SOCIAL INFLUENCE AND SAVING BEHAVIOR AS MODERATED-MEDIATED BY SELF-CONTROL AND FINANCIAL LITERACY AMONG MICRO AND SMALL ENTERPRISE OWNERS IN KAMPALA, UGANDA

BY

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DECLARATION

Declaration by the Student

This research thesis is my own original work and to the best of my knowledge, has not been submitted by any person for the award of a degree in any other institution of higher learning.

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Declaration by the Supervisors

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DEDICATION

This report is dedicated to Makerere University Business School, which gave me the opportunity to complete my PhD at Moi University and supported me financially. To my late Dad Dr John Lawrence Mpaata Tibita and Mum Mrs Eva Mpaata who have always encouraged me to always study and supported me all through my academic life. Mr. Francis Xavier Matovu, my husband, for the total support and encouragement. To my son Lawrence Loius Muganga for enduring the toughest times when I was away from you to pursue this PhD journey. Above all, I dedicate it to the Almighty God who has all the time been with me and brought me this far in this academic journey and life.

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ABSTRACT

The owners' money management may impact on a micro or small enterprise's ability to survive. This is only possible through planning and embracing saving. However, the survival of these enterprises is still of concern especially those in Sub-Saharan Africa (SSA), particularly in Uganda; where three out of five Micro and Small Enterprises (MSEs)fail due to individual poor saving habits. The ability to handle money successfully necessitates caution in spending decisions, allowing business owners improve and sustain their businesses. The main objective of the study was to determine the moderating role of self-control on the relationship between Social Influence and Saving Behavior as mediated by Financial Literacy. Specific objectives were to examine the effect of; Social Influence, Financial Literacy and Self-Control on Saving Behavior of micro and small enterprise owner, to determine the effect of Social Influence and Saving Behavior, the mediating effect of Financial Literacy on the relationship between Social Influence and Saving Behavior, to examine the moderating role of Self-Control; in the relationship between Financial Literacy and Saving Behavior; Social Influence and Saving Behavior. The study additionally looked at how self-control affected the strength of the indirect link between social influence and business owner saving behavior via financial literacy. This research was guided by the Social Cognitive Theory, Behavioral Life Cycle Hypothesis and the Unified Theory of Behavior. The research adopted a positivism research paradigm in addition to an explanatory research design. Multi-stage sampling technique was utilized in collecting primary data from the target population of 46,270 and a subsequent sample size of 430 MSE owners operating in Kampala, Uganda, using a self-administered structured questionnaire. The study variables were all continuous, and they were all measured by adapting previous study measures. Data was analyzed by Pearson correlation coefficient, factor analysis, standard multiple and hierarchical regression analyses. The study found that; Social Influence (β=.590, p=.000), Financial Literacy (β =.244, p=.000) and Self-Control (β =.273, p =.000) positively and significantly affects business owner saving Behavior. In addition, results show that Social Influence directly influences Financial Literacy (β =.273, p =.000), Financial Literacy partially mediates the relationship between Social Influence and business owner saving Behavior (β =.065, CI=.033, .106), Self-Control moderates the link between; Financial Literacy and owner saving Behavior (β = -.137, p=.000) and Social Influence and owner saving Behavior (β =-.089, p=.009). Finally, Self-Control was found to moderate the strength of the indirect relationship between Social Influence and owner Saving Behavior via Financial Literacy, and the conditional indirect effect is much stronger at lower levels of Self-Control (β =-.037, CI =-.067, -.014).The study findings showed that, in addition to having social networks and being financially literate, business owners ought to have some amount of self-control in managing their finances, enabling them self-finance their enterprises and perhaps grow their businesses and sustain them in a long run. It is on this basis that government is recommended to implement policies aimed at encouraging savings of Micro and Small Enterprises to support their self-financing through internally generated funds as well as deepening the financial services sector through business deposits, hence fostering the economic growth of the country. Future research could be undertaken using a longitudinal or a qualitative evaluation using these study variables.

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ABBREVIATIONS AND ACRONYMS

BLC	-	Behavioural Life-Cycle
BLCT	-	Behavioral Life-Cycle theory
CBD	-	Central Business District
FL	-	Financial Literacy
FMP	-	Financial Management Practices
FS	-	Financial Stress
GDP	-	Gross Domestic Product
GST	-	Goods and Services Tax
HMB	-	Honest Money Box
KCCA	-	Kampala Capital City Authority
KMO	-	Kaiser-Meyer-Olkin
LDCs	-	Least Developed Countries
LLCI	-	Lower Limit Confidence Interval
MSEs	-	Micro and Small Enterprises
MTIC	-	Ministry of Trade, Industry and Cooperatives
OECD	-	Organization for Economic Co-operation and Development
PCA	-	Principal Component Analysis
SACCOs	-	Savings and Credit Co-operatives
SB	-	Saving Behaviour
SI	-	Social Influence
SPSS	-	Statistical Package for Social Science
TTM	-	Trans Theoretical Model
UBOS	-	Uganda Bureau of Statistics

OPERATIONAL DEFINITION OF TERMS

Financial literacy – This relates to a person's ability to comprehend and interpret financial concepts, as well as their financial abilities and knowledge. It necessitates the ability to recognize, monitor, and effectively employ financial resources in order to increase individual, family, and corporate well-being and financial security (Alekam *et al.,* 2018).

Micro enterprise and Small Enterprise: – A micro-enterprise is a firm, a business, a service, an industry or a business activity which employs fewer than 10 people whereas a small enterprise is a firm, a business, a service, an industry or a business activity which employs between 10 and 50 people (Rantšo, 2016)

Saving Behavior - It is the act of refraining from spending money now in order to save money for later (Zou *et al*., 2015). It is made up of a mix of prospective need perceptions, saving choices, and saving activities.

Self-control- Since one's future self is dependent on one's current self's capacity to break bad habits, resist temptations, and overcome early desires, Self-control is frequently portrayed as one's capability to cease harmful behaviors, fight urges, and conquer initial impulses (Strömbäck *et al.,* 2017).

Social Influence – This is the process of persuading other people or groups to think in a certain manner. It is these human relationships that provide direction and approval to group members, hence their acute role in influencing individual behavior. Social influence is grouped into peer groups, parents, college and other adults' influence in a social setting (Dangol & Maharjan, 2018).

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter entails; the background of the study, statement of the problem, objectives of the study, the hypotheses, significance and scope of the study.

1.1 Background of the Study

Individuals must engage in saving behavior (SB) in order to learn and practice basic financial skills and make independent financial decisions in the future. Saving and learning how to spend responsibly helps people acquire control over their spending patterns (Ariffin *et al.,* 2017). Acceptable saving behavior is not achieved instantly, but rather via the collective influence of family, peers, and colleagues supporting, mentoring, and exchanging knowledge about money management practices. On the other side, putting money aside for the future is a good idea though a difficult option that necessitates solid savings culture (Gerhard *et al.,* 2018).

Saving behavior, as per Denton *et al.* (2011), consists of both future needs perceptions and saving decisions that contribute to wealth accumulation. Savings are thus economic growth engines, whose future drivers are individuals who make saving a priority in any economy (Khatun, 2018). The country's economic growth is achieved through the operations of micro and small businesses from which the majority of people derive their livelihoods (Okurut, 2013). The majority of MSEs are not growing at all (Langevang *et al.,* 2012). This is attributed to both company and owner specific factors. Personal psychology, gender, education, and personal reasoning are only a few of the owner's specific elements. Given that successful small businesses have a significant impact over most nations' economic growth, poor saving habits may jeopardize the company's future. Good saving behavior contributes to competitiveness

in a globalized economy (Esiebugie, 2018). Small businesses whose owners are unable to save and reinvest retained earnings are less likely to thrive than others whose managers are able to do so (Woldehanna *et al.,* 2018). Consumptive behavior affects around 44% of teenagers between the ages of 17 and 25, and 11% of adults between the ages of 40 and 55 (Herawati *et al.,* 2018).

According to a World Bank report (2017), the global saving rates as a percentage of GDP are: 45 percent in East Asia and the Pacific, 32 percent in South Asia, 23 percent in North Africa, 23 percent in Europe and Central Asia, 19 percent in Canada, 18 percent in the United States, 17 percent in Latin America, and 14 percent in Sub Saharan Africa. Furthermore, according to the Bank report, emerging countries' savings rates are low, which has an impact on their investment levels. According to Aryeetey and Udry (2000); Deaton, (2005); and World-Bank (2017), Africa has the lowest saving rates in the world, with a steady decline over the last three decades, which has had a negative impact on slow-growing economies. Africa has a reputation for having low savings rates (Elias & Worku, 2015; Kibet *et al.,* 2009). A quarter of the poorest for example the 40% of Sub-Saharan African families do not have bank accounts according to a 2011 Global Findex poll (Demirguc-Kunt *et al.,* 2015).

The fundamental goal of Uganda's "VISION 2040" is to transform the country's economy into a middle-income one, which calls for savings to be at least 35 percent of GDP. However, in 2017, this was below the intended level, at 16.5 percent (Nagawa, *et al.,*2020).Uganda has the poorest savings to Gross Domestic Product (GDP) ratio in the East African region as majority of the Ugandans save less than 5% of their monthly income, compared to some East African countries like Kenya (23%), Tanzania (13%), and Rwanda (18%) (UBOS, 2017).

Micro-saving behavior has received minimal examination (Asare *et al.*, 2018). The little that has been done on micro studies has mainly focused on household savings (Nwodo *et al.,* 2017). A study on the factors of household savings among low-income persons in rural Uganda, which focused on households' saving behavior by Chowa *et al.* (2012), is an example of such a study. The majority of research has focused on macro-saving behavior, such as Kaberuka and Namubiru (2014) study on the impact of remittances on gross domestic savings in Uganda.

Owing to the importance of Saving Behavior, research studies have been done to determine the drivers of Saving Behavior. According to past studies undertaken, Social Influence (SI) is a major key antecedent of saving behavior among individuals in Uganda (Homan & Kramer, 2016). Social Influence entails the exercise of social power by a person or group to change the attitude or behavior of other persons or groups in a particular direction. Though studies suggest that SI is a major driver of SB, empirical literature shows inconclusive findings. Therefore there is need to examine the intervening and contextual factors.

Research further reveals a variety of savings hurdles, including a lack of financial literacy prevent people from using financial services (Avdeenko *et al.,* 2019). Individuals must therefore be financially literate, as this affects their ability to develop a good saving habit (Khatun, 2018; Jamal *et al.,* 2015; Esiebugie, 2018). Financial literacy (FL) is defined as an individual's capacity to successfully manage resources that affect their financial well-being using financial information and skills. Hence there may be an indirect relationship between SI and SB through FL. A set of psychological factors may influence the effect FL on SB. Furthermore prior studies on the effect of FL on SB demonstrate inconclusive findings. Individuals' saving behavior still remains a nightmare, despite countries' efforts to improve financial

literacy (Fang, 2017; Morgan & Trinh, 2019). Studies by Strömbäck et al. (2017); Ningsih & Widiyanto, (2018) show that Self Control (SC) affects Saving Behavior. This implies that a person may be FL but lacks SB because of low SC. Furthermore, the bulk of research concentrate on cognitive aspects that drive saving behavior, while ignoring non-cognitive aspects such as self-control, which may enhance small businesses' saving behavior (Younas *et al.,* 2019). External variables of social influence and financial literacy affect the saving behavior of individuals, although this is only to some extent given their inconsistency and inefficiency (Wolfe & Higgins, 2008).

Human psychology plays an important role in making either desired or unwanted financial or non-financial decisions. Internal psychological factors, when combined with external factors such as social influence and financial literacy, can improve or decrease a person's saving behavior, necessitating the inclusion of self-control to assess its impact on saving behavior (Strömbäck *et al.,* 2017; Ningsih & Widiyanto, 2018).Self-control is defined as a person's response to achieving long-term goals through the use of self-regulation (Mackenbach *et al.*, 2019). According to Younas *et al.* (2019), people with good self-control and financial literacy are more likely to behave well than people with poor self-control and financial literacy. Therefore there seems to be an important relationship between SI, FL, SC and SB that requires an empirical examination which is lacking in the empirical literature.

MSE activities require funding, and a lack of it is a hurdle to their growth and long-term sustainability. As a result, it's critical to make sure that a business owner's social environment, financial literacy and self-control of business owners all work together to produce a positive result, necessitating the inclusion of self-control as a viable interaction in predicting micro business owners' intended saving behavior.

1.2 Statement of the Problem

Individual saving behavior is crucial because a single member of society assembles capital, which is subsequently built up to create a country's resources when used efficiently to boost the nation's economic growth (Asare *et al.,* 2018; Njenga *et al.,* 2018; Akhtar, 2015). Savings and access to external financing are the main drivers of entrepreneurial activities that employ approximately 70% of the population in developing countries (Bellavitis *et al.,* 2017). MSEs choose to save rather than borrow since the cost of internal investment capital through savings is generally significantly cheaper than the cost of credit, which is often limited in developing nations (Atandi *et al.,* 2017;).

However, in Uganda over 90% of MSEs fail during the first year of operation, and more than half close shop before their second birthday (UBOS, 2017). A study by Arinaitwe and Mwesigwa (2015) showed that 3/5 MSEs in Uganda fail during the initial years of operation, with the remaining 80% failing by the fifth year. This was attributed to small business owners' poor saving practices, which make it difficult for them to secure external finance, limiting their operations and expansion.

Though studies claim that SB is dependent on SI, there seems to be no general consensus as shown in literature (Kampumure, 2015). Sseguya *et al.* (2017); Sam *et al.* (2012) indicated that social influence and financial literacy are not sufficient to warrant appropriate saving behavior. The same was asserted by Topa *et al.* (2018), where Financial Literacy only explains 0.1% of the variance in financial behavior.

On the other hand, Abebe *et al.* (2016) and Kengatharan (2014) argue that micro and small business owners frequently fail to save, even when they have a surplus, because of lack of financial knowledge and psychological factors. Furthermore, majority of the

Ugandan MSE owners are characterized by low education levels which lead to their poor financial planning hence poor saving conduct (Nangoli *et al.*, 2013).

Although, FL has been cited as a determinant of SB, recent studies show conflicting results. A research by Cole *et al.* (2011) found little correlation between financial literacy and saving behavior. Furthermore, studies by Abebe *et al.* (2016), Lusardi (2014), Asare *et al*. (2018), and Sang *et al.* (2014) revealed that financial literacy had a mixed effect on saving behavior as it did not always lead to the intended financial behavior. A stream of research argue that psychological factors such as self-control may affect an individual's SB (Strömbäck *et al.*, 2017; Ningsih & Widiyanto, 2018; Younas *et al.*, 2019).

Previous saving behavior research has primarily focused on direct interactions, such as the effect of social influence on saving behavior, which has shown a positive link (Jamal *et al.*, 2015; Campenhout, 2015; Shim *et al., 2009*). Other studies for example by Alessie *et al.* (2011) Homan (2016); Otto (2009); Jamal *et al*.(2015); Grohmann *et al.* (2015); Tang *et al.* (2015); Lusardi & Mitchel (2014) focused on the relationship between social influence, financial literacy and saving behavior. Other studies like that of Van Rooij, *et al.* (2012); Stolper & Walter (2017); Supanantaroek *et al.* (2017) explored the link of financial literacy to saving behavior.

As this has not received the attention it deserves, previous research further highlights the need for alternative means for MSEs to obtain funds in Uganda. As a result, it is necessary to study additional sources of MSE funding from a behavioural perspective (Turyahikayo, 2015).

Based on empirical literature, this study sought to examine the moderating effect of SC on the relationship between SI and SB as mediated by FL. In addition, majority of

previous research had been conducted outside Uganda, it was therefore important to undertake a study among MSE owners in Uganda as a case study of developing countries.

1.3 Objectives of the Study

This section entails the general objective and specific objectives to the study.

1.3.1 General Objective

The focus of this research was to examine the moderating effect of Self-Control on the relationship between Social Influence and Saving Behavior as mediated by Financial Literacy.

1.3.2 Specific Research Objectives

The study specific objectives were to:

i) Examine the effect of Social Influence on Saving Behavior

ii) Establish the effect of Financial Literacy on Saving Behavior

iii) Determine the effect of Self-Control on Saving Behavior

iv) Establish the effect of Social Influence on Financial Literacy

v) Establish the mediating effect of Financial Literacy on the relationship between Social Influence and Saving Behavior

vi) Determine the moderating effect of Self-Control on the relationship between Financial Literacy and Saving Behavior

vii) Establish the moderating effect of Self-Control on the relationship between Social Influence and Saving Behavior.

viii) Determine the moderating effect of Self-Control on the indirect relationship between Social Influence and Saving Behavior through Financial Literacy

1.3.3 Study Hypotheses

H_{01}: Social Influence has no significant effect on Saving Behavior

H_{02}: Financial Literacy has no significant effect on Saving Behavior

H_{O3}: Self-Control has no significant effect on Saving Behavior

H_{04}: Social Influence has no significant effect on Financial Literacy

H_{05}: Financial Literacy has no mediating effect on the relationship between Social Influence and Saving Behavior

H_{06}: Self-Control does not moderate the relationship between Financial Literacy and Saving Behavior.

H_{07}: Self-Control does not moderate the relationship between Social Influence and Saving Behavior.

H_{08}: Self-Control does not moderate the indirect relationship between Social Influence and Saving Behavior through Financial Literacy.

1.4 Significance of the Study

The study's findings will contribute to the psychology/behavioral finance field by examining how social influence, financial literacy, and self-control influence an individual's behavior.

The study findings will be able to inform policy-makers on policy initiatives (tailored to SI, FL and SC) aimed at stimulating savings among MSEs through the mainstream financial system; which will create a vibrant financial sector.

The findings will further aid policymakers, academics, and financial institutions design means/interventions to improve individual saving behavior by instilling self-

control and financial literacy. The policy-makers will in addition be able to identify the potential needs and gaps regarding saving behavior and frame personal finance management policies to boost self-control and financial literacy that would be useful to the vulnerable segments of society.

From the findings, training programs will be established to foster self-control among business owners, both adolescents and adults, in order to improve self-control and encourage appropriate conduct, such as saving, as well as re-orient individuals on the goal of saving.

The findings of this study will also allow education authorities in the country ensure that all disciplines incorporate personal finance courses to promote appropriate saving behavior, particularly among individuals, from childhood to adulthood. The instructors at school would be able to instill self-control alongside financial literacy to have a significant impact on people's saving behavior. The findings will encourage parents to be more aware of and attentive to how they might impact their children in a positive way, preventing their acts by increasing their self-control skills.

The practitioners like the financial service providers would be able to design different behavioral portfolio packages and products that match the different segments of customers depending on their saving capability or design products that induce an appropriate saving behavior in addition to services that inculcate self-control among individuals.

Given the entrepreneurial role of MSEs, owners would be able to explore factors that affect savings behavior and will be better positioned to make informed decisions whenever they want to mobilize their savings with financial institutions for their

future business growth, thereby helping entrepreneurs who need more specific financial needs.

Finally, academicians who want to learn more about this area will benefit greatly from our research. Regarding academics this is twofold: To begin with, this study might be more useful to behavioral finance academics by connecting past studies that have looked into the impact of such concerns on people's financial behavior. In effect, this research can be taken up at a higher level. Secondly, to my knowledge it's one of the first studies to examine the effect of social influence, financial literacy and self-control on the saving behavior of micro and small enterprise owners, the academicians would, therefore, be able to benefit from the models, theories and the results can be used in further research hence this research would have a valuable contribution to existing behavioral and entrepreneurship finance literature.

1.5 Scope of the Study

The study looked at the overall effect of social influence, financial literacy, and self-control on saving behavior, as well as the mediating and moderating effects of financial literacy and self-control on the link between social influence and saving behavior. The survey was restricted to 430 registered micro and small businesses in Kampala, Uganda's Central Business District (CBD). The firms were the unit of analysis, while the owner-managers were the unit of observation, based on the assumption that they were more knowledgeable about their businesses and hence the variables under examination. The study was carried out between February and March 2020.The Social Cognitive theory, Behavioral Life Cycle Hypothesis and Unified Theory of Behavior were utilized in explaining the study variables. The study further used an explanatory cross sectional research design.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

This chapter focuses on concept of saving behavior, concept of social influence, concept of financial literacy and concept of self-control. It also highlights the theoretical review, empirical review, summary of literature and gaps identified and the conceptual framework encompassing the variables under study.

2.2 Concept of Saving Behaviour

The term "saving" has a lot of different connotations and meanings. In financial terms, Savings is defined as revenue left over after current expenses have been deducted over a period of time (Browning & Lusardi, 1996; Abbott & Schroeder, 2000). The same is conceptualized by economists as what is left of the discretionary money after consumption (Gerhard *et al.,* 2018). Consumption, life contributions, and insurance all represent expenditure, leading in behavior that is considered as a money-keeping activity from which wealth can be earned (Denton *et al.*, 2011).

On the other side, saving behavior is described as the act of suspending expenditure today for the future (Abbott & Schroeder 2000). The same was asserted by (Tharanika & Andrew, 2017). As a result, saving behavior entails a mix of future requirement estimates, a decision to save, and a saving action (Dangol & Maharjan, 2018; Kamarudin *et al.,* 2018). Legenzova and Gaigaliene (2017), further define the behavior as the composition of seven essentials that include: capacity to save, saving level, consistency in saving, saving aims, attitude towards saving, motivation or willingness to save and subjective saving skills as opposed to Zou *et al.* (2015) that defines it as an act of decreasing expenditure or postponing of consumption by an individual. Financial resources act as a buffer for unexpected future situations as they

can alleviate against financial impediments ranging from unemployment to unanticipated expenditure (Magendans *et al.,* 2017).

Saving behavior needs to be viewed in a comprehensive perspective to include both people's attitudes and personality traits (Blanc *et al.,* 2014). Saving behavior is imperative as it is an important individual decision, and households need to be involved (Bucciol & Veronessi, 2014). It also fosters long-term macro-level economic growth (Supanantaroek *et al.,* 2017). Indeed, proper savings amounts lead to more financial independence, business opportunities and future personal finance qualifying saving as part of a larger financial strategy and management plan (Stolper & Walter, 2017).

When it comes to investing, saving refers to putting aside a fraction of one's monthly earnings (Akhtar, 2015; Satsios & Hadjidakis, 2018). This, however, is reliant on factors such as habits, wealth, consumer choices, real interest rate, present economic landscape, and GST implementation, among others (Priya, 2016). According to Lea *et al.* (1987); Haiss & Sümegi (2008), it was found out that many societies believe that saving money is prudent, virtuous and highly valuable as this fosters the economic growth of a nation. Individuals' reasons for saving varies depending on their income levels, with those earning little save mainly for immediate bills while those saving earning a lot save for their children's education and pension (McKean *et al.,* 2005). Other factors that account for the differences in the need for savings include differences in the mindsets, behavior, knowledge and social environment (Jamal *et al.,* 2015).

Increased income, does not necessarily imply saving as one may choose to spend their finances than to save. As a result, government policies should place greater emphasis

on providing additional motivations and options to save via a variety of mechanisms (Khan& Abdullah, 2010). The researcher suggested that financial system inefficiencies should be corrected, and financial liberalization be implemented to encourage individuals to save by offering them higher returns on their savings. Savings, according to a growing body of research, are increasingly becoming critical in the process of economic growth, in addition to providing lump sums for investments that allow people to construct a financial safety net by acting as an insurance mechanism (Dupas & Robinson, 2013). They went on to say that (micro) savings products are undoubtedly one of the most effective financial tools for reducing poverty. Savings are critical to a country's and an individual's financial quality of life (Gerhard *et al.*, 2018; Findley & Caliendo, 2015; Otto, 2013). Savings smooth out a person's consumption habits, boosting their welfare along with many other things, as well as promoting a country's economic growth by providing a lump sum for macro-investment (Supanantaroek *et al.*, 2017). Furthermore, a country's internal savings diminish the country's exposure to foreign capital (Njenga *et al.*, 2018).

Savings are critical because, unlike income, they enable people to build and sustain wealth. People's saving habits are mostly determined by their current income and consumption level (Awais, 2014). In addition, there is growing evidence that poor people are capable and ready to save in principle. On the other hand, savings remain limited for a variety of reasons, one of which is a lack of financial awareness. There is an urgent need to strengthen the savings culture in order to improve saving behavior. Many individuals believe that strengthening people's saving habits and, as a result, fostering savings attitudes at a young age is crucial (De Noose, 2011). Financial education is one of the most important tools for changing people's attitudes toward

saving. Through financial education (financial literacy training), children need to be taken through money management at an early age.

Household saving behaviors have been studied extensively in the literature. Keynes (1936) identified many saving motives. The focus of previous papers has generally been on precautionary saving, life-cycle or retirement saving, and bequest saving. Browning and Lusardi (1996) added a down payment incentive to the list of saving motives. The life-cycle model now includes the majority of these motivations (Modigliani and Brumberg, 1954). People save for retirement as the primary saving incentive, according to earlier versions of this argument: people save while working to compensate for the loss of retirement income. The basic form of the life-cycle model has been expanded to include other saving incentives, the most notable of which is the cautious saving incentive. Precautionary saving can make up a large part of both individual and community wealth building (Gourinchas & Parker 2002).

Individuals with suitable financial behavior tend to be efficient in money management problems, budget drawing among others (Dwiastanti, 2015). Consequently, financial management is not only compulsory for companies, business entities, but also helpful to individuals in safeguarding prosperity in the future as they would be released from possible financial hitches (Davis *et al.,* 2014). In underdeveloped countries, empirical evidence of studies on individual financial behavior (saving behavior) is scarce (Akben-selcuk, 2015; Syahrom *et al.,* 2017).

Other variables that affect saving behavior are personality traits, optimism, self-control and attitudes towards saving that help customers make economic decisions and financial management of households (Gerhard *et al.,* 2018). Demographics such as religion, nationality, the field of study, gender, income and others may also affect

the saving behavior of individuals (Khatun, 2018). Furthermore, the level of trust in the saving choice, the institutions in which one saves, the financial advice offered, the degree of education of individuals, the number of dependents, and the level of income all influence saving conduct (Njenga *et al.*, 2018).

2.3 Concept of Social Influence (SI)

Originally, social influence was described as the modification in the group's emotions, ideas, attitudes or behaviors arising from communication with others (Kelman, 1958; French & Raven, 1959; Friedkin, 2001).The apparent obligation to perform or not do a behavior according to the subjective norm formulation can alternatively be defined as social influence (Fishbein & Ajzen, 1975; Cheung & Lee, 2010). On the other hand, social identity views social influence as a task for an individual to be passionately identified with others within a group (Tajfel, 1978; Hornsey, 2008).

A person or group using social power to modify the attitude or conduct of other people or groups in a given direction is known as the social influence (Franzoi, 2006). Jamal *et al.* (2015) defines it as the parental socialization and peer pressure that affect others decisions whereas The socialization agents include one’s family, peers, communities, teachers, media among others (Alekam *et al.*, 2018). Social Influence is a relationship based on human interfaces in a social context (Forsell *et al.,* 2018). It is these human relationships that provide direction and approval to group members, hence their acute role in influencing individual conduct (Palamida, 2016).

Social influence occurs when different sources present in the social environment influence one's attitudes, opinions, and behaviors (Trafimow & Davis, 1993). This is evident when a person's thoughts, feelings, and behaviors are impacted by others. Conformity, socialization, peer pressure, persuasion, leadership, loyalty, and societal

change are all examples of social influence. The basic forms of social influence include both implicit and explicit forms. Implied influence can be divided into two categories: a) conformity, in which people adjust their behavior to match that of their peers, and b) social roles, which are the group's expectations of how specific people should look and act. Explicit influence involves both compliance and obedience, where one acts in response to a direct or indirect request. The main socialization officials consist of relatives, colleagues, siblings, college, religion, and electronic or printed media (Campenhout, 2015; Sabri & Macdonald, 2010). Peer groups, family/parents, college, and other adults in the social setting are all examples of social influence, according to Dangol and Maharjan (2018).

Social influence also operates at three separate levels of compliance, identification, and internalization (Burnkrant & Cousineau, 1975). The level of compliance is the extent to which one is affected by the need to meet the demands of the group to which one belongs. The role of connection between the person and the other is advantageous to some element of the individual's self-concept during the identification stage, where one succumbs to influence in order to be recognizable to the other (Kelman, 1961; Tarrant *et al.,* 2006). Internalization level where people think that being part of a specific group enables them to accomplish their targeted objectives (Yi *et al.,* 2013). Private characteristics such as self-esteem, self-confidence, and induction are linked to the ability to influence others. Individual vulnerability to social influence varies, yet it is a common trait. A person's ability to influence in one scenario has a strong positive correlation with his or her ability to influence in a number of other social circumstances (McGuire, 1968; Heaney & Israel, 2008).

Social influence is categorized into two types, Normative and Informational Social Influences. The tendency to comply with the expectations of others is referred to as

normative influence. (Burnkrant & Cousineau, 1975; Yi & Heales, 2013). Normative social pressure requires individuals to appear to be following the group in such a way as to blend in. The normative influence could be either descriptive norms that look at what is generally done or injunctive norms that society says about what people are supposed to do. Compliance or identification processes can be used to achieve normative social influence (Burnkrant & Cousineau 1975; Yi, & Heales, 2013). When a person is driven to earn a reward or avoid a punishment administered by another, it is expected that they will submit to that other's influence. However, an individual will only cooperate if he believes his performance would be visible or known to the other party (Bearden *et al.*, 1989). If a person is motivated to develop or reinforce his self-concept, he is more likely to embrace the influence of a reference by associating with good referents and avoiding negative referents (Burnkrant & Cousineau1975; Yi & Heales, 2013). An individual would define himself by imitating his referents' behaviors and views.

Informational Social Influence is characterized as the propensity to accept knowledge from others as proof of fact (Deutsch & Gerard 1955; Filieri, 2015). This is because one is willing to comply with group norms due to uncertainty about how to act correctly. Given the level of uncertainty, individuals behave under social pressure to be right. Individuals can either ask their colleagues for information or develop inferences based on what they observe in others. Internalization is the method by which informational influence works (Burnkrant & Cousineau1975; Yi & Heales, 2013). If the information influenced by others appears to aid in the solution of a problem, the person will see it as expertise.

Family/parents are seen as significant agents of financial socialization in their children's behaviors (Jamal & Mohidin, 2016). This is because the function of parents

in affecting their children is considerably higher than that of formal schooling or job experience (Shim *et al.,* 2010). Family/parents mentor and nurture by providing advice to their children, thereby acquainting them with the required financial life abilities (Homan, 2016). Bucciol and Veronessi (2014) asserted that parental influence on children is efficient as it spreads from infancy through adulthood. In addition to parental socialization, peer influence exerts pressure on members of the same group. The more one gets information from the peers heavily influences their decisions since they want to be confirmed, accepted in the group. This is because some people respond to social influence while others remain unaffected most of the time (Janis, 1954; Yi *et al.,* 2013).

Parental indoctrination regarding the necessity of saving during childhood, according to Webley and Nyhus (2006), has an impact on children's financial behavior as grownups. According to Roberti (2014), parents typically have a massive impact in their family's consumer socialization on pertinent consumer concerns. This is due to the fact that parents are seen as the first financial educators (Firmansyah, 2014).

After parents, who play a key role and are a direct source of financial behaviors, Campenhout (2015) discovered that peers, followed by mass media and advertising, convey knowledge about consumption and the value of material items. According to Bursztyn *et al.* (2014), peer influence has a measurable impact on retirement savings decisions. After their parents, a peer is an individual that can positively or negatively influence the other partners' behavior. A multitude of factors influence people's saving habits, one of which is peer pressure. Peers with good saving habits may urge others to save, so motivating them to do so, but peers with bad saving habits may influence their peers to engage in negative saving practices, such as purchasing unnecessary products like phones.

2.4 Concept of Financial Literacy

Financial literacy has become a serious concern in the current society. It is the acquisition of financial information, skills, and abilities, as well as the ability to use them effectively (Lajuni *et al.*, 2018; Abebe *et al.*, 2016). Selvaraj and Johnson (2016) define it as the education one needs to acquire skills to help them make educated judgments and improve one's financial well-being whereas Lusardi & Mitchel (2014) define it as one's capacity to process economic data in order to make reasonable choices on financial preparing, wealth gathering, debt and pension management. It may also be characterized as having a thorough understanding of personal finance terms and concepts in need to effectively manage a person's finances (Garman & Forgue, 2002).

According to Anthes (2004), financial literacy is the ability to evaluate, comprehend, manage, and discuss on personal financial issues that are affect financial welfare, whereas Mahdzan and Tabiani (2013) define it as people's assets management in terms of insurance, investing, saving, and planning. Financial literacy is also described as the capacity to apply knowledge and skills to successfully manage financial assets for long-term financial well-being (Suwanaphan, 2013). It also refers to a skill that can help people make better decisions. Financial literacy entails basic numeracy skills, as well as understanding of budgeting and cash flow management, among other things, while working with limited financial resources (Abebe *et al.*, 2016). People who are economically literate are expected to understand fundamental economic notions such as interest rate, inflation rate, interest payments and risk (Sabri & Juen, 2014).

Financial literacy can also be described as one's comprehension and knowledge of financial ideas (Fox *et al.*, 2005). It is also described as expertise and abilities linked

to money management and may include the capacity to balance a cheque-book, handling of credit cards, preparation of budgets, taking out of loans and purchasing of insurance (Beverly & Burkhalter, 2005). Garman and Forgue (2006) indicated that financial knowledge is the knowledge of reality, values, beliefs and technical resources that are important for being smart about money. Financial literacy assesses a person's intellect to understand and apply financial planning knowledge to deal with significant economic issues that they may face in their daily life (Huston, 2010).This is feasible considering the abilities and capacity to handle financial resources efficiently as they cope with the daily financial difficulties (Kempson *et al.,* 2006). Therefore, financial literacy calls for the consciousness, action and normative influence of an individual towards an economic extent. That is, it can assist the young generation to make healthy economic decisions. Financial literacy also includes the capacity of an individual to comprehend economic concepts and interpret information. It is also conceptualized as people's ability to make the correct decisions when dealing with their resources (Ariffin *et al.,* 2017).

Financial literacy, according to Remund (2010) is more than a metric of understanding because it represents one's ability to actively handle one's own or personal finances. Gathergood, (2012); Jamal *et al.* (2015) posit that lack or limited financial knowledge renders one to experience financial burdens. This is due to the fact that people who are financially illiterate rarely plan and are less likely to invest, among other factors (Van Rooij *et al.,* 2007). One technique to enhance financial literacy is through financial knowledge (Lusardi, 2008; Ibrahim *et al.,* 2009). This is due to its ability to influence financial results such as investment and savings (Hilgert *et al.,* 2003).

Financial literacy is very central in enhancement and attaining a successful adult life (*Shim et al.,* 2010). However, Jamal *et al.* (2015) argue that financial information alone does not ensure a successful adult life, as it must be accompanied by positive attitudes and self-confidence in order for an individual to make an informed decision.

Financial literacy requires more than just giving advice and information about money. It is the ability to comprehend, track, and effectively use financial resources in order to improve an individuals', families' or business well-being and financial coverage. To develop financial planning or a financial landscape, financial awareness and basic financial abilities are required (Peeters *et al.,* 2018). Many scholars and researchers believe that those who are financially educated make better financial decisions. Financial literacy was measured in terms of financial knowledge, skills, and abilities (Alekam *et al.,* 2018).

2.5 Concept of Self-Control

Self-control refers to the ability to control one's instincts, emotions, desires, and actions in order to defend a critical goal (having a financially secure retirement) or resist a temptation (spending money on non-essential items). The act of managing oneself in situations where there is a clear trade-off between long-term goals and immediate pleasure is known as self-control (Bernheim *et al.,* 2015). Individuals' self-control abilities vary widely, and those with lower levels are less inclined to save for the future and more prone to succumb to immediate spending temptations (Thaler & Benartzi, 2004).Self-control issues are linked to poorer credit scores (Arya *et al.,* 2013).

Self-control, according to Wolfe and Higgins (2008), is described as a person's ability to consider a wide range of behavioral implications or their tendency to assess the

identification of probable outcomes of a specific act.Self-control, according to Kim and Park (2015), is described as a person's self-awareness of having control over events and ongoing events, as well as their perception of their ability to handle them. Self-control, according to Vitell *et al.* (2009) is conscious self-regulation that allows a person to act morally by overcoming an inclination to behave badly. The ability to stop harmful habits, resist temptations, and override early instincts are all examples of self-control (Fujita & Han 2009).

Self-control is the ability of one's future self to manage one's present self, while a lack of self-control causes people to behave in ineffective ways (Kaluzniacky, 2004). People's financial futures are determined by their ability to maintain self-control and make sound judgments now. People delay their goals and sometimes try to regulate their behavior by implementing strict restrictions and deadlines in order to be more efficient, but too strict deadlines can often lead to a loss of self-control, as these regulations may not be properly defined (Olusanya, 2016). Impulse control is required to display self-control and to assist people in doing virtuously (Lindner *et al.*, 2015).

Effectiveness in saving money is one of the aspects of life that may be greatly influenced by self-control, which could be a result of the ability to wait satisfaction. In their Behavioural Life Cycle Theory, Fudenberg and Levine (2006) assumed that self-control is one of the primary elements that influences saving behavior. Following empirical research verified this idea, demonstrating that adults and teenagers alike benefit from a high level of self-control when it comes to saving money (Hagger & Chatzisarantis, 2005). Self-control is a skill that develops naturally throughout one's life. As people get older, they shift from an antecedent behavioral orientation to a rule-based cognitive orientation (Cohen, 2018).

Self-control is definitely advantageous to one's behavior and general health. Several research have found that a person's level of self-control can predict their cognitive and self-regulatory abilities, as well as important outcomes like health and well-being later in life (Ent *et al*., 2015;Moffitt *et al.,* 2011). Moreover, having self-control is related to better grades and academic achievements (Tangney *et al.*, 2004; Duckworth & Gross, 2014), better quality interpersonal relationships (Vohs *et al.,* 2011), and basically, a happier life (Cheung *et al.,* 2014; Hofmann *et al.,* 2013). Low self-control, on the other hand, is associated with undesirable behaviors and outcomes such as impulse buying and financial debt (Baumeister, 2007; Gathergood, 2012), maladaptive eating patterns, and procrastination (Baumeister, 2007; Gathergood, 2012). Self-control has been dubbed a hallmark of adaptation" because of the strong link between it and a wide range of actions and results (De Ridder *et al.,* 2012).

According to Vitell *et al.* (2009), people with more self-control had a better psychological adaptation, experiencing less despair, anxiety, aggression, and fury. They also have better interpersonal relationships and a higher sense of self-worth. All of these attributes of self-control are logically linked to moral identity traits like friendliness, kindness, and helpfulness. Kim and Park (2015) agreed that a sense of control is essential for psychological adjustment and that it has been demonstrated to be the most important predictor of a person's ability to take activities that lead to a particular outcome. People who lack self-control are more likely to be tempted by the present, thus a sales presentation emphasizing instant satisfaction would be enticing and successful. Individuals with high levels of self-control, on the other hand, are more likely to purchase something because they believe in its long-term value and utility (Baumeister, 2002).

2.6 Theoretical Review

The research was underpinned by a number of theories that explain the impact of social influence, financial literacy, and self-control on saving behavior of micro and small businesses in Kampala, Uganda. The theories to be considered will include: Social Cognitive theory, Unified Theory of Behavior, Financial Trans-theoretical Model, Social Capital and Behavioral Life Cycle theories.

2.6.1 Social Cognitive Theory (SCT)

Bandura's Social Cognitive Theory is one of the most influential and widely accepted ideas in social psychology, with applications in a variety of domains, including behavioral finance (Bandura, 2005). In order to comprehend the process of cognitive learning, SCT highlights the continual reciprocal interaction of behavioural traits of individuals (cognitive) and environmental impacts (Bandura, 1989). The focus of the theory is primarily on observational learning (Bandura, 1989, 2002, 2009). Attentional processes, retention procedures, reproduction procedures, and motivational processes are the four connected components of observation and imitation.

Individuals pay attention to any action that they interpret exactly in order to duplicate it effectively, whereas preservation refers to the need to recall or preserve the pattern in order to use it again. Permanent memory stores information by means of a symbolic representation that can be converted into action. This process involves coding, cognitive rehearsal of information, and eventual conversion of modelled information for memory storage. The replication of the motor is when one may replicate what they have learned. Requires the conversion of depicted behaviors' visual and abstract representations into open behaviors. Immediate, vicarious, and self-produced experiences can all serve as motivators to take action (Zimmerman,

1989). However, replication is difficult and perhaps unreliable at first since a beginner must go through all of the stages necessary in making a decent swing. Lastly, motivation is becoming a key factor in the decision to use modelled actions.

Bandura (1977) hypothesis, learning according to social cognition theory, is an activity that occurs within a social text. Learning is a vicarious procedure, according to the notion, in which people learn implicitly as well as explicitly. Rather of relying only on direct instruction, people might learn through witnessing others. Okello *et al.* (2016) argued that humans learn mostly through observation of others. Both implicit and explicit learning have an impact on financial behavior, however implicit learning is more widespread (Shim *et al.*, 2009).

Individual behaviors are deduced from the modeling process, according to the original social cognitive theory (Bandura, 2014). The theory goes on to suggest that one's immediate social environment has an impact on one's actions because it molds the individual to fit into that social setting in a specific way. It highlights that people learn seeing other people (models) inside the social structure who they believe are reliable and competent. An individual connected to a certain group is forced to observe and mimic the behaviors of others in that group due to the desire to be attached to everyone else (Bandura, 1977). The social atmosphere of an individual consists of family, friends, neighborhood, and mass media, all of which apply social pressure and provide societal standards from which an individual can learn (Wills, 2015).

Social cognitive theory relies on tridaic reciprocal causation. According to this theory, people are motivated by exterior causes rather than internal causes. This concept proposes that the trio of interpersonal connections, personal experiences, and environmental influences can explain human nature. Individual variables include

impulses, wants, qualities, and other special motivating powers, whereas the environmental component represents the conditions and atmosphere in which an action is carried out. Positive characteristics that could be present during the behavioral modification process include consciousness, anticipation of outcomes, motivation, emotional maturity, and vicarious (Lown *et al.,* 2015).

The theory demonstrates that people can act as a result of their learning from other people's perspectives and experiences. Friends, neighbors, and media results may be part of the learning environment. In addition, Bandura (1999) discusses an individual's inborn ability to influence human behavior. Cognitive impact, such as awareness and capacities, he claims, are to blame for altering human conduct. This theory is particularly applicable to financial conduct, especially for micro and small business owners, since most individuals acquire their financial behavior from their family, friends, neighborhood, culture, and organizations. Relational learning is grounded on psychological, peer-to-peer, environmental, and socioeconomic factors, according to the theory (Chaulagain, 2019).

The four main pillars of the Social Cognitive theory are as follows: Symbolism Capability: This refers to a person's ability to understand and use symbols to aid in the storage and transformation of observable events into cognitive processes that guide future decisions and actions. Self-regulation is the ability of an individual to motivate oneself to attain specific goals by evaluating their own behaviors and acting accordingly. Self-regulation and self-direction are used to accomplish behavior in this way. The Capacity for Self-Reflection that entails a process of thought validation, in which people may examine their own thinking to make sure it's right. Individuals with Vicarious Capability can modify their abilities and knowledge to generate information that can be communicated through a variety of outlets, according to the notion.

Individuals can get insights into their own behaviors through vicariously experiencing the acts and consequences of others (Bandura, 1994).

The Social Cognitive Theory was used to examine the Social Influence and Financial Literacy study variables. According to social cognitive theory, one's behavior is influenced by a combination of other people's perceptions, the environment, and one's cognitive abilities (Bandura 1977, 1989, 1997).

Observation and other indirect factors affect much of the financial socialization that occurs in communities. Observation has been demonstrated to be a good means of learning in social systems such as the family. Parents are the primary role models, as they should be exemplary, and nurture their children's saving behavior. Parents are regarded as the primary teachers of their children's saving habits from childhood to adulthood, since they study and become acquainted with the proper practices (Jamal *et al.,* 2015).

Peer influence, which includes friends and colleagues, comes in second when it comes to influencing a person's conduct. Because of the desire and pressure to belong to a certain group, one is pushed to act and conform to the group's expectations, resulting in being molded to fit in. Most of the time, an individual's activities are forced by a desire to belong to a certain group, which is related with group pleasure (Bandura, 2014).

In terms of financial literacy, the theory suggests that literacy alone can have an impact on financial behavior (Chaulagain, 2017). Ameliawati and Setiyani (2018) stated that cognitive thinking has a role in managing people's financial decisions. According to the notion, one's financial experience pushes them to behave in a certain way based on their cognitive interpretation and their experiences. This experience,

whether favorable or negative, impacts one's understanding of what to do and what not to do with their money.

Since the Social Cognitive Theory does not precisely state how self-regulation affects achieving the intended saving behavior, it was therefore necessary to examine the usage of the Behavioral Life Cycle Hypothesis.

2.6.2 Behavioral Life Cycle Hypothesis

The BLC hypothesis, proposed by Shefrin and Thaler (1988), extends the normal life-cycle model by assuming that people view money as entirely fungible and that a foresighted person rationally arranges his or her lifetime consumption (Modigliani & Brumberg, 1954). The following are the four premises that this model is founded on: To begin with, it demonstrates how difficult it is for people to resist the need to spend, even when saving money is in their best interests. Second, it indicates that individuals create opportunities or constraints to aid in their financial savings. Third, such individuals divide their assets across multiple "mental accounts." The desire to spend resources is likely to differ by account. People divide their resources into three categories, according to Thaler (1990), current income, financial assets, and potential earnings. They are more prone to spend present income rather than future earnings. Fourth, Thaler (1990), BLCH claims that people lack self-control and hence cannot save, highlighting the importance of foresight in long-term planning (Kim & Hanna, 2017).

Shefrin and Thaler Behavioral Life-Cycle Theory (BLCT) promote self-control, mental accounting, and framing as a supplement to saving (Griesdorn *et al.,* 2014). In this study, self-control is defined as a way for lowering impulsivity as people are able to manage their immediate consumption activities. In order to gain self-control, three

aspects of inner conflict, temptation, and willpower must be explored. Self-control can only be achieved by making an effort in the present. Good habits must be developed in order to successfully deal with self-control challenges. The BCH enriches the tradition of life-cycle theory by integrating these aspects of inner conflict, temptation and willpower. The Life-Cycle Hypothesis (LCH) indicates that individuals will maximize life-time utility by smoothing consumption over their lifetime (Modigliani & Brumberg, 1954). Inner self-control conflict is described as a battle between desire and willpower. In this study, willpower refers to the long-term planner's efforts to restrain the myopic doer's activities. Willpower classifies the set of methods people use to conquer their own impatience (Hoch & Lowenstein, 1991).

BLCH fragments individuals into either a foresight planner or a myopic doer (Graham & Isaac, 2016). Individuals act as if a central strife exists between a "planner" who considers the future and a "doer" who is more concerned with the present. Furthermore, the BLC hypothesis states that people's financial conduct is influenced by their capacity to resist the desires and expenditures associated with self-control exercise throughout their lives. The ability to control one's impulses is critical for long-term success in a variety of fields (Strömbäck *et al.,* 2017). According to the behavioral life-cycle theory, mental accounts will be used to limit the distribution of particular types of revenue to specific types of activities (Graham & Isaac, 2016).

Wealth is thought to be divided into three mental accounts: present revenue, financial assets, and potential earnings. Mental accounting is often used to boost self-control (Griesdorn *et al.,* 2014). The practice of splitting assets into distinct classifications, each having a separate propensity to consume, is known as mental accounting (Griesdorn *et al.,* 2014). Assets can be mentally separated or physically separated, such as depositing money into distinct savings accounts or investment accounts. It is

linked with the strength of the will power of individuals. This strength keeps people from the temptation to consume and save, as some circumstances are more tempting than others.

Mental accounting, in which certain rules are written down to constrain future decisions, plays a significant part in resolving the dispute of the planner and the doer preference. However, these rules should have the following features; the habitual rule that calls for simplicity as complex responses are consciously guided, as opposed to the habitual responses that are subconsciously guided; the exceptions must be well defined and, finally, the rules must be dynamically stable.

Saving for the future can be more or less expensive depending on one's mental accounting and how money is classified. Because they are easier to spend, monthly salaries, for example, are more expensive to save than money set away for retirement. As far as framing is concerned, this is about how people's attitudes can change depending on how information is presented to them. How individuals think about saving and investing can determine their readiness to postpone consumption (Griesdorn *et al.*, 2014).

While the BLC theory impacts the perception of savings behavior, there is still a lack of studies about the degree to which it relates to certain forms of financial activity, going beyond savings behavior. Furthermore, BLCT is good at explaining what is going on but it cannot describe the underlying causes of a particular behavior.

2.6.3 The Unified Theory of Behavior (UTB)

The Unified Theory of Behavior (UTB) by Fishbein et al. (2001) had to be used in order to identify the fundamental behavioural determinants that are most receptive to change jointly in light of the different elements that have an impact on the behavior.

When assessing a person's propensity to participate in target behavior, UTB believes that there are 11 different linked categories of constructs that can be experimentally tested. According to UTB, an individual's behavior could be classified into two categories: those pertaining to immediate drivers of action, and those relating to willingness to engage in a specific behavior. The first dimension is concerned with a person's conduct, which is influenced by five things at the same time: (1) the person's willingness to take part in the activity in question; (2) if the person has the required knowledge, skills, and ability to act, (3) environmental constraints and the facilitator's ability to obstruct or facilitate behavior, (4) the importance attached to the behavior, and (5) previous behavioral experiences, also known as routine and automatic processes.

According to the UTB, an individual's decision to execute an activity does not always imply behavioral success, but rather serves as a forerunner to execution (Randall and Wolff 1994). As a result, the second dimension set of UTB elements that influence an individual's likelihood of engaging in actual behavioral activity is required. In this dimension, there are a variety of elements to consider: (1) behavioral attitudes (2) behavioral expectations (3) social pressures with respect to a behavior, (4) perception of how the behavior will impact what they plan to do (5) cognitive and mental responses to the possibility of the behavior, and (6) perceptions regarding a behavior. When these two dimensions of UTB are combined, they are proximal drivers of behavioral success, because any particular behavior is more likely to take place when all of the variables are all in their direction (Jaccard *et al*. 2002).

UTB-based approaches that discuss both the determinants of behavioral decisions and actual behavior are important to effect behavioral change. The relative positions of the factors in dimension one and dimension two influencing behavior vary by population,

behavior, and situation. In this study, social influence is a determinant for saving behavior, whereas financial literacy changes the behavioral attitudes that influence individual saving behavior.

Some of the traits found inside the UTB can be used to reflect saving behavior in this study. The financial literacy construct will reveal whether or not a person has the knowledge, skills, and ability to operate in the UTB's first dimension. Environmental constraints might include the social environment in which one lives, which can influence saving behavior in either a favorable or bad way, whereas the facilitating environment promotes positive saving behavior. Previous behavioral experiences can be explained by family financial experience in saving which in turn can be used in modelling others in into the same practice. The second dimension comprising of behavioral attitudes that are determined by both the social influence and financial literacy constructs. In this scenario, an individual's mindset could be influenced by their social groupings or their literacy levels. As a result, these have a favorable or negative influence on saving behavior. Behavioral expectations are explained by the self-control construct whereby individuals that had long run expectations exhibited self-control so as to achieve their desired future goals, which were only achievable through saving.

From the socialization perspective, social norms or pressure comprising of family, peer and school impact on the individual probability to engage in actual behavior (saving). A parent is assessed as to whether the parents are motivated to participate in the behavior. Attitudes toward the behavior: a person's motivation to save can be affected by their parents' awareness and interpretation of the need to save, as well as prior experiences with saving (Olin *et al.,* 2010). The UTB encourages the

identification of key mechanisms and underlying patterns relevant to adolescents, family and other social contextual variables that may affect behavior including family relationships and family self-efficacy, perceptions, and behavioral attributions (Olin *et al.*, 2010). The UTB framework helps parents become active change agents as they attempt to alter their children's behavior in order to reach specified goals. This model also provides a conceptual framework for evaluate the success of parental assistance in their children's conduct. Furthermore, social impact will be evaluated to see if other key individuals in their lives, such as their spouse and peers, are supportive of their behavior.

The cognitive and mental responses to behavioral ability will be assessed using financial literacy and self-control. This is true given a person's ability to employ mental capacity to select whether or not to engage in a certain activity (saving). Stimulus behavioral changes that either indicates events to come or indicate possible effects of reaction often rely heavily on cognitive and mental representations of contingencies. Therefore, cognition plays a role in behavior acquisition and control.

2.7 Empirical Review

This section examines the relevant literature from previous scholars on social influence, financial literacy, self-control, l saving behavior and control variables. The main focus is to determine what previous studies have reported on the relationship among the variables mentioned and the knowledge gaps that need to be addressed.

2.7.1 Social Influence and Saving Behavior

According to Mangleburg *et al.* (2004), social influence is defined as the degree to which a person's consciousness, reasoning, and conduct are influenced by family, friends, and colleagues," as cited in Zaihan (2016). Surprisingly, Jamal *et al.* (2015)

discovered that coworkers' influence has a substantial role in determining a person's saving capacity. Despite the fact that family members have instilled positive financial habits in their children. Zaihan (2016) discovered that individuals' saving behavior might be influenced by their peer group's participation in expenditure activities during quality time and addressing wealth management concerns

Individuals' financial behavior may be influenced by peer influence, according to Jamal *et al.* (2015). Peer pressure influences decision-making, according to Alwi *et al.* (2015). Furthermore, Laible *et al.* (2004) claim that an individual's behavior is learned via both active and passive contacts with friends. Furthermore, according to Ogonowski *et al.* (2014), individuals' opinions toward physical and social distance are most influenced by social influence from closer peers. In conjunction with familial concerns, peer pressure could affect individual's financing decisions, according to Jamal *et al.* (2015).

Peers play a crucial role in the socialization process from early infancy until puberty (Moschis & Churchill, 1978: Shim *et al.*, 2010). For a variety of purchase activities, the overall finding is that parental impact diminishes with age while peer impact increases (Gutter *et al.*, 2010). Other studies have found that, whereas parents have more influence during the information collection stage, friends have more influence during the product evaluation stage.

Materialist attitudes, which are impacted by poor family communication and chaotic home circumstances, are strongly linked to susceptibility to peer group influences. As a result, good financial dialogue between parents and their children will have an impact on the peer influence of their children. People may be increasingly influenced by their surroundings as they become older and spend more time with their peers,

resulting in increased peer influence (Wood *et al.*, 2004). Parental influence, explicit educational programs, and views of role models are all elements that influence an individual's option to wait pleasure (Webley & Nyhus, 2006). The financial socialization of college-aged young adults has repeatedly proved that their parents and classmates have an impact on their financial decisions (Lyons, 2007; Palmer *et al.*, 2001; Pinto *et al.*, 2005). Erskine *et al.* (2006) investigated the predictors of young people's saving behavior.

The study, which took place in Toronto, Canada, involved a total of 1806 young Canadians aged 12 to 24. Based on economic theories of time preference and psychological theories of adolescent crowds, they predicted that groups with a rising individual or educational dimension would be more patient and likely to save money, while groups with an elevated peer-oriented dimension would be less patient and less likely to save money. Individuals' saving behavior is influenced by peer influence as a result of the findings.

Peer influence was found to be relevant in retirement savings decisions (Duflo & Saez, 2004). Individual data from big college staff split into 358 departments with 12,172 employees was used in the study, which took place in the United States. The purpose of this study was to look into the influence of knowledge and social interaction in choosing a retirement strategy. According to the research, people in the same group share a common environment that influences their behavior. This is due to the fact that persons with similar tastes are more likely to be in the same social group. Both of these elements influenced their saving habits by contributing to the creation of a link between group and individual behavior.

Beshears *et al.* (2010) also conducted a field experiment in the United States with 15,000 employees from 500 industrial businesses. Employees who contributed to the company retirement savings plan and employees who did not contribute to the plan were classified into two groups. They discovered that peer influence has just a minor impact on retirement saving behavior, as it only motivates a tiny percentage of coworkers to engage in the retirement savings program.

According to several research, parents' deliberate training and improvement acts can have a direct and indirect impact on their family's financial knowledge and behavior (Drentea & Lavrakas, 2000; Hayhoe *et al.*, 2000; Lyons *et al.*, 2006). Parents tend to play a significant impact in their children's consumer socialization and in teaching them about reasonable consumer behavior. Other consumer-related attitudes and abilities appear to be passed on from parents to their children. Parental influences on their children's shopping decisions vary depending on the product, decision-making stage, and consumer characteristics (Lyons *et al.*, 2006).

The family, according to Danes (1994), serves as "the fundamental agent of financial socialization" and "the framework within which children learn about money facts, attitudes, values and procedures." According to Danes' research, 69.5 % believe their children under the age of nine would be willing to receive an allowance, while 63.9 % believe the same age group would be willing to open a savings account. Nearly a third of parents said that children aged 9 to 11 could assist in budgeting and that youngsters aged 12 to 14 should be aware of their family's living expenses, according to the study.

According to Hira (1997), the significant socializing agents were families as they had a powerful impact on respondents' monetary attitudes and beliefs. According to

Firmansyah (2014), children inherit their parents' views and behavior, which can forecast long term financial management decisions. Parents teach their children about money in both direct and indirect ways. Furthermore, over 68 percent of adults admitted getting financial information from their parents, according to Lyons (2007). Bowen (2002) discovered a relationship between adolescent and parent financial literacy. According to the third annual back-to-school survey conducted by Capital One Financial Corporation in 2003, 87 percent of people seek financial guidance from their parents. Parents have been the only socializing agent with a significant link with credit card use. The more knowledge parents give their children on proper credit card usage and misuse, the lower their credit card balances will be (Palmer *et al.,* 2001; Pinto *et al.,* 2005).

One could speculate that there is an intergenerational link between parents' and children's attitudes regarding money, as parents may try to instill specific values and life skills in their offspring. The significance of financial education in training children and young adults for a complex economic and financial world, as well as financial literacy among young adults, is a contentious issue (Lusardi & Mitchell, 2014). The intergenerational link between such abilities and attitudes, on the other hand, has received little attention. An intergenerational link between financial literacy cognitive ability and non-cognitive abilities like financial attitudes and risk-taking could explain this correlation. “Savings options are sophisticated, requiring customers to have extensive financial awareness and information,” assert Lusardi and Mitchell (2007). As a result, parents who are financially literate may wish to teach these abilities in their children in order to prepare them for future financial management.

Children and young adults learn about money primarily from their parents. Mandell (2008), for example, claims that parents are their children's primary source of

financial information. Savings behavior can be improved depending on the circumstances. Grinstein-Weiss *et al.* (2011) found that adults who got relatively high levels of money management education from their parents as children had lower credit card debt and higher credit ratings as adults in a sample of low and moderate-income households. Recent educational study has identified a large positive intergenerational relationship in educational attainment, which has important implications for future income and wealth development (Black & Devereux, 2011).

According to Becker (1991), children's attitudes and conduct are greatly influenced by their parents' beliefs and behaviors, with early childhood experiences shaping their preferences. Furthermore, Knowles and Postlewaite (2004) claim that parents devote a large amount of time, effort, and money to influencing their children's preferences. Using data from the United States of America, the researcher discovered that parents' saving activity influences their adult children's saving activity.

Webley and Nyhus (2006) examined the roles of parental behavior in influencing their children's financial behavior in a previous study. The data show that parental behavior and orientation have a minor but discernible impact on their children's financial behavior and adulthood. The study included 690 Dutch individuals, including 191 spouses and 308 children between the ages of 16 and 21. In this study, a household survey was used, which provided thorough information on financial behavior as well as various psychological concepts of parents and children.

Otto (2009) provided empirical proof that parents can assist their children in developing saving abilities. The goal of the study was to find out how parents might help their children improve their saving capacity and competence when they enter

adolescence. This study comprised 446 students aged 13 to 14 years old from Devon, England.

Furnham (1999) ran a poll to find out how people save and spend their money. The study enlisted the participation of 158 male and 122 female British children and adolescents from the South East of England. The participants were asked to complete a questionnaire, and the results revealed that the majority of children and teenagers' saving behavior was influenced by parental demands and expectations.

Cronqvist and Siegel (2015) published a study on the impact of parents on their children's spending habits. Investigate the origins of saving behavior using data from Swedish twins aged 20 to 65. According to the findings, genetic differences account for around 33% of the diversity in people's inclination to save. Parenting has been found to have an impact on young people's savings rates, but the effect fades over time. According to Shim *et al.* (2010), because financial conduct learnt as a kid is carried over into adulthood, the importance of parents in predicting young adult behavior is significantly greater than that of work experience and high school financial education. Furthermore, societal and familial factors influence financial behavior before children are formally schooled, thus parental financial training is more likely to be appropriate and effective than general financial education (Batty *et al.*, 2015). Caruana (2003) backed up this claim by claiming that the most essential socialization agents are parents. The Family Systems Theory and the Theory of Planned Behavior both support the premise that parents have an impact on their children's financial behavior. An individual's conduct is influenced by behavioral intentions produced by attitudes, subjective norms, and perceived control, according to the Theory of Planned Behavior (Ajzen, 1991). Because children are prone to imitate some of their parents' actions, parents have an impact on their children's

attitudes regarding certain actions. Furthermore, youngsters are under pressure from their parents to act a specific manner.

Finally, because they have control over their children's spending, parents influence perceived control. Parents are claimed to have an influence on their children's behavioural intentions. The greater the desire to engage in behavior, according to Ajzen (1991), the more probable it will be displayed. According to the Family Systems Theory, parents have an impact on their children's conduct. The notion is based on systems theory, which asserts that the behaviors of members of the same group (system) are connected (Churchman & Churchman, 1968). In terms of homes, this means that the activities of family members have an impact on the entire family's behavior (Moore & Asay, 2013). As a result, the Family Systems Theory advocates the idea that parents' actions (such as spending monitoring or providing counsel) have an impact on their children's behavior.

There is a link between parents and their children's future saving and borrowing behavior, according to previous study. Furthermore, parental financial education increases a person's willingness to save by 16 percent and their savings by roughly 30 percent, according to Bucciol and Veronesi (2014), while Norvilitis and MacLean (2010) discovered that fathers have an impact on their children's borrowing behavior as adults. According to Bayer *et al.* (2009), acquiring financial education as frequently as feasible has the greatest impact on financial behavior. Employees who attend more seminars have better financial conduct, according to the experts. As a result, it's reasonable to expect that more parental financial education will result in significant changes in their children's saving and borrowing habits. At different ages, parents can teach their children about money: Financial education from parents can begin as early as childhood and continue through puberty. There has been minimal

research on the ideal ages for children to get parental financial education; nonetheless, prolonged financial education is likely the best, since children are exposed to the benefits of parental financial teaching on a more frequent basis, resulting in a more lasting effect. Furthermore, some financial matters are too difficult to discuss at a young age and should be postponed. However, starting financial education too late can result in the development of hazardous practices. As a result, providing financial counsel to parents during childhood will help children achieve the best results. This is consistent with Bucciol and Veronesi (2014) findings which imply that training them during childhood and adolescence is the most effective strategy to influence people's saving behavior.

Webley and Nyhus (2006) discovered that children's attitudes on money are influenced by their parents' strategies. As a result, when children observe specific behaviors in their parents (for example, careful money management), they are expected to imitate them; nevertheless, they may also display contradictory behavior, such as turning away from their parents. Even in this scenario, parents' role models have an impact on their children's future saving behavior. According to the researcher, persons whose parents discuss household financial matters with them have a stronger future orientation and the ability to limit spending, resulting in larger saves. Bucciol and Veronesi (2014) observed that having parental advice leads to increase saving tendency and amounts, but Norvilitis and MacLean (2010) observed that teaching children how to manage their allowances and bank accounts led to lower rates of credit card debt in college.

In terms of personal finance, colleges, according to Batty *et al.* (2015), are unable to fill the role of parents. As a result, parents have a considerable impact on habit formation. Managing a source of income, for example, is a habit that can be

developed as early as childhood. Spending money immediately or saving money for the future are two examples of behaviors. Parents can influence their children's habit formation by tracking their spending patterns and encouraging them to adopt particular behaviors in order to avoid the formation of undesirable habits. Because childhood habits are likely to persist into adulthood, parents can affect their children's saving and borrowing behaviors through their role in shaping their habits.

According to Ashby *et al.* (2011), accepting responsibility for financial decisions leads to the development of economic skills. Because financial decision-making independence develops both financial decision-making and economic skills in children, future saving and borrowing behavior is expected to be influenced. According to Otto (2013), children and teens' saving capacity and readiness develop not only through social learning (i.e., role model observation) and direct education, but also as a result of both (such as explanations and advice on expenditure and saving pocket money or allowances).

Savings-related abilities and attitudes were linked to parental actions, resulting in higher self-efficacy beliefs, better self-control policies, and more independent financial conduct. Parental instruction, according to Bucciol and Veronesi (2014), is more effective, especially when many teaching techniques are combined. Savings should be instilled in children and adolescents as early as possible. Controlling private spending, leading and debating family financial concerns, and providing guidance boosts children's future savings propensity. Webley and Nyhus (2013) carried out two investigations in the Netherlands and Norway to better understand the financial socialization of European young adults.

The future orientation of young adults is influenced by parental budgeting and motivational training. Individuals who were provided incentives were more likely to save than spend, to have a more optimistic outlook for the future, to be more careful, and to save more. Financial socialization behaviors were unaffected by parental wealth or education, according to Norwegian research. There was no link between parental behavior and income or education. Children had piggy banks and could deposit money into savings accounts. Because they received pocket money, they were more likely to hold bank accounts.

Individuals' saving actions are influenced by the school environment, in addition to friends and parents. One's financial conduct is influenced by the educational climate to which one is / was exposed. This environment is made up of input from both student and teacher connections, allowing people to control their behaviors, particularly in financial problems. This is more noticeable in a school setting. Individuals can develop a saving habit and a life-saving character in the school setting, allowing them to better plan for their future (Ningsih & Widiyanto, 2018). School is a place where students grow their knowledge, attitudes, and behaviors in order to improve their lives. Economic classes provide saving lessons that increase one's awareness of the significance of saving by training self-control toward what one needs rather than what one wants (Akben-Selcuk, 2015). Teachers provide both financial and economic education by offering a grasp of finance and economic themes, revealing the individual's financial knowledge and hence their ability to manage their expenditures in accordance with the teachers' instruction. With regards to the literature above, it is proposed for social influence to positively affect saving behavior thus;

H_{o1}: Social Influence does not have a significant effect on Saving Behavior.

2.7.2 Financial Literacy and Saving Behavior

There is a variety of research on the effect financial literacy on people's savings behavior in both advanced and emerging economies (Cole & Fernando, 2008; Bandiera *et al.,* 2010). Recently, scholars in wealthy countries have begun to research the savings habits of children and teenagers (Lu¨hrmann *et al.,* 2012; Otto *et al.,* 2006; Sherraden *et al.,* 2009). Moreover, a number of organizations have begun to expand curriculum aimed at children and adolescents (Xu & Zia, 2012).

According to excellent research arguing the impact of financial literacy on financial decision or behavior, financial illiteracy has been recognized as the cause of portfolio under diversification (Guiso & Jappelli, 2008), insufficient stock involvement (Van Rooij *et al.,* 2011), unpreparedness for life after retirement (Lusardi & Mitchell, 2007), accumulation of wealth (Van Rooij *et al.,* 2011), Inappropriate financial practices (Robb & Woodyard, 2011), financial management practices that are unreasonable (Perry & Morris, 2005; Ludlum *et al.,* 2012), bad investment choices (Al-Tamimi & Bin Kalli, 2009).

According to Lusardi and Mitchell (2007), financially illiterate families are much less likely to save for retirement and build wealth. Furthermore, financial illiteracy is a factor in low inventory involvement, according to Van Rooij *et al.* (2011). To put it another way, persons with less financial expertise are far less likely to invest in the stock market, which is considered a dangerous investment by the literature. These people lack the financial understanding they need to profit from financial markets and diversify their investments (Guiso & Jappelli, 2008).

According to Aren and Aydemir (2015), financial literacy has a positive association with individual return expectations and risk demand. People's expectations for

rewards and hazards rise as their financial literacy improves. The researcher observed that businesses and non-businesspeople have a considerable disparity in financial literacy. Business people appear to have a higher level of financial literacy than non-businesspeople, according to the research. When opposed to non-business beings, it is critical that a human with sufficient financial literacy in business displays proper saving and investment tendencies (Ansong & Gyensare, 2012).

Financial literacy has a considerable impact on risk management, savings, and investment according to Awais *et al.* (2016).This is evidenced by the fact that financially literate people have a higher risk tolerance, which leads them to choose riskier investment instruments. People who are financially literate are more likely to choose riskier investments in order to make more money. Financial knowledge can help assess risk diversification, which can lead to more appropriate judgments. Financially literate people, according to Wong *et al.* (2016) display acceptable financial conduct by making less risky financial decisions. Young people who have a real risk assessment and risk-taking capability are risk-averse when they lack financial and economic expertise.

Individual stakeholders with low financial literacy, according to Kubilay and Bayrakdaroglu (2016), struggle to make prudent financial decisions. The same was demonstrated by Chen and Volpe (1998) in their study on students in United States. It has been suggested that learners are susceptible to make inappropriate decisions due to their lack of financial literacy. According to Ibrahim *et al.* (2009), prospective investors, particularly those between the ages of 21 and 24, lack economic understanding and inadequate money management skills. The study also found that the most important thing is to improve people's financial literacy, for example, by incorporating educational investing programs or activities such as budgeting, saving,

investment, and insurance into their learning system for university students. It has therefore stated the significance of financial literacy, which will affect prospective investors' investment decisions

Financial literacy is regarded as a necessary part of someone's life, without which one may face money issues (Ariffin *et al.,* 2017). It's about how people spend their money, such as paying bills right away, making well-planned budgets, keeping track of them, and saving habits. The financial attitude, or an individual's perspective on financial planning and the proclivity to save and spend money, is known to influence saving behavior (Alekam *et al.,* 2018). Financial literacy is influenced by financial learning since it improves financial comprehension in the short and long term, increasing the probability of making sound financial decisions like saving (Kalwij *et al.,* 2017). Financial literacy can be acquired through financial lectures and workshops, conferences, and financial classes integrated into curriculums (Satsios & Hadjidakis, 2018). This information aids in the making of informed decisions and the promotion of personal well-being. Financial literacy has been found to be a significant factor in explaining saving habits. Additionally, admitting that people lack financial knowledge and do not save for future leads to blunders (Delafrooz & Paim, 2011). Moreover, the study discovered that financial literacy increases the likelihood of saving for retirement, and that people who plan to retire have more money than those who do not (Khan& Abdullah, 2010).

Individuals are hampered by a lack of awareness of financial concerns, according to research on financial knowledge among people (Chen & Volpe, 2002; Ibrahim *et al.,* 2009; Lusardi *et al.,* 2010; Mandell, 2009). Financial knowledge, on the other hand, has been recognized as a vital component in modifying financial behavior and enhancing personal financial well-being for persons with no prior financial

experience. The evidence for a connection between financial knowledge and financial behavior is contradictory, with differing results depending on how financial knowledge was measured, which behaviors were examined, and which populations were researched (Peng *et al.*, 2004; Mandell, 2007). People who completed a basic financial course, according to Peng *et al.* (2007), had greater savings rates after completing the course. According to Chen and Volpe (1998), an individual's degree of financial awareness forms their opinions and influences their financial judgments. The scientists' research was one of the first to show a fragile link between knowledge and actions of college students. In a hypothetical scenario, People with higher financial capability concentrations were much more likely to make outstanding economic choices (Chen & Volpe, 1998).

Financial literacy has been a source of concern for academics and policymakers alike. People are becoming more accountable for their retirement plans and more interested in them. Why is it so hard these days to distribute extra assets from individuals to suitable investment vehicles these days? This toughness may have developed as a result of their confusion with these complicated and combinatorial goods or services). This appears to be especially true for those who are naïve (Van Rooij *et al.*, 2011). It is observed that large proportions of families are uninformed with the fundamental economic ideas, and that this profound illiteracy makes making prudent financial decisions difficult (Lusardi & Mitchell, 2007).

It is advised that financial literacy be applied to risk perceptions and investing decisions. Financial knowledge improves confidence, which fosters the desire to take risks when investing. Chen and Volpe (1998) found that those who were severely financially illiterate were more likely to make unrealistic decisions about their finances.

There is a wealth of literature on the factors that influence financial literacy. It is common knowledge that demographics are linked to financial knowledge. Females, those with less work experience, and those under the age of 30 had a higher level of financial literacy, according to Chen and Volpe (1998). Lusardi *et al.* (2010) discovered that women are less financially literate than men, and that mental ability and education can help improve literacy; also, people who work in banking and finance, as well as those who have a lot of money and education, are more literate (Al-Tamimi & Bin Kalli, 2009). In contrary to these findings, Ludlum *et al.* (2012) discovered that financial literacy differs by gender and thus by marital status.

Financial literacy has been found to have an impact on capital accumulation in previous studies (Lusardi & Mitchell, 2007), saving and investment decisions (Hilgert *et al.*, 2003), stock (Van Rooij *et al.*, 2011) or money market participation (Müller & Weber, 2010), debt (Lusardi & Tufano, 2009), mortgage refinance ownership (Müller and Weber, 2010), debt (Lusardi & Tufano, 2009), debt ((Smith *et al.*, 2011) and individual budgeting (Sharahbani, 2012), credit management (Hilgert *et al.*, 2003), and credit card debt (Hilgert *et al.*, 2003). (Ludlum *et al.*, 2012).

In Malaysia, Delafrooz and Laily (2011) investigated the impact of financial literacy on saving behavior. Self-administered questionnaires were distributed to 2246 government and private-sector personnel using a quantitative technique. Results indicated that Money management has a substantial impact on saving conduct.

The findings of Hilgert *et al.* (2003) were found to be similar to previous studies. Using secondary data from the University of Michigan's 2001 Monthly Consumer Surveys, the researchers analyzed the relationship between household knowledge and behavior in the United States. For the study, telephone interviews were conducted

with 1004 residents from around the state. The researchers observed a significant correlation between financial awareness and saving behavior. According to the study, households with higher financial scores had higher saving index scores. As a result, the researchers concluded that having a better understanding of money leads to improved saving behaviors.

Furthermore, financial literacy has a positive and significant impact on learners' saving behavior, according to Sabri and MacDonald (2010). 3850 students from 11 Malaysian universities were surveyed, with 350 students from each of the selected universities receiving questionnaires at random. Individuals with a greater understanding of personal economics are more likely to save properly, according to the findings of this study. Financial literacy has recently gotten a lot of attention from scholars because it's one of the most important variables in financial growth and development (World Bank, 2009). Several studies have demonstrated that financial literacy has a positive impact on purchase behavior. Individuals who have a better understanding of finances are more likely to use financial products and services, as well as manage their cash flow, save, and invest (Hogarth *et al.*, 2003; Hogarth & Hilgert, 2002). Students who participated in a high school financial education program increased their saving habits and had a higher net worth as adults, according to Bernheim *et al.* (2001). Financial literacy has also been shown to have a favorable impact on adult behavioral intention in a number of studies (Fry *et al.*, 2008; Meier & Sprenger, 2008). Financial planning, on the other hand, does not appear to enhance financial literacy, according to other studies (Mandell & Klein, 2009). Financial literacy influences economic decision, and a lack of basic financial concepts is likely to lead to an absence of sufficient planning and subsequent behavior, hence it is hypothesized that Financial Literacy has a substantial impact on Saving Behavior;

H_{o2}: Financial Literacy does not have a significant effect on Saving Behavior

2.7.3 Self-Control and Saving Behavior

Self-control is described the capacity to perceive and regulate one's own wants and feelings. Consciousness includes the ability to defer gratification, the exertion of willpower, and self-discipline. It is the ability to change dominant reaction patterns in order to manage behavior, thoughts, and emotions (de Ridder *et al.,* 2012). People with more self-control have better financial habits and are better able to handle their money. They get the most out of what they have. They do not squander money on useless items or pursuits. Because self-control leads to intelligent decisions and higher financial well-being, people with high self-control have been and continue to be world leaders for many years. Households who follow a set of saving guidelines save more money than those who lack self-control. People with cognitive abilities always manage their funds to meet predetermined objectives and budgeted expenditure.

People with greater consciousness are more likely to attain their objectives and excel in a variety of domains (de Ridder *et al.,* 2012). Liu (2014) looked at the impacts of professional financial advice (PFA) and and self-control on savings, finding that self-control has a positive and significant association with total annual savings, financial assets, and emergency funds.

Kim and Hanna (2017) looked at how self-control mechanisms affected saving behavior. The study discovered that having one or more saving rules boosts the likelihood of saving, however having a family or children as a saving objective weaken the benefits. However, it is unclear whether the self-control measures revealed in previous studies provide practical approaches to boost the likelihood of saving.

Wong (2013) looked into people's saving habits and goals. When the investigator's son reached university age, he realized that his savings tactics improved. In other words, people are less receptive to controlling and managing their costs, and they have fewer saving habits. Individuals in college age, on the other hand, had a stronger savings habit, budgeting and monitoring their expenditure more frequently. They also have greater money management skills and banking options, allowing them to better manage their financial flow.

Esenvalde (2011) discovered that self-control and achievement desire are positively connected with saving behavior in a study on the impact of self-control, attainment drive, positivity, and burnout on saving behavior. Rha, *et al.* (2006) investigated the link between saving behavior and self-control power mechanisms. The study discovered that the mechanism of self-control power has a significant impact on household saving behavior, causing households to exercise self-control. Households with savings rules spend less of their income than those that do not. Zaihan (2016) looked on the impact of self-control on saving habits. According to the study, self-control has a significant and favorable impact on saving behavior. Rha *et al.* (2006) examined the effect of psychological factors on saving behavior, specifically the role of self-control. The researchers examined data from the 1998 Survey of Consumer Finances (SCF) and found that people who were driven to save were more likely to do so. Households with saving standards were likewise shown to be more inclined to save than those without.

People with low self-reported self-control are more likely to engage in compulsive shopping, while people with self-control issues in the financial domain are more likely to experience credit withdrawals and unforeseen expenses on durables, resulting in over-indebtedness, according to Achtziger *et al.* (2015). Saving behaviors

have been proven to be influenced by self-control. Biljanovska and Palligkinis (2018) found that households with poor self-control accumulate less wealth due to a lack of planning, monitoring, or dedication, and Choi *et al.* (2011) discovered that people with poor self-control save less for pension.

Haushofer and Fehr (2014) discovered a link between self-control and higher earnings. Self-control abilities have been identified as one of the most critical internal factors that can influence an individual's financial decisions (Otto 2013; Trzciska & Goszczyska 2018).

Moffitt *et al.* (2011) studied nine distinct elements of self-control in children in New Zealand, including impulsive aggressiveness and hyperactivity. Individuals who had demonstrated good self-control as youngsters had better overall health, an upper income level, were much more likely to be homeowners and have pension schemes at 32, and were less likely to have committed an offence.

Personal control, parental influence, peer pressure, and financial awareness are all elements that influence young people's savings practices, according to Thung *et al.* (2012). Financial education, parental upbringing, peer relationship, and consciousness are all factors that influence people's saving habits, according to Priya (2016). Putri *et al.* (2017) claim that those who are confident in their ability to manage themselves and behave successfully might avoid peculiar connections. In this scenario, one of them is through instilling a culture-saving habit and a life-saving character in individuals with the goal of better preparing them for the future.

Self-control has a favorable impact on saving behavior, according to Esenvalde (2010). Personal finance necessitates a focused and disciplined lifestyle, as well as self-awareness and the ability to adjust to changes. According to Sirine and Utami

(2016), Self-control has a positive and significant impact on people's savings behavior. Schmidt *et al.* (2010) claimed that persons who practice self-control frequently have greater and more positive motivation and can save more money than those who have never practiced it (Lim, 2011).

The relationship between self-control, financial literacy, financial behavior, and financial wellness was investigated by Younas *et al.* (2019) in Pakistan, a study of 416 persons from educational institutions, corporate sectors, and food courts was performed to experimentally assess the influence of self-control and financial literacy on financial behavior and well-being. Financial literacy and self-control improve one's financial well-being. The researchers came to the conclusion that financial well-being was influenced by self-control and financial literacy. The direct impact of financial literacy on financial well-being was shown to be significant, but the impact of self-control on financial well-being was found to be minor. Financial behavior had a higher impact on financial well-being than financial knowledge and self-control combined.

Stromback *et al.* (2017) conducted study on how self-control forecasts financial health in the Swedish population and discovered that the behavioral life cycle influences not just saves behavior, but also general financial behaviors. Lusardi (2008) investigated whether people with poor financial literacy were well educated about savings and retirement planning in a conference paper. Due to a lack of information and financial expertise, people who lack financial literacy are unable to make reasonable judgments. Consumer indebtedness is positively connected with a lack of self-control and financial ignorance (Gathergood, 2012).

In a longitudinal study conducted by Duckworth and Seligman (2005), eighth-grade students were either to self-report their self-control or take an Aptitude exam. Self-control outperformed IQ in predicting final grades, high school achievement, class attendance, and hours completing homework.

Rha *et al.* (2006) examined data from a study of a diverse American population to see if self-control measures like saving objectives, expected discretionary spending, and saving rules make families with these rules more likely to save than homes without these rules, and if similar saving aims improve the likelihood of saving. Ballinger *et al.* (2011), on the other hand, discovered in trials that when cognitive abilities such as working memory are taken into consideration, neither self-control nor four forms of impulsive behavior effect savings behavior. As a result, there has been no conclusive evidence of a link between self-control and financial behavior.

Miotto and Parente (2015) investigated how poor money management affects human qualities such as self-control and the ability to plan for the future using mixed methods. According to the study, people with more self-control and a propensity to prepare for the future are also better at managing their resources, showing that consciousness has a significant impact on saving behavior;

H_{o3}: Self-Control does not have a significant effect on Saving Behavior.

2.7.4 Social Influence and Financial Literacy

Social influence is the communal power exerted by socializing agents of the family, friends, colleges, religion, the media, among others, on the actions of others (Campenhout, 2015). These socialization agents affect individuals' financial learning procedures, particularly during their early growth stages (Jorgensen, 2007). Understanding these socialization agents can help you enhance your financial literacy

and behavior as a result of it. Internal and external variables are both aspects that influence an individual's financial literacy. Internal variables consist of the individual's traits that form their saving potential. External factors are those outside one's setting that compel one to act in a certain manner, some of which include socio-economic influences such as economic experiences (Mandell, 2011),economic training (Peng, *et al.* 2011) among others.

In this research, family and friends are an external element that has a substantial impact on financial literacy among people who need economic knowledge to make sound financial decisions. Individual financial literacy is shaped in large part by the influence of parents and peers. Financial literacy is primarily focused with long-term wealth creation, financial planning, and better financial decision-making. Parents can influence their children's financial literacy by educating and modeling proper financial behavior from an early age, which has a higher impact on understanding financial challenges than peer influence.

According to Jorgensen (2007) and Alekam *et al.* (2018) parenting style has a considerable impact on children's comprehension, attitudes, and financial behavior. Furthermore, from an early age, family/parents affect their children's financial literacy by teaching and setting a positive example in financial matters (Clarke *et al.*, 2005). According to Shim *et al.* (2009, 2010), parental financial education and early money experience have a bigger impact on their children's financial awareness than high school financial education. Consequently, their influence on financial concerns is larger than that of their peers. Danes and Hira (2013) asserted that if children were first mentored in financial concerns by their guardians beginning at home, they would be financially trained even before attending college to pursue study programs related to Financial Literacy. Parents teach their children about money through focused

instruction, positive reinforcement, observation, and engagement, among other methods.

A child's level of awareness, attitudes, and future financial conduct are all influenced by the family structure (Jorgensen, 2007; Jorgensen, & Savla, 2010). In this regard, factors such as the head of household's educational level and financial experience, as well as the family's size, have a substantial impact on their children's financial knowledge (Mandell 2008).

Other research has shown that children's spending habits can be affected largely if they learn to be consumers from their parents. Children acquire the fundamentals of money management from their parents, according to Cohen and Nelson (2011), and adapt to spend money sensibly.

According to Lyons *et al.* (2006), 76.7 % of high school students get financial information from their parents. This involvement of the family increases the attitudes, values, understanding, and eventual behavior of these children (Allen *et al.,* 2007). Parents influence their children's socialization not only through planned, clear instruction, modeling, and training, but also indirectly via daily family events and interactions, which influence financial behavior, awareness, and capacity growth (Gudmunson & Danes, 2011).

Individuals, on the other hand, can mingle outside of their homes (Lusardi & Mitchell, 2014). Peer influence has an impact on financial awareness by influencing both the bad and positive attitudes of the Y generation (Ogonowski *et al.,* 2014). Individuals can discuss financial difficulties with one another through amicable interaction, thus enhancing their literacy levels (Ameliawati & Setiyani, 2018).

Lusardi *et al.* (2010) explored the long-term impact of high school peer factors on financial literacy and discovered that students with a larger proportion of friends aiming to pursue higher education had a better understanding of inflation and risk sharing. According to a Malaysian study on the impact of family, peer, and saving and spending behavior on financial literacy among the younger generations, Alekam *et al.* (2018) discovered that financial literacy among young generations was influenced by family / parental and peer influences.

The mass media has an impact on how people socialize. Television, radio, newspapers, and the internet, among other kinds of mass media, have a big influence on how people behave. Individuals are exposed to financial information through the media, which has an impact on their attitudes. According to Kim (2011), 33 percent of learners used social media and the internet to analyze financial information, consequently increasing their level of literacy. Colleges, particularly those that provide economics that can influence their consumption-related attitudes, abilities, and behaviors, are other elements that affect an individual's financial literacy (Senevirathne & Silva, 2016). The researchers went on to say that religion was one of the most socially influential institutions, influencing an individual's attitudes, beliefs, and actions on both a personal and a collective level. As a result of this research, it is hypothesized that social influence has a considerable favorable impact on financial literacy hence;

H_{o4}: Social Influence does not have a significant effect on Financial Literacy

2.7.5 Mediating role of Financial Literacy

Financial literacy was used as a mediator in many studies, such as Ameliawati and Setiyani (2018), who discovered that financial socialization had a positive impact on

financial management behavior. Financial education, according to Xiao and Porto (2017) had an impact on financial contentment, a subjective measure of financial well-being through financial literacy. Son and Park (2019) conceptualized the mediation role of Financial Literacy across socioeconomic classes in Korea. Financial literacy acted as a link between financial education and healthy personal finance among Korea's high and middle-income stratum, according to their findings. As a result, in this study, Financial Literacy was utilized as a conduit between social effect and savings behavior among micro and small business owners in Kampala, Uganda.

2.7.5.1 Relationship between Social Influence, Financial Literacy and Saving Behavior

Family and friends have a tremendous impact on financial literacy and, as a result, awareness of money management, particularly among younger generations. Social interaction of family, peers, work, media and financial literacy are needed (Hanson & Olson, 2018). It is this socialization that first affects learning, which in turn affects learning outcomes that later shape financial attitude, and both consequently affect financial behavior (Shim *et al.*, 2009, 2010; Grohmann, 2018). Financial literacy is primarily anchored on financial planning, the continued accumulation of riches, and better economic decision-making. Individuals do, however, tend to become financially illiterate as a result of personal concerns and a lack of awareness. These circumstances trigger an insufficient understanding of financial dealings among individuals and leave them with inappropriate decisions.

In Brazil, Bruhn *et al.* (2013) used a randomized control experiment to examine a financial literacy curriculum in 868 schools with around 20,000 high school students aged 15 to 17. The program lasted 17 months and was included into the regular school curriculum. Positive benefits were discovered, including improved financial

understanding, increased purchase savings, improved financial planning, and more individual involvement in household financial decisions.

Jamison *et al.* (2014) studied 240 youth groups in Uganda. Using a randomized controlled trial, the researchers wanted to see if financial education, access to low-cost group savings accounts, or both would help people become more financially aware and save. Despite administrative data indicating that education plus account therapy raised bank savings more than account-only therapy, survey data demonstrated that savings and earned income increased at almost the same pace in both treatment arms.

Karlan and Linden (2014) looked studied the effects of a cash treatment, a voucher treatment for educational expenses, and a parent outreach program in 136 Ugandan primary schools, with 3,838 people participating in baseline and end line assessments. The most striking finding was that combining the cash treatment (weaker commitment) with a parent outreach effort enhanced program account savings.

Berry *et al.* (2015) assessed an Aflatoun program in Ghana. They tested 5,363 youngsters aged 9 to 14 years in a randomized controlled experiment. The children who got Aflatoun's social and financial literacy training, as well as the Honest Money Box (HMB) program, which focused primarily on the financial part of the Aflatoun program, were compared to children who did not get any program. Both programs, according to the study, had a favorable impact on learners' savings behavior 9 months later, owing to the fact that they moved their savings from home to college.

By seeking to impart excellent conduct in their children, parents constantly influence them to make better decisions and learn about money. The literature on financial socialization supports the relevance of financial education and family communication. According to various studies, the impact of family via any other socialization agent

outweighs the impact of financial socialization. However, many of these studies focus on the effects of parental instruction on teenagers or young adults, and as a result, their behavior is not duplicated later in life (Servon & Kaestner 2008).

Variables associated to financial decision-making and risk attitudes were connected to children's education and familial background. According to studies, changes in enforcement of existing regulations that improve parental education result in greater risk tolerance (Hryshko *et al.*, 2011). Dohmen *et al.* (2011) discovered that risk and trust attitudes are passed down from one generation to the next. Cesarini *et al.* (2010) estimated that genetic variation in financial decision-making accounted for around 25% of the risk. Parental education isn't always believed to be a part of financial socialization, but research distinguishes between the impact of parents' conscious learning and the overall impact of parents' traits on their children (Gudmunson & Danes, 2011).

In terms of financial behavior, Webley and Nyhus (2006, 2013) show that parental instruction, such as empowering students to invest and teaching budgeting, has a significant impact on young adults aged 18 to 32 years' potential focus and savings levels. Nyhus and Webley (2013) discovered that parenting style has a considerable impact on children's money orientation when they looked at parenting more broadly. According to Kim et al. (2015), parental teaching tactics including shopping with children and talking about money influence financial socialization by modulating parenting styles (the way parents educate their children).

According to Bucciol and Veronesi (2014), every type of parental training acquired as a child (self-reported and recollected) has a beneficial impact on adult saves behavior (from 18 to 80 years old). When it comes to varied parental teaching tactics, the

researcher determined that "the more the better." Hira *et al.* (2013) further show that financial socialization of parents is positively correlated with household net wealth and a proclivity to invest regularly. Parental instruction has a beneficial direct impact on savings, according to Webley & Nyhus (2006, 2013) and Bucciol & Veronesi (2014).

Kim and Jang (2014) found that parental support and impact lead to improved consciousness and a lesser inclination for materialism in young individuals. According to Bucciol and Veronesi (2014), telling children that they should save money increases their willingness to save by 16 percent. The encouragement of parents would help their children develop good habits. In addition, according to Firmansyah (2014), children inherit their parents' attitudes and behaviors, which might predict the types of financial decisions and management they would do in the future.

Padilla-Walker *et al.* (2012), on the other hand, discovered that parental influences can affect children's financial stability and independence. Karunaanithy *et al.* (2017) examined the factors affecting individual saving behavior in Sri Lanka's war-torn north and east. The psychological variables that influenced saving behavior were parental socialization, peer influence, financial awareness, and self-control. Parental socialization, peer influence, and financial knowledge all explained 31.5 %, 10%, and 6.5 % of the variation in saving behavior, respectively.

Jamal *et al.* (2015) investigated the saving habits of university students in Kota Kinabalu, Sabah. Family participation, followed by financial knowledge and peer impact, were the most essential elements in encouraging learners to save, according to the data. Learners' participation in spending operations, leisure time, and discussions

with peers about financial management issues all had an impact on their savings behavior. The child's future prospects were also influenced by strong family relationships.

Furthermore, learning at school makes one understand financial content in such a way that a person has good knowledge of financial literacy, which in turn affects one's saving habits. The social setting in which a person lives may influence their financial literacy ultimately suggesting that financial literacy plays a mediating role between social influence and saving behavior;

> **Ho_5:** Financial Literacy does not mediate the relationship between Social Influence and Saving Behavior.

2.7.6 Moderating role of Self-Control

Self-control was already studied extensively in terms of the moderating influence. Mobarake *et al.* (2017), for example, discovered that self-control considerably moderated the connection between peer attachment and abusive conduct in a study undertaken in Tehran, Iran. Furthermore, Mackenbach *et al.* (2019) discovered that consciousness moderated the relationship between eating environment exposure and obesity, with low self-control limiting people's ability to resist temptations in their local food environment. The intended saving behavior cannot be justified by financial literacy alone; one must also exercise self-control to support it. Additionally, a person's social environment may have an impact on their behavior, therefore managing this influence requires the application of self-control. It is on this basis that self- control was utilized as a moderator in establishing if it sped up or slowed down the association between social influence and saving behavior, as well as the

connection between financial literacy and saving behavior, among micro and small business owners in Kampala, Uganda.

2.7.6.1 Moderating effect of Self-Control on relationship between Financial Literacy and Saving Behavior

Financial success is influenced by both self-control and financial understanding. In a number of research, self-control has been connected to financial behavior and consequences. Research by Letkiewicz (2012), simultaneously considered financial literacy and personality frameworks for forecasting financial results. The study looked at whether there was a reasonable relationship between financial literacy and self-control, as well as the effect on financial conduct. On the positive side, people who have a strong sense of self-control appear to plan and save more for retirement. However, any lack of self-control could have financial consequences. While there is evidence that both financial literacy and self-control are linked to financial outcomes, it is unknown whether the two are linked, whether one may predominate over the other, or whether they are both important but distinct elements in predicting financial outcomes.

Gathergood (2011) investigated the association between self-control, financial literacy, and over-indebtedness using a questionnaire from a representative sample of UK families with consumer debt. Poor financial behavior, such as non-payment of consumer credit and self-reported excessive debt burdens, has been linked to a lack of financial knowledge and self-control. Besides, the researcher argued that self-control played a stronger role than financial literacy in explaining financial behavior such as consumer over-indebtedness.

The majority of research focuses on the effects of cognitive characteristics like financial literacy and mathematical ability on financial behavior, with less attention paid to non-cognitive aspects like self-control and other specific concepts like deliberativeness (Strömbäck *et al.,* 2017). Many previous studies looked at financial literacy and self-control on a stand-alone basis or even assessed their impacts on financial behavior paving the way for bias. Future research should focus on the cognitive and non-cognitive capacities that influence people's conduct and consequent well-being, according to Strömbäck *et al.* (2017). Strömbäck *et al.* (2017) employed models to predict financial outcomes that took both financial literacy and self-control into consideration. Increasing people's financial literacy (knowing financial principles and knowing how to use financial instruments) was seen as a strategy to ensure ethical financial behavior, such as debt prevention throughout time. In the long run, this facilitated the introduction of psychological variables such as self-control, which were more crucial in assuring correct financial behavior, as a lack of self-control, since the lack of it led to one having debt and remain in debt (Achtziger *et al.,* 2015).

Topa *et al.* (2018) found that financial education programs only explained 0.1 percent of the variation in financial behavior when psychological and social factors were taken into consideration, indicating that financial literacy is less likely to impact financial behavior. This study aimed to close the gap by using an individual psychosocial approach to determine the impact of financial literacy on financial behavior (savings) as conditioned by self-control, inferring that self-control moderates the association between financial literacy and saving behavior thus;

> **H_{o6}**: Self-Control does not moderate the relationship between Financial Literacy and Saving Behavior.

2.7.6.2 Moderating role of Self-Control on the association between Social Influence and Saving Behavior

One of the most powerful components linked with individual behavior is social impact, which serves as a training ground for conduct. This is accomplished through altering attitudes, motivations, and rationalizations that encourage a specific behavior and, as a result, give possibilities for specific behaviors. Self-control contributes to behavior beyond the power of family, peer implying that it is a relevant moderator in behavioral studies. In Western countries, peer relationships have been shown to influence behavior, and there is a strong connection between social interaction, self-control, and actions. For example, a study by Mobarake *et al.* (2017) found a deeper connection between adolescent peer membership and antisocial conduct. His conclusion was based on the fact that a lack of self-control was closely linked to a wide range of dangerous behaviors and deviant behavioral disorders. People who lack self-control frequently make poor peer choices, which leads to inappropriate behavior. Peers who lack self-control are more prone to make rash judgments, indulge in dangerous behavior, and be exposed to immoral groups on a regular basis, all of which increase their risk of antisocial behavior.

Franken *et al.* (2017) investigated the impact of self-control in the spread of externalizing behavior in early adolescence using longitudinal social network analysis. Furthermore, a number of studies have looked into the potential moderating effect of self-control on the urge to imitate peers' outsourcing behavior, with the majority of the studies focusing on the inconsistent consequence of delinquency. Research suggests that higher self-control has been linked to a lesser risk of behavioral adaptation based on the wrong peers (Gardner *et al.*, 2008).

Adolescents demonstrated in several studies to imitate their peers' outsourcing behaviors. They not only chose peers that have antisocial conduct, drug use, and cigarette use in common with them, but they also adjust their behavior to make them more similar (Burk e*t al.,* 2012). Nonetheless, numerous studies yielded inconclusive or non-significant results, showing that additional variables are required to fully describe the formation of friendship and aggressive behaviors. Not that all teenagers are equally susceptible to peer influence (Brechwald & Prinstein 2011), it's important to take into account factors like pre-existing personality—specifically, individual self-control that may influence the likelihood of regulating peers' conduct.

Classroom (school) environment affects saving behavior via self-control where a better school atmosphere leads to better self-control and therefore better saving behavior. Friends in the school environment are also responsible for strong and effective interactions due to similar needs, which either have a positive or negative impact on saving behavior. Friends' opinions and preferences can influence a person's lifestyle, including their desire to save. This highlights how important self-control is for people to consider before behaving (Ningsih & Widiyanto, 2018). Individuals with strong self-discipline prefer to exercise control over their financial spending and are more likely to improve their financial management skills by raising their savings target. Schmeichel *et al.* (2010) also argued that people who often practice self-control have stronger and more optimistic motivation than people who never train self-control, while those who rarely train self-control tend to be unable to control their behavior.

Self-control, on the other hand, might explain any increase in externalizing activity that occurs independently of colleagues' exhibiting behavior, and the effects of friends who participate in externalizing activity could even decrease when self-control

deteriorates. Following basic correlations of self-control with exacerbating behavior and self-control with perverted friends, a moderating function for self-control was hypothesized (Franken *et al.,* 2017). The researchers also established that actual self and friendship were also found to be crucial variables in the formation of an external conduct, implying that self-control would then moderate the connection between social influence and saving behavior henceforth,

> **H_{o7}**: Self-Control does not moderate the connection between Social Influence and Saving Behavior.

2.8 Gaps in Literature Reviewed

The majority of research, such as one by Asare *et al.* (2018) looked at saving behavior at the household level rather than at an individual perspective. In addition, Gladstone (2018) focused on direct effects in a study on Psychological Traits and Domestic Saving Behavior across UK households. Personality variables were considered to have a distinct impact on saving behavior based on socio-demographic groupings, with lower-income and lower-wealth groups being a better predictor of financial behavior than higher-income and higher-wealth groups. In addition to extending beyond the direct impacts and including other viable interactions of the mediator (Financial Literacy) and moderator (Self-Control), this study used an Individual Psychological Approach in explaining Saving Behavior of micro and small enterprises owners in Kampala.

Ruefenacht *et al.* (2015) investigated the Drivers of Protracted Saving Behavior from the Customers' Perspective using an online survey of German savers. In addition, structural equation modeling was utilized to determine the impact of the social context and individual attitudes toward long-term saving by consumers. The current study was

conducted in Uganda using primary data and Multiple Regression analysis to examine the correlations between the study variables using both an Individual Psychological Approach and a Personal Behavioral Finance Perspective.

Morgan and Trinh (2019) used both Linear Probability and Probit Estimation in their study on the Causes and Effect of Financial Literacy in Cambodia and Vietnam. As per their findings, financial literacy had a significant link with saving behavior. Furthermore, the researchers found that, despite several efforts to increase financial literacy, literacy levels in developing nations remained low, affecting financial behaviors such as saving. Multiple Regression Analysis was used in this study, and the dependent variable (saving behavior) was viewed as a Continuous Variable rather than a Binary Variable in addition to incorporating self-control to strengthen the relationship between SI and SB (See appendix 1) The study was anchored on the gaps that have been identified in the literature. In order to fill these gaps, this study proposed a Moderation effect of self-control on the link between Social Influence, Financial Literacy, and Saving Behavior among micro and small business owners in Kampala, Uganda.

2.9 Control Variables

The control variables in this study were chosen based on past research, as there has been a strong link between demographic traits and savings in multiple empirical investigations. Age, gender, education level, marital status, income level, business form and location were all used as control variables in this study.

For the case of age, this would indicate the age range of the different respondents and, in particular, which age demonstrated a good saving behavior, and vice versa (Dzomonda & Fatoki, 2018). A study by Henager and Mauldin (2015) showed a

positive relationship between age and savings as savings were seen to increase with age.

As both men and women are able to work in MSEs and have the opportunity to share their knowledge, the results of the MSE owner analysis are likely to be more valuable in terms of saving behavior. The analysis of gender would show the number of males or females that engaged in MSE operations and which sex showed the appropriate saving behavior (Dzomonda & Fatoki, 2018). Muriithi (2016) established gender as a key factor in the maintenance of an individual behavior and that males had higher savings than females. The same was posited by Henager and Mauldin (2015), where women saved less than men. This was contrasted in a study by Njenga *et al.* (2018) in which females were had significant saving levels than males.

Education is a significant determinant of financial conduct. The more one is educated, the more they attain skills to be good savers (Muriithi, 2016). Rha *et al.* (2006) also discovered that families with a college diploma (or advanced degree) were far less inclined to save than families with only a high school degree. Dzomonda and Fatoki (2018) established that participants with degree or graduate degrees seemed to comprehend financial management concepts better than those with matric or under-qualifications hence education was used as a control variable in this study.

A person's marital status has an impact on his or her ability to save. According to Kostakis (2012), married consumers save less, whereas unmarried consumers have a favorable and significant relationship with savings.

An increase in individual savings is positively related to income and lifespan earnings. This means that those who earned showed more responsible behavior in financial management, considering that their available funds allow them to act

responsibly. According to Perry and Morris (2005); Delafrooz *et al.* (2011), people with higher wages were more likely to participate in financial mechanisms, such as saving money. The same was claimed by Bhabha *et al.* (2014), were the most important factor in influencing saving behavior was income. Ahmad *et al.* (2006) also found that in Pakistan, per capita income increase had a considerable positive impact on household saving rates. Faridi and Bashir (2010), found that individual saving capacity grew with income level rise in the Multan region of Pakistan. Suman and Sabat (2012) found that an investor's income was linked to his or her saving goal, and that as income fluctuated, so did the share of saves (Isidore & Christie., 2019). According to Abid and Afridi (2010), locality had a beneficial effect on household saving behavior in Muzaffarabad District. This was feasible since people's savings would increase if they moved from urban to rural areas.

The study was directed by the above control variables to demonstrate variations in descriptive statistics while testing various hypotheses.

2.10 Conceptual Framework

The conceptual framework is a visual depiction of the proposed study. Based on the thorough literature review, content, context and methodological gaps were identified which the study intends to fill using the proposed conceptual frame work.This conceptual framework‘s main objective’s to examine the effect of social influence, financial literacy and self-control on saving behaviour among micro and small enterprise owners. As illustrated in figure 2.1, this study aims to examine three direct hypotheses as well as four indirect assumptions.

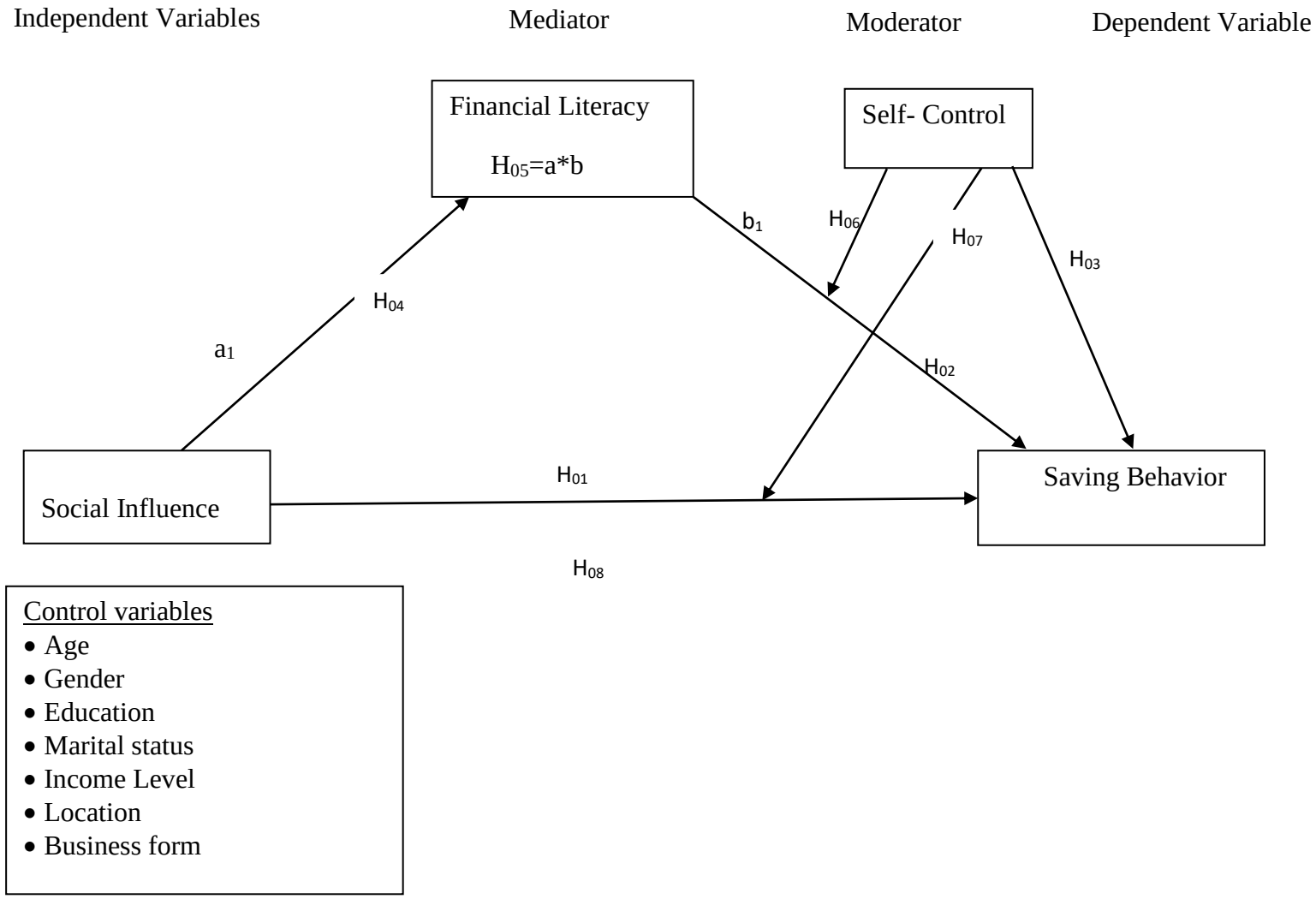

Figure 2.1: Conceptual Framework

Source: (Model 15 adopted and modified from Hayes, 2013)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

The philosophical paradigm, research design, study area, target population, sample size, unit of analysis, sampling process, data collection methods, operationalization and measurement of variables, validity and reliability of research instruments, data collection procedures, data analysis technique, and ethical considerations are all highlighted in this section.

3.2 Philosophical Paradigm

This research used a positivism paradigm that emphasizes the ontology of objectivism and is more concerned with the explanation of what causes what, as opposed to the subjective interpretivism, that primarily focuses on the exploration of factors under distinct conditions (Jwara & Hoque, 2018; Saunders *et al.*, 2007). Saunders *et al.* (2009) points out that the paradigm of positivism includes observations of the social reality from which generalization can be created. A positivistic paradigm recognizes the independence of the researcher from the subject matter as well as his freedom of value (Aliyu, 2017). This approach follows a general-specific rationale for explaining social reality through the development and testing of theories or hypotheses using quantitative techniques. The results obtained under the deductive method were used either to support or reject the application of a constructed theory or model to describe and predict the empirical world. This study was extremely quantitative, objective, and used a deductive methodology as primary data was collected utilizing a structured questionnaire in addition to the problem question based on the existing theory (Jwara & Hoque, 2018).

3.3 Research Design

The researchers used an explanatory research approach based on the causal-effect relationship (Hair *et al.,* 2013). This approach, according to Cooper and Schindler (2000) focuses on why questions. The study was interested in creating causal explanations in order to answer the "why" questions. The target respondents provided cross-sectional quantitative data on the time perspective. This is where information regarding a phenomenon is gathered at a specific moment. The cross-sectional research design has a number of advantages, including the capacity to obtain data that is sufficiently robust for this study as well as the ability to gather a large volumes of information in a timely and cost-effective manner (Creswell, 2014). The impact of social influence, financial literacy, and self-control on saving behavior were also explained and conclusions drawn using descriptive and quantitative study models. This is due to the fact that quantitative data allows a researcher to acquire a greater sample size in a shorter amount of time (Jwara & Hoque, 2018). Furthermore, the quantitative approach allowed the researcher to do the descriptive and inferential statistical analyses required to test the hypotheses and extrapolate the findings to the estimated population (Saunders *et al.,* 2009). The quantitative design was chosen since it was closely related to the study research aims and was used to examine the hypotheses as to whether saving behavior was influenced by social influence, financial literacy, and self-control.

3.4 Study Area

MSMEs make up a significant portion of Uganda's business sector, and they are a key factor of economic development, innovation, and creating jobs. Over 1.5 million micro and small firms, accounting for roughly 90% of all Ugandan businesses, are concentrated in urban areas, with Kampala accounting for more than 80%. The

Kampala Central Division is divided into 20 administrative units, including Bukesa, Civic Centre, Industrial Area, Kagugube, Kamwokya, Kisenyi, Kololo, Mengo, Nakasero, Nakivubo, and Old Kampala. This study adopted MSE definition by the Uganda Investment Authority where a micro enterprise employed up to four people and had annual sales/revenue turnover or total assets of less than ten million Uganda shillings, while a small enterprise employed five to 49 people and had total assets between ten million Uganda shillings though not more than 100million.

MSEs in Kampala operate informally (jua kali) just like in other urban areas in developing countries (Lloyd-Jones & Redin, 2017). Kampala, the central business hub of Uganda was chosen as the study area. This is because it is densely populated with MSEs, which are constantly forming here but are unable to persist for long periods of time (BoU, 2016). The MSEs in this region operate in various fields of small business, such as restaurants and food processing, metal fabrication and welding, retail and wholesale trade, garages, furniture assembling, and market vendors among others. Despite having potentiality for business growth most of micro and small businesses have been shut down before the year of operation due to poor savings culture and lack of training in the relevant business areas (Otieno, 2016). Moreover, their informal nature renders them inaccessible to credit finance, and the high cost of credit risk collateral renders them incapable of sourcing for finance (Nangoli *et al.*, 2013; MTIC, 2015).

MSEs in Uganda need to grow and compete globally. Capital is required for MSEs to acquire and use new technology, as well as to expand to global markets and create business connections with major businesses. Capital seems to be the hindrance and the key to it all. Because of the above, savings are an alternative source of finance particularly for micro-businesses with restricted credit access as they can be taken

back to business to enhance growth, while at the same time improving their credit status with financial institutions, thus allowing access to expansion funds (Abebe *et al.*, 2016).

3.5 Target Population

The target population consisted of micro and small businesses that were properly registered with both the Uganda Bureau of Statistics (UBOS) and the Kampala Capital City Authority (KCCA), either as a single undertaking or as an association (group) of the selected administrative units within Kampala's central division. A list of registered MSEs in the Central Division's administrative units was acquired from UBOS. The Central Division's MSE registry included 51,225 MSEs, with 46,270 of them registered in the division's selected administrative units. The few administrative units not selected were mostly residential areas and were rare with MSEs. Accordingly, this study used the following selected administrative units as presented in Table 3.1.

Table 3.1: Target population

Administrative Unit	Business category	Population(N)
Nakasero	Micro	11,910
	Small	1,511
Nakivubo	Micro	6,903
	Small	614
Kamwokya	Micro	1,522
	Small	230
Kisenyi	Micro	16,134
	Small	537
Industrial area	Micro	950
	Small	2,715
Civic Centre	Micro	2,335
	Small	909
TOTAL		46,270

Source: Survey data, UBOS (2019)

3.6 Sample Design

This section discusses how the sample was chosen and how it was drawn from the study population.

3.6.1 Sample Size

Ample sample size is required by a large body of research, with conclusions that may be applied to the population from which the sample was taken. As a result, sample size is an important aspect of the research (Sink & Mvududu, 2010). The size of the sample was calculated using Taro Yamane's formula of 1967, with a significance level of 0.048 (Yamane, 1973). The margin of error for this study sample was 0.048%. According to Krejcie and Morgan (1970), continuous data with a margin of error of 3% to 5% is acceptable, thus 0.048 was used to guarantee that the sample size was adequate.

Formula: $n=N/ 1+N (e^2)$

Where, n=sample size

N=the population size

e=level of precision (0.048 significance level, assumed)

Total sample size (n) = $46,270/ (1+46,270 (0.048^2) = 430$

To obtain the sample size for the selected business stratum, Neyman stratum allocation sample formula was applied. This method ensured an objective and proportionate representation of each administrative unit as indicated in table 3.2.

$n_h= (N_h/N) n$

Where, n_h represents the sample size of the stratum h

N_h is the population size of the stratum h

N represents the total population

n is the sample size for the study population

Table 3.2: Sample Size

Administrative Unit	Business category	Population(N)	Allocation	Sample size(n)	n^{th} term
Nakasero	Micro	11,910	(11,910/46,270)*430	111	107
	Small	1,511	(1,511/46,270)*430	14	108
Nakivubo	Micro	6,903	(6,903/46,270)*430	64	108
	Small	614	(614/46,270)*430	6	102
Kamwokya	Micro	1,522	(1,522/46,270)*430	14	109
	Small	230	(230/46,270)*430	2	115
Kisenyi	Micro	16,134	(16,134/46,270)*430	150	117
	Small	537	(537/46,270)*430	5	108
Industrial area	Micro	950	(950/46,270)*430	9	106
	Small	2,715	(2,715/46,270)*430	25	109
Civic Centre	Micro	2,335	(2,335/46,270)*430	22	106
	Small	909	(909/46,270)*430	8	114
TOTAL		46,270		430	

Source: Researcher (2019)

3.6.2 Sampling Procedure

A sample is a representation of a population that is taken to determine the population's reality (Field, 2005). Samples are utilized for a variety of purposes, including decreasing the investigator's workload and obtaining precise results that may be utilized to establish conclusions and recommendations. The researcher had a target population, sample size, and proper sampling method that ensured that a good sample was acquired. The sample is always adequate to reflect the same features of the population as a whole when standard procedures are followed (Zikmund *et al.*, 2013). The number of registered MSEs in each of the administrative units within Kampala Central Division was used to generate the working population from which the sample was drawn in this study.

The unit of analysis is a major entity that frames what is being investigated in any specific study and the unit of observation is the sub-set of the unit of analysis **(**Trochim**,** 2006). The unit of analysis in this research was a single micro and small enterprise whereas the owner/manager formed the unit of observation. This was based

on the assumption that they were more informed about the study variables from an individualistic point of view.

The researcher employed a multi-stage sampling procedure to generate a sufficient study sample. Using an updated business register from UBOS, the researcher initially geographically aggregated MSEs based on the location of selected administrative units within the Kampala Central division. Clustering was used to group respondents into groups that were as similar as possible (Fünfgeld & Wang, 2009). The researcher spatially aggregated MSEs based on lower end (grade two) administrative units to create the sampling frame from which the sample was selected. Twenty (20) administrative units were aggregated under the Kampala Central division, with varying concentration of micro and small businesses. MSEs that were not growing and those located in residential areas were removed from the twenty administrative units, leaving only six administrative units: Nakivubo, Kamwokya, Kisenyi, Nakasero, Industrial Area, and Civic Centre.

The researcher further stratified the administrative units into micro and small businesses, from which samples were gathered, to avoid sampling bias. For every administrative unit, proportionate sampling was also done. Additionally, a simple random selection was employed to choose the final respondent due to the informal character and wide distribution of these businesses around the country. MSEs that had partners or were run by a family were identified, and the names of those co-owners were written on pieces of paper, folded, and placed in a container, which was then shaken, and one piece of paper was randomly selected as the survey respondent.

3.7 Data Types and Sources

This study relied on primary data, which was gained directly from micro and small business owners. Primary data guarantees that the investigator obtains a true perspective, up-to-date information that is precise in responding to the hypotheses (Saunders *et al.,* 2009; Kamarudin *et al.,* 2018). As recommended by Saunders *et al.* (2007), the researcher used a structured questionnaire to gather data. The use of questionnaires was appropriate since they did not necessitate a high level of competence nor were delicate enough to obtain responses from a wide range of individuals in a short period of time (Jankowicz, 2005). Furthermore, because participants were prepared to fill out the surveys independently without interference from the investigator, the responses received were exceptionally accurate, and they were also less expensive in terms of money (Hair *et al.,* 2013).

There were two sections to the questionnaire: A and B. The demographic information of the respondents was collected in Section A, while data on the factors of research was collected in Section B. The questionnaire in addition included closed-ended questions. Closed-ended questions provided the respondents with a list of answers, any of which was to be chosen. Because the 7-point Likert item was more likely to reflect the respondent's real subjective opinion of the usability questionnaire item than the 5-point Likert item scale, this research was based on a 7-point scale rather than a 5-point scale. Also, this scale improves the response rate and the quality of response. According to Finstad (2010), the 7-point item surpassed not just the objective accuracy but also is perceived for correctness and simplicity of use. This scale helps the researcher in determining the amount of agreement or disagreement amongst the respondents on the research questions pertaining to a certain construct. The 7 points Likert scale was categorized as follows: 7 -“Strongly agree”, 6-“Moderately agree”,

5-“Slightly agree”, 4-“Neutral (neither agree nor disagree)”, 3-“Slightly disagree”, 2-“Moderately disagree and 1-“Strongly Disagree”.

In order to ensure an effective response, the researcher and her research assistants clearly defined the possible responses for each scale of measurement. To minimize bias and obtain data that could be statistically analysed, the researcher ensured that the questions were properly structured and focused.

3.7.1 Data Collection Procedure

The questionnaires were distributed to respondents by four research assistants who were business graduate students with experience in research study methodologies and projects. In addition to the general research approach, they were instructed on the data collection process, which included how to demonstrate respect and maintain courteous when administering questionnaires to respondents. The study questionnaires were kept short to increase response rates and ensure that answers were correct. The research assistants were taught on how to insist on submitting questionnaires to the targeted participants and on ensuring quick feedback, including the exchange of contact information for follow-up. Continuous follow-up on the answers was provided by research assistants, who physically spent their day delivering the questionnaires and collecting the finished questionnaires. An introductory letter was attached, stating the reason for the need for information and requesting that all questions were addressed.

3.8 Measurement of Variables

There are four scales of measurement: nominal, ordinal, interval and ratio scales. To ensure uniformity in the responses gathered, a 7-likert measurement scale was employed. The measurements were changed or even adopted depending on the setting

of the research, and the constructs under examination were operationalized using previous studies (previous literature) as a guide (Ibrahim, 2018).

3.8.1 Saving Behavior

The researcher used and adapted measures from Chowa & Despard (2014), Dangol & Maharjan (2018), Ariffin *et al.* (2017), and Delafooz & Paim (2011) to measure saving behavior. The respondents' responses that best represented their Saving Behavior were rated using a seven-point Likert scale. The three components of saving behavior are goals, consistency, and attitude. Saving Behavior was assessed using a 9-item scale ranging from 7-Strongly Agree, indicating a respondent's ability to practice appropriate Saving Behavior, to 1-Strongly Disagree, indicating a respondent's inability to practice appropriate Saving Behavior.

3.8.2 Social Influence

Social influence was measured according to Dangol and Maharjan (2018), Hanachi (2005), Dinc and Budic (2016), and Kim *et al.* (2019). The researcher used the 7-Likert scale to determine this, with 7 indicating a high impact of Social Influence on the respondent and 1 indicating a low impact of Social Influence on the respondent. A total of ten measurement items were used to assess Social Influence. For example, SI was examined by asking people how much they believed their closest friends, family, or coworkers supported them to do something (Dinc & Budic 2016).

3.8.3 Financial Literacy

Financial literacy was quantified by modifying and adapting Sebstad *et al.* (2006), Schagenand Lines (1996), Atkinson and Messy (2012), and Ariffin *et al.* (2017) measurements. Eleven (11) items were adapted to measure Financial Literacy using the 7-Likert scale, with 7-Strongly Agree indicating a high level of Financial Literacy

and 1-Strongly Disagree indicating a low level of Financial Literacy. Among the questions were: I have a better understanding of personal money management, I have a better understanding of how to regulate my credit utilization, and I have a very clear idea of my future financial expectations.

3.8.4 Self- Control

The measurement items for self-control were adapted from Lindner *et al.,* (2015); Strömbäck *et al.,* (2017) and Lindner *et al.,* (2017). The research included ten (ten) measurement items based on the 7-Likert scale, with responses ranging from 7-Strongly Agree to 1-Strongly Disagree, indicating high self-control and low self-control, respectively. To name a few, the questions measuring self-control included: I'm good at resisting temptation, I do things that feel good at the time but that I later regret, I have more self-discipline, and I have a hard time quitting bad habits.

3.8.5 Control (Demographic) Variables

The control (confounding) variable is a variable that is kept constant throughout the experiment in order to observe the effects of other variables. It is frequently a variable that has a large impact on the experiment. As a result, it is vital to reduce the impact of confounding variables so that the relationship between the major components under inquiry is not affected. Control variables of this study included; age, gender, level of income, education level, marital status, income level, location and business form. Age was measured using seven categories and coded as; (1), 15 – 20 years (2), 21 – 25 years (3) 26 – 30 years (4) 31-35 (5)36-40 (6) 41-45 and (7) above45. Gender was coded where 1 if male and 2 if female. The marital status was measured where 1 indicated married and 2 indicated unmarried 3 if one was divorced,4 in case one was a widow and 5 for one that was a widower. Level of education was measured by six categories that ranged from primary level, secondary level, tertiary level,

undergraduate, postgraduate and none. The same applied to income level that ranged from, below (Ushs) 200, 000; 200,001-400,000; 400,001-700,000 and above 700,000. Location on the other hand was coded with (1) representing Nakasero, (2) for Nakivubo, (3) was for Kamwokya, (4) Kisenyi, (5)was for Industrial Area and (6) for Civic Centre. The form of business was coded as follows; (1) indicated sole proprietorship, (2) partnership, (3) pointed at family managed and (4) specified other forms. The choice of age, gender, income and education level as control variables was based on past studies of Delafrooz and Paim, (2011); Satsios and Bassim, (2018); Kostakis,(2012). The choice of business form as a control variable is justified as was also used by Sebikari and Rescue (2014), in their study on Critical analysis of taxation policy where 52 percent of enterprises operated as sole proprietorships, 34% as corporations, and 14% as partnerships. On the other hand, as Minai and Lucky (2011) pointed out the need to consider location as a covariate as it was found to be a significant component for domestic enterprises since it provided a strong force for firms to grow and succeed.

Table 3.3: Summary of measurement items and Likert scale

Name of variable	Type of variable	Number of items measured	Reference to Questionnaire part	Source	Type of measurements
Saving Behavior	Dependent Variable	09	Section B(a)	Chowa & Despard (2014), Dangol& Maharjan (2018), Ariffin *et al.* (2017), and Delafooz & Paim (2011)	7-Likert scale
Social Influence	Independent Variable	10	Section B(b)	Dangol and Maharjan (2018), Hanachi (2005), Dinc and Budic (2016), and Kim *et al.* (2019)	7-Likert scale
Financial Literacy	Mediating Variable	11	Section B(c)	Sebstad *et al.* (2006), Schagenand Lines (1996), Atkinson and Messy (2012), and Ariffin *et al.* (2017)	7-Likert scale
Self-Control	Moderating Variable	10	Section B (d)	Lindner *et al.*, (2015); Strömbäck *et al.*, (2017) and Lindner *et al.*, (2017)	7- Likert scale
Demographic Factors	Control Variables	7	Section A		Nominal scale

3.9 Testing of Validity and Reliability of the Research Instruments

It was necessary to assess the instrument's validity and reliability before distributing it to the responder.

3.9.1 Testing for Validity of the Research Instrument

In a quantitative study, validity refers to an instrument's ability to measure what it claims to measure (Heale & Twycross, 2015). It is defined by Blumberg *et al.* (2008) as the extent to which an assessment tool measures what it is supposed to measure. Furthermore, the degree to which the findings are true is determined by validity

(Bashir *et al.*, 2016). Validity can be attained by collaborating with experts to build scales or by using measures that have been used in past studies. Mohamad *et al.* (2015) posit that validity is about reaching valid conclusions by the researcher using an appropriate assessment tool. A dependable instrument, on the other hand, is required for validity to hold (Scholtes *et al.,* 2011).

Well before ultimate data was collected, a preliminary study was done to assess the instrument's validity. The researcher used construct validity to determine this validity, which entailed determining whether the correct construct (concept) was being measured (Kothari, 2004; Heale & Twycross, 2015). This was based on the researcher's ability to operationalize the construct (Taherdoost, 2016). In order to prove construct validity, there was need to collect proof of the six kinds of validity: face, content, concurrent, predictive, convergent and discriminatory validity (Trochim, 2006). To ensure that construct validity was achieved, factor analysis was conducted on all research variables.

Face validity is a subjective assessment of a construct's operationalization (Taherdoost, 2016). This is the extent to which the measure appears to be related to a specific construct in the judgment of a non-expert (Chabrol *et al.,* 2005). Alternatively, the researcher's subjective assessment of the presentation and significance of the measuring instrument is whether the items in the tool appear to be appropriate, sensible, clear and unambiguous (Taherdoost, 2016). Face validity was determined by verifying whether the study concepts logically mirrored what needed to be measured by ensuring that the questionnaire captured the appropriate research questions. In addition, the researcher undertook a pilot study to achieve face validity as recommended by Lam *et al.* (2018).The study used external face validity, which

meant that the results of the sample would be applied to the entire population from which the sample was drawn (Kasomo, 2007).

The content validity of a measure is determined by establishing if the elements in the instrument constitute generalizable content (Taherdoost, 2016). Content validity demands for the development of a new instrument that contains only relevant items while discarding the irrelevant ones about a particular construct (Kimberlin & Winterstein, 2008). The instrument's content validity was determined by examining whether the items in the questionnaire were specific to the research objectives as recommended by Babbie, (2020).

Concrete validity is the degree to which the measure corresponds to the outcome. This is a contrast between the measure in question and the result of the measurement at the same time. Concrete validity measures how well one measure predicts the outcome (Taherdoost, 2016). Convergent, divergent, and predictive validity were used to evaluate concrete validity. The level to which the construct positively correlates with the other measurements of the same construct tested is used to determine convergent validity (Schmidt & Hollensen, 2006). The degree to which the construct is not associated to other measures that are contrary to it is used to determine divergent validity (Hair *et al.,* 2011; Palamida, 2016). Predictive validity refers to the instrument's ability to predict future criteria with a high degree of accuracy (Heale & Twycross, 2015). Predictive validity was determined by performing a regression analysis on the study variables.

3.9.2 Testing for Reliability of the Research Instrument

The reliability of an instrument, according to Creswell (2005); Higgins and Straub (2006) is the degree to which a research instrument produces consistent outcomes or

results after repeated trials while Gliem and Gliem (2003)**;** Mohajan (2017) assert that reliability is about stability in the findings and the faith one has in the results obtained while using the instrument. It measures consistency and stability by specifying whether the elements measuring the concept are grouped as a set (Sekaran & Bougie, 2013). Chakrabartty (2013) summarizes that reliability guarantees dependability, accuracy, repeatability, and credibility of studies.

When scores are delivered repeatedly at different periods, reliability assures that they are error-free and consistent (Mohamad *et al.,* 2015). The cronbach's alpha coefficient was used to assess the instrument's reliability, with the closely related set of items being grouped together (Taber, 2018). Reliability is the greatest neutral measure for internal consistency (Tavakol & Dennick, 2011). Also, reliability is appropriate in cases where the Likert scales are used (Mohajan, 2017). Cronbach's alpha is conveyed in terms of coefficient and alpha values range between zero (0) and one (1) (Hair *et al.,* 2006). Studies with an α between 0.80 and 0.95 are usually known to be very accurate as it means very minimal error and thus the findings are replicable (Zikmund *et al.,* 2013), while coefficients of 0.62 are acceptable in social science studies (Hair *et al.,* 2010). A Cronbach Alpha of more than 0.70 was targeted for the reliability of the instruments. It should be mentioned that an instrument's reliability is closely related to its validity. The instrument cannot be genuine unless it is reliable, yet the instrument's dependability is independent of its validity (Tavakol & Dennick, 2011). Reliability is paramount in any study, although it should be applied with validity to ensure its effectiveness (Varni *et al.,* 2010).

3.9.3 Pilot Study

Before heading to the field for the final study, the researcher conducted a pilot study to check for reliability and validity, as well as to ensure that the respondents

understood the questions completely. The pilot study was undertaken among 41 micro and small business owners in Eldoret, Kenya with a varied spectrum of such firms.

Table 3.4: Summary of reliability results

Variable	Cronbach's alpha	Cronbach's alpha if item deleted
Saving Behavior	0.696	0.800
Social Influence	0.842	
Financial Literacy	0.767	
Self-Control	0.722	

Source: Researcher (2019)

All of the constructs in the pilot study had a Cronbach's alpha of greater than 0.7, with the exception of saving behavior, which had a Cronbach's alpha of 0.696. If item SB5 (when I earn money, I always spend it instantly) was removed improving the cronbach's alpha to 0.800. Besides, some items that did not load required rewording or even were reverse coded to eliminate confusion among the respondents. (See appendix 6 for the original pilot study for reliability, validity and factor analysis results).

3.10 Data Analysis

The process of data analysis is when a researcher properly evaluates the data they have gathered in order to achieve valid findings (Israr & Saleem, 2018). Data analysis' key goals include categorizing, sorting, altering, and summarizing data to acquire answers to research questions, as well as reducing data to a more relevant and interpretable form utilizing statistics (Xia *et al.,* 2009; Sekaran, 2003). In addition, it supports in unfolding and comparing variables mathematically to ease data interpretation (Saunders *et al.,* 2009; Kamarudin *et al.,* 2018).

All study instruments were verified for completeness prior to data input and analysis, and the researcher edited data from the field to ensure that every item was answered.

After receiving the questionnaires, the raw data was coded, cleaned, and checked for missing values, as well as tested to see if it fulfilled the various assumptions before utilization in further analyses. The response information was entered into a Statistical Package for Social Sciences (SPSS) version 23.0 database to assist the researcher in data analysis. Data analysis was driven by the study research objectives and hypotheses.

In order to screen the data, descriptive statistical analysis was performed. Data screening gives information on missing values, outliers, data distribution, and invalid data, with the latter being removed from the study. In addition screening of data avoids cases of distortions since missing data and outliers lead to biased results (Vardeman & Moris, 2003). The data was checked for missing values in two stages: first, error checks, and then error corrections. This was done by calculating the frequency for each variable and then looking for any results that were outside of the permitted range, as well as any missing entries. The mean substitution technique was used to calculate missing data if the missing data did not exceed 5%. This was achieved by replacing the missing value of a variable with the mean of available cases (Hair *et al.,* 2010).

3.10.1 Data Analysis and Presentation

To simplify interpretation, data was presented in visually appealing tables, frequencies, and percentages (Hair *et al*. 2003; Tharanika & Andrew, 2017). In the determination of the data distribution, the mean was used to measure central tendency, while standard deviation, variance, kurtosis, and skewness were used to measure the data's changeability (Kamarudin *et al.,* 2018). The multivariate level of analysis was used in this study as the measures of prediction were more than three variables and included both direct and indirect effects on the dependent variable. This multivariate

framework explained how the other elements impacted on the dependent variable (Costa-font *et al.*, 2018). The degree of linear relationship between the independent and dependent variables was determined using correlational analysis.

Due to the vast number of variables in the study, the SPSS Program was utilized to perform factor analysis. Factor analysis is a multivariate statistical technique for reducing a huge number of variables to a manageable number. It also aids in the identification of underlying dimensions between measured variables and latent constructs, as well as providing construct validity evidence (Thompson, 2004).

The researcher performed confirmatory factor analysis to test the validity of the measuring scales that had been incorporated and modified from previous studies. Confirmatory factor analysis, in addition to the analysis of the theoretical model guiding the research, was used to see if the construct measurements matched the researcher's understanding of the construct's nature.

The numbers of variables in the questionnaire were reduced to manageable numbers using principal component factor analysis, which grouped variables with comparable qualities together. To control the number of factors, the study made use of the Eigen value concept where factors with Eigen values of less than one (1) were excluded as they were insignificant to mend the constructs' goodness of fit before assessing their measurement properties.

Data transformation was done to change the data from a Likert scale to a ratio scale prior to undertaking inferential analysis (Singh & Singh, 2015). In order to use the data for further analysis, it was necessary to convert it from its original data type to a new format using an arithmetic method. In this case, the mean for each element was achieved by summing factor results (loadings) that loaded under each element divided

by the number of items that loaded. By doing so, a single variable was used to describe various variables

The values for the KMO test range between zero and one, where according to Kaiser, 0.00 to 0.49 unacceptable, 0.50 to 0.59 miserable, 0.60 to 0.69 mediocre, 0.70 to 0.79 middling, 0.80 to 0.89 meritorious and 0.90 to 1.00 marvellous. Results for Bartlett's sphericity test should be significant ($p<0.05$) for the factor analysis to be considered appropriate (Pallant, 2007).

3.10.2 Descriptive Statistics

The demographic profile of the target respondents was described using descriptive analysis in the form of frequencies, percentages, and tables. The researchers used metrics of central tendency such as mean, standard deviation, skewness, and kurtosis in their research. Gender, age, education level, marital status, business form, monthly income and location were all included in the demographic profile, and the results were given in frequency distribution tables that detailed the amount of times each score happened. These statistics were also used to test assumptions, such as normality tests, which looked at skewness and kurtosis data to see whether there were any outliers or missing values. The sample characteristics were summarized using percentage frequencies, mean, standard deviation, kurtosis and skewness. Following that, an explanation of the research participants' nature was given. To test for the existence of a connection between the demographic characteristics and the relevant variables, the study made use of the Analysis of Variance (ANOVA) to assess whether there were significant differences in the demographics in explaining the study variables.

3.10.3 Correlation Analysis

This was done to determine if the focus variables were correlated with one another. In the correlation analysis, two sets of measurements were collected on the same individual variables or pairs of the same related individual variables. The values of the coefficients for the correlation varied from a value of +1.00 to a value of -1.00 which represented extremely perfect relations. When independent variables are highly correlated, it is difficult to determine the effect of each independent variable on the dependent variable (Hair *et al.,* 2010). Using Pearson Product Moment Correlation analysis, the direction and intensity of the association between the independent factors (social impact, financial literacy, and self-control) and the dependent variable (saving behavior) were investigated.

3.10.4 Inferential Statistics

Inferential statistics about the statistical model and conceptual model was used to test hypotheses based on Hayes (2012, 2015, 2018) methodological studies; Preacher *et al*. (2007) and Baron and Kenny (1986). In this research, multiple regression equations were developed.

3.10.5 Multiple Regression Analysis

The researchers applied multiple regression analysis to establish multiple variable relationships as well as to test hypotheses. Regression analysis is a parametric technique whose data ought to exhibit the following characteristics: the linearity of data, normally distributed and the possibility of measuring it on an interval or ratio scale. Multiple regression analysis was used in this study to determine the impact of social influence, financial literacy, and self-control on saving behavior among micro and small business owners in Kampala, Uganda. The mediating effect of financial literacy on the connection between social influence and saving behavior among the

business owners was investigated using a mediating regression analysis equation. A moderated mediation analysis equation was developed to investigate the moderating effect of Self-Control on the connection between Social Influence and Saving Behavior via Financial Literacy.

3.11 Model Specification

The purpose of this study was fourfold. First, the study examined whether:

i. Social Influence has a direct effect on owner saving behavior (H_{01})
ii. Financial Literacy has a direct effect on owner saving behavior (H_{02})
iii. Self-control has a direct effect on saving behavior of the micro and small enterprise owners (H_{03})
iv. Social Influence has a direct effect on Financial Literacy (H_{04})

Secondly, the study analyzed the mediating effect of Financial Literacy on the relationship between Social Influence and Saving Behavior (H_{05}).

Further, this study sought to determine the moderating effect of Self-Control on:

i. The relationship between Financial Literacy and owner saving Behavior (H_{06})
ii. Social Influence and owner saving Behavior (H_{07})

Finally, the study examined the moderating effect of Self-Control on the indirect relationship between Social Influence and owner saving Behavior via Financial Literacy at different levels of the moderator (H_{08}).

To achieve the first purpose of the study, Hierarchical regression model was used to test for all the direct effects. The hierarchical regression model was considered suitable for direct effects to show if the variables of interest explain the statistically meaningful amount of variance in the dependent variable (business owner saving behavior) after accounting for all other variables.

3.11.1 Test for Direct Effects

To ensure that all direct effects were tested, one (1) to four (4), hierarchical regression model1 (one) was used in the H_{01}, H_{02}, H_{03} and H_{04} tests. Hierarchical regression was used because of its ability to show precisely what happens to the equation if specific predictor variables were added in the model fit. To test these direct effects, the coefficient of determination (r^2), r-square change and the standardized beta coefficient (β) were computed. In model 1, R^2 was used to determine how much variance in the dependent variable(Saving Behavior) was explained by the control variables .The r square change explained the extra value the additional variable explained the variance in the resultant variable (Saving Behavior). The "p" values showed the level of significance, where a variable scoring "p" value less than 0.05, demonstrated that variable was a significant predictor of the dependent variable (Saving Behavior) (Hair *et al.* 2013; Field, 2009). The decision rule on the direct effect tests was driven by the level of significance.

The H_{05} test was conducted using Model 2 (mediation model). Before the establishment of the mediation, the following requirements were established: first, the independent variable (Social Influence) in the first equation affected the mediator (Financial Literacy); and second, the mediator had a significant effect on the dependent variable in the second equation. In addition to the mandatory conditions, whether the independent variable (Social Influence) had an effect on the dependent variable (Saving Behavior) while controlling for the mediator (Financial Literacy) was assessed , though this was not a requirement for mediation to happen (the predictor variable does not have to affect the explained variable for mediation to occur (Mackinnon, 2012). However, if it so happened and was significant then partial

mediation would be reported whereas if the predictor variable did not affect the outcome variable and insignificant then full mediation would be reported.

As per Baron and Kenny (1986), full mediation occurs when the mediator's presence eliminates the relationship between the explaining and the explained variables, where C_1' in this model becomes zero. Full mediation is presumed if the standardized indirect effects are important while the standardized direct effects are not significant (Hayes, 2017). In the event of partial mediation, the value of C_1' will simply decrease not equating to zero and will stay significant indicating that there is an important relationship between the mediator and the dependent variable and some direct relationship between the independent variable and the dependent variable. By taking this into account, the streamlined command PROCESS macro was run to produce output for interpretation of the resulting nature of mediation in this respect (Hayes, 2018). In this case, bootstrapping was done to determine whether mediation took place by reference to the confidence intervals (Preacher & Hayes, 2004). Bootstrapping was carried out repeatedly and randomly by sampling observations with the substitution of the data set for the calculation of the desired statistic in each resample. The researcher then examined the potential impact of the mediation effect by using bootstrapping that provided confidence intervals. If the values showed that the mean was more than the number of bootstrapped samples and the bootstrapping method's resultant confidence interval was not zero, the researcher concluded that there was a strong Mediation Effect of Financial Literacy. The models that guided both direct and indirect tests are shown below

Model 1: Hierarchical Regression model for all direct effects

$Y=\beta_0+\beta_1 Gend+\beta_2 Age+\beta_3 Maritals+\beta_4 Educ+\beta_5 Incom+\beta_6 Loc+\beta_5 Biz\ form+\varepsilon \ldots$ *(3.1)*

$Y = \beta_0 + C + b_1X + \varepsilon$ ..... *(3.2)* (H_{01})

$Y = \beta_0 + C + b_1X + b_2 M + \varepsilon$ ..... *(3.3)* (H_{02})

$Y = \beta_0 + C + b_1X + b_2M + b_3V + \varepsilon$ ..... *(3.4)* (H_{03})

In the second direct effect model, there is need to determine the effect of X on M while holding constant the control and the moderator (V) variables:

$M = \beta_0 + C + \beta_1V + \varepsilon$ ..... *(3.5)*

$M = \beta_0 + C + \beta_1V + \beta_2X + \varepsilon$ ..... *(3.6)* (H_{04})

Model 2 Testing for Mediation

Hayes (2013) model 4 was used to test for mediation (H_{05}).MacKinnon (2012) procedure was followed.

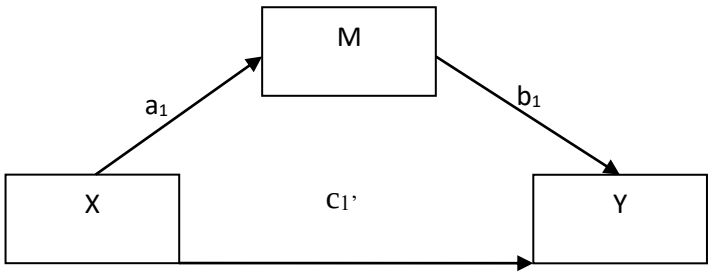

Figure 3.1: Hayes model 4

Source: Model 15 adopted and modified from Hayes, (2013)

MacKinnon (2012) mediation testing procedure requires that the following conditions be met for mediation to take place.

a) X must have a significant effect on M

$M = a_0 + C + a_1X + \varepsilon$ ..... *(3.7)*

b) M must have significant effect on Y

$Y = \beta_0 + C + b_1 M + \varepsilon$ ..... *(3.8)*

Testing the effect of X on Y while controlling for M (not a must for X to affect Y).

$Y = C'_0 + C + b_1 M + C_1'X + \varepsilon$ ..... *(3.9)*

Mediation= $a_1 * b_1$ ..... *(3.10)*

OR C (total effect) $-C_1'$ (direct effect)……. *(3.11)* (H_{05})

Total effect (C) = $a_1 * b_1 + C_1'$……. *(3.12)*

Where; Y symbolizes the dependent variable (Saving Behavior)

X denotes the independent variable (Social Influence)

M represents the mediating variable (Financial Literacy)

V signifies the moderator (Self-Control)

β_0, C'_0 represents Y- intercept (constant)

C represents the Total effect

a_1, b_1, b_2, b_3, b_4, b_5 and c_1' represent the parameter estimates/coefficients

ε represents the error term

3.11.2 Testing for Moderation and Moderated Mediation

The Hayes model 15 was used to test for both moderation and moderated mediation. When examining whether the magnitude of the explanatory variable (Social Influence) had an impact on the explained variable (Saving Behavior), moderation testing was used (Hayes, 2012). The moderator variable (Self-Control) divides the causal relationship between the independent variable (Social Influence) and the dependent variable (Saving Behavior) into distinct patterns that determine the direction and/or intensity of the association (Baron & Kenny, 1986).The interaction between X (Social Influence) and the moderator variable (V) (Self-Control) is often statistically represented as the product of X and V.

Moderation occurs when the strength of the association between Social Influence and Saving Behavior is determined by the third variable (Self-Control). When the regression weight of X on Y changes as a function of V, Self-Control (moderator V) interacts with X (Social Influence) to predict Y (Saving Behavior). Moderation is classically evaluated by the regression equation (Morgan-Lopez & MacKinnon, 2006; Preacher *et al.*, 2007). For V values with confidence intervals that do not contain zero, self-control (V) moderates the link between X and Y (Preacher, Curran, & Bauer, 2006; Preacher *et al.*, 2007). A plotted confidence interval graph was used to make it easier to interpret interaction effects (Preacher *et al.*, 2007).

On the other hand, moderated mediation refers to a mediated effect that varies based on the moderator variable (Hayes, 2015). Moderated mediation occurs when the strength of an indirect impact is depending on the level of a variable, or when the mediation connection is reliant on the moderator level (Preacher *et al.*, 2007). According to Muller *et al*. (2005), moderated mediation happens when the mediation process that produces the treatment's effect on the outcome is influenced by the moderator's value. Evidence of statistically significant moderation of at least one pathway in the causal system linking X (independent variable) to Y (dependent variable) through M (mediator variable) and evidence that any path not proposed to be moderated is statistically different from zero support a moderated mediation. Muller *et al.* (2005) provided up conditions that must be met to argue that the mediation is moderated, just as Baron and Kenny (1986) did in the mediation study (Hayes, 2015).

When testing for moderated mediation, according to Hayes (2012); Muller *et al*. (2005) and Preacher *et al.* (2007), it is first important to confirm that mediation exists between the independent variable (Social Influence) and the dependent variable (Saving Behavior). Moderation takes place after confirming that the relationship

between Social Influence and Saving Behavior is mediated by Financial Literacy. Moderated mediation was tested using process macro. The decision rule for H_{08} was based on the degree of significance of the moderator effect (Self-Control) on the mediator (Financial Literacy) as well as the effect of the interaction on the mediator, both of which were subjected to a 95 percent confidence bootstrap interval. The 95 percent confidence interval was used to accept or reject the moderated mediation hypothesis when employing the process macro. If the confidence interval based on 0.05 contains zero, no moderate mediation decision is made, and the null hypothesis would be accepted; if the confidence interval does not include zero, moderated mediation would be confirmed, and the null hypothesis would be rejected (Hayes, 2015).

Hayes (2015, 2018); Muller *et al.* (2005); Preacher *et al.* (2007) aided the researcher in testing for the moderated mediation that was accomplished in accordance with (Hayes, 2017), who advocated for a practical paradigm that tackles both the HOW and WHEN difficulties. The conditional indirect influence of X (Social Influence) on Y (Saving Behavior) was investigated using Model 15 to answer the questions "how" and "when". Moderated mediation was interpreted in this particular study to mean the effect Social Influence exerts on Saving Behavior through Financial Literacy conditioned by Self-Control. The following equations were used to test for both moderation and moderated mediation as shown below;

Model 3: Moderation

One direct effect of M on Y, conditional on V

$Y= \beta_0+C+b_1M+b_2V+b_3MV+ \varepsilon$..... *(3.13)* ($H_{06}$)

One direct effect of X on Y, conditional on V:

$Y=C_0+C+C_1'X+C_2'V+C_3'XV+ \varepsilon$..... *(3.14)*($H_{07}$)

Moderation=$C+C_1' + C_3'V$

Model 4: Moderated Mediation

One indirect effect(s) of X on Y, conditional on V:

Moderated mediation $Y=a_0+ a_1b_1 + a_1b_2V = a_1 (b_1 + b_2V)$…… *(3.15)* ($H_{08}$)

The above equations have been summarized in the statistical diagram as shown in Fig.3.2.

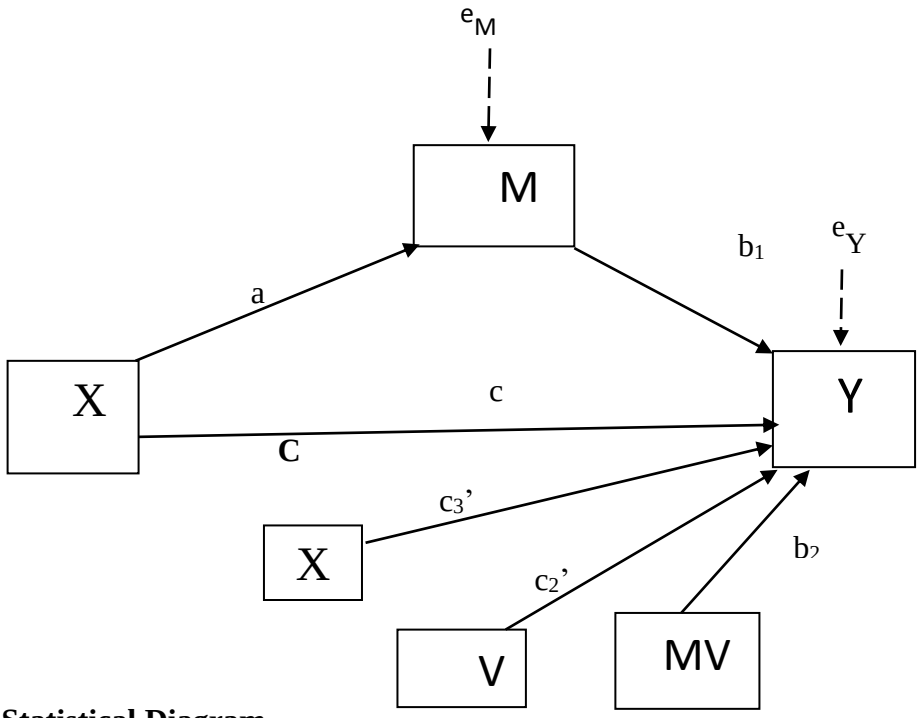

Figure 3. 2: Statistical Diagram

Source: Model 15 adopted and modified from Hayes, (2013)

Where;

Y is the dependent variable (Saving Behavior)

X is the independent variable (Social Influence)

M represents the mediator variable (Financial Literacy)

a_1 shows the influence of the Independent Variable (Social Influence) on the mediator variable

b_1 represents the effect of the mediator variable(Financial Literacy) on the dependent variable (Saving Behavior)

b_2 represents the moderated mediating effect of the Independent variable(Social Influence) on the dependent variable (Saving Behavior)

C represents the overall effect (a_1*b_1+ $c_{1'}$)

$c_{1'}$ represents the direct effect of the independent variable (Social Influence) on the dependent variable (Saving Behavior)

$c_{2'}$ represents the moderating effect of Self-Control on the dependent variable (Saving Behavior)

$c_{3'}$ represents the moderating effect of self-control on the relationship between the independent variable (Social Influence) and the dependent variable (Saving Behavior)

^{e}M and ^{e}Y; represent the respective error terms in each of the equation

Table 3. 5: Summary of Statistical Tools for Hypotheses Testing

Hypothesis	Statistical Tool	Conclusion
H_{01} - H_{04}	ΔR^2 ,β, t, p-v	$t \geq \pm 1.96$ P-v ≤ 0.05,reject
H_{05}	LLCI-ULCI	Both confidence intervals to be none zero, reject
H_{06} - H_{07}	ΔR^2, β, t, p-v	$t \geq \pm 1.96$ P-v ≤ 0.05, reject
H_{08}	LLCI-ULCI	Both confidence intervals to be none zero, reject

Source: Researcher (2019)

3.11.3 Test of Multiple Regression Assumptions

Since the study applied multiple regression analysis, Cooper and Schinder (2014) posit that, for the analysis to be effected, three scenarios ought to be at play and these include: To develop an estimating equation that can predict the dependent variable from the independent variable, establish a causal relationship, calculate how much the dependent variable varies in relation to the independent variable, and estimate future trends.

Multiple regression analysis helps researchers achieve their main objectives by determining whether or not there is a link between the independent and dependent variables, and if so, how strong or weak it is, as well as whether it is positively or negatively skewed. The use of regression analysis necessitated the testing of assumptions before this parametric test was used. A test for linearity, normality test, a test for homoscedasticity and a test for multi-collinearity were among these assumptions.

i) Test for Linearity

When the mean of the explained variable is a linear combination of the regression coefficients and explanatory factors, this is referred to as linearity. In order for this assumption to hold, it was important to determine whether the Independent Variable and the Dependent Variable had a linear connection. The presence of a non-linear relationship between the explaining and explained variables has also been linked to an increased risk of type 11 error in regression analysis results, as the true relationship would be underestimated. Bivariate residual scatter plots were used to examine if there was a linear connection between the variables studied in a single sample of subjects, with the line of best fit being the most common data point and no significant differences that could affect the correlation between study variables. These are the most prevalent techniques for identifying non-linear patterns in information (Hair *et al.*, 2006). This was accomplished by determining whether or not the graph was linear by plotting the dependent variable against the independent variable. F-tests were also utilized to determine the linear relationship between variables using the Pearson Product Moment correlation coefficient, with a significant F-statistic result ($P< 0.05$) indicating linearity. The correlation coefficient should range from -1 to 1, where the negative sign stands of anti-correlation for values smaller than zero and the value

greater than zero implies a positive correlation. It was crucial to characterize the relationship correctly because if we described it as linear when it was non-linear, the regression analysis findings would not fit the data as they would have (Ernst & Albers, 2017).

ii) Normality Test

Normality assumption is an important assumption required in multiple regression analyses (Coakes *et al.,* 2010; Kamarudin *et al.,* 2018). Variables are assumed to be normally distributed in multiple regression analyses, with a mean of zero and a standard deviation of one symmetrically producing a bell-shaped curve (Osborne & Waters, 2002).This assumption applies if also the residuals are normally distributed (Casson *et al.*, 2014).

The normality of the data was examined in this study using a histogram and P-P plots, with the majority of the data points predicted to be close to the line of best fit. Skewness and kurtosis values equal to or close to zero, or not more than three times the standard error, were also used to determine the data distribution. The kurtosis and skewness scores must be within the range of (+/-) 3.29 for data with more than 300 samples to pass the normality test (Kim, 2013).

iii) Test for Homoscedasticity

This assumption assumes that the errors (residuals) have a constant variance at whatever value of the independent variable (Schützenmeister *et al.* 2012). When the variance of the error terms differs at every value of the independent variable, it is said to be heteroscedastic (Osborne and Waters 2002). This implies that the assumption of homoscedasticity is breached. Heteroscedasticity is the violation of this assumption, which can lead to misleading results and increases the likelihood of a type 1 error

(Ernst & Albers, 2017). In fact, this variation influences the standard error and makes the test hypothesis insensitive. Heteroscedasticity manifests by having greater errors for some parts of the spectrum compared to others. Inferences made based on such data are rendered untrustworthy. Homoscedasticity assumptions are encountered, according to Osborne and Waters (2002), when errors are randomly dispersed around 0 (horizontal line), giving a comparatively even distribution.

The researcher applied the Levene statistic to check for homoscedasticity. When the Levene test statistic's p-value above 0.05, the data were homoscedastic rather than heteroscedastic (Martin & Bridgmon, 2012).

iv) Test for Multi-collinearity

When two or more independent variables in a multiple regression model are significantly associated with each other, this is known as multi-collinearity (Daoud, 2017). The successful use of the regression model is hampered by multi-collinearity. When predictor variables are highly correlated, the explanatory power of the variables is weakened (Franke, 2010). As standard errors and confidence intervals for coefficient estimates are inflated, multi-collinearity can lead to volatile coefficient estimations for individual predictors (Ernst & Albers, 2017). The Variance Inflation Factor (VIF) or tolerances were used to check for multi-collinearity. Tolerance measured the severity of multiple correlations between the explanatory variable and other explanatory variables, whereas VIF measured the value of the coefficient variance inflated by multi-collinearity. A tolerance of below 0.20 or a VIF greater than 10 is regarded as indicative of serious multi-collinearity problems (Hair *et al.*, 2006; Stevens, 2002).

3.12 Ethical Considerations

The researcher first received authorization to conduct study from the Uganda Small Scale Industries Association (USSIA) through letter in order to acquire access to selected micro and small businesses in Kampala. This was followed by a letter from Moi University, a copy of the questionnaire, and a cover page detailing the study relevance and expected outcomes. In the first place, the researcher guaranteed that suitable ethical conduct was to be observed throughout the study from the start of the research to its completion, including the publication of results. An introductory letter from the School of Business and Economics was received as a confirmation to the relevant authorities that the research was academic.

As they were not forced to take part in the survey, the respondents' involvement was voluntary. Respondents were well-informed on the research objective, the procedures to be followed, and any benefits that would accrue to the study participants and the country as a whole. In order to maintain anonymity, respondents were not obliged to write their names anywhere in the questionnaire. The information gathered from the respondents was kept strictly confidential and was only utilized for the purposes of the study. The researcher exercised the voluntary participation of respondents without undue influence. Other ethical considerations included: ensuring anonymity was maintained and upheld throughout the research by adopting the doctrine of anonymity and taking care of diversity issues, for example, both males and females were able to fill the questionnaires without discrimination.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Overview

This chapter presents and discusses the findings of the research conducted using the methods described in Chapter 3. It discusses the moderating influence of self-control on the link between Social Influence and Saving Behavior, as well as the moderating influence of self-control on the link between Financial Literacy and Saving Behavior among micro and small company owners in Kampala, Uganda. The study research objectives, factor analysis, correlation, and regression analysis are all detailed in the report.

4.2 Response Rate

A total of 430 Kampala-based micro and small business owners took part in the survey. Four hundred five (405) of the 430 sent-out questionnaires were returned resulting in a 94 percent response rate. However, three (3) of the four hundred and five (405) respondents who completed the questionnaires were disqualified from further analysis due to respondents' failure to fully reply to the questions, as they only responded to one of the study variables. Seven (7) outliers were found and removed from the study, leaving a viable sample of 395 participants. The 94 % response rate indicated that the study population was fairly well represented. It was possible because the researcher was completely engaged in the study, research assistants were trained in data collection techniques, and respondents were told about the study confidentiality and benefits.

4.3 Data Preparation and Screening

Screening of the data was a step taken to ensure data integrity. Data was tested for accuracy in coding and insertion into the Statistical System (SPSS). Data screening

was performed to look for flaws such as improper data input, out of range values, outliers, missing values, and normality, as well as to find solutions to these issues. Tabachnick and Fidell (2013) procedures were followed when screening the survey data. The data was prepared for further screening upon receipt of any completed questionnaires by numbering them to ensure each and every questionnaire was accounted for.

4.3.1 Missing Value Analysis

The purpose of the missing value analysis was to find missing values. The major goal was to determine the extent of the missing values, determine whether the missing data values were absent at random, and determine whether the missing values would be treated. Examination of the missing value helps resolve many issues created by insufficient data (Field, 2009).

Missing values have been found to be prevalent in social research studies (Hayes, 2012). Missing values in statistical analysis can have a significant impact on the outcome. As a result, the analysis attempted to eliminate or minimize missing values as soon as possible. Each questionnaire was personal to the micro and small business owner. Thereafter, a date and time was agreed to return and collect the questionnaire. Prior to their collection visit, a follow-up phone call was made to check that the surveys were completed. In the event that the completed questionnaires were not available, a second visit was scheduled to encourage participation. Once the questionnaires were filled, the respondents were each given thank-you cards.

For all the elements used in the final questionnaire, missing values were checked by running frequencies. These values were initially assessed with regard to cases and their distribution as shown in Table 4.1. Most 382 (96.71%) of the cases had non-

missed values and 13(3.3%) cases had missing values. The researcher used the mean substitution method, making the data appropriate for further analysis (Tabachnick and Fidell, 2013).

Table 4.1: The Number of Missing Values Distributed on Cases

Number of missing values	Number of cases	Percentage
0	382	96.71
1	2	0.51
2	1	0.25
3	6	1.52
4	4	1.01
Total	**395**	**100**

Source: Research data (2020)

4.3.2 Analysis for Outliers

An outlier is a point that stands out from the rest of the data. Outliers can occur as a result of measurement fluctuation or as a result of an experimental error. The latter is occasionally left out of the data collection. Outliers are common in every random distribution, but they are typically suggestive of measurement error or a hard-tail distribution among the population. Because omitting the initial evaluation of outliers might lead statistical tests to be skewed if dangerous outliers emerge, scrutinizing outliers is a critical step before analysis (Hair *et al.,* 2010). It skews statistics in particular, and it can lead to results that don't generalize to any sample other than one of the same outlier type (Tabachnick and Fidell, 2013).

According to Tabachnick and Fidell (2013), the Mahalanobis D2 was employed to identify multivariate outliers in this study. A Mahalanobis D2 probability value of less than 0.001 was used to identify a multivariate outlier. Before the analysis, the 7 outliers identified were discarded.

4.4 Respondents' Demographic Characteristics

Table 4.2 shows that males accounted for 55.9% (221) of the total number of participants, while females accounted for just 44.1 percent (174). This meant that men were more likely than women to run micro and small businesses, probably because women spent the most of their lives at home handling house chores. This disparity is in most cases accentuated in developing countries.

In terms of age, 38% (150) of respondents were between the ages of 31 and 35. Respondents aged 15-20 years old were the least identifiable age group, accounting for only 0.5 percent (2) of the total survey. The inference is that for this analysis the owners of micro and small business consisted primarily of the young. This is evidenced by the rise in the number of owners in the youthful age (18-35 years). Nonetheless, there has been a decrease in the number of owners of the MSEs (36 to over 45 years), which could be attributable to the fact that the majority of respondents in this age group are no longer productive and do not own micro and small businesses.

The survey also attempted to determine the marital status of the business owner. The majority of the proprietors (73.4 %, (290) were married, 21.5 cent (85) were single, 3.8 % (15) were divorced, and just 1.3 % (5) were widows or widowers. This could be explained by the fact that married people are seen as stable and thus capable of owning, operating, and maintaining their businesses, followed by single people who can devote a significant amount of time to managing their small businesses, whereas the other groups may be less stable, as many may lose their businesses due to divorce or the death of a spouse.

In addition, respondents were asked to provide details about their educational backgrounds. According to the data, the majority of the respondents (177) had finished

secondary education (44.8%). Following that, 33.4 % (132) had completed tertiary education, 14.9 % (59) had completed undergraduate education, 5% (20) had completed primary education, and only 7% had completed postgraduate studies. The findings suggest that most of the business owners who participated in this research had some level of education that impacted on their level of financial decision-making and awareness.

In terms of business form, the majority of respondents (47.1 %) (186) were sole proprietors, followed by partnerships (32.7 %) (129), family ownership 18.2% (72), and others 2% (8). In terms of income, the majority of respondents earned (Ugx 400,001-700,000) were 45.8% (181), followed by those earning Ugx above 700,000 at 40.5% (160), those earning Ugx 200,001 to 400,000 were12.2% (48), and those earning less than Ugx 200,000 were 1.5% (6).

With respect to location, majority at 35.4%)(140), of the micro and small enterprises were located in Kisenyi followed by those located in Nakasero at 29.6%(117), Nakivubo at 17.2%(68),Civic Center at8.1 %(32),Industrial Area at 7.3%(29) and the least were located in Kamwokya at 2.3%(9).

Table 4.2: Demographic Characteristics of Respondents

Variables	Range	Frequency	Percent
Gender			
	Male	221	55.9
	Female	174	44.1
	Total	**395**	**100**
Age	15-20	2	0.5
	21-25	15	3.8
	26-30	96	24.3
	31-35	150	38.0
	36-40	74	18.7
	41-45	46	11.6
	Above 45	12	3.0
	Total	**395**	**100**
Marital status	Single	85	21.5
	Married	290	73.4
	Divorced	15	3.8
	Widow/er	5	1.3
	Total	**395**	**100**
Education level	Primary	20	5.1
	Secondary	177	44.8
	Tertiary	132	33.4
	Undergraduate	59	14.9
	Postgraduate	7	1.8
	Total	**395**	**100**
Business form	Sole owner	186	47.1
	Partnership	129	32.7
	Family owned	72	18.2
	Others	8	2.0
	Total	**395**	**100**
Income levels (Ugshs)	Below 200,000	6	1.5
	200,001-400,000	48	12.2
	400,001-700,000	181	45.8
	Above 700,000	160	40.5
	Total	**395**	**100**

Source: Research data (2020)

4.5 ANOVA showing Respondent Demographic Characteristics against the Study Variables

4.5.1 Respondent Age against the Study Variables

The study results in Table 4.3 showed that there was no significant difference based on age group with respect to saving behavior(F = 2.009, p=0.064> 0.05). Individuals between the ages of 41 and 45 were ranked highest ($\bar{X}$ =6.0497, σ = 0.405), while those between the ages of 31 and 35 were ranked lowest ($\bar{X}$ = 5.7159, σ = 0.640). These study findings are contrary to the study by Delafrooz & Paim (2011) where it was established that age had a positive relationship with saving behavior.

With regards to social influence, those in the age range of 41-45 ranked the highest ($\bar{X}$ =6.462, σ = 0.541 compared those in the age range of 21-25($\bar{X}$ = 6.1256, σ = 0.609.This study reveals that there are no significant differences in social influence based on age. (F = 2.030, *p*=0.061> 0.05). These findings contrast with those of Foulkes *et al.* (2018), who found that age had a significant impact on susceptibility to social influence, with a decline from childhood to adulthood.

With respect to financial literacy, individuals in the age range of 41-45 were still ranked the highest ($\bar{X}$ =5.9503, σ =0.595) compared to those in the age range of 15-20 that were ranked least ($\bar{X}$ =4.9286, σ =0.707).The study revealed the existence of significant differences based on age with respect to financial literacy (F = 2.321, *p*=0.033< 0.05). This implies that the age of an individual impact on their level of financial literacy. This study finding are consistent with those of Yoshino *et al.* (2017), who found that age is one of the predictors of financial literacy.

Lastly, respondents in the age group 41-45 were ranked highest (X =5.7811, σ =1.186) while respondents in the age range for 15-20 were the least ranked ($\bar{X}$

=4.2000, σ =2.546) with respect to self-control. According to this study, there were significant differences based on age with respect to self-control (F = 4.847, *p*=0.000< 0.05).This implies that the age group of an individual may impact on their self-control. This is in line with the study by Allemand *et al.* (2019), where self-control was established to constantly improve from childhood through adolescence to adulthood, which was linked to prefrontal brain regions maturing.

Table 4.3: ANOVA Test by Owner-Manager Age

Variable	Age	N	Mean	Std. Deviation	F Statistic	Sig.
Saving Behavior	15-20	2	5.786	0.303	2.009	0.064
	21-25	15	5.829	0.630		
	26-30	96	5.836	0.600		
	31-35	150	5.716	0.640		
	36-40	74	5.836	0.532		
	41-45	46	6.050	0.405		
	above 45	12	5.845	0.497		
	Total	395	5.815	0.587		
Social Influence	15-20	2	6.150	0.778	2.03	0.061
	21-25	15	6.126	0.609		
	26-30	96	6.185	0.588		
	31-35	150	6.176	0.464		
	36-40	74	6.255	0.561		
	41-45	46	6.462	0.542		
	above 45	12	6.116	0.601		
	Total	**395**	**6.222**	**0.539**		
Financial literacy	15-20	2	4.929	0.707	2.321	0.033
	21-25	15	5.791	0.958		
	26-30	96	5.743	0.639		
	31-35	150	5.641	0.547		
	36-40	74	5.755	0.531		
	41-45	46	5.950	0.595		
	above 45	12	5.857	0.771		
	Total	**395**	**5.732**	**0.606**		
Self-Control	15-20	2	4.200	2.546	4.847	0.000
	21-25	15	5.725	0.931		
	26-30	96	5.341	1.473		
	31-35	150	4.683	1.643		
	36-40	74	5.207	1.548		
	41-45	46	5.781	1.186		
	above 45	12	5.733	0.962		
	Total	**395**	**5.138**	**1.545**		

Source: Research Data (2020)

4.5.2 Respondent Gender against the Study Variables

This section of the study sought to see if there were any significant differences in responses based on gender and the study variables of saving behavior, social influence, financial literacy, and self-control. The study results in table 4.4, with regard to saving behavior showed that females were ranked the highest ($\bar{X} = 5.8531$, σ

= 0.5177).On the other hand, the males were ranked the least ($\bar{x}$ = 5.7848 σ = 0.636). It was established that there was no significant difference based on gender with respect to saving behavior (F = 1.321, ρ= 0.251> 0.05). This suggests that being a male or female does not influence saving behavior. The study findings however are contrary to the findings of Bashir *et al*. (2013), where it was established that men saved more than women.

Females ranked the highest with respect to social influence ($\bar{X}$ =6.249, σ =0.490) compared to males ($\bar{X}$ =6.201, σ =0.574).However this study findings, reveal that there were no significant differences based on gender with respect to social influence (F = 0.765 *p=0.382*> 0.05).The same was established for the females to have ranked the highest ($\bar{X}$ =5.8005, σ =0.628) compared to males ($\bar{X}$ =5.677, σ =0.584) with respect to financial literacy. The study findings revealed the existence of significant differences in gender with respect to financial literacy (F = 4.044, *p*=0.045< 0.05). Fonseca *et al.* (2012) identified significant financial illiteracy among women, with many unaware of even the most basic economic principles required to make long term savings decisions, resulting in disparities in retirement readiness between men and women. Conversely, there are no significant differences based on gender with respect to self-control (F = 1.673, *p*=0.197> 0.05).

Table 4.4: ANOVA Test by Owner-Manager Gender

Variable	Gender	N	Mean	Std. Deviation	F Statistic	Sig
Saving Behavior	Male	221	5.785	0.636	1.321	0.251
	Female	174	5.853	0.518		
	Total	**395**	**5.815**	**0.587**		
Social Influence	Male	221	6.201	0.574	0.765	0.382
	Female	174	6.249	0.490		
	Total	**395**	**6.222**	**0.539**		
Financial Literacy	Male	221	5.677	0.584	4.044	0.045
	Female	174	5.801	0.628		
	Total	**395**	**5.732**	**0.606**		
Self-Control	Male	221	5.049	1.566	1.673	0.197
	Female	174	5.251	1.515		
	Total	**395**	**5.138**	**1.545**		

Source: Research data (2020)

4.5.3 Respondent Education level against the Study Variables

Table 4.5 shows that undergraduate individuals were ranked with the highest $\bar{X}$ = 5.978, σ = 0.678, and those with primary education were ranked with the lowest = 5.6214, σ = 0.88 with reference to saving behavior. The study further established that there were significant differences based on education level with respect to saving behavior as (F=2.951, *p*=0.020<0.05). This study is supported by a study by Bennett (2018) where educational achievement had a stronger positive impact on saving behavior for Whites than for Black or Hispanic people.

People who had attained tertiary education had the highest mean ($\bar{X}$ =6.2577, σ =0.463) and those with the least mean ($\bar{X}$ =6.1375, σ =0.750) were those who attained undergraduate education. Further analysis indicated that there were no significant differences in level of education with respect to social influence (F=0.525 *p*=0.718>0.05).

Postgraduates had the maximum mean ($\bar{X}$ =6.388, σ =0.507 while those with primary education had the least mean ($\bar{X}$ =5.464, σ =0.599) with respect to financial literacy.

This study revealed the significant differences based on education levels with respect to financial literacy (F=15.764, *p*=0.000). This showed that the education level affected one's financial literacy which was in line with the study by Tóth *et al.* (2015),where the results showed that the higher the education the better the financial literacy.

Postgraduates in addition had the highest mean ($\bar{X}$ =5.7714, σ =1.317) and those with primary education level had the least ($\bar{X}$ =4.7300, σ =1.594) with respect to self-control. There were significant differences in the level of education with respect to self-control (F=3.294, *p*=0.011<0.05) which suggests that the level of education had an impact on an individual's self-control. This was in line with Aydin & Ziatdinov (2016) research on Turkish primary school teachers, where students were encouraged to learn self-control skills as a basic skill that allowed individuals to be happy and successful, and this was accomplished through education.

Table 4.5: ANOVA Test by Owner-Manager Education level

Variable	Education	N	Mean	Std. Deviation	F Statistic	Sig.
Saving Behavior	primary level	20	5.621	0.880	2.951	0.02
	secondary level	177	5.735	0.563		
	tertiary level	132	5.873	0.507		
	Undergraduate	59	5.978	0.678		
	Postgraduate	7	5.918	0.419		
	Total	**395**	**5.815**	**0.587**		
Social Influence	primary level	20	6.255	0.477	0.525	0.718
	secondary level	177	6.220	0.519		
	tertiary level	132	6.258	0.463		
	undergraduate	59	6.138	0.750		
	Postgraduate	7	6.236	0.446		
	Total	**395**	**6.222**	**0.539**		
Financial Literacy	primary level	20	5.464	0.599	15.764	0.000
	secondary level	177	5.571	0.573		
	tertiary level	132	5.759	0.595		
	undergraduate	59	6.165	0.458		
	Postgraduate	7	6.388	0.507		
	Total	**395**	**5.732**	**0.606**		
Self-Control	primary level	20	4.730	1.594	3.294	0.011
	secondary level	177	4.889	1.621		
	tertiary level	132	5.324	1.509		
	undergraduate	59	5.531	1.250		
	Postgraduate	7	5.771	1.317		
	Total	**395**	**5.138**	**1.545**		

Source: Research data (2020)

4.5.4 Respondent Marital Status against the Study Variables

When considering marital status, table 4.6 reveals that, compared to those who were single who ranked the least ($\bar{X}$ = 5.7452, σ = 0.592), people who had lost their spouses (widowed) were ranked highest ($\bar{X}$ = 6.143, σ = 0.429).With regard of social influence, the divorced ranked highest ($\bar{X}$ = 6.3313, σ =0.359) while those single ranked least ($\bar{X}$ =6.0917, σ= 0.593). The married people had the highest mean ($\bar{X}$

=5.7498, σ =0.587) while the widowed had the least mean ($\bar{X}$ = 5.5429, σ =0.665) with respect to financial literacy. In regards to self-control, persons who had been separated had the maximum mean($\bar{X}$ = 5.853, σ =1.125), and individuals with the least mean were those married($\bar{X}$ =5.049, σ =1.579).This study findings further indicate that there were no significant differences based on marital status with respect to all the study variables of saving behavior (F=1.249, *p*=0.292>0.05); social influence (F=2.272, *p*=0.080>0.05), financial literacy (F=0.672, *p*=0.57>0.05) and self-control (F=1.784, *p*=0.150>0.05).This implies that marital status does not dictate saving behavior, social influence, financial literacy nor self-control.

Table 4.6: ANOVA Test by Owner-Manager Marital Status

Variable	Marital status	N	Mean	Std. Deviation	F Statistic	Sig.
Saving Behavior	Single	85	5.745	0.592	1.249	0.292
	Married	290	5.822	0.591		
	Divorced	15	5.962	0.505		
	Widow	5	6.143	0.429		
	Total	**395**	**5.815**	**0.587**		
Social Influence	Single	85	6.092	0.593	2.272	0.08
	Married	290	6.256	0.522		
	Divorced	15	6.331	0.359		
	Widow	5	6.180	0.769		
	Total	**395**	**6.222**	**0.539**		
Financial Literacy	Single	85	5.711	0.679	0.672	0.57
	Married	290	5.750	0.587		
	Divorced	15	5.562	0.522		
	Widow	5	5.543	0.665		
	Total	**395**	**5.732**	**0.606**		
Self-Control	Single	85	5.297	1.474	1.784	0.15
	Married	290	5.049	1.579		
	Divorced	15	5.853	1.125		
	Widow	5	5.480	1.361		
	Total	**395**	**5.138**	**1.545**		

Source: Research data (2020*)*

4.5.5 Respondent's Level of Income against the Study Variables

Table 4.7 illustrates that individuals earning above 700,000 ranked highest ($\bar{X}$ =5.863, σ=0.540) compared to those earning below 200,000 who ranked lowest ($\bar{X}$ =5.571, σ=0.857) in terms of saving actions with respect to income levels. There were no significant differences based on levels of income levels with respect to saving behavior (F=0.875, *p*=0.454>0.05). The study findings were contrary to the findings of Rehman *et al*. (2011), where it was established for household saving behavior to vary among various income groups.

The individuals earning above 700,000, ranked highest ($\bar{X}$ =6.333, σ =0.491) compared to those earning less than 200,000 that ranked least $\bar{X}$ =5.600, σ =0.911) with respect to social influence. There were significant differences based on income levels with respect to social influence (F=47.045, *p*=0.000<0.05).This implies that the amount of social influence one experiences is dependent on their level of income.

As far as financial literacy is concerned, people earning over 700,000 ranked highest ($\bar{X}$ =5.9080, σ =0.575) relative to those earning less than 200,000 that ranked least ($\bar{X}$ =5.3095, σ =0.941). This study findings further revealed the existence of the significant difference based on level of income with respect to financial literacy (F=11.094, *p*=0.000<0.05). This suggests that one's level of financial literacy can be determined by one's income. The results are in line with the findings of Bhushan & Medury (2013), where income levels were established to impact on financial literacy. However with respect to self-control, those earning above 700,000 ranked highest ($\bar{X}$ =5.135, σ =1.592) while those earning (Ushs) 400,001-700,000 had ranked least ($\bar{X}$ =5.1018, σ =1.556).There were no significant differences in income levels with respect to self-control (F=0.171, *p*=0.916>0.05).

Table 4.7: ANOVA Test by Owner-Manager Level of Income

Variable	Income(Ugshs)	N	Mean	Std. Deviation	F Statistic	Sig.
Saving Behavior	below 200,000	6	5.571	0.857	0.875	0.454
	200,001-400,000	48	5.799	0.672		
	400,001-700,000	181	5.785	0.595		
	above 700,000	160	5.863	0.540		
	Total	**395**	**5.815**	**0.587**		
Social Influence	below 200,000	6	5.600	0.910	7.045	0.000
	200,001-400,000	48	6.051	0.704		
	400,001-700,000	181	6.191	0.487		
	above 700,000	160	6.333	0.491		
	Total	**395**	**6.222**	**0.539**		
Financial literacy	below 200,000	6	5.310	0.941	11.094	0.000
	200,001-400,000	48	5.420	0.772		
	400,001-700,000	181	5.673	0.519		
	above 700,000	160	5.908	0.575		
	Total	**395**	**5.732**	**0.606**		
Self-Control	below 200,000	6	5.150	1.651	0.171	0.916
	200,001-400,000	48	5.282	1.360		
	400,001-700,000	181	5.102	1.556		
	above 700,000	160	5.135	1.592		
	Total	**395**	**5.138**	**1.545**		

Source: Research data (2020)

4.5.6 Respondent Location against the Study Variables

Table 4.8 demonstrates that the Civic Centre was residence to the majority of respondents ($\bar{X}$ =6.138, σ=0.429) with the least $\bar{X}$ =5.672, σ=0.753 in the Industrial Area with respect to saving conduct. There were significant differences based on location with respect to saving behavior (F=2.673, p=0.022<0.05).This means that, where one is located has an impact on one's saving conduct. The research re-echoes the results of Abid & Afridi (2010) where locality had a positive effect on household

saving behavior in District Muzaffarabad as people in rural areas were seen saving more than those in urban areas.

The location of an individual may also impact on an individual's level of social influence. The maximum mean ($\bar{X}$ =6.340, σ =0.583) were located in the Nakasero while the least ranked were located in Industrial Area ($\bar{X}$ =5.891, σ =0.663).This further indicated that there were significant differences based location with respect to social influence (F=4.006, p=0.001<0.05), implying that the level of social influence depended on the location of the individual. This is consistent with Malik's (2015) results, which revealed that migration to urban centers, as opposed to rural areas, was a common element in population dynamics, with major economic, cultural, political, and social consequences for both migrants and their destinations.

Where an individual is located may depict one's level of financial literacy. The majority of individuals were located in the Civic Centre ($\bar{X}$ =6.402, σ =0.485), while the least ranked were located in Kamwokya ($\bar{X}$ =5.111, σ =0.845).The study showed that there were significant differences based on location with respect to financial literacy (F=12.969, p=0.000<0.05). This meant that one's geographic location reflected one's financial literacy. This is consistent with Morgan & Trinh's (2019) study, which revealed a financial literacy gap between Cambodia and Vietnam, though a modest one, because Viet Nam had higher values in all of the covariates that affected financial literacy, financial inclusion, and saving decisions.

Individuals that are located in the Civic Centre ranked highest (X=5.875, σ =0.86) and the least ranked were located in Kisenyi ($\bar{X}$ =4.744, σ =1.77) with respect to self-control. The study revealed that there were significant differences based on location with respect to self-control (F=5.460, p=0.000<0.05).

Table 4.8: ANOVA Test by Owner-Manager's Location

Variable	Location	N	Mean	Std. Deviation	F Statistic	Sig.
Saving Behavior	Nakasero	117	5.839	0.539	2.673	0.022
	Nakivubo	68	5.737	0.632		
	Kamwokya	9	5.762	0.495		
	Kisenyi	140	5.792	0.584		
	Industrial area	29	5.672	0.753		
	Civic center	32	6.138	0.429		
	Total	**395**	**5.815**	**0.587**		
Social Influence	Nakasero	117	6.340	0.584	4.006	0.001
	Nakivubo	68	6.160	0.331		
	Kamwokya	9	6.044	0.562		
	Kisenyi	140	6.250	0.485		
	Industrial area	29	5.891	0.663		
	Civic center	32	6.154	0.681		
	Total	**395**	**6.222**	**0.539**		
Financial literacy	Nakasero	117	5.711	0.602	12.969	0.000
	Nakivubo	68	5.702	0.484		
	Kamwokya	9	5.111	0.844		
	Kisenyi	140	5.615	0.534		
	Industrial area	29	5.902	0.699		
	Civic center	32	6.402	0.485		
	Total	**395**	**5.732**	**0.606**		
Self-Control	Nakasero	117	5.540	1.188	5.46	0.000
	Nakivubo	68	4.977	1.662		
	Kamwokya	9	5.359	1.566		
	Kisenyi	140	4.744	1.770		
	Industrial area	29	4.911	1.365		
	Civic center	32	5.875	0.860		
	Total	**395**	**5.138**	**1.545**		

Source: Research data (2020)

4.5.7 Respondent Form of Business against the Study Variables

Other forms of businesses had the maximum mean ($\bar{X}$ = 6.196, σ = 0.53) from Table 4.9, while solely owned enterprises had the least mean ($\bar{X}$ = 5.768, σ = 0.588) in terms of saving behavior. There are no significant differences based on business form with respect to saving behavior (F=1.787, *p*=0.149>0.05).

Family managed businesses ranked highest ($\bar{X}$ =6.26, σ =0.525) while the other businesses ranked the least ($\bar{X}$ =5.635, σ =0.590) with respect to social influence. The

study findings indicated that there were significant differences based on business form in respect to social influence (F=3.545, *p*=0.015<0.05) indicating that the form of business had an impact on social influence.

Other businesses ranked the highest ($\bar{X}$ =6.26, σ =0.822) while sole owned businesses ranked the least ($\bar{X}$ =5.590, σ =0.633) with respect to financial literacy. The study revealed that there were significant differences in business form with respect to financial literacy (F=7.782, *p*=0.000<0.05). This can be due to the skills of the family heads to cultivate and educate their children to operate and run their businesses.

Family managed businesses ranked highest ($\bar{X}$ =5.496, σ =1.367) while partnered businesses ranked least ($\bar{X}$ =4.952, σ =1.614) with respect to self- control. The results show that there were no significant differences concerning self-control in response to the business form (F=1.941, p=0.122>0.05).

Table 4.9: ANOVA Test by Owner-Manager' Form of Business

Variable	Business Form	N	Mean	Std. Deviation	F Statistic	Sig.
Saving Behavior	Sole owner	186	5.768	0.588	1.787	0.149
	Partnership	129	5.826	0.549		
	Family managed	72	5.874	0.644		
	Others	8	6.196	0.534		
	Total	**395**	**5.815**	**0.587**		
Social Influence	Sole owner	186	6.247	0.533	3.545	0.015
	partnership	129	6.202	0.536		
	Family managed	72	6.260	0.525		
	Others	8	5.635	0.590		
	Total	**395**	**6.222**	**0.539**		
Financial Literacy	Sole owner	186	5.590	0.633	7.782	0.000
	partnership	129	5.803	0.547		
	Family managed	72	5.937	0.524		
	Others	8	6.036	0.822		
	Total	**395**	**5.732**	**0.606**		
Self-Control	Sole owner	186	5.124	1.553	1.941	0.122
	partnership	129	4.952	1.615		
	Family managed	72	5.496	1.367		
	Others	8	5.250	1.432		
	Total	**395**	**5.138**	**1.545**		

Source: Research data (2020)

4.6 Descriptive Statistics Results for the Study Variables

4.6.1 Saving Behavior

This portion of analysis covered the results on savings behavior. The data in table 4.10 revealed that owners of micro and small firms were devoted on how much money they set aside (mean= 6.471, SD= 0.88).This meant that some money was put aside so that it could be ploughed back for business growth.

Similarly, before acquiring anything, these business owners compared market prices and bought cheaper items, implying that they bought cheaply without lowering quality

standards in order to save money (mean= 6.471, SD=0.879). Furthermore these business owners were seen to have a plan on how to manage their finances (mean= 6.511, SD=0.673). In the same way, owners stuck and followed their money management tactics (mean= 6.086, SD=0.949).This was evidenced by them always saving part of their money whenever they got it (mean= 5.894, SD= 1.063).

The business owners mainly saved to achieve certain goals (mean= 6.342, SD= 0.823). This was only possible by them consistently putting aside funds for future (mean= 5.754, SD= 1.087). Furthermore, in order to save money, business owners examined if a purchase was required before proceeding (mean= 5.952, SD= 1.184) along with saving being a good thing to do (mean= 6.000, SD= 1.023). With regard to saving behavior, the (combined mean = 5.815, standard deviation =0.587).

The results, on average, show a minimum of 3.0 and a maximum of 7. In general, this meant that business owners saved adequately for their businesses since they planned to expand them in the future.

Table 4. 10: Descriptive Statistics Results for Saving Behavior

Code	Item	Min	Maẋ	Mean	SD
SB1	I usually pay attention on the amount of money I set aside	3	7	6.471	0.882
SB2	Before I buy something for myself, I compare prices and buy similar cheaper items	3	7	6.471	0.879
SB3	I have a plan on how to manage my money	3	7	6.511	0.673
SB4	I always stick to my money-management strategies	3	7	6.086	0.949
SB5	When I receive money, I always set aside a portion of it	3	7	5.894	1.063
SB6	I save to achieve certain goals	3	7	6.342	0.823
SB7	I usually set aside funds for the future on a regular basis	3	7	5.754	1.087
SB8	I often consider whether a purchase is necessary before taking it up	3	7	5.952	1.184
SB9	I save because it is a good thing to do	3	7	6.000	1.023
	Average	**3.0**	**7.00**	**5.815**	**0.587**
	Valid N (listwise) = 395				

Source: Research data (2020)

4.6.2 Social Influence

This section entailed the results surrounding social impact. Table 4.11 shows that business owners' were good at managing their money as their parents were a good example (mean= 5.506, SD= 1.576).This implies that owners of MSEs were able to learn money management from their parents.

Similarly, regarding their decision to put money aside, the business owner close family approved of that decision (mean= 5.919, SD= 1.562).This means that saving in a family was an important decision. Moreover, people that were important to them thought that they should save (mean= 5.334, SD= 1.129).

Micro and small business owners, on the other hand, were not under any social pressure to save money for the future (mean= 6.701, SD= 1.625).This means that business owners peers do not compel them to put money aside for the future. The

same applied to their closest friends ‘approval of what they did was not important to them (mean=6.851, SD= 1.496).The owners of these businesses agreed that in order to manage their businesses their parents had taught them since childhood (mean= 6.263, SD= 1.487). On the other hand, they agreed slightly that most people whose opinions they valued also required them to participate in money management activities (mean= 6.866, SD= 1.215).The business owners neither agreed nor disagreed their colleagues approval for them to save (mean= 6.711, SD= 1.320). Furthermore, these businesspeople do not compare the amount of money they save and spend with their peers (mean= 6.830, SD= 1.419).They further disagreed to get involved in wealth management tasks with the people they were close to (mean= 5.219, SD= 1.6701).

The owner’s social influence (composite mean = 6.22, standard deviation =0.539).The minimum and maximum values were 4 and 7 respectively. This indicated that the business owners were unsure whether their saving behavior was attributable to their social setting.

Table 4. 11: Descriptive Statistics Results for Social Influence

Code	Item	Min	Max	Mean	SD
SI1	When it comes to money management , my parents are/were a good example	3	7	5.506	1.576
SI2	If I decided to put money aside, my close family would approve to that decision	4	7	5.919	1.562
SI3	People who are important to me think that I should save	4	7	5.334	1.129
SI4	I feel under social pressure to put money aside for the future	3	7	6.701	1.625
SI5	My closest friends approval of what I do is important to me	4	7	6.851	1.496
SI6	I regularly manage my money because my parents taught me so since childhood	4	7	6.263	1.487
SI7	Most people whose opinion I value would want me to engage in money management activities	4	7	6.866	1.215
SI8	If I decided to save, my colleagues would approve to that decision	4	7	6.711	1.320
SI9	I always compare the amount of saving and spending with my friends	4	7	6.830	1.419
SI10	I always get involved in financial management activities with people who are close to me	4	7	5.219	1.670
	Average	**4.00**	**7.00**	**6.22**	**0.539**
	Valid N (listwise) = 395				

Source: Research data (2020)

4.6.3 Financial Literacy

The study findings in table 4.12 reveal that micro and small business owners had knowledge about managing their finances (mean= 6.299, standard deviation=0.877). These business owners were more knowledgeable of how to manage their financial resources (mean= 6.020, standard deviation=0.937). In addition, they had a clear idea on their future financial needs with (mean= 6.215, standard deviation = 0.902).The business owners were fairly conversant with managing their finances with mean= 5.484, standard deviation =1.077). Moreover the owners' receipt of training before the acquisition of training was fair with (mean =5.192, standard deviation 1.572).

The owners/managers had a budget they followed when spending money (mean= 6.119, standard deviation=1.004). With a mean = 5.648, standard deviation = 1.040), the owners 'creation of their own weekly/monthly budget was fair. This implied that these business owners put in place a weekly/monthly budget to follow as they spent their finances knew how much money they spent, which was especially important for individuals who couldn't manage their finances.

The owners ability to plan and implement regular savings was fair with (mean =5.757 ,standard deviation =0.959).Similarly they had the ability to manage their funds very well (mean=5.699, standard deviation=0.817).In addition the business owners were fair at maintaining financial records for their income and expenditure (mean=5.215, standard deviation=1.046).However they neither agreed nor disagreed on their position to discuss money and financial issues with ease (mean=4.322, standard deviation=1.344).

According to the (mean = 5.73, standard deviation = 0.606), minimum value of 3.57, and maximum value of 7, business owners portrayed to have some financial understanding, skills, and capacities in the way they conducted their enterprises.

Table 4.12: Descriptive Statistics Results for Financial Literacy

Code	Item	Min	Max	Mean	SD
FL1	I have knowledge about managing personal finances	1	7	6.299	0.877
FL2	I have better understanding of how to handle my money use	4	7	6.020	0.937
FL3	I have a very clear idea of my future financial needs	1	7	6.215	0.902
FL4	I am familiar with managing my finances	1	7	5.484	1.077
FL5	I receive financial training before acquiring finances	4	7	5.192	1.572
FL6	I have a budget I follow when spending money	1	7	6.119	1.004
FL7	I create my own weekly (monthly) budget	1	7	5.648	1.040
FL8	I am able to plan and implement regular savings	1	7	5.757	0.959
FL9	I have the ability to manage my funds very well	3	7	5.699	0.817
FL10	I have the ability to maintain my financial records for my income and expenditure	1	7	5.215	1.046
FL11	Am in a position to discuss money and financial issues with ease	1	7	4.322	1.344
	Average	**3.57**	**7.00**	**5.73**	**0.606**
	Valid N (listwise) = 395				

Source: Research data (2020)

4.6.4 Self-Control

This section indicates the study findings for self-control descriptive statistics. It was evident from the findings in table 4.13 that the owners of micro and small businesses slightly agreed to resist the temptation of spending money (mean= 5.587, standard deviation= 1.276). However, they moderately disagreed to carry out actions that they felt decent at the moment and regret later (mean= 2.258, standard deviation= 1.511).

Furthermore, these business owners slightly agreed to be more self-controlled when it came to spending money (mean= 5.203, standard deviation= 1.315).These managers moderately disagreed to pleasure and fun to stopping them from work done when they had money (mean= 1.889, standard deviation= 1.079). Similarly, they disagreed with continuing to do something even though they thought it was wrong at occasions when

they had money (mean=2.739, standard deviation=1.513). They further disagreed with having a hard time to break bad money spending habits (mean=3.438, standard deviation=1.589).

The micro and small business owners in addition disagreed to always being unable to control themselves by spending money (mean=2.403, standard deviation=1.293). They also moderately disputed that what occurs to them in the short term is more important than what happens to them in the long run (mean=2.035, standard deviation=1.190). These owners firmly disagreed with the like of immediately spending all the money (mean=1.648, standard deviation=0.816). They were also strongly opposed to being willing to spend now and trusting the future to take care of itself (mean=1.511, standard deviation=0.841).

Finally, the MSE owner had a (mean = 5.138, standard deviation = 1.545) on average. The minimum and maximum values were, on average, 1.5 and 7, respectively. This meant that the proprietors of these businesses somewhat disagreed on the need for self-control in their financial management.

Table 4.13: Descriptive Statistics results for Self-control

Code	Item	Min	Max	Mean	SD
SC1	I'm good at resisting temptation to spend money	1	7	5.587	1.276
SC2	When I have money, I do things that feel good in the moment but regret later on	1	7	5.542	1.511
SC3	I am more self-disciplined when it comes to spending money	2	7	5.203	1.315
SC4	Pleasure often stops me from getting work done when I have the money	1	7	6.111	1.079
SC5	Occasionally , when am with money I keep doing something, even if I know it is wrong	2	7	5.261	1.513
SC6	I find it tough to break my spending habits.	1	7	4.562	1.589
SC7	I have always been unable to control myself by spending money	2	7	5.598	1.293
SC8	When it comes to money am more concerned about what happens to me in a short run than the long run	1	7	5.965	1.190
SC9	I like to spend all my money immediately	2	7	6.352	0.816
SC10	I am prepared to spend now and let the future take care of itself	1	7	6.489	0.841
	Average	**1.50**	**7.00**	**5.138**	**1.545**
	Valid N (listwise) = 395				

Source: Research data (2020)

4.6.5 Aggregate Mean Descriptive Analysis of the Study Constructs

For each of the independent, mediator, moderator and dependent variables, the findings in table 4.14 on the aggregated items showed that social impact had the highest mean of 6.222, standard deviation of 0.539, skewness of -1.124, and kurtosis of 1.930.This implied that business owners moderately agreed that social influence highly affected their money management issues. Despite the social influence, the business owners demonstrated fairness in their saving behavior with mean of 5.815, standard deviation of 0.587, skewness of -1.399 and kurtosis of 3.2. Financial

Literacy had a mean of 5.732, standard deviation of 0.606, skewness of -0.260 and kurtosis of 0.163. This demonstrated that the business owners moderately agreed to be financially literate. Finally, self-control had mean of 5.138, standard deviation of 1.545, skewness of -0.947 and kurtosis of -0.684. This implied that the business owners slightly agreed to have some level of self-control pertaining money management.

Table 4.14: Aggregate Mean Descriptive Analysis of the Study Constructs

	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Saving Behavior	3.00	7.00	5.815	0.587	-1.399	3.2
Social Influence	4.00	7.00	6.222	0.539	-1.124	1.930
Financial Literacy	3.57	7.00	5.732	0.606	-0.260	0.163
Self-control	1.50	7.00	5.138	1.545	-0.947	-0.684
Valid N (listwise) = 395						

Source: Research data (2020)

4.7 Reliability

The internal accuracy of the instruments was determined using the Cronbach's alpha coefficient test. The Cronbach's alpha test produced results ranging from .694 (social influence) to.760 (savings behavior). According to Hair et al. (2010), a coefficient of 0.60 indicates average dependability, whereas a value of 0.70 and above indicates a high reliability threshold for the instrument. The data from the pilot study was thought to be reliable and consistent on this basis, so the survey instrument included all of the survey items. Table 4.15 shows the coefficient alphas for each variable.

Table 4.15: Reliability

	Cronbach's Alpha	Number of Items
Saving Behavior	.760	9
Social Influence	.694	10
Financial Literacy	.759	11
Self-Control	.701	10

Source: Research data (2020)

4.8 Factor Analysis

Factor analysis was used in this study to uncover the latent variables in the data components and prepare them for regression (Idinga, 2015). The need for factor analysis for saving behavior and the other variables were assessed, commencing with deciding on an exploratory form of analysis. The researchers chose EFA because it allowed them to determine the structure of underlying factors as well as the underlying interactions between the measured variables (Idinga, 2015). As a result, exploratory factor analysis was conducted on all items used to assess the independent variable (social impact), mediator (financial literacy), moderator variable (self-control), and dependent variable (saving habit). First, data was tested for its suitability in terms of sample size and the quality of the relationship between variables. A sample of over 300 participants was considered sufficient (Idinga, 2015; Tabachnick & Fidell, 2007).

The data was then factored using the Bartlets sphericity test and the Kaiser- Meyer-Olkin (KMO) sample adequacy calculation (the Bartlets sphericity test was statistically significant if $p< 0.05$, and the KMO index ranges from 0 to 1). Varimax rotation and Principal Component Analysis (PCA) were also applied. PCA was designed to reduce multivariate data to a smaller set of variables so that trends, jumps, and outliers could be identified, showing the links between observations and variables. Varimax rotation was used to define the connection between variables by

way of loading items where they are expected to be loaded. Items with factor loading more than or equal to 0.5 were kept, whereas factors with Eigen values greater than one (1) were extracted.

4.8.1 Factor Analysis for Savings Behavior

The factor loadings for saving behavior were greater than 0.5, according to the factor analysis results in table 4.16. This meant that all of the variables were retained for further examination. All saving behavior aspects, such as keeping track of how much money is set aside and comparing prices before making a purchase, were included.

To summarize, the first component accounted for 24.16 % variation, whereas the second factor accounted for 20.437 % and the third factor accounted for 16.558 % of the variance in savings behavior. Saving consistency, saving aims and saving attitude were the first, second, and third classes of factors, respectively. Regularity in saving, having a saving goal, and a favorable mindset about saving are all requirements for good saving behavior (Lee & Hanna, 2015).The Kaiser-Meyer - Olkin value (0.753) was above 0.5 hence acceptable. Also the Bartlett’s test of sphericity was significant.

Table 4.16: Factor Analysis for Saving Behavior

	Saving consistency	Saving aims	Saving attitude
SB4 : I always stick to my money-management strategies	.788		
SB5: When I receive money, I always set aside a portion of it	.742		
SB6: I save to achieve certain goals		.703	
SB9: I save because it is a good thing to do		.778	
SB8: I often consider whether a purchase is necessary before taking it up		.694	
SB7: I usually set aside funds for the future on a regular basis		.647	
SB2: Before I buy something for myself, I compare prices and buy similar cheaper items			.825
SB3: I have a plan on how to manage my money			.625
SB1: I usually pay attention on the amount of money I set aside			.497
Eigen value	***2.174***	***1.839***	***1.490***
Component Variance (%)	***24.16***	***20.43***	***16.558***
Cumulative Variance (%)	***24.16***	***44.59***	***61.151***
KMO=.753, Bartlett's Test of Sphericity=827.812, df=36, sig=.000			
Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization, Rotation converged in 5 iterations.			

Source: Research data (2020)

4.8.2 Factor Analysis for Social Influence

Social influence factor analysis was undertaken to check that all of the items used were correct and consistent. My parents are/were good money managers, and if I decided to save money, my close relatives would support me were some of the examples of social impact. Only one item (SI7) was unable to load, so it was dropped from consideration. Peer influence, parental influence, and close family effect were identified as the first, second, and third factors, respectively. The first, second and third factors accounted for 23.491 %, 20.75% and 16.878 % of the variance in savings behavior respectively. The Kaiser- Meyer- Olkin (KMO) sampling adequacy measure was employed to determine sampling appropriateness. As indicated in table 4.17, the KMO of 0.739 was greater than 0.5, and Bartlett's Test was significant.

Table 4.17: Factor Analysis for Social Influence

	Peer influence	Parents influence	Close family influence
SI4: I feel under social pressure to put money aside for the future	.725		
SI10: I always get involved in financial management activities with people who are close to me	.686		
SI9: I always compare the amount of saving and spending with my friends	.670		
SI5: My closest friends approval of what I do is important to me	.575		
SI8: If I decided to save, my colleagues would approve to that decision	.538		
SI6: I regularly manage my money because my parents taught me so since childhood		.930	
SI1: When it comes to money management , my parents are/were a good example		.929	
SI2: I decided to put money aside, my close family would approve to that decision			.834
SI3: People who are important to me think that I should save			.772
Eigen value	***2.114***	***1.867***	***1.519***
Component Variance (%)	***23.491***	***20.75***	***16.878***
Cumulative Variance (%)	***23.491***	***44.241***	***61.119***
KMO=.739, Bartlett's Test of Sphericity=88.824, df=36, sig=.000			
Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization, Rotation converged in 4 iterations.			

Source: Research data (2020)

4.8.3 Factor Analysis for Financial Literacy

A factor analysis of financial literacy constructs was performed to confirm that the constructs' elements were trustworthy and valid. Factors with loadings greater than 0.5 were judged relevant and maintained for further data analysis. Ten out of eleven items were loaded, removing item FL 8 as it did not load. Knowledge of personal money management, comprehension of how to handle my money utilization were some of the task items. Financial knowledge, financial skills, and financial ability were the three factors that were loaded. The first, second, and third variables,

respectively, explained 20.284 %, 19.618%, and 18.588 % of the variance in savings behavior. To determine the acceptability of the sampling, the Kaiser- Meyer-Olkin sample adequacy test (KMO test) was utilized. KMO of 0.782 was more than 0.5, and Bartlett's Test was significant, as shown in table 4.18.

Table 4.18: Factor Analysis for Financial Literacy

	Knowledge	**Skills**	**Ability**
FL1: I have knowledge about managing personal finances	.841		
FL2: I have better understanding of how to handle my money use	.758		
FL4: I am familiar with managing my finances	.532		
FL6: I have a budget I follow when spending money		.753	
FL5: I receive financial training before acquiring finances		.715	
FL7: I create my own weekly (monthly) budget		.690	
FL11: Am in a position to discuss money and financial issues with ease			.835
FL10: I have the ability to maintain my financial records for my income and expenditure			.594
FL9: I have the ability to manage my funds very well			.575
Eigen value	***1.826***	***1.766***	***1.673***
Component Variance (%)	***20.284***	***19.618***	***18.588***
Cumulative Variance (%)	***20.284***	***39.901***	***58.490***
KMO=.782, Bartlett's Test of Sphericity=642.983, df=36, sig=.000			
Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization, Rotation converged in 4 iterations.			

Source: Research data (2020)

4.8.4 Factor Analysis for Self-control

Factors with factor loadings larger than 0.5 were chosen for further analysis. Self-control elements included, among other things, financial self-discipline and resistance to the impulse to spend money. Because item SC 7 failed to load, it was removed, leaving only 9 items to load. Self-control was divided into three components, with the first accounting for 21.573 %, the second 17.635 %, and the third 16.471 % in the variance of savings behavior. As seen in table 4.19, the elements were called self-

regulation, willpower, and foresight. Self- Control had Kaiser-Meyer- Olkin (KMO) sample adequacy measure (KMO measure) of 0.707 revealing that the sample was adequate in addition to the Bartlett result being significant.

Table 4.19: Factor Analysis for Self-control

	self-regulation	**willpower**	**Foresight**
SC1: I'm good at resisting temptation to spend money	.743		
SC3: I am more self-disciplined when it comes to spending money	.716		
SC2: When I have money, I do things that feel good in the moment but regret later on	.654		
SC8: When it comes to money am more concerned about what happens to me in a short run than the long run	.573		
SC5: When I deal with money, I sometimes continue to do something even though I know it's wrong.		.753	
SC6: I find it tough to break my spending habits.		.706	
SC4: Pleasure often stops me from getting work done when I have the money		.660	
SC10: I am prepared to spend now and let the future take care of itself			.839
SC9: I like to spend all my money immediately			.769
Eigen value	***1.942***	***1.587***	***1.482***
Component Variance (%)	***21.573***	***17.635***	***16.471***
Cumulative Variance (%)	***21.573***	***39.208***	***55.679***
KMO=.707, Bartlett's Test of Sphericity=490.157, df=36, sig=.000			
Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization, Rotation converged in 4 iterations.			

Source: Research data (2020)

4.9 Test for Regression Assumptions

According to Hair *et al.* (2010), the assumptions used in regression analysis are crucial because they ensure that the sample taken is applicable to the entire study, resulting in the best possible results.

4.9.1 Linearity Test of Variables

Linearity was tested to verify the true strength of all the relationships. This was necessary to identify any linearity deviations that were expected to influence correlation. Linear models forecast values falling in a straight line by providing a constant unit of variable change or slope with a constant change in independent variables. Knowing the degree of the relationship between variables is considered a crucial factor of data analysis. In this analysis linearity was evaluated using coefficient of correlation of Pearson Product Moment. The aim of using correlation was to define independent variables which were considered a prerequisite for running the regression analysis to provide the best predictions. Savings behavior was favorably associated to all research factors, including social influence, financial literacy, and self-control. Table 4.20 summarizes the findings.

Table 4.20: Linearity Test of the Variables

	1	**2**	**3**	**4**
Saving Behavior (1)	1			
Social Influence (2)	.550**	1		
Financial Literacy (3)	.389**	.247**	1	
Self-Control (4)	.432**	.229**	.212**	1

Source: Research data (2020), *** Correlation is significant at p <.01 (2-tailed)*

4.9.2 Normality Test for Variables

The residuals of the regression should follow a normal distribution in order to derive appropriate inferences from the regression results. This was done by looking at a normal Predicted Probability (P-P) plot, which indicated that the data were normally distributed, as it followed the diagonal normality line. Figure 4.1 shows that the observed and expected values in the regression standardized residual were positioned

along the diagonal line with no significant deviations, demonstrating that the normality assumption was met.

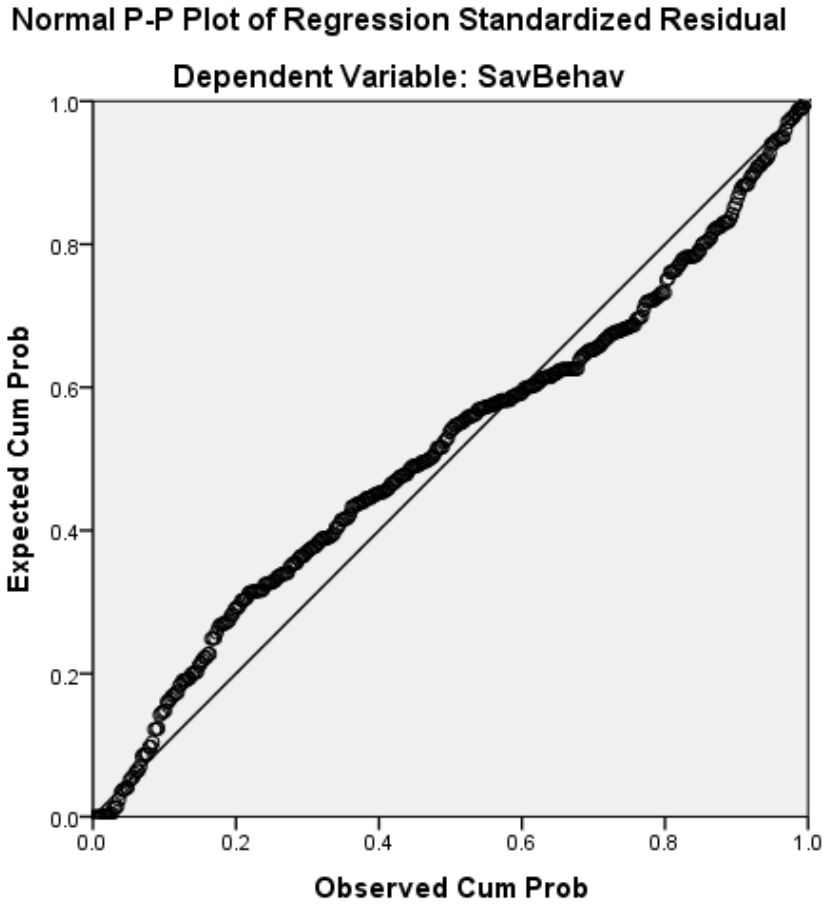

Figure 4. 1: Normality Plot

The researcher also used a Histogram to test for normality, as shown in Figure 4.2, which displayed the form and spread of the data distributions. The error terms in the regression were normally distributed as the histogram of standardized residuals had a nearly normal shape (Garson, 2012). Implying that there was a normal distribution of error since the greatest numbers of predictions were at or near zero followed by "high prediction" or "low prediction" on either tail.

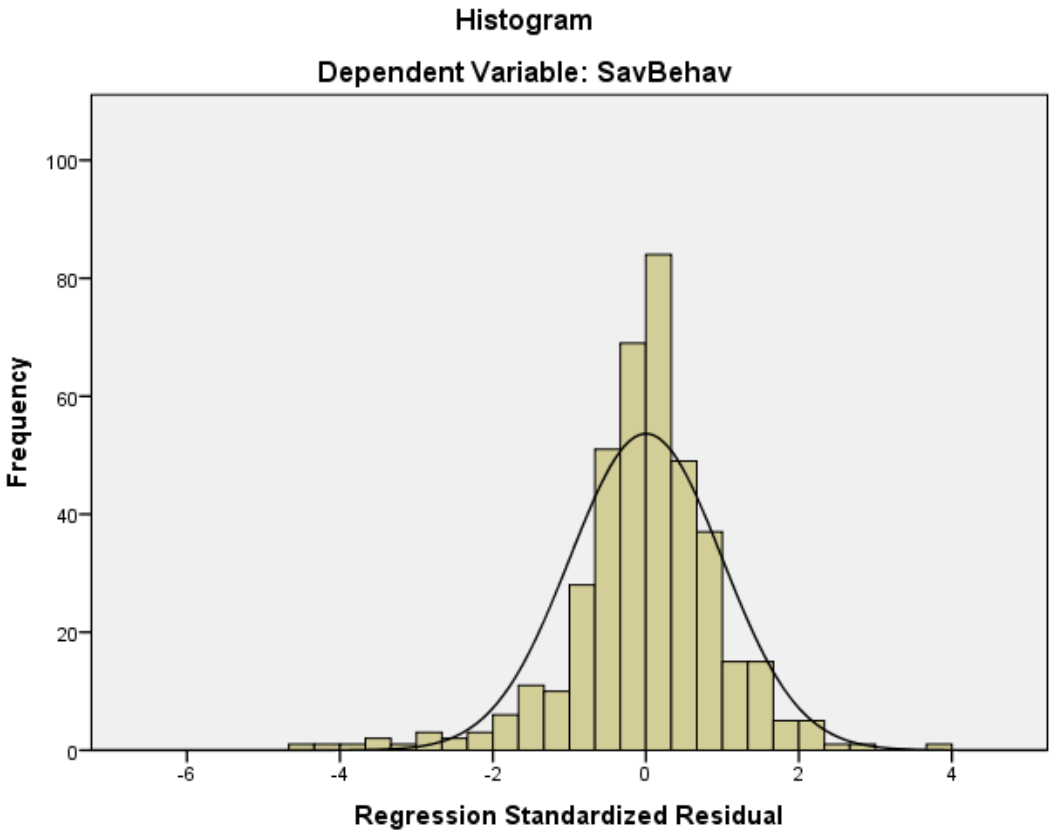

Figure 4.2: Normality Test Histogram

Given that process macro does not require data distribution normality as it uses bootstrapping, a technologically intensive and non-parametric approach to statistical inference (Hayes, 2018). Bootstrapping empirically predicts the distribution of sampling statistics using variability within a sample rather than making assumptions about it. This is accomplished by repeatedly resampling with replacement from the sample in a manner that closely resembles the original sampling technique. Therefore one can compute credible intervals for a sampling distribution consistently regardless of the underlying distribution (Lavrakas, 2008).

Additionally, the skewness and kurtosis values were also examined as part of the normality test. Skewness is used to quantify a distribution's symmetry, while kurtosis is used to measure its peakness, according to Kline (2011); Tabachnick and Fidell (2013). Table 4.21 shows that the data was normally distributed, with skewness

values ranging from -1.399 to -.947. Kurtosis, on the other hand, ranged from -.684 to 3.298, well within the -3 to +3.2 criterion (Kline, 2011). For larger samples (above 300) a data distribution is normal if the scores of skewness and kurtosis is +/- 3.29 (Kim, 2013).

Table 4.21: Test for Normality (Skewness and Kurtosis)

Variable	Mean	SD	Skewness	Kurtosis
Social Influence	5.8149	.58722	-1.399	3.298
Financial Literacy	6.2223	.53869	-1.124	1.930
Self-control	5.7316	.60610	-.260	.163
Saving Behavior	5.1379	.54507	-.947	-.684

Source: Research data (2020)

4.9.3 Multi collinearity Test of the Variables

Multi-collinearity occurs when two or more independent variables are strongly connected, which has a negative impact on the results of multiple regression analysis (Cooper & Schindler, 2014). Multi-collinearity can be observed using tolerance and its inverse variance inflation factor (VIF). A tolerance value greater than 0.20 and a VIF value less than 10 is the cut-off point for evaluating multi-collinearity (Hair *et al.*, 2006; Ghozali, 2005).

There was no multi-collinearity among the independent variables of the study because the VIF values in table 4.22 were less than ten and the degree of tolerance was greater than 0.20.

Table 4. 22: Multi-collinearity Test for the Variables

	Zero Order Correlation	Tolerance	VIF
Social Influence	.515**	.878	1.139
Financial Literacy	.370**	.914	1.094
Self-Control	.484**	.874	1.144

Source: Research data (2020**)**

The analysis obtained self-control (VIF= 1.144), financial literacy (VIF= 1.094) and social influence (VIF= 1.139) based on the output coefficients, collinearity diagnostics hence there was no interdependency of the independent variables.

4.9.4 Homoscedasticity Test for the Variables

The term "homoscedasticity" refers to the fact that the dependent variable experiences the same degree of variation across the entire range of independent variables. The homoscedasticity assumption was tested using Levene's statistic on variance equality. Homoscedasticity is confirmed if the levene statistics are considered to be significant (alpha level> 0.05) (Martin and Bridgmon, 2012).The levene static figures were above 0.05 as seen in Table 4.23 homoscedasticity of variance was confirmed.

Table 4.23: Levene's Homoscedasticity Test

	Levene Statistic	df1	df2	Sig.
Self-Control	.650	6	387	.690
Financial Literacy	1.010	6	387	.418
Social Influence	1.645	6	388	.134
Saving Behavior	.867	6	388	.520

Source: Research data (2020**)**

4.10 Correlation Statistics for the Variables

To identify the correlations between variables, the Pearson Product-Moment Correlation test was utilized. Because all variables were measured at the interval level

and the data was parametric, this correlation method was chosen. Thus the study correlation results showed that social influence was positive and substantially correlated with savings behavior (r =0.550, p < 0.01). Further, financial literacy was positively and significantly correlated to savings behavior (r = 0.389, ρ< 0.01). Similarly, savings behavior was favorably connected with self-control (r = 0.432, ρ< 0.01). This means that social influence, financial literacy, and self-control were predicted to influence savings behavior. Table 4.24 shows the findings of the Pearson research analysis of dependent and independent variables for determining the relationship between variables. There is no multi-collinearity problem in this study as the greatest correlation coefficient is.550, is less than .8.

Table 4.24: Correlation Statistics for the Variables

Variable (N = 395)	**1**	**2**	**3**	**4**
Saving Behavior (1)	1			
Social Influence (2)	.550**	1		
Financial Literacy (3)	.389**	.247**	1	
Self-Control (4)	.432**	.229**	.212**	1

Source: Research data (2020), *** Correlation is significant at p <.01 (2-tailed)*

4.11 Hypotheses Testing

This study used a hierarchical regression model to test the effect of the study covariates and all direct effect hypotheses, a multiple regression model using Hayes (2018) Model 4 to test for mediation, and Hayes Model 15 to test for moderation and moderated mediation hypotheses, as discussed in the previous chapter.

4.11.1 Effect of the Control Variables in the study

The research sought to examine the effect of the control variables in this study before testing for the direct effect hypotheses. Model 1 of table 4.25 depicts the control

variables of the study. Results from this table show gender (β= .144,pv=.165),Age(β=.039, pv=.466),Marital Status (β= .161, pv=.139), Business form (β= .058 , pv=.366), level of income(β= .018, pv=.821) and location(β= .023 , pv=.446)were all found to be insignificant. However, results indicate that education level (β= .172, pv=.005) was found to have a significant effect on saving behavior. Results indicate that this model has with R^2. 048, significant F (7,387) =2.777, pv=.008. An R^2 of .048 implies that the control variables explain 4.8% variance in saving behavior.

4.11.2 Testing the effect of Social Influence on Saving Behavior

The impact of social influence on saving behavior was tested using Model 2 of Table 4.25, while the control variables were kept constant. Gender, age, and marital status were not found to be significant as the p-values were more than 0.05. However, because the p values were less than 0.05, it was discovered that degree of education, business type, income, and location all had a significant impact on saving behavior.

Most crucially, social influence was discovered to have a considerable impact on saving behavior, as evidenced by (β= .590, pv=.000). Furthermore findings indicate that this model has R^2 .368, ΔR^2 .320 with a significant F (1,386) =195.193 and pv=.000.The change in the R^2 of .32 indicate that social influence explained 32% of variance in saving behavior. Based on the above results H_{01} is thereby rejected.

4.11.3 Testing the effect of Financial Literacy on Saving Behavior

The second hypothesis (H_{02}) proposed that financial literacy has no effect on business owners' saving habits. Table 4.25 (Model 3) indicate the results of the hypothesis while controlling for the control variables and social influence. Gender, age, marital status, business form and location were all found insignificant as indicated by pv >

.05.However education and income were both found to be significant as pv < .05. In addition, SI remained significant with (β= .531, pv=.000). Results of FL indicate β=.244, pv=.000 suggesting a significant effect on SB. This model indicates an increase R^2.410, ΔR^2.042,significant F(1,385)=27.674 and pv=.000.The ΔR^2 of .42 implies that Financial Literacy accounts for 4.2% of the variance in SB. Based on the above results H_{02} was therefore rejected.

4.11.4 Testing the effect of Self-Control on Saving Behavior

In the fourth model of Table 4.25, the study looked at the effect of self-control on business owner saving behavior while controlling for confounders, social influence, and financial literacy. The findings in this model reveal that gender, age, marital status, education, and business form were all found to be insignificant as pv>.005.However income and location were both found to be significant since pv <.005.In addition, SI and FL remained significant with SI (β= .473, pv=.000) and FL (β= .203, pv=.000).

Results of SC indicate β= .273, pv=.000 implying SC significant effect on saving behavior. This model shows an improved R^2 of .475, ΔR^2=.065, significant F (1,384) =47.404 and pv=.000.The ΔR^2 of .065implies that while holding constant the controls, social influence and financial literacy, self-control explains 6.5% of the variance in SB. Since SC has β= .273 and pv=.000 hence H_{03} is rejected.

Table 4.25: Results for Control Variables and Direct Effect hypotheses

Variable	M1 (SB)	M2 (SB)	M3 (SB)	M4 (SB)
	B	B	β	B
Age	.039	.035	.023	-.006
Gender	1.44	.033	-.021	-.031
Education	.172**	.191***	.114*	.067
Marital status	.161	.097	.138	.152
Income	.018	-.170**	-.234***	-.168**
Location	.023	.062*	.038	.054*
Business form	.058	.123*	.084	.074
SocInfl	_	.590***	.531***	.473***
FinLiter	_	_	.244***	.203***
SelfContr	_	_	_	.273***
R^2	.048	.368	.410	.475
ΔR^2	.048	.320	.042	.065
F	2.777**	195.193***	27.674**	47.404**

Source*:* Research data (2020*).* Note: **p* <.05, ***p* <.01, ****p* <.001

4.11.5 Testing for mediating effect of Financial Literacy on the relationship between Social Influence and Saving Behavior

Mackinnon (2012) procedures were used in conjunction with the total effect to analyze all direct and mediation effects. These procedures entail the following:

i) X must have a significant effect on M (H_{04})

ii) M must have a significant effect on Y

iii) Testing how X affects Y in the presence of M. (It should be noted that the effect does not have to be significant in order for mediation to take place.) If the effect is significant, partial mediation would have transpired, but if the effect is insignificant, full mediation would have occurred.

iv) a statistically significant coefficient for the indirect relationship between social impact and business owner saving behavior via financial literacy hence Mediation=a_1*b_1 or C (Total effect)-C_1^1(direct effect)

v) The total effect (*C*) $=a_1*b_1+C_1^1$. In all analyses, this study included business owner's gender, age, education, marital status, income level, location and business form as covariates

Table 4.26 indicates the results of multiple regression model using Hayes (2018) macro process version 3.2. Gender, age, education, marital status, income level, location, and business form were all included as control variables in this study analysis. Results of the control variables in model 1 shows that gender, education, income, form of business and location were all found to be significant. However age and marital status were insignificant. The findings from first step, social influence had a significant direct effect on financial literacy with β = .273, *pv* =.000, R^2.287, with a significant F (8,386) =19.403, *pv* =.000. This implies that this model explains 28.7 % of the variance in financial literacy. Based on the above results, condition i) was fulfilled.

In the second step, the study examined whether financial literacy has a direct effect on business owner saving behavior. Findings of 4.26 indicate gender, age, marital status, form of business and location of business were all found to be insignificant. Education and Income level were however found to be significant with pv <.005. In addition, results indicate that FL had a significant effect on saving behavior with β = .236, *pv* =.000. Furthermore the results indicate R^2 of .410, significant F (9,385) =29.730 and *pv* =.000 implying that this model explains 41% of the saving behavior. Based on these results, Mackinnon procedure step 2 was met.

The same table was used to examine the third procedure, which looked at the role of social influence on saving behavior in the presence of financial literacy. Findings point out that social influence has a significant direct effect on saving behavior with β

= .579, p =.000. The third procedure is also met. Finally, to test the mediation we take the results of ($a_1 \times b_1$) β= .273 × .236 =.065, CI = (.033, .106) as indicated in Model 3 of table 4.26. Since the confidence interval are none zero, H_{05} is rejected. Given that procedure 1, 2, and 3 are all significant, this suggests partial mediation of financial literacy in the link between social influence and saving behavior.

Table 4.26: Results for Mediation and Total Effect

Predictors	a_1 (FL)	b_1 (SB)	M5= Mediation=a_1*b_1	Total Effect=C1 (SB)
	β	β		β
Age	.029	.014		.02
Gender	.134*	-.012		.019
Education	.192**	.067*		.112***
Marital Status	-.102	.081		.057
Income	.158***	-.137***		-.100**
Location	.060***	.022		.036*
Business Form	.098**	.049		.072*
SI	.273*	c_1.579***	a_1=.273*.236=.0644	.643***
FL		b_1.236***		
R^2	.287	.410	CI=.033,.106	.368
F	19.403***	29.730***		28.049***

Source: Research data (2020). Note: *p <.05, **p <.01, ***p <.001

Where;

FL=Financial Literacy

SB=Saving Behavior

$_1$SI=Social Influence

CI=Confidence Interval

B=Unstandardized parameter estimates coefficients

a $_1$- to find out how SI affects FL in the equation

$$M=aX+\varepsilon, \quad \text{where } M=FL, X=SI$$

b_1-to determine the effect of FL on SB in the equation

$Y=b_1M+\varepsilon$, where Y=SB, M=FL

SI on the owner SB while controlling for FL in the equation: $Y=b_1M+C^1X+\varepsilon$

M5=Model 5 for determining the mediating effect (a_1*b_1), CI being the confidence intervals used in testing the significance levels for H_{05}.

Total Effect =C1

4.11.6 Self-control as a moderator of the association between Financial Literacy and Saving Behavior (H_{06})

To test for moderation Hayes (2018) Model 15 was applied. Results in Table 4.27, shows the conditional process analysis of the study using PROCESS Macro version 3.2. Results of table 4.27, model 6 indicate that age, marital status were found to be insignificant. On the other hand, gender, education, form of business, level of income and location were found to be significant as these had $p < .05$. In addition, the findings indicate that Social influence has a significant effect on financial literacy ($\beta = .273$, *pv* =.000).

Findings in model 7 of the same table was used to test for the moderation hypotheses (H_{06} and H_{07}).Findings of the control variables in the model indicate that gender, age, marital status, education and form of business were all insignificant. However Income level and location were found to be significant. Most importantly the moderating effect of self-control on financial literacy and saving behavior were found to be significant (($\beta = -.137$, *pv* =.000).Results of this model show that R^2=.524, Significant F (12,382) =35.104, *pv* =.000).

The R^2 implies that this model explains 52.4% of the variance in saving behavior. Based on these results H_{06} is rejected. These results are further illustrated by Figure

4.3 which reveals that at low levels financial literacy, the saving behavior of business owners is high for owners with high levels of self-control than those with low levels of self-control. However, as financial literacy increases, saving behavior increases for both groups but the increase is high with those owners with low levels of self-control than those with high self-control.

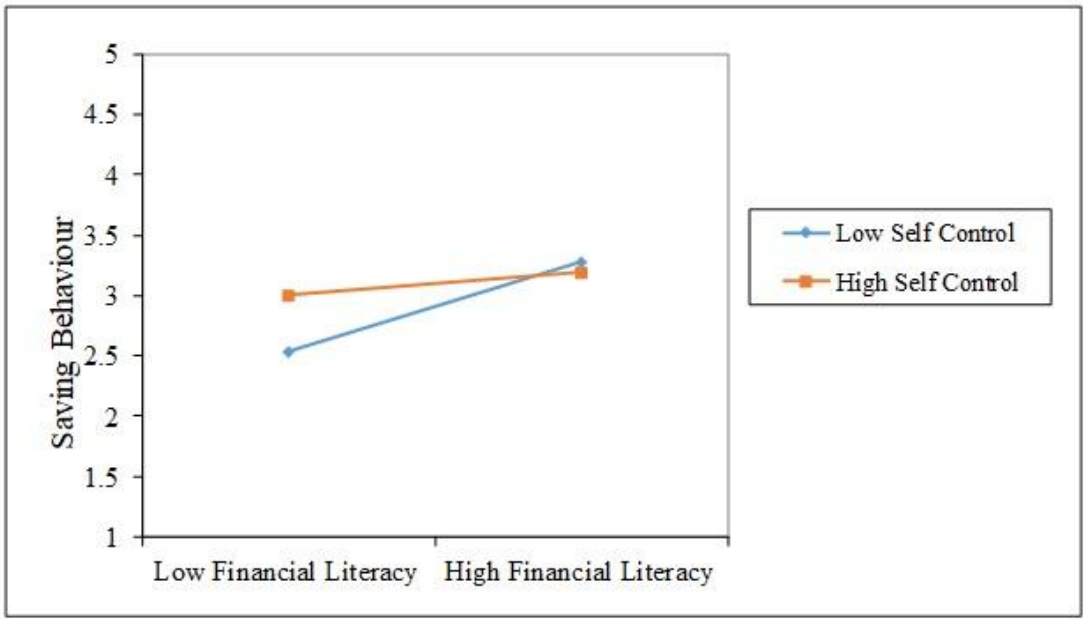

Figure 4. 3: Nature of the moderating effect of SC on FL and SB

4.11.7 Self-control as a moderator of the link between Social Influence and Saving Behavior (H_{07})

The researcher tested whether self-control moderates the connection between social influence and owner saving behavior in a second regression analysis (Model 7). The findings in Table 4.27, revealed that self-control moderated the association between social influence and the saving behavior of the business owner with β = -.089, *p* =.003. Based on this result, H_{07} is therefore rejected. These results are further illustrated by Figure 4.4. This graph shows that owners with high self-control save more than those with low self-control at low levels of social influence. However,

when social influence grows, both groups save more, though the increase is greater for owners with high self-control.

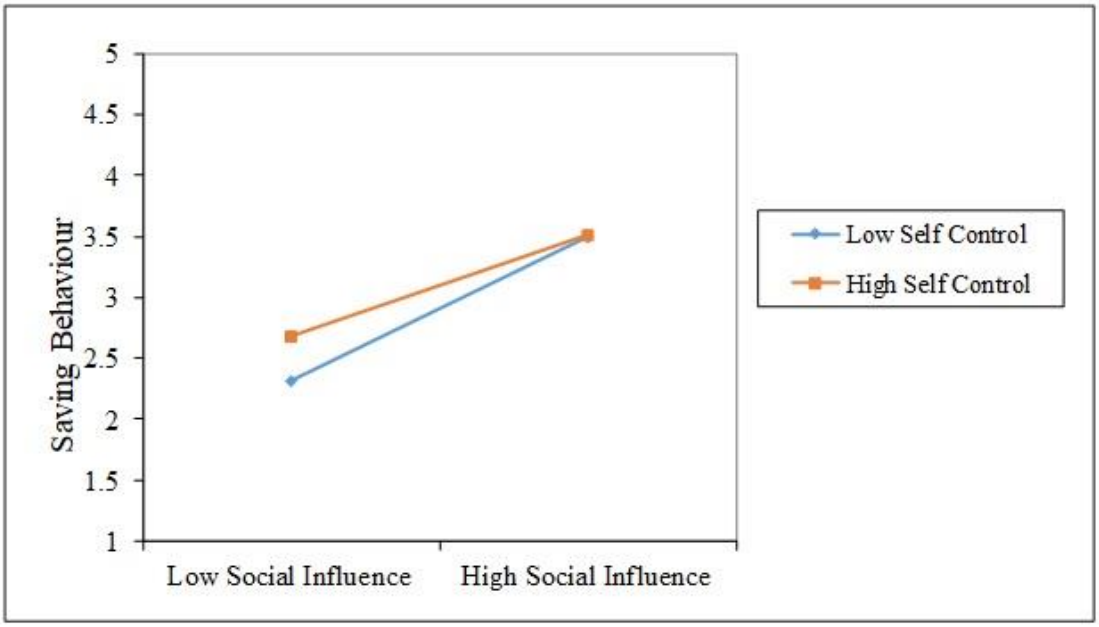

Figure 4.4: Nature of the interaction of Self Control on Social Influence and Saving Behavior

Table 4.27: Results for Moderating effect of Business owner Self-Control on Study Variables

Predictors	M6 (FL)		M7 (SB)	
	B	Pv	B	Pv
Age	.029	.310	.004	.854
Gender	.134	.015*	-.018	.677
Education	.192	.000***	.038	.156
Marital Status	-.102	.075	.071	.123
Income	.158	.000***	-.111	.001**
Location	.060	.000***	.031	.017*
Business form	.098	.004**	.043	.114
SI	.273	.000***	.504	.000***
FL			.234	.000***
SC			.095	.000***
Int1 (SI*SC)			-.089	.003***
Int2 (FL*SC)			-.137	.000***
R2	.287		.524	
F	19.403***		35.104***	

Source: Research data (2020). Note: *p <.05, **p <.01, ***p <.001

Where,

SI=Social Influence, FL=Financial Literacy, SC=Self-Control

Int1 (SI*SC) =Interaction of Social Influence and Self-Control

Int2 (FL*SC) =Interaction of Financial Literacy and Self-Control

M6=Model 6, M7=Model 7

4.11.8 Self-control as a moderator of the indirect relationship between Social Influence and Saving Behavior via Financial Literacy (H_{08})

Table 4.28 depicts model 8 that was used to reveal the results of the moderated mediation. Findings indicate that the moderated mediation was strong at low levels of self-control (β = .122, CI=.060, .200) than at the mean level (β = .064, CI=.032, .105). However, the moderated mediation did not take place at the high level of self-control (β = .006, CI=-.026, .039).These findings are further supported by the moderated mediation index of (β = -037, CI=-.067,-.014) hence rejecting $H_{08.}$ Table 4.28

illustrates that when self-control is low, the impact of social influence on saving behavior via financial literacy is high, but also have a negligible impact when self-control is high.

Table 4.28: (Model 8) Moderating effect of Self-Control on Social Influence and Saving Behavior via Financial Literacy

Level of SC	B	SE	LLCI	ULCI
Low level of SC(-1)	.122	.036	.060	.200
Mean level of SC(0)	.064	.019	.032	.105
High level of SC(+1)	.006	.016	-.026	.039
Mod Med. Index	-.037	.013	-.067	-.014

Source: Research data (2020)

Note: For indirect effects, CI = 95 percent confidence interval; if CI does not include 0, the indirect effect is statistically significant.

Table 4.29: Summary of Study Hypotheses

Hypotheses		Beta	$p-$ Values	Decision
Hypothesis Ho_1:	There was no significant effect of social influence on saving behavior among micro and small enterprise owners in Kampala, Uganda.	.590	.000	Reject
Hypothesis Ho_2:	There was no significant effect of financial literacy on saving behavior among micro and small enterprise owners in Kampala, Uganda.	.244	.000	Reject
Hypothesis Ho_3:	There was no significant effect of self-control on saving behavior among micro and small enterprise owners in Kampala, Uganda.	.273	.000	Reject
Hypothesis Ho_4:	There was no significant effect of social influence on financial literacy among micro and small enterprise owners in Kampala, Uganda.	.273	.000	Reject
			LLCI ULCI	
Hypothesis Ho_5	There was no mediating effect of financial literacy on the relationship between social influence and saving behavior among micro and small enterprise owners in Kampala, Uganda.	.065	.033 .106	Reject
Hypothesis Ho_6	There was no significant moderating effect of self-control on the relationship between financial literacy and saving behavior among micro and small enterprise owners in Kampala, Uganda.	-.137	.000	Reject
Hypothesis Ho_7	There was no significant moderating effect of self-control on the relationship between social influence and saving behavior among micro and small enterprise owners in Kampala, Uganda.	-.089	.003	Reject
		Index	**LLCI ULCI**	
Hypothesis Ho_8	There was no significant moderating effect of self-control on the relationship between social influence and saving behavior through financial literacy	-.037	-.067 -.014	Reject

Source: Research data (2020)

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Overview

This chapter offers summaries of the findings, a review on how they relate to theory and prior research, conclusions, implication to theory and practice, recommendations, and future research suggestions.

5.2 Summary of Findings

The main objective of this study was to examine whether social influence, financial literacy and self-control have an impact on micro and small enterprise owner saving behavior. The study findings indicate that social influence (H_{01}, β =.590, p =.000), financial literacy (H_{02}, β = .244, p =.000) and self-control (H_{03}, β = .273, p =.000) all have a significant direct effect on business owner saving behavior. In addition, social influence use was found to have a significant direct effect on financial literacy (H_{04}, β = .273, p =.000).

The study further examined the meditating effect of financial literacy on the relationship between social influence and owner saving behavior. Results reveal that financial literacy partially mediates this relationship (H_{05}, β = **.**065, SE =.019, CI= .033, .106). Finally, the researchers wanted to establish whether self-control had a moderating effect on the relationships between financial literacy and saving behavior, social influence and saving behavior, and the strength of the indirect relationship between social influence and business owner saving behavior through financial literacy.

According to the findings of the study, self-control moderates the association between financial literacy and micro and small business owner saving behavior (H_{06}, β = -.137, *p* =.000). In addition, owner self-control was found to moderate the link between; social influence and saving behavior (H_{07}, β = -.089, *p* =.003) and university brand personality and students' behavioral intentions to enroll (H_{08}, β =.13, *p* =.007). Finally, the result of the conditional indirect effect (H_{08}) was also found to be significant at (β = -.037, SE = .013, CI = -.067, -.014).

5.2.1 Social Influence and Saving Behavior

The first hypothesis H_{01} was to figure out if there was a link between social impact and saving behavior. The findings revealed a favorable and statistically significant association (β=.590, p=0.000 < 0.05) thereby rejecting hypothesis one. This model explained 32 %(R^2 .32) of the total variance in owner saving behavior. As a result of this finding, we can conclude that one's living environment has an impact on their saving behavior. The social context comprises of parents, peers, and teachers, has an impact on one's saving habit since people can share information and knowledge about how to run their enterprises. In this situation, business owners are better prepared with better techniques to improve their saving habits, which may be used to fund future business expansion.

The findings of the study back up those of Jamal *et al.* (2015) who discovered that family and peers have a positive and significant impact on individuals 'saving behavior. In addition, the researchers concluded family as the first education environment as upbringing and advice is initially attained from them. According to Gudmunson and Danes (2011), family socialization and communication have an impact on people's saving attitudes. The most important factors in Nepalese youth's saving behavior, according to Dangol and Maharjan (2018), were parental financial

education and peer involvement in financial matters, with parents facilitating and encouraging saving behavior and peer involvement in financial matters increasing saving behavior. This supports the social cognitive theory because business owners may learn by watching others, such as family members or peers, as they can remember and replicate what they could have observed in the way they handle their finances.

5.2.2 Financial Literacy and Saving Behavior

The second objective was to examine how financial literacy affected business owner's saving habits. The outcome was favorable and significant (β=.244, p=0.000< 0.05), and hypothesis two was therefore discarded. The results suggest that financial literacy leads to saving behavior through application of the financial knowledge, abilities and skills the individual attains. Micro and small business owners that have the necessary knowledge, abilities, and competence to manage their finances can save.

The findings of this study were identical to those of Morgan and Trinh (2019), who discovered that financial literacy was strongly linked to saving behavior in the Cambodian and Vietnamese markets. Financial literacy, according to Njenga *et al.* (2018), improves an individual's comprehension and ability to make fair and informed savings decisions, and a lack of financial skills causes people to save late or insufficiently to accomplish their goals. One is able to become financially literate on exposure to financial education whether implicitly or explicitly which in a long run improves on their saving culture (Henager & Mauldin, 2015).This implies that business owner ought to be financially aware, exhibit skills and abilities in managing their finances. This would in a long run aid them in accumulating capital that would be utilized in sustaining their operations.

Furthermore, the study findings show that businesspeople are knowledgeable, which has a beneficial impact on their expected return, in this case an increase in savings. This is in line with a study by Aren and Aydemir (2015), which found that increased financial literacy increased expected returns for individuals, as well as a study by Ansong and Gyensare (2012), which claimed that business people must be financially literate in order to improve both their saving and investment decisions.

When micro and small business owners are financially literate, they make more cautious financial decisions. This means they can set aside funds to protect their firms from unforeseen events that could have a negative impact. This is in line with Wong *et al.* (2016), who found that those who are financially literate are in better position to demonstrate appropriate financial conduct by making less risky financial decisions.

5.2.3 Self-control and Saving Behavior

The third objective indicated that self-control had a significant positive effect on saving behavior (β=.273, p=0.000 < 0.05) with the model explaining 6.5% (R^2 of .065) of the total the variance in saving behavior. This indicates that when business owner self-control changes by one unit, the saving behavior is likely to change by 6.5%.The results are significant and reveal that a negative or positive change in business owner self-control leads to a decrease or increase in their saving behavior. This is only achievable if individual business owners can resist the urge to spend, have the willpower to break bad habits, and the vision to secure firm growth by increasing savings through self-control.

The findings back up previous research by Strömbäck *et al.* (2017), who found that people with high self-control are more likely to save money from their paychecks,

have better overall financial behavior, are less agitated about financial problems, and feel more secure about their present and future economic condition. Individuals who have a motivation/goal and saving criteria are more likely to save, according to Rha *et al*. (2006) than those who do not. De Ridder *et* al. (2012), Kim and Hanna (2017) for example, proposed the necessity for additional saving goals in order to boost one's likelihood of saving, which could only be achieved by self-control. This means that business owners must exercise self-control in order to save money for their businesses.

The findings of this study also show that micro and small business owners had some self-control and were able to save. This was most likely due to their level of education, as the majority of them had completed secondary and tertiary degrees, allowing them to control their spending. The same was posited by Wong (2013), where individuals at college age had a stronger savings habit as they budgeted and monitored their expenditure more frequently. This was in addition to them exhibiting improved financial management skills enabling them to better manage their finances.

In addition, the owners of these businesses were able to save money since they were able to operate their businesses with the end in mind (future oriented). Self-disciplined people, according to Putri *et al. (*2017), avoided consuming habits and were thus able to save for the future.

5.2.4 Social Influence and Financial Literacy

The fourth objective was to assess how societal pressure affected financial literacy. As demonstrated by β =.273, p=.000, the study findings indicate that social impact has a significant direct effect on financial literacy. This suggests that a one-unit increase in social influence will result in a 23.3 % rise in financial literacy among business

owners. The result is significant, revealing that a change in social impact leads to a decline or increase in financial literacy. The findings of this study are consistent with earlier research. Hanson and Olson (2018) claim that as individuals grow their family influence their financial outcomes which impacts on their financial attitude and gradually enhances their financial behavior whereas Alekam *et al.* (2018) discovered that despite financial literacy being a major challenge in society, it is greatly influenced by social impact. Alwi *et al.* (2015) confirmed that Individuals learn financial literacy through talks, rulemaking, reinforcement, and modeling from their direct and indirect encounters with peers As a result of this positive socialization, people are able to discuss financial issues and thereby improve their literacy levels (Ameliawati & Setiyani, 2018). This implies that financial literacy can be learned through a socialization process involving family, education, friends, and the media. According to the findings of this study, people who own businesses and have a trustworthy social network are able to share financial ideas, knowledge, experiences, and referrals on how to effectively cope with financial difficulties, which finally manifest into smart financial decisions like saving.

5.2.5 Financial Literacy mediating effect on the relationship between Social Influence and Saving Behavior

The fifth objective was to look into financial literacy's position as a mediator in the relationship between social impact and saving behavior. Financial literacy has a mediation effect on the connection between social influence and saving behavior (β=.065, CI=.033, .106), according to the findings of this study. However, the type of mediation was only partial, as including financial literacy as a mediator somewhat reduces the direct relationship between social influence and saving behavior. This demonstrates that the owners' social networks influenced their saving behavior, and

that this behavior might be improved if these networks were joined with individual financial aptitude, knowledge, and capacity to manage resources. In comparison to previous research, Jamal (2016) stressed the importance of family in training of individuals through use of various methods like explicit instruction, encouragement, observation, and engagement that in turn affected their behavior.

The disparities in literacy levels among Kampala company owners may explain a partial mediation of financial literacy in this study. According to the findings of the study, the majority of business owners only have a secondary education and have limited financial management skills, whereas if they had a higher education, they would be in a better position to manage their finances because they have the necessary financial management skills. Furthermore, the majority of the business owners were jua kali, meaning they had little or no financial literacy, which could have influenced their financial management abilities and saving habits. The findings of this study suggest that the kind of people with which business owners engage may have an impact on their level of financial literacy and subsequent saving behavior.

5.2.6 The moderating effect of Self-Control on the Relationship between Financial Literacy and Saving Behavior

Hypothesis H_{06} postulated that self-control has no moderating effect on the link between financial literacy and saving behavior. The study findings indicate that financial literacy (β =.234, *p* =.000 and self-control (β =.095., *p* =.000) both have a direct significant effect on saving behavior, however, our data on the interaction of the moderator (self-control) reveals that self-control moderates the relationship between financial literacy and saving behavior with β =-.137, *p* =.000 and CI=-.189,-.084 thereby rejecting H_{06}.The results reveal an enhancing moderation as the

relationship between financial literacy and saving behavior increases at both low and high levels of self- control. The study findings revealed that an individual must demonstrate an optimal level of self-control beyond which moderation becomes antagonistic.

The findings of the study show that when business owners lack self-control, they need to improve their financial literacy through trainings and workshops, among other things, in order to improve their saving behavior. If individuals exhibit high levels of self-control, however, the impact of financial literacy on saving behavior is minimal because they are already self-regulated in the way they handle their finances. This suggests that when business people demonstrate high levels of control, this alone is sufficient to achieve the desired saving behavior; hence, no need to improve financial literacy because it will have a minor impact on saving behavior.

This study is line with other researchers that affirm that financial literacy can only impact on saving behavior if and only if individuals had the necessary financial knowledge, skills, and ability to manage their finances (Alekam *et al.,* 2018; Kalwij *et al.,* 2017; Satsios & Hadjidakis, 2018). However a study by Davydenko *et al.* (2021) asserts that individuals with high levels of self-control seemed to plan and saved more for retirement implying that high self-control would boost one's saving culture. In addition, Achtziger *et al.* (2015) asserted that incorporating psychological characteristics such as self-control would ensure proper financial conduct, since a lack of it would result in a person being in debt and remaining in debt hence not saving.

Furthermore, Strömbäck *et al.* (2017) used models to predict financial outcomes by incorporating both financial literacy and self-control and these were established to impact on an individual's awareness of economic and financial principles as this ensures ethical financial behavior.

For this study, in addition to being financially knowledgeable, owners of MSEs are required to self-regulate on how they spend their money and have goals as to why they save for their businesses to thrive.

5.2.7 The moderating role of Self-Control on the link between Social Influence and Saving Behavior

The researcher investigated in Hypothesis H_{07} if self-control may improve the relationship between social impact and saving behavior of business owners. The findings indicate a statistically significant and a positive interaction with β =-.089, *p* =.003and CI=-.147,-.030 thereby rejecting hypothesis H_{07}. The results indicate that when people have a high level of self-discipline, their social environment has a low impact on them, and so their saving behavior is unaffected because they have control over it. When business owners, on the other hand, exhibit poor self-control, their saving behavior is easily influenced by their social environment, which includes family, media, and peers, among others.

These results are consistent with those of Jamal *et al*. (2015), who found that boosting peer socialization during social time promotes consumption behavior, which have an effect on saving behavior. Self-controlling individuals, on the other hand, were more likely to engage in proper financial activities, according to Otto (2013); Trzciska and Goszczyska (2018). In a similar vein, Putri *et al.* (2017) asserted that those who were able to self-regulate themselves were able to resist interpersonal interferences and, as a result, were able to behave appropriately.

The findings of this study in addition support the social cognition theory because business owners can observe their colleagues. This, in turn, has an impact on their saving habits. SCT is built on four pillars, one of which is self-control. Self-control

increases a person's motivation to achieve specific goals, influencing their behavior. This means that, in addition to observing others, business owners can save money when they combine self-control with observation. Furthermore, the research backs up the BLCH because self-control leads to stronger financial planning abilities that motivate individuals to save (Kim & Hanna, 2017).

5.2.8 Moderating effect of Self-Control on the strength of the indirect relationship between Social Influence and business owner Saving Behavior via Financial Literacy

The eighth aim was to ascertain if self-control had a moderating effect on the indirect relationship between social influence and saving behavior that was mediated by financial knowledge. As a result, two research hypotheses were developed: one on mediation (how social influence influenced saving behavior through financial literacy), and the other on self-control moderation procedures. The moderated effect of self-control on the relationship between social impact and saving behavior through financial literacy had a path coefficient of (β=-.037, LLCI=-.067, ULCI=-.014). This study contributes to our knowledge of the indirect path from social influence to saving behavior via financial literacy at different self-control levels.

The conditional indirect effects were found to be significant with business owners having low self-control (β = .122, SE= .036, CI = .060, .200), significantly weak with moderate self-control (β = .064, SE= .019, CI= .032, .105) and insignificant with higher levels of self-control (β = .006, SE= .016, CI = -.026, .039). This shows that the social context in which business owners live and operate is a source of business ideas, expertise, and information (financial literacy) that can be used to achieve the desired saving behavior at both low and high levels of self-control. This means that if a business owner has a low or medium level of self-control, they will need more

positive advice from peers and financial expertise to improve their behavior. On the other side, high levels of self-control indicate that business owners are able to control how they spend, meaning that they do not require social interaction or financial knowledge to influence their saving habit. This is because these people already have a high level of self-control, thus the influence of social influence and financial knowledge on their saving habit is minimal.

5.3 Conclusions of the Study

The research was divided into four parts. The researchers first examined the direct effects of social influence, financial literacy, and self-control on micro and small business owners' saving behavior, as well as the direct impact of social influence on financial literacy. Second, the study looked into the role of financial literacy in mediating the link between social impact and business owners' saving habits. The researchers also looked at the role of self-control as a moderator in the association between financial literacy and saving behavior, as well as the relationship between social influence and saving behavior.

Finally, the researchers looked into how self-control affects the strength of the indirect link between the social effect and owner saving behavior through financial literacy. The findings of the study show that social influence, financial literacy, and self-control all have a positive and significant direct impact on business owner saving behavior, implying that in order to save, one must have appropriate social networks, be financially knowledgeable, and have some self-control. Furthermore, social influence has a positive and significant impact on financial literacy, meaning that one's network is a source of knowledge, ideas, and information that can be used to make decisions. This research also uncovers a partial mediation, concluding that

financial literacy partially mediates the association between social impact and micro and small business owners' saving behavior. This implies that, in addition to being financially literate, one requires social influence to save. The findings also imply that self-control moderates the relationship between financial literacy and saving behavior, as well as the relationship between social influence and saving behavior among business owners. This suggests that the impact of social influence on saving behavior through financial literacy improves or deteriorates depending on one's level of self-control.

Finally, the analysis revealed that the owner's self-control moderates the strength of the indirect association between social impact and saving behavior via financial literacy, with the indirect relationship being low when the owner's self-control is high and much stronger when the owner's self-control is low.

5.4 Contribution of Study to Knowledge

The findings add to our understanding of how sociological, cognitive, and psychological aspects such as social influence, financial literacy, and personality are required to improve individual saving behavior.

In addition, the findings of our study add to our knowledge of behavioral finance by emphasizing the relevance of psychological interventions in improving behavior. According to the study, financial literacy partially mediates the link between social impact and saving behavior among micro and small business owners. Implying that business owners' exposure to their social networks has an effect on their saving behavior, while their saving behavior can be improved even with a minor exposure to financial literacy.

The research contributes to our knowledge by demonstrating that self-control increases the relationship between financial literacy and saving behavior. This study will aid micro and small business owners in better self-financing their operations, allowing them to build equity and broaden their financial base, thus improving their capability to fulfill their clients' needs.

Individual financial literacy is a critical element of any country's economic success since it enables people make informed financial decisions, such as saving, that aid in business growth. In order to further affect individual savings rates, policymakers should focus on promoting financial literacy among individuals from all walks of life through conferences, webinars, and community financial awareness programs, according to the conclusions of this study. In addition to tailoring their financial products to individual needs, financial institutions, particularly banks, should promote financial literacy campaigns to raise awareness and provide savings avenues. As a result, financial literacy can aid economic growth by boosting savings and financial sector expansion.

Finally, this study adds to existing knowledge by demonstrating that when business owners have high levels of self-control, their social business cycles and financial knowledge capability have no impact on their saving behavior; however, if they had low self-control, they would need to interact with their successful business social networks and, more importantly, obtain financial training to positively impact their saving behavior.

5.5 Recommendations

The recommendations below are based on the findings of the study and the literature review. In general, the study key recommendation is for the government to implement

policy initiatives (specific to SI, FL, and SC) targeted at encouraging savings among MSEs through the mainstream financial system, fostering a thriving financial sector and enhancing a country's economic growth.

Other recommendations from the study include: Individuals, particularly those in the business world, should be members of positive social networks/groups that support excellent saving practices regardless of economic conditions. Owners of these enterprises are urged to save through Savings and Credit Co-operatives (SACCOs), which provide a forum for positive social influence, financial education, and the promotion of self-control among their members.

All groups of business people, whether formally or informally, need to improve their financial literacy. This could be accomplished through community financial training, government financial advisory services to all segments of the business community, seminars, workshops, and financial training outreach to be included in micro and small enterprises' annual training and development schedules, conducting financial role plays/ financial literacy programs in communal groups to emphasize the effect of financial knowledge, skills and abilities and their impact on saving thereby aiding in the financing of these MSEs as opposed to relying on credit.

It is also advised that the government adopt tactics to motivate those who lack self-control, such that while they invest to motivate self-control, they should also invest in financial literacy initiatives that will have a long-term effect on the desired saving habit.

Curriculum-based, family-based, social-based, and personal-based initiatives are all effective approaches to develop self-control. Individuals must also employ situational methods, which comprise selecting and altering circumstances in order to favor

forward-looking, goal-oriented activities over temptation-oriented valuing systems, hence boosting saving. To ensure the long-term viability and expansion of these businesses, the government or associations in charge of them should impose a strict percentage based on the firms' earnings into a savings pool that can be tapped and from which members can be financed in the form of low-interest loans to keep their businesses operating.

5.6 Implications of the Study

This section discusses the study theoretical and practical implications.

5.6.1 Implications for Theory

First, the research supports the Social Cognitive Theory (SCT), which postulates learning inside a social text as a process. The SCT proposes that the triangle of interpersonal connections, intellectual forces, and environmental influences can explain human behavior. Individual causes include preferences, interests, qualities, and other particular driving impulses, whereas environmental influences represent conditions and an environment in which action is performed. Self-efficacy, hopes for the outcome, self-control, motivation, emotional processing, and observational learning are some of the factors that may be involved in the behavioral adjustment process (Lown *et al.,* 2015). According to the theory, social learning is influenced by interpersonal, peer-to-peer, socioeconomic, and environmental factors (Chaulagain 2019). All of the study variables correlate to the SCT determinants. Observational learning, mutual determination, and a person's expectations all have an impact on resulting behavior, so social influence improves learning through modeling, reinforcement, and social contact, according to the study findings.

Additionally with business communities, social influence is a key aspect in the development of social capital. In the context of small businesses, support was extracted from relationships with parents (family capital), peers (peer capital) and community capital, which helped these business owners to exchange knowledge, financial, practical and emotional support. Social capital is critical for optimizing learning outcomes overtime and also varies based on the learning environment. The role of social capital in improving learning outcomes changes over time, based on the learning context and stage of development. Interactions and social encouragement from fellow colleagues are important to help individuals adapt to the business atmosphere and get social comfort.

The findings of the study demonstrate the significance of self-control (self-regulation) in achieving the intended saving behavior. People can only accomplish this if they are determined and take the initiative to improve their self-control, thereby being in line with the Behavioral Life Cycle Hypothesis.

Lastly, the research supports the Unified Theory of Behavior. The two dimensions of the theory describe the research constructs of social influence, financial literacy, self-control, and saving behavior, as the study constructs either fall in the first dimension of being immediate determinants or in the second dimension of enhancing the likelihood of a person engaging in the actual behavior.

5.6.2 Implications for Practice

The study findings demonstrate the importance of psychological components in changing saving financial behavior in the business community, particularly in Uganda's informal sector, to policymakers, financial institution management, and financial inclusion advocates. Governments in developing nations should adopt

deliberate policies that encourage individuals to save in order to enhance micro and small company owners' saving habits. There is also a need to raise consciousness of how poor self-control people are vulnerable to social manipulation as this encourages them to spend only on undesirable actions.

The government should separate micro and small business owners into those who have strong self-control and those who have weak self-control, according to the conclusions of this study. Because those with strong levels of self-control can self-regulate their financial behavior, the government should instead offer them investment opportunities. On the other side, for those who lack self-control, the government can enhance their saving habits by having successful business people mentor them on how to use social network for business growth while also enhancing their financial knowledge.

It is also recommended that micro and small business owners develop a saving culture, as this is a crucial factor in ensuring their financial survival. Furthermore, savings increase physical capital, which may be used as security to get additional financing. Savings also increase a firm's liquidity, which leads to investment, high income, and, as a consequence, MSE expansion and long-term sustainability.

The results in addition can assist policymakers devise policies or initiatives to strengthen financial practices of individuals. Self-control tactics can help people better manage their resources hence saving more money. Self-control can be built up by regular practice, such as employing budget tracking as an intervention to assist people create self-control in financial management, according to psychological studies.

Individuals with psychological components of social power and self-control, as well as financial literacy, are capable of making wise financial and savings choices that enable them to obtain loans from formal financial institutions, which is a big challenge in developing countries. This leads to an expanded reach of individuals' financial inclusion within Uganda. Thus, saving behavior proponents need to ensure that both cognitive and non-cognitive factors are considered when implementing saving strategies to facilitate economic development.

When dealing with self-control issues, some approaches to explore include the development of social skills tactics, cognitive coping processes, and mindfulness or sociability mentoring, to ensure effective activities such as saving (Moffitt *et al.*, 2011). Financial managers and educators may support customers by making them conscious of their deficiencies in self-control and by offering tips and strategies to help them improve their degree of financial awareness, resulting in positive saving behavior and therefore improved financial health (Letkiewicz, 2012). Proposing behaviors such as cash allocation, automated savings plans or automated bill payment can help these business owners rein in some of their poor behaviors of spending. Furthermore the study being a behavioral science suggests that environments can be designed to allow cognitive factors so that business owners can make smarter decisions.

The findings of this study will also assist micro finance institutions in cultivating a saving culture among their clients, one of which are MSEs, by focusing on social influence, financial literacy, and self-control among this clientele, thereby facilitating self-financing capability and reducing the inherent risks associated with borrowed funds as these MSEs will be able to start and expand on existing micro-enterprise activities.

5.7 Suggestions for Further Research

The analysis followed cross-sectional research style hence limiting on the true cause and effect of the variables on the behavior, future studies may adopt longitudinal research design to assess if the findings from the study variables were the same given changes in time lags.

The variables examined in the study account for 47.5% of the change in saving behavior, suggesting that additional research is required to look into the other variables responsible for the remaining 52.5 % of the change.

As the study was behavioral in nature using closed ended questionnaires to attain quantitative results limited its scope in terms of outcome. Future research could be reproduced using qualitative data, allowing for more in-depth analysis of the variables' effects on saving behavior.

Social influence in this study comprised of main actors of family and peers and was used as a composite variable. A comparison study incorporating both financial literacy and self-control variables should be conducted in the future in order to fully explore the components of social impact, which include family, peers, school, and social media.

The findings of the current study are limited to micro and small business owners in Kampala, Uganda's main business hub, and do not represent the entire business community. The findings may need to be confirmed in other parts of the nation or in countries with a larger target population given the current study narrow geographic breadth and demographic focus. Future research may take into account other personality traits like optimism, extraversion besides self-control and assess their impact amidst social influence, financial literacy on saving behavior.

5.8 Limitations of the Study

To begin with, the measuring instruments used were originally intended for studies in various geographical contexts, making them unsuitable for this study. However, a pre-testing of the instrument to determine its reliability and validity to the sample under study yielded less skewed results.

There is the chance of measurement error in every survey that collects self-reported financial data. Positive behaviors were likely to overstated, while negative behaviors were understated. Some respondents refused to provide any financial information, omitting questions or providing erroneous responses as a result. This was overcome by assuring respondents that their information would be kept private and that the study was exclusively for academic purposes, thus encouraging them to participate.

Furthermore, respondents appeared to be too preoccupied and unwilling to take the time to complete the survey. This was overcome by making appointments that fit into their schedules in order to get their responses.

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APPENDICES

Appendix I: Summary of literature review and gaps identified

Authors	Topic	Methodology	Findings	Gaps	Contribution of Current Study
Asare *et al.*, (2018)	Explaining the Saving Behavior of Households ' in Ethiopia , Africa Explaining the Saving Behavior of Households " in Ethiopia , Africa	Econometric Model Perspective utilizing the Two Part Model to explain the Saving Behavior in Ethiopia	According to the Model results households that are illiterate and with high expenditure on food are positively correlated with high likelihood of saving	Saving Behavior among households in Ethiopia, Africa	To use an Individual Psychological Approach in explaining Saving Behavior of micro and small enterprises in Kampala. To add other variables of Social Influence and Self- Control alongside Financial Literacy to ascertain whether there will be a change the in Saving Behavior
Gladstone, (2018)	Psychological Characteristics and Household Savings Behavior: The Importance of Accounting for Latent Heterogeneity	Data was collected through a household survey A Finite Mixture Model methodology was used to determine the latent heterogeneity in the relationship between psychological characteristic and Saving Behavior of households	Impact of Psychological characteristic on Saving Behavior vary across different socio-demographic groups. Psychological characteristics are stronger predictors of FB for Lower-Income and Lower-wealth groups than Higher –Income and Higher-wealth groups	Study was contextually undertaken among UK households Study on only the direct effects	Study to be undertaken in Kampala, Uganda in micro and small enterprises Methodologically to apply the Multiple Regression Analysis To go beyond the direct effects and include other viable interactions of the mediator (Financial Literacy and moderator(Self-Control)

Henager & Mauldin, (2015)	Financial Literacy: The Relationship to Saving Behavior in Low- to Moderate-income Households	Logistic Regression was used to examine the association of several factors with Saving Behavior	Saving Behavior is positively correlated with perceived Financial knowledge as opposed to the objective financial knowledge index that is negatively correlated with Saving Behavior	The study was undertaken among low to moderate-income households in United States of America The Dependent Variable (Saving Behavior) is binary coded (dichotomous)	Multiple Regression Analysis will be utilized. This study to be carried out in micro and small enterprises in Kampala, Uganda Dependent Variable(Saving Behavior) is taken as a continuous variable
Younas *et al.,* (2019)	Impact of Self-Control, Financial Literacy and Financial Behavior on Financial Wellbeing	Quantitative Stratified random sampling Multiple statistical tools of Ms. Excel ,SPSS IBM(2012)	SC & FL affect FWB thru.FB. FL has direct sign.impact on FWB .Insign. impact of SC on FWB.FB stronger impact on FWB than the impact of FL & SC on FWB	SC,FL used as IVs FB as mediator variable FWB as DV	FL as mediator variable SC as a moderator variable
Ahmad, (2015)	Determinants Of Savings Behavior In Pakistan: Long Run - Short Run Association And Causality	Times Series Data of co-integration, vector autoregresv.impulse response functn.Longitudinal data used to determine long term assoctn. btn the pre-determined variables	The results suggested that both per capita and financial development have negative impact on private savings on short run.	The study was carried out in Pakistan making use of Secondary data as a basis for time series Analysis	Study to be carried out in Uganda and to apply multiple regression analysis in establishing the relationship between variables. Also the study is to apply Cross sectional research design

Delafrooz *et al.*, (2011)	Determinants of Saving Behavior(SB) and Financial Problem (FP) among Employees in Malaysia	Structural Equation Modelling was used to determine the extent to which Financial Literacy (FL), Financial Management Practices (FMP) and Financial Stress(FS) in influencing Financial Problems and Saving Behavior	Financial Literacy and Financial Management practices were positively predicting Saving Behavior. FL,FMP and FS, FM Practices is the most predictor of Saving Behavior	Study looks at the direct effects of FL, FMP and FS on SB and FS. It focused on determ. of Saving Behavior & Financial Problems among Malaysia Private & Public Sector's workers	This study is to introduce the indirect mediating role of financial literacy and moderating role of Self-Control on Saving Behavior and the moderated mediating role of Self-Control on relationship btn. SI and SB thru. FL. Multiple Regression Analysis will be applied in determining the relationship between the variables
Herawati *et al.*, (2018)	Factors that influence Financial Behavior (Saving) among the Accounting Students in Bali	Quantitative paradigm was used Descriptive analysis and multiple regression analysis The Multi stage random sampling technique was applied	financial literacy, financial self-efficacy, and parents' social economic status have direct effect on the students financial behavior in the accounting department	Study mainly looked at the direct relationships The study was carried out in Bali among accounting students in the 4^{th} and 6^{th} semesters.	Study to be carried out in Kampala ,Uganda in micro and small enterprises Methodologically, study to embrace cluster and systematic random sampling techniques
Akhtar, (2015)	Determinants of Saving Behavior among Staff in International Islamic University College Selangor	Pearson Correlation analysis on the association between the independent variable and the dependent variable The questionnaire applied both the closed and open ended questions	The study can be concluded that all the independent variables (Financial Management, Financial Literacy and Financial Distress have positive relationship with SB	Study looks at the direct relationship between the independent variables i.e. Financial Management, Financial Literacy and Financial Distress on Saving Behavior	Study to apply the multiple regression analysis Study to use the indirect effects of Financial Literacy and the moderating role of Self –Control to improve on the saving behaviors of micro and small enterprise owners in Kampala, Uganda. Study area is anchored in the MSEs

Ruefenacht *et al.*, (2015)	Drivers of long-term saving behavior from the Consumers' Perspective	Online Survey carried out among German Savers Structural Equation Modelling used to establish the effect of the social context and individual's attitude towards consumer's long term saving	Both the social context constructs of social norms and relationship quality significantly affect saving attitude which in turn affect significantly affect the long term saving	Study was carried out among German Savers. Study embraced the Consumer Perspective. Representative sample from UK Households	Current study to be carried out in Uganda using both an Individual Psychological Approach and a Personal Behavioral Finance Perspective using primary data. Multiple Regression analysis will be used to determine the relationships between the study variables.
Morgan & Trinh, (2019)	Determinants and Impacts of Financial Literacy in Cambodia and Viet Nam	Use of both Linear Probability and Probit Estimation	Financial Literacy has positive correlation with Saving behavior. Despite the many efforts of Financial Literacy, literacy levels are still low in the developing economies and have subsequently affected the Financial Behaviors including Saving	Study had been carried out in the low income economies of Asia, Cambodia and Viet Nam	Study to be carried out in an emerging economy in Africa, Uganda Another variable to be introduced in addition to Financial Literacy i.e. Self-Control to strengthen the relationship between SI and SB Multiple Regression Analysis to be utilized Dependent Variable (Saving Behavior) to be looked at as a Continuous Variable as opposed to Binary

Ariffin *et al.,*. (2017)	Students perceptions towards Financial Literacy &Saving Behavior	Pearson Correlation Analysis used Quantitative design	SB,SI have positive correlation with FL Self-Control negative correlation with FL	SI,SC and FL all direct effects Study undertaken in Malaysia.	Introduction of interactive variables where FL as a mediator and SC as a moderator. Multiple Regression Analysis to be used. Study to be carried out in MSE operating in Kampala (Uganda)
Firmansyah, (2014)	The Influence of Family Backgrounds toward Student's Saving Behavior: A Survey of College Students in Jabodetabek	Selection of students was done purposively using google drive application along with random sampling Multiple regression Analysis	Parents support to do saving and parents 'experience of saving positively correlates with students' Saving Behavior.	Study was carried out in Jabodetabek area in Indonesia	Current study is to be carried out in MSEs in Uganda Selection of the owners was through use of cluster and systematic random sampling techniques
Jonubi & Abad ,(2013)	The Impact Of Financial Literacy On Individual Saving: An Exploratory Study In The Malaysian Context	A Probit Regressn. DV was dichotomous. Exploratory design is used. Convenience Sampling used Saving Behavior measured in Binary form.	Financial Literacy of individuals positively influence one's Saving Behavior. Financial Knowledge overcomes the decrease in savings	Study carried out in the Malaysia Context Respondents were mainly individuals directly or indirectly familiar to the researcher	Study to be carried out in the Uganda. Multiple Regression analysis will be utilized in determining the relationship between variables This study will be Explanatory, identifying cause –effect relationship between variables. Study is entirely probabilistic. Saving Behavior to be taken as a continuous variable

Sabri & Macdonald, (2010)	Savings Behavior and Financial Problems Among College Students: The Role of Financial Literacy in Malaysia	Multiple regression analysis was applied to predict Saving Behavior Random sampling was done in selecting the respondents from both the public and private universities in Malaysia	Students with higher Financial Knowledge are high likely to engage in the Saving Behavior Students with greater influence from socialization agents rarely engage in Saving Behavior	Contextually study was under carried from Malaysia	Study to be carried out in in Kampala, Uganda. Study to be carried out solely in micro and small enterprises.

Appendix II: Introduction Letter

Dear Sir/ Madam,

I am Eva Mpaata a PhD candidate in the School of Business and Economics of Moi University. I am researching the Topic titled: Social Influence, Financial Literacy, and Self-control on the Saving Behavior among micro and small enterprise owners in Kampala, Uganda.

I kindly request you to respond to the questions in the attached questionnaire. Any information provided will be used with the utmost confidentiality and exclusively for purposes of this study. Your participation is entirely voluntary and will be anonymous.

Your positive participation in this research will be highly appreciated.

Yours faithfully,

Eva Mpaata
Mobile +256782958792/+256 757061512
E-mail: empaata@mubs.ac.ug

Appendix III: Questionnaire

Section A: Demographic Profile

Please tick "√" the appropriate number for each of the following:

1. **Gender:** male (1) female (2)

2. **Age:** 15-20**(**1) 21 – 25(2) 26 – 30(3) 31 – 35(4) 36 – 40 (5) 41 – 45 (6) above 45(7)

3. **Marital Status**: single (1) married (2) divorced (3) widow (4) widower (5)

4. **Education Level:** primary level (1) secondary Level (2) tertiary level (3) undergraduate (4) postgraduate (5) none (6)

5. **Form of business ownership:** sole owner (1) partnership (2) family managed (3) if other specify (4)

6. **Monthly Income** (UGX): below 200, 000(1) 200,001-400,000 (2) 400,001-700,000 (3) above 700,000 (4)

Demographics on micro and small enterprises

7. Location of the business Nakasero (1) Nakivubo (2) Kamwokya (3) Kisenyi (4) Industrial area (5) Civic center (6)

Section B: Instructions

For each item in this study, if you strongly disagree then tick number 1; moderately ***disagree,*** tick ***number 2*** ; if you slightly disagree, tick number 3; If you *neither agree or disagree* tick ***number 4;*** if you slightly agree tick number 5; If you moderately agree, then tick number 6 and if you strongly agree tick ***number 7***

Please tick "√" **one number** that best describes the extent you disagree or agree with each statement below;

Remember; 1=strongly disagree (SD); 2=moderately disagree; 3=slightly disagree; 4= neither agree nor disagree; 5=slightly agree; 6=moderately agree and Seven (7) = strongly agree (SA)

Section B (a): **Saving Behavior**		**SD**						**SA**
SB1	I usually pay attention on the amount of money I set aside	1	2	3	4	5	6	7
SB2	Before I buy something for myself, I compare prices and buy similar cheaper items	1	2	3	4	5	6	7
SB3	I have a plan on how to manage my money	1	2	3	4	5	6	7
SB4	I always stick to my money-management strategies	1	2	3	4	5	6	7
SB5	When I receive money, I always set aside a portion of it	1	2	3	4	5	6	7
SB6	I save to achieve certain goals	1	2	3	4	5	6	7
SB7	I always put money aside on a regular basis for the future	1	2	3	4	5	6	7
SB8	I often consider whether a purchase is necessary before taking it up	1	2	3	4	5	6	7
SB9	I save because it is a good thing to do	1	2	3	4	5	6	7

Section B (b): Social Influence		**SD**						**SA**
SI1	When it comes to money management , my parents are/were a good example	1	2	3	4	5	6	7
SI2	If I decided to put money aside, my close family would approve of that decision	1	2	3	4	5	6	7
SI3	People who are important to me think that I should save	1	2	3	4	5	6	7
SI4	I feel under social pressure to put money aside for the future	1	2	3	4	5	6	7
SI5	My closest friends' approval of what I do is important to me.	1	2	3	4	5	6	7
SI6	I regularly manage my money because my parents taught me so since childhood	1	2	3	4	5	6	7
SI7	Most people, whose opinions I value, would want me to engage in money management activities	1	2	3	4	5	6	7
SI8	If I decided to save, my colleagues would approve of that decision	1	2	3	4	5	6	7
SI9	I always compare the amount of savings and spending with my friends	1	2	3	4	5	6	7
SI10	I always get involved in financial management activities with people who are close to me	1	2	3	4	5	6	7

Remember; 1=strongly disagree (SD); 2=moderately disagree; 3=slightly disagree; 4= neither agree nor disagree; 5=slightly agree; 6=moderately agree and Seven (7) = strongly agree (SA)

Section B(c): Financial Literacy		**SD**						**SA**
FL1	I have knowledge about managing personal finances	1	2	3	4	5	6	7
FL2	I have better understanding of how to handle my money use	1	2	3	4	5	6	7
FL3	I have a very clear idea of my future financial needs	1	2	3	4	5	6	7
FL4	I am familiar with managing my finances	1	2	3	4	5	6	7
FL5	I receive financial training before acquiring finances	1	2	3	4	5	6	7
FL6	I have a budget I follow when spending money	1	2	3	4	5	6	7
FL7	I create my own weekly (monthly) budget	1	2	3	4	5	6	7
FL8	I am able to plan and implement regular savings	1	2	3	4	5	6	7
FL9	I have the ability to manage my funds very well	1	2	3	4	5	6	7
FL10	I have the ability to maintain financial records for my income & expenditure.	1	2	3	4	5	6	7
FL11	Am in a position to discuss money and financial issues with ease	1	2	3	4	5	6	7

Section B (d): Self-Control		**SD**						**SA**
SC 1	I'm good at resisting the temptation to spend money	1	2	3	4	5	6	7
SC 2	When I have money, I do things that feel good at the moment, but I regret it later.	1	2	3	4	5	6	7
SC 3	I'm more self-disciplined when it comes to spending money	1	2	3	4	5	6	7
SC4	Pleasure and fun often stop me from getting work done when I have the money.	1	2	3	4	5	6	7
SC5	Occasionally, when I'm with the money I keep doing something, even if I know it's wrong.	1	2	3	4	5	6	7
SC6	I find it tough to break my spending habits.	1	2	3	4	5	6	7
SC7	I have always been unable to control myself by spending money.	1	2	3	4	5	6	7
SC8	When it comes to money, I'm more concerned about what happens to me in the short run than in the long run.	1	2	3	4	5	6	7
SC 9	I like to spend all my money immediately	1	2	3	4	5	6	7
SC10	I am prepared to spend now and let the future take care of itself	1	2	3	4	5	6	7

Kindly ensure that *all items* are answered.

''Thank `you for your time and Co-operation''

Appendix IV: Research Work Plan

	Time Frame									
Activity	Jan & Feb 2019	Mar–July 2019	Aug-Sept 2019	Jan 2020	Feb 202	Apr 202	Jun-Sep	Oct-	Jan-Mar	May 2021
Developing concept paper										
Proposal Writing										
Departmental defense										
School defense										
Pilot and data collection										
Data analysis										
Seminar defense										
Publications										
Final defense										
Submission of thesis										

Appendix V: Research Budget

Particulars	**Units**	**Unit Cost**	**Amounts (kshs)**
A. Stationary			
Note Books	20	120	2,400
Printing			10,000
Photocopying			5,000
Pens	2 box	500	1,000
Binding			5,000
Box Files	6	200	1,200
Sub- Total			**24,600**
B. Transport & Accommodation			
Communication and Transport			20,000
Accommodation			30,000
Sub Total			**50,000**
C. Support Services			
Research Assistants Remuneration	4	10,000	40,000
Publication	2	10,000	20,000
Conference	2	5,000	10,000
Miscellaneous			30,000
Sub Total			**100,000**
Grand Total			**174,600**

Appendix VI: Pilot study results

Reliability

Saving Behavior

Reliability Statistics

Cronbach's Alpha	N of Items
.696	9

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I pay close attention to how much money I spend	44.0976	43.040	.564	.721	.644
Before I buy something for myself, I compare prices on similar items	44.4390	43.352	.455	.374	.657
I have a plan for how to use my money	44.5610	41.002	.640	.696	.627
I stick and follow the plan I have on how to use my money	44.9512	37.048	.669	.573	.603
When I get money, I always spend it immediately	45.8293	51.745	-.123	.309	.800
I save to achieve certain goals	44.7805	45.526	.265	.333	.690
I always put money aside on a regular basis for the future	45.1951	39.561	.496	.532	.643
In order to save, I often consider whether there's necessity before I make a purchase	44.8780	41.510	.427	.442	.659
I always carefully follow my monthly budgeting.	44.5854	44.349	.361	.292	.673

Social Influence

Reliability Statistics

Cronbach's Alpha	N of Items
.842	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
When it comes to money management , my parents are a good example	41.6098	116.644	.505	.488	.832
I decided to put money aside, my close family would approve to that decision	42.3902	109.494	.639	.524	.818
People who are important to me think that I should save	41.5610	119.202	.596	.503	.824
I feel under social pressure to put money aside for the future	42.8293	120.045	.394	.303	.843
my closest friends approval of what I do is important to me	42.8049	119.461	.471	.389	.834
I regularly manage my money because my parents taught me so since childhood	42.0488	111.098	.676	.562	.814
Most poeople whose opinion I value would want me to engage in money management activities	41.5122	125.506	.532	.402	.831
If I decided to save. my colleagues would aprove to that decision	42.9756	113.874	.667	.529	.816
I always compare the amount of saving and spending with my friends	42.8537	119.878	.492	.408	.832
I always get involved in financial management activities with people who are close to me	42.1951	121.511	.476	.403	.833

Financial Literacy

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.767	.764	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I have knowledge on how to invest my money	30.4878	43.756	.321	.326	.769
I have better understanding of how to manage my credit use	30.9756	38.774	.691	.626	.702
I have a very clear idea of my future financial needs	30.8049	36.711	.652	.604	.701
I have the ability to maintain financial records for my income & expenditure.	31.2195	37.076	.612	.555	.710
I have little or no difficulty in managing my money	31.5610	48.902	.060	.245	.814
I have the ability to prepare my own weekly (monthly) budget	31.2927	33.562	.781	.691	.667
I am able to plan and implement regular savings	31.4146	41.249	.366	.346	.765

Self-Control

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.722	.710	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I'm good at resisting temptation to spend money	29.5122	73.706	.072	.468	.757
When I have money, I do things that feel good in the moment but regret later on	30.0976	63.790	.442	.515	.690
I am more self-disciplined when it comes to spending money	29.5854	75.549	.025	.473	.762
Pleasure and fun often stop me from getting work done when I have the money	30.7073	56.112	.639	.639	.644
Occasionally , when am with money I keep doing something, even if I know it is wrong	30.8780	57.360	.520	.396	.670
I have a hard time breaking habits of spending money	30.8293	56.395	.585	.600	.655
I have always been unable to control myself by spending money	30.9024	62.790	.437	.574	.690
When it comes to money am more concerned about what happens to me in a short run than the long run	30.2683	58.451	.614	.436	.653

Pilot Factor Analysis

Saving Behavior

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.647
Bartlett's Test of Sphericity	Approx. Chi-Square	126.092
	Df	36
	Sig.	.000

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.438	38.198	38.198	3.438	38.198	38.198
2	1.715	19.059	57.256			
3	1.016	11.284	68.541			
4	.819	9.103	77.644			
5	.607	6.749	84.394			
6	.460	5.106	89.499			
7	.446	4.953	94.452			
8	.360	4.000	98.453			
9	.139	1.547	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
I pay close attention to how much money I spend	.740
Before I buy something for myself, I compare prices on similar items	.644
I have a plan for how to use my money	.730
I stick and follow the plan I have on how to use my money	.814
When I get money, I always spend it immediately	
I save to achieve certain goals	
I always put money aside on a regular basis for the future	.656
In order to save, I often consider whether there's necessity before I make a purchase	.591
I save because it is a good thing to do	.506

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Social Influence

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.786
Bartlett's Test of Sphericity	Approx. Chi-Square	134.615
	Df	45
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.269	42.691	42.691	4.269	42.691	42.691
2	1.118	11.179	53.869			
3	1.077	10.773	64.642			
4	.881	8.812	73.454			
5	.702	7.021	80.475			
6	.570	5.695	86.170			
7	.422	4.223	90.393			
8	.402	4.024	94.417			
9	.324	3.241	97.659			
10	.234	2.341	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
When it comes to money management , my parents are a good example	.628
If I decided to put money aside, my close family would approve to that decision	.746
People who are important to me think that I should save	.681
I feel under social pressure to put money aside for the future	
my closest friends approval of what I do is important to me	.567
I regularly manage my money because my parents taught me so since childhood	.771
Most people whose opinion I value would want me to engage in money management activities	.650
If I decided to save. my colleagues would approve to that decision	.762
I always compare the amount of saving and spending with my friends	.585
I always get involved in financial management activities with people who are close to me	.601

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Financial Literacy

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.673
Bartlett's Test of Sphericity	Approx. Chi-Square	104.661
	Df	21
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.213	45.907	45.907	3.213	45.907	45.907
2	1.191	17.013	62.919			
3	.946	13.511	76.431			
4	.759	10.844	87.275			
5	.462	6.600	93.874			
6	.216	3.091	96.965			
7	.212	3.035	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
I have knowledge on how to invest my money	
I have better understanding of how to manage my credit use	.796
I have a very clear idea of my future financial needs	.807
I have the ability to maintain financial records for my income & expenditure.	.738
I have little or no difficulty in managing my money	
I have the ability to prepare my own weekly (monthly) budget	.884
I am able to plan and implement regular savings	.583

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Self-Control

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.659
Bartlett's Test of Sphericity	Approx. Chi-Square	119.862
	Df	28
	Sig.	.000

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.280	40.997	40.997	3.280	40.997	40.997
2	1.682	21.021	62.017			
3	1.043	13.042	75.059			
4	.673	8.413	83.472			
5	.462	5.773	89.246			
6	.360	4.500	93.746			
7	.316	3.954	97.700			
8	.184	2.300	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
I'm good at resisting temptation to spend money	
When I have money, I do things that feel good in the moment but regret later on	.630
I am more self-disciplined when it comes to spending money	
Pleasure and fun often stop me from getting work done when I have the money	.831
Occasionally , when am with money I keep doing something, even if I know it is wrong	.688
I have a hard time breaking habits of spending money	.806
I have always been unable to control myself by spending money	.686
When it comes to money am more concerned about what happens to me in a short run than the long run	.732

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Appendix VII: Final Study Results

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SavBeh	395	5.8149	.58722	-1.399	.123	3.298	.245
SocInflu	395	6.2223	.53869	-1.124	.123	1.930	.245
FinLiter	395	5.7316	.60610	-.260	.123	.163	.245
SelfContr	395	5.1379	1.54507	-.947	.123	-.684	.245
Valid N (listwise)	395						

Correlation Analysis Results

		SavBeh	SocInflu	FinLiter	SelfContr
SavBeh	Pearson Correlation	1	.550**	.389**	.432**
	Sig. (2-tailed)		.000	.000	.000
	N	395	395	395	395
SocInflu	Pearson Correlation	.550**	1	.247**	.229**
	Sig. (2-tailed)	.000		.000	.000
	N	395	395	395	395
FinLiter	Pearson Correlation	.389**	.247**	1	.212**
	Sig. (2-tailed)	.000	.000		.000
	N	395	395	395	395
SelfContr	Pearson Correlation	.432**	.229**	.212**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	395	395	395	395

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

Factor Analysis for Saving Behavior

```
 FACTOR
/VARIABLES SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB1
/MISSING LISTWISE
/ANALYSIS SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB1
/PRINT INITIAL EXTRACTION ROTATION
/FORMAT SORT BLANK(.49)
/CRITERIA FACTORS(3) ITERATE(25)
/EXTRACTION PC
/CRITERIA ITERATE(25)
/ROTATION VARIMAX
/METHOD=CORRELATION.
```

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.185	35.386	35.386	3.185	35.386	35.386	2.174	24.159	24.159
2	1.197	13.297	48.683	1.197	13.297	48.683	1.839	20.434	44.593
3	1.122	12.468	61.151	1.122	12.468	61.151	1.490	16.558	61.151
4	.880	9.775	70.926						
5	.763	8.482	79.408						
6	.592	6.578	85.986						
7	.521	5.793	91.779						
8	.411	4.568	96.347						
9	.329	3.653	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
SB4	.788		
SB5	.742		
SB6		.703	
SB9		.778	
SB8		.694	
SB7		.647	
SB2			.825
SB3			.625
SB1			.497

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]
a. Rotation converged in 5 iterations.

Factor Analysis for Social Influence

```
FACTOR
  /VARIABLES SI1 SI2 SI3 SI4 SI5 SI6 SI8 SI9 SI10
  /MISSING LISTWISE
  /ANALYSIS SI1 SI2 SI3 SI4 SI5 SI6 SI8 SI9 SI10
  /PRINT INITIAL EXTRACTION ROTATION
  /FORMAT SORT BLANK(.5)
  /CRITERIA FACTORS(3) ITERATE(25)
  /EXTRACTION PC
  /CRITERIA ITERATE(25)
  /ROTATION VARIMAX
  /METHOD=CORRELATION.
```

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.542	28.249	28.249	2.542	28.249	28.249	2.114	23.491	23.491
2	1.910	21.223	49.472	1.910	21.223	49.472	1.867	20.750	44.241
3	1.048	11.647	61.119	1.048	11.647	61.119	1.519	16.878	61.119
4	.936	10.395	71.514						
5	.760	8.446	79.961						
6	.590	6.558	86.519						
7	.564	6.265	92.784						
8	.441	4.903	97.687						
9	.208	2.313	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
SI4	.725		
SI10	.686		
SI9	.670		
SI5	.575		
SI8	.538		
SI6		.930	
SI1		.929	
SI2			.834
SI3			.772

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]
a. Rotation converged in 4 iterations.

Factor Analysis for Financial Literacy

```
FACTOR
  /VARIABLES FL1 FL2 FL4 FL5 FL6 FL7 FL9 FL10 FL11
  /MISSING LISTWISE
  /ANALYSIS FL1 FL2 FL4 FL5 FL6 FL7 FL9 FL10 FL11
  /PRINT INITIAL EXTRACTION ROTATION
  /FORMAT SORT BLANK(.5)
  /CRITERIA FACTORS(3) ITERATE(25)
  /EXTRACTION PC
  /CRITERIA ITERATE(25)
  /ROTATION VARIMAX
  /METHOD=CORRELATION.
```

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.020	33.553	33.553	3.020	33.553	33.553	1.826	20.284	20.284
2	1.163	12.917	46.470	1.163	12.917	46.470	1.766	19.618	39.901
3	1.082	12.019	58.490	1.082	12.019	58.490	1.673	18.588	58.490
4	.801	8.903	67.393						
5	.738	8.204	75.597						
6	.659	7.318	82.916						
7	.601	6.682	89.598						
8	.522	5.798	95.396						
9	.414	4.604	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
FL1	.841		
FL2	.758		
FL4	.532		
FL6		.753	
FL5		.715	
FL7		.690	
FL11			.835
FL10			.594
FL9			.575

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 4 iterations.

Factor Analysis for Self-Control

```
FACTOR
  /VARIABLES SC1 SC2 SC3 SC4 SC5 SC6 SC8 SC9 SC10
  /MISSING LISTWISE
  /ANALYSIS SC1 SC2 SC3 SC4 SC5 SC6 SC8 SC9 SC10
  /PRINT INITIAL EXTRACTION ROTATION
  /FORMAT SORT BLANK(.5)
  /CRITERIA FACTORS(3) ITERATE(25)
  /EXTRACTION PC
  /CRITERIA ITERATE(25)
  /ROTATION VARIMAX
  /METHOD=CORRELATION.
```

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.598	28.871	28.871	2.598	28.871	28.871	1.942	21.573	21.573
2	1.218	13.528	42.399	1.218	13.528	42.399	1.587	17.635	39.209
3	1.195	13.280	55.680	1.195	13.280	55.680	1.482	16.471	55.680
4	.875	9.721	65.401						
5	.811	9.013	74.414						
6	.673	7.480	81.894						
7	.603	6.699	88.593						
8	.559	6.213	94.806						
9	.467	5.194	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
SC1	.743		
SC3	.716		
SC2	.654		
SC8	.573		
SC5		.753	
SC6		.706	
SC4		.660	
SC10			.839
SC9			.769

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 4 iterations.

SPSS Regression Results for Direct and Indirect Effects

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.219[a]	.048	.031	.98457454	.048	2.777	7	387	.008
2	.606[b]	.368	.355	.80342259	.320	195.193	1	386	.000
3	.640[c]	.410	.396	.77702336	.042	27.674	1	385	.000
4	.689[d]	.475	.461	.73404465	.065	47.404	1	384	.000

a. Predictors: (Constant), location, age, businessform, gender, educationlevel, income, maritalstatus

b. Predictors: (Constant), location, age, businessform, gender, educationlevel, income, maritalstatus, Zscore(SocInflu)

c. Predictors: (Constant), location, age, businessform, gender, educationlevel, income, maritalstatus, Zscore(SocInflu), Zscore(FinLiter)

d. Predictors: (Constant), location, age, businessform, gender, educationlevel, income, maritalstatus, Zscore(SocInflu), Zscore(FinLiter), Zscore(SelfContr)

COEFFICIENTS[A]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.348	.367		-3.674	.000
	Gender	.144	.104	.072	1.390	.165
	Age	.039	.054	.045	.730	.466
	maritalstatus	.161	.109	.085	1.484	.139
	educationlevel	.172	.061	.148	2.808	.005
	businessform	.058	.064	.047	.905	.366
	income	.018	.077	.013	.227	.821
	location	.023	.030	.038	.763	.446
2	(Constant)	-.721	.303		-2.384	.018
	gender	.033	.085	.016	.387	.699
	age	.035	.044	.040	.794	.428
	maritalstatus	.097	.089	.051	1.093	.275
	educationlevel	.191	.050	.165	3.839	.000
	businessform	.123	.052	.101	2.363	.019
	income	-.170	.065	-.123	-2.636	.009
	location	.062	.025	.102	2.478	.014
	Zscore(SocInflu)	.590	.042	.590	13.971	.000
3	(Constant)	-.121	.314		-.385	.701
	gender	-.021	.083	-.010	-.253	.800
	age	.023	.042	.027	.547	.584
	maritalstatus	.138	.086	.073	1.601	.110
	educationlevel	.114	.050	.098	2.268	.024
	businessform	.084	.051	.069	1.640	.102
	income	-.234	.064	-.169	-3.672	.000
	location	.038	.025	.062	1.534	.126
	Zscore(SocInflu)	.531	.042	.531	12.531	.000
	Zscore(FinLiter)	.244	.046	.244	5.261	.000
4	(Constant)	-.129	.297		-.433	.665
	gender	-.031	.078	-.016	-.399	.690
	age	-.006	.040	-.007	-.149	.881
	maritalstatus	.152	.081	.081	1.871	.062
	educationlevel	.067	.048	.057	1.383	.168
	businessform	.074	.048	.061	1.540	.124
	income	-.168	.061	-.122	-2.766	.006
	location	.054	.023	.089	2.304	.022
	Zscore(SocInflu)	.473	.041	.473	11.560	.000
	Zscore(FinLiter)	.203	.044	.203	4.604	.000
	Zscore(SelfContr)	.273	.040	.273	6.885	.000

a. Dependent Variable: Zscore(SavBeh)

Mediation Results from Data

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 3.2
******************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018).
www.guilford.com/p/hayes3

**************************************************************************
*****
Model  : 4
    Y  : SavBeh
    X  : SocInflu
    M  : FinLiter

Covariates:
 gender   age      maritals educatio business income   location

Sample
Size:  395

**************************************************************************
*****
OUTCOME VARIABLE:
 FinLiter

Model Summary
R       R-sq        MSE          F        df1        df2          p
.536     .287       .267     19.403      8.000    386.000       .000

Model
            coeff        se       t          p       LLCI       ULCI
constant    2.539       .344     7.377       .000      1.863    3.216
SocInflu    .273        .050     5.410       .000       .174     .372
gender      .134        .055     2.450       .015       .026     .242
age         .029        .028     1.017       .310      -.027     .084
maritals   -.102        .057    -1.787       .075      -.214     .010
educatio    .192        .032     5.973       .000       .129     .255
business    .098        .034     2.931       .004       .032     .164
income      .158        .042     3.788       .000       .076     .239
location    .060        .016     3.738       .000       .028     .091

**************************************************************************
*****
```

```
OUTCOME VARIABLE:
 SavBeh

Model Summary
R       R-sq        MSE          F        df1        df2          p
.640    .410       .208       29.730      9.000    385.000       .000
 Model
            coeff       se         t          p       LLCI       ULCI
constant     .788       .324      2.428     .016       .150      1.426
SocInflu     .579       .046     12.531     .000       .488       .670
FinLiter     .236       .045      5.261     .000       .148       .325
gender      -.012       .049      -.253     .800      -.108       .083
age          .014       .025       .547     .584      -.035       .062
maritals     081        .051      1.601     .110      -.018       .180
educatio    .067        .030      2.268     .024       .009       .125
business    .049        .030      1.640     .102      -.010       .108
income      -.137       .037     -3.672     .000      -.211      -.064
location     .022       .014      1.534     .126      -.006       .050

************************** TOTAL EFFECT MODEL
***************************
OUTCOME VARIABLE:
 SavBeh
Model Summary
R         R-sq        MSE          F        df1        df2          p
.606      .368       .223      28.049      8.000    386.000       .000

Model
            coeff        se         t          p       LLCI     ULCI
constant     1.388      .314      4.419       .000      .770     2.005
SocInflu      .643      .046     13.971       .000      .553      .734
gender        .019      .050       .387       .699     -.079      .118
age           .020      .026       .794       .428     -.030      .071
maritals      .057      .052      1.093       .275     -.045      .159
educatio      .112      .029      3.839       .000      .055      .170
business      .072      .031      2.363       .019      .012      .133
income       -.100      .038     -2.636       .009     -.175     -.025
location      .036      .015      2.478       .014      .007      .065

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y
**************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
       .643       .046     13.971       .000       .553       .734

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
       .579       .046     12.531       .000       .488       .670

Indirect effect(s) of X on Y:
            Effect     BootSE   BootLLCI   BootULCI
FinLiter      .065       .019       .033       .106

*********************** ANALYSIS NOTES AND ERRORS
************************
```

```
Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence
intervals:
  5000

NOTE: Variables names longer than eight characters can produce
incorrect output.
      Shorter variable names are recommended.

------ END MATRIX -----
```

Moderation Results from Data

```
Run MATRIX procedure:

*************** PROCESS Procedure for SPSS Version 3.2
*****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018).
www.guilford.com/p/hayes3

**************************************************************************
*****
Model: 15
    Y: SavBeh
    X: SocInflu
    M: FinLiter
    W: SelfCont

Covariates:
 Gender   age      maritals educatio business income   location

Sample
Size:  395

**************************************************************************
*****

OUTCOME VARIABLE:
 FinLiter

Model Summary
R         R-sq        MSE          F        df1        df2          p
.536       .287       .267     19.403      8.000    386.000       .000

Model
            coeff        se        t          p       LLCI       ULCI
Constant    -1.493      .195     -7.663      .000     -1.876    -1.110
SocInflu      .273      .050      5.410      .000       .174      .372
gender        .134      .055      2.450      .015       .026      .242
age           .029      .028      1.017      .310      -.027      .084
maritals     -.102      .057     -1.787      .075      -.214      .010
educatio      .192      .032      5.973      .000       .129      .255
business      .098      .034      2.931      .004       .032      .164
income        .158      .042      3.788      .000       .076      .239
location      .060      .016      3.738      .000       .028      .091

**************************************************************************
*****
```

```
OUTCOME VARIABLE:
 SavBeh

Model Summary
R       R-sq        MSE          F        df1        df2          p
.724     .524       .169     35.104     12.000    382.000       .000

Model
            coeff        se        t          p       LLCI       ULCI
constant     5.828      .167     34.877      .000      5.499     6.156
SocInflu      .504      .043     11.634      .000       .419      .589
FinLiter      .234      .041      5.677      .000       .153      .315
SelfCont      .095      .015      6.515      .000       .066      .124
Int_1        -.089      .030     -2.978      .003      -.147     -.030
Int_2        -.137      .027     -5.100      .000      -.189     -.084
gender       -.018      .044      -.416      .677      -.105      .068
age           .004      .023       .184      .854      -.040      .049
maritals      .071      .046     1.544       .123      -.019      .160
educatio      .038      .027     1.423       .156      -.015      .092
business      .043      .027     1.585       .114      -.010      .096
income       -.111      .034    -3.224       .001      -.178     -.043
location      .031      .013     2.387       .017       .006      .057

Product terms key:
 Int_1    :        SocInflu x        SelfCont
 Int_2    :        FinLiter x        SelfCont

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       .011      8.867      1.000    382.000       .003
M*W       .032     26.006      1.000    382.000       .000
----------
    Focal predict: SocInflu (X)
          Mod var: SelfCont (W)

Conditional effects of the focal predictor at values of the
moderator(s):

SelfCont     Effect     se        t          p        LLCI       ULCI
-1.545       .641      .057     11.193       .000     .528       .754
.000         .504      .043     11.634       .000     .419       .589
1.545        .367      .069      5.342       .000     .232       .502
----------
    Focal predict: FinLiter (M)
          Mod var: SelfCont (W)


Conditional effects of the focal predictor at values of the
moderator(s):

SelfCont    Effect      se          t          p    LLCI       ULCI
-1.545       .445      .062      7.208       .000     .324       .567
.000         .234      .041      5.677       .000     .153       .315
1.545        .023      .055       .419       .675   -.085       .131

****************** DIRECT AND INDIRECT EFFECTS OF X ON Y
*****************
```

```
Conditional direct effect(s) of X on Y:
SelfCont     Effect     se          t          p    LLCI       ULCI
-1.545       .641       .057     11.193       .000    .528       .754
.000         .504       .043     11.634       .000    .419       .589
1.545        .367       .069      5.342       .000    .232       .502

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 SocInflu    ->    FinLiter    ->    SavBeh

   SelfCont     Effect     BootSE   BootLLCI   BootULCI
     -1.545       .122       .036       .060       .200
       .000       .064       .019       .032       .105
      1.545       .006       .016      -.026       .039

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
SelfCont      -.037       .013      -.067      -.014
---

************************ ANALYSIS NOTES AND ERRORS
************************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence
intervals:
  5000

W values in conditional tables are the mean and +/- SD from the mean.

NOTE: The following variables were mean centered prior to analysis:
          SelfCont SocInflu FinLiter

NOTE: Variables names longer than eight characters can produce
incorrect output.
      Shorter variable names are recommended.

------ END MATRIX -----
```

Appendix VIII: Progress Report Letter

MOI UNIVERSITY
SCHOOL OF BUSINESS AND ECONOMICS
POST GRADUATE OFFICE

Tel: 0722271134
Fax No: (053) 43360
Telex No. 35047 MOIVARSITY

Box 3900
Eldoret
KENYA

REF: SBE/PGR/REC/11

DATE: 23rd September, 2021

THE PRINCIPAL
MAKERERE UNIVERSITY, BUSINESS SCHOOL
P.O BOX 1337
KAMPALA, UGANDA

Dear Sir/Madam,

RE: PROGRESS REPORT FOR EVA MPAATA REG. SBE/DPHIL/BM/010/18

The above named is a bonafide student of Moi University, School of Business and Economics, Pursuing a Doctor of Philosophy in Business Management degree specializing in **Accounting and Finance**. According to our post graduate records Eva Mpaata cleared course work in **November, 2019.** The SBE Graduate Studies Committee has assigned him two Supervisors: Dr. Naomi Koske, Department of Accounting and Finance and Dr. Ernest Saina, Department of Economics.

Her research topic is ***"Social Influence, Financial Literacy and Self-Control on Saving Behaviou of micro and Small Enterprise Owners in Kampala, Uganda.***

Currently, waiting to defend seminar soon.

Any assistance accorded to her will be highly appreciated.

Yours faithfully,

DEAN
School Of Business and Economics
MOI UNIVERSITY

DR. RONALD BONUKE
POSTGRADUATE CHAIR,
SCHOOL OF BUSINESS AND ECONOMICS

Appendix IX: Permission to Collect Data from Uganda Small Scale Industries Association (USSIA)

UGANDA SMALL SCALE INDUSTRIES ASSOCIATION (USSIA)

"Enhancing the development and competitiveness of micro and small scale industires (mssi) in Uganda."

USSIA
UGANDA SMALL SCALE INDUSTRIES ASSOCIATION

16th January 2020

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: PERMISSION TO COLLECT DATA FROM UGANDA SMALL SCALE INDUSTRIES ASSOCIATION (USSIA) MEMBERS

We are glad to grant Ms. EVA MPAATA a student pursuing a Doctor of Philosophy in Business Management program at Moi University permission to collect data from members of the Uganda Small Scale Industries Association (USSIA). The data collected shall be used for only the study as a requirement for the PhD.

This is therefore to consent on behalf of the members of USSIA that Ms. EVA MPAATA can collect data in order to complete her dissertation titled "Social Influence, Financial Literacy and Self Control on Saving behavior of Micro & Small Enterprise owners in Kampala, Uganda."

Furthermore, the findings and learnings from this particular research as courtesy should be disseminated to Uganda Small Scale Industries Association (USSIA) as may be important for decision making in the Association.

Any support rendered to her will be highly appreciated.

Yours Faithfully,

16 JAN 2020

Veronica Namwanje
Executive Secretary, USSIA

Uganda Small Scale Industries Association (USSIA)
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