal*, 10(4), 1-33.
- Gulati, M., Raghubir, P., & Srivastava, J. (2019). Money matters: Gender differences in financial obstacles faced by micro, small, and medium enterprises in India. *Journal of Business Venturing Insights*, 12, e00115.
- Guloba, M., Ssewanyana, S., & Birabwa, A. (2017). Women-owned micro, small and medium enterprises (WSMEs) in Uganda: *Financing, growth and economic contributions*. African Development Bank Group.
- Gursoy, D., Chi, C. G. Q., & Lu, L. (2013). Antecedents and outcomes of residents' place attachment in a tourism destination. *Journal of Travel Research*, 52(6), 744-757.
- Helfat, C. E., & Peteraf, M. A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal*, 36(6), 831-850.
- Hisrich, R. D., & O'Brien, M. P. (2016). Entrepreneurial intentions and corporate entrepreneurship. *In Advances in Entrepreneurship, Firm Emergence and Growth* (Vol. 18, pp. 135-167). Emerald Group Publishing Limited.
- Ho, S. M., Lee, S. Y., & Yu, S. Y. (2018). Entrepreneurial learning behavior, entrepreneurial self-efficacy, and entrepreneurial intention: A moderated mediation analysis. *Journal of Small Business Management*, 56(3), 455-476.
- Hollnagel, E., & Woods, D. D. (2015). *Joint cognitive systems: Foundations of cognitive systems engineering*. CRC Press.

- International Trade Centre. (2018). *SheTrades Outlook 2018: Expanding opportunities for women in global markets*. International Trade Centre.
- Iwaniec, D. M. (2019). *Mixed-methods research: Merging theory with practice*. Routledge.
- James, L. R. (1993). Does job satisfaction explain the service-profit chain? *Cornell Hotel and Restaurant Administration Quarterly*, 34(4), 32-37.
- Jaspreet, K., & Varun, S. (2019). Digital adoption by small and medium-sized enterprises: A capability perspective. *Journal of Small Business and Enterprise Development*, 26(3), 334-354.
- Jiang, J. J., Klein, G., & Carr, C. L. (2019). Dynamic capabilities and organizational performance: A meta-analytic evaluation and extension. *Journal of Information Technology*, 34(1), 37-58.
- Kallio, K., Lindholm, M., Suomala, P., & Syrjäläinen, E. (2021). Organizational resilience in turbulent times: A systematic literature review. *International Journal of Production Economics*, 233, 107983.
- Kebede, W., Abiy, S., & Muleta, B. (2021). Determinants of poor performance of women-owned small and medium enterprises in Ethiopia. *Journal of Global Entrepreneurship Research*, 11(1), 1-19.
- Keen, P., & Knapp, E. (2012). The economics of cloud computing. *Journal of Systems and Software*, 85(6), 1212-1219.
- Kim, S. (2018). The role of government support in promoting women's entrepreneurship: Evidence from Uganda. *International Journal of Gender and Entrepreneurship*, 10(4), 343-360.
- Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of Business Venturing*, 21(6), 866-885.
- Kuckertz, A., Berger, E. S., & Mpeqa, A. (2019). The more the merrier? Female-led firms and the association between entrepreneurial teams and sales growth. *Journal of Business Venturing Insights*, 12, e00136.
- Kurtz, T., & Varvakis, G. (2016). Dynamic capabilities and performance: A meta-analytic review and future research agenda. *Journal of Management Studies*, 53(8), 1348-1380.

- Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. Guilford Publications.
- Li, L., Wu, G., & Zhao, X. (2020). Resilience and adaptation in the digital era: A review and research agenda. *Journal of Business Research*, 114, 124-135.
- Li, Y., Gong, X., Liang, X., & Huang, C. (2020). An exploratory study on the determinants of digital adoption in rural tourism destinations: The case of China. *Journal of Destination Marketing & Management*, 16, 100399.
- Linnenluecke, M. K., & Griffiths, A. (2020). Corporate resilience to climate change: Understanding and managing the risks and responses. *Journal of Cleaner Production*, 254, 120098.
- Lumpkin, G. T., & Dess, G. G. (2011). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Perspectives*, 25(1), 45-63.
- Lumpkin, G. T., Coglisier, C. C., Schneider, D. R., & Hills, G. E. (2019). Entrepreneurial learning. *In Palgrave Handbook of Multidisciplinary Perspectives on Entrepreneurship* (pp. 169-198). Palgrave Macmillan.
- March, J. G., & Olsen, J. P. (1976). *Ambiguity and Choice in Organizations*. Universitetsforlaget.
- Markides, C., & Williamson, P. J. (2021). Digital transformation: A roadmap for billion-dollar organizations. *Journal of Management Studies*, 58(2), 349-370.
- Mettler, T., & Rohner, P. (2017). Digital business transformation: Status quo and implications for value chains. *Journal of Business Strategy*, 38(6), 35-43.
- Milakovich, M., Lento, T., & Sun, C. (2020). Exploring the relationship between digital technology adoption and small business resilience. *International Journal of Information Management*, 50, 257-265.
- Mithas, S., Ramasubbu, N., & Sambamurthy, V. (2013). How information management capability influences firm performance. *MIS Quarterly*, 37(2), 565-590.
- Morrison, A., Rabellotti, R., & Zirpoli, F. (2013). When do global pipelines enhance the diffusion of knowledge in clusters? *Economic Geography*, 89(1), 77-96.
- Mugenda, O. M., & Mugenda, A. G. (2013). *Research methods: Quantitative and qualitative approaches*. Acts Press.

- Mutuku, M., Odero-Wanga, D., & Ali-Olubandwa, A. (2015). Female entrepreneurship in Kenya: How do female micro-entrepreneurs learn to be entrepreneurial? *Case Studies in Business and Management*, 2(1), 1. <https://doi.org/10.5296/csbm.v2i1.6809>.
- Namakula, I. K., Amuhinda, F., & Kalule-Sabiti, I. (2021). Entrepreneurial learning and performance of women-owned small and medium enterprises in Uganda. *Journal of African Business*, 1-17.
- Neergaard, H., Shaw, E., & Carter, S. (2005). The impact of gender, social capital and networks on business ownership: A research agenda. *International Journal of Entrepreneurial Behavior & Research*, 11(5), 338-357.
- Neneh, B. N. (2017). The impact of entrepreneurial training on women's entrepreneurial behavior and business performance in South Africa. *Journal of Small Business and Enterprise Development*, 24(3), 561-579.
- Ng, T. W., & Kross, E. (2019). Recovering from bad jobs: Personality traits, life events, and job characteristics. *Journal of Applied Psychology*, 104(10), 1265-1284.
- Nikolopoulos, K. (2018). Digital transformation: How to get it right. *Strategic Direction*, 34(2), 18-20.
- Nkundabanyanga, S. K., Ongeng, D., & Amin, A. (2020). Challenges affecting the performance of women-owned enterprises in Uganda: A case study of women-owned enterprises in Kampala. *Journal of Entrepreneurship, Business and Economics*, 8(1), 1-22.
- Nonaka, I., & von Krogh, G. (2019). Tacit Knowledge and Knowledge Conversion: Controversy and Advancement in Organizational Knowledge Creation Theory. *Organization Science*, 30(5), 1153-1172.
- Omoding, S., Musaazi, S. K., & Mugagga, A. (2021). The influence of digital financial services on the performance of women-owned small and medium enterprises in Uganda. *Journal of African Business*, 22(1), 27-46.
- Peter, M. P., & Michael, H. M. (2002). Entrepreneurial learning: A conceptual framework for technology-based learning in entrepreneurship. *International Journal of Entrepreneurship and Innovation Management*, 2(1-2), 115-129.

- PwC. (2021). *Building resilience: Business model innovation in times of disruption*. Retrieved from: <https://www.pwc.com/us/en/services/deals/library/building-resilience-business-model-innovation-in-times-of-disruption.html>.
- Rae, D., & Carswell, M. (2010). Towards a conceptual understanding of entrepreneurial learning. *Journal of Small Business and Enterprise Development*, 17(4), 592-611.
- Rafferty, A. E., & Zou, X. (2020). Business model adaptation during crises: An organizational identity perspective. *Journal of Business Venturing Insights*, 14, e00200.
- Ritchie, W. J., & Jiang, Y. (2019). Digital technology adoption decision-making in small businesses: A structured literature review. *Technovation*, 82-83, 1-19.
- Rokosz, M., & Karwowski, W. (2015). Adaptation, resilience and flourishing: *The role of learning*. In PwC. (2020). Preparing for tomorrow's workforce, today.
- Sekaran, U. (2013). *Research methods for business: A skill-building approach*. John Wiley & Sons.
- Shepherd, D. A., & Patzelt, H. (2011). The new field of entrepreneurial learning: Exploring the interplay of learning, innovation, and growth. *Organizational Psychology Review*, 1(2), 145-176
- Ucbasaran, D., Shepherd, D. A., Lockett, A., & Lyon, S. J. (2013). Life after business failure: The process and consequences of business failure for entrepreneurs. *Journal of Management*, 39(1), 163-202.
- Uganda Retailers Association. (2021). Women in Retail: Leveraging women's economic potential in Uganda. Retrieved from: <https://www.ugandaretailersassociation.org/wp-content/uploads/2021/07/WOMEN-IN-RETAIL-REPORT.pdf>.
- United Nations Economic and Social Commission for Asia and the Pacific. (2020). *Empowering women through digital inclusion*. United Nations.
- Van Deursen, A., & van Dijk, J. (2015). Internet skills and the digital divide. *New Media & Society*, 17(1), 1-17.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: *Toward a unified view*. *MIS Quarterly*, 27(3), 425-478.

- Viswanath, V., James, R., & Xin, H. (2012). Entrepreneurial learning, technological learning, and firm performance: A study of technology-based SMEs in China. *International Entrepreneurship and Management Journal*, 8(3), 331-353.
- Wang, Y. S., Liao, Y. W., & Chen, H. K. (2018). The Unified Theory of Acceptance and Use of Technology (UTAUT): A literature review. *Journal of Information Systems and Technology Management*, 15(1), 21-38.
- World Bank. (2016). World Development Report 2016: Digital Dividends. World Bank.
- Yin, R. K. (2014). Case study research: *Design and methods*. Sage Publications.

APPENDICES

Appendix I: Participants' consent form

Dear respondent

I'm Atuheire Dorcus (20/U/MBA/13191/WKD), undertaking a study on the topic, "*Entrepreneurial learning behavior, Digital adoption, and Business resilience of women owned*

SMEs in Kampala Capital City” as part of the requirements for the award of a Master’s in Business Administration at Kyambogo University. As a key stakeholder in this study, you are requested to participate in the study. Please feel free to participate because it’s purely academic study. Your views will be handled with confidentiality and with utmost privacy.

Aspect of concern	Description
Type of study	This is an academic and non-profit or funded
Objectives	i) To examine the relationship between entrepreneurial learning behavior and business resilience of women owned SMEs in Kampala Capital City. ii) To examine the relationship between digital adoption and business resilience in of women owned SMEs in Kampala Capital City. iii) To study the factor structure of entrepreneurial learning behavior, digital adoption, and business resilience of women owned SMEs in Kampala Capital City.
Your roles and expectations	As a participant, it is important to provide accurate and honest information. You will not be required to make any payments or receive any compensation in exchange for the information you provide.
Your privacy, confidentiality	Your identity, personal details and information will be held private and confidential and will not be used anywhere against you.
Limitations in handling and providing data	Your participation will only remain in the field.
Withdrawal terms	You are free to withdraw your participation at any time of the study as long as you feel the study is not providing conducive atmosphere

If you agree with above, please append your names, signature below.

Participants’ Name..... Signature.....
 Telephone:.....

Researcher’s Name:Signature.....
 Telephone:.....

Appendix II: Questionnaire

Dear Respondent,

I'm Atuheire Dorcus (20/U/MBA/13191/WKD), undertaking a study on the topic, **“Entrepreneurial learning behavior, Digital adoption, and Business resilience of women owned SMEs in Kampala Capital City”** as part of the requirements for the award of a Master’s in Business Administration at Kyambogo University. As a key stakeholder in this study, you are requested to participate in the study. Please feel free to participate because it’s purely academic study. Your views will be handled with confidentiality and with utmost privacy.

Section A: Bio-data

Please put a tick mark (√) in the option boxes provided or fill in the spaces provided.

1. Division:.....

2. Nature of the business
 - i) Trade
 - ii) Service
 - iii) Manufacturing

3. Sex of the respondent
 - i) Male
 - ii) Female

4. Age of respondent
 - i) 18-27
 - ii) 28-37
 - iii) 38-47
 - iv) 48 -57
 - v) 58 & above

5. Marital status of the respondents
 - i) Married
 - ii) Single
 - ii) Separated
 - iv) Widow

6. Respondent’s highest level of education
 - i) No formal education
 - ii) Primary
 - iii) Secondary
 - iv) Certificate
 - v) Diploma
 - vi) Degree
 - vii) Others (please specify):

7. Number of employees
 - i) 1-5
 - ii) 6-10
 - iii) 11 and above

8. Number of years spent running the business
 - i) Less than 1
 - ii) 1-5
 - iii) 6-10
 - iv) 11 and above

For questions in Section B, Please respond to the statements given below basing on the ranking scale. **1: Strongly Disagree (SD), 2: Disagree (D), 3: Neutral (N), 4: Agree (A) and 5: Strongly Agree (SA).**

SECTION B: ENTREPRENEURIAL LEARNING BEHAVIOR

Code	Item	Ranking				
		1	2	3	4	5
Self-assessment						
ELB1	I always assess my strength against my competitors					
ELB2	I always assess the threats to my business					
ELB3	I always carry out market assessment to know my the market trends					
ELB4	I always assess my business operations to identify possible risks					
Collaboration						
ELB5	I always engage some external partners for strategic reasons					
ELB6	I sometimes leverage on external expertise for new ideas					
ELB7	All my employees are involved in the decision-making process					
ELB8	I always encourage open communication among my employees					
ELB9	I always encourage knowledge sharing among the my employees					
Knowledge acquisition						
ELB10	I always invest in training for their employees, fostering knowledge acquisition and skill development					
ELB11	I always carry out market research to stay informed about market trends					
ELB12	I always benchmark the best practices from other businesses					
ELB13	I partners with other businesses to leverage knowledge resources and expertise					

For questions in Section C, Please respond to the statements given below basing on the ranking scale. **1: Strongly Disagree (SD), 2: Disagree (D), 3: Neutral (N), 4: Agree (A) and 5: Strongly Agree (SA).**

SECTION C: DIGITAL ADOPTION

Code	Item	Ranking				
		1	2	3	4	5
Digital literacy						
DA1	I have the basic skills to operate my business using a computer					
DA2	I understand how to effectively reach my desired audience online					
DA3	I understand how to trade online using different digital tools					
DA4	I understand how to do online marketing					
DA5	I embrace a culture of digital continuous learning					
Access to digital infrastructure						
DA6	I have access to reliable internet					
DA7	I have access to computers to run my business					
DA8	I use a computerized system to run my business operations					
DA9	I leverage different social media platforms					
DA10	I have access to different digital data storage					
DA11	I have access to digital data backup storage					
Usage of digital tools						
DA12	I communicate with my customers using digital platforms					
DA13	Customers make orders online					
DA14	I market my products online					
DA15	I have system that track customer feedback					
DA16	I have a system that tracks my business daily/weekly sales					
DA17	All my business payments are made digitally					

For questions in Section D, Please respond to the statements given below basing on the ranking scale. **1: Strongly Disagree (SD), 2: Disagree (D), 3: Neutral (N), 4: Agree (A) and 5: Strongly Agree (SA).**

SECTION D: BUSINESS RESILIENCE

Code	Item	Ranking				
		1	2	3	4	5
Diversification						
BR1	My business trades in different products to attract more customers					
BR2	I target different customer segments to increase business outreach					
BR3	I established different outlets for business to be near the customers					
BR4	I use different modes of advertising both off-line & on-line to reach all my clients					
BR5	I have strategic partnerships to upscale my business opportunities					
Financial stability						
BR6	My business has diverse revenue streams to increase sources of revenue					
BR7	I have access to multiple funding options to invest in my business					
BR8	My business has the capacity to meet all its financial obligation whenever they fall due					
BR9	My business has good profits which has led to expansion of the business					
BR10	My business has diversified customer base to increase sources of revenue					
BR11	My business always has adequate working capital					
BR12	My business has consistent revenue growth over time					
Proactive posture						
BR13	The business has the capacity to address any type of disruption whenever it occurs					
BR14	I developed a risk plan for my business					
BR15	I have proactive communication channel to reach my clients					
BR16	I always prioritize new ideas for product/service improvement					
BR17	I developed a strategic plan that focus on achieving the business objectives					
Adaptability						
BR18	I offer a range of products or services that quickly adapt by shifting more demanding and challenging times					

BR19	I have flexible business structure that can easily respond to market shifts or unforeseen events					
BR20	I have the ability to adjust and optimize supply chains in response to changes in demand, disruptions, or logistical challenges.					
BR21	I'm always ready to adopt and integrate new technologies and software that improve business operations and facilitate remote work.					

End: Thank you

Appendix III: Table for determining sample size from a given population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
<i>Note: N is Population Size; S is Sample Size</i>					<i>Source: Krejcie & Morgan, 1970</i>				

Krejcie, R. V. and Morgan D. W. (1970). Determining sample size for Research Activities: Educational and Psychological Measurement.