JOURNAL OF THEORETICAL AND APPLIED MANAGEMENT
Jurnal Manajemen Teori dan Terapan
https://e-journal.unair.ac.id/jmtt
p-ISSN: 1979-3650 *e*-ISSN: 2548-2149

Original Research
Volume 16, No. 1, 2023 OPEN ACCESS

The Effect of Self-Control on Loan Repayment Decisions of Women Market Vendors in Mbeya Municipality, Tanzania

William Clifford Gomera [1], ***Magwana Ibrahim Ngollo** [2]
[1]Department of Accountancy, College of Business Education (CBE), Dar Es Salaam, Tanzania
[2]Department of Accountancy, College of Business Education (CBE), Mbeya, Tanzania
Correspondence*:
Address: Iganzo Ward Along Chunya Road, P.O BOX 3810 Mbeya, Tanzania 53125 | e-mail: magwanainrahim@gmail.com

Abstract

Objective: This study aims to examine the effect of self-control on loan repayment decisions of women market vendors in Mbeya municipality, Tanzania.
Design/Methods/Approach: This study employed a mixed research design. Primary data was collected via questionnaires and semi-structured interviews. A stratified random sampling technique was used to create a sample of 348 respondents selected from a population of 1741 women market vendors. Descriptive statistics and regression analysis were utilized to process the collected data.
Findings: The result of data analysis determined that self-control had a significant adverse effect on loan repayment decision
Originality: This study is unique since it studies self-control and loan repayment amongst women market vendors. The specificity of the set population allowed for a more in-depth and nuanced understanding of the experiences and challenges faced by this specific group of individuals hence deriving originality in this research.
Practical/Policy implication: findings are useful to policymakers and microcredit providers. Policymakers should promote activities and education that assist Tanzanians in attaining self-control. They should devise policies to make loans more affordable and easier to repay. Microcredit lenders should utilize subjective measures of self-control on loan applications as it is highly effective in enhancing repayment when coupled with high levels of financial literacy.

Keywords: Behaviour, Debt repayment, Loan repayment, Self-control.
JEL Classification: D14, G21, D81

DOI: https://doi.org/10.20473/jmtt.v16i1.42720
Received: (January 19, 2023) Revised: (February 9, 2023; March 6, 2023) Accepted: (April 2, 2023) Published: (April 18, 2023)

Published by Universitas Airlangga, Department of Management, Faculty of Economics and Business

1. Introduction

After years of research and debate, we agree that humans are complex creatures capable of acting on multidirectional values (Freeman, 2018). Such multidirectional values of actions are usually accompanied by various strengths and weaknesses (Spósito, 2022). Amongst the strength of human beings is self-control, and of the greatest challenges of a living individual is to control oneself (Patnaik, 2021). In order to fully understand human nature, one must first comprehend self-control. Self-control is critical to avoiding temptation and advancing toward one's long-term objectives. It is associated with various positive outcomes, including a longer life expectancy, fewer health difficulties, more scholastic attainment, greater job satisfaction, and a higher income (Cobb-Clark et al., 2022).

Higher income obtained from controlling one's impulses towards spending and other income-deteriorating activities offers an individual the opportunity to save and invest. However, to reach grandeur goals or make exciting things happen, an individual may have to seek a personal loan from a financial institution (Bank, 2022). Even though loans can be helpful, only some that borrow pay back. Both are borrowing and paying back our decisions, and there is a chance for decisions to be influenced by behavior (Vedadi & Greer, 2021). Behavioral influences are studied in Behavioral finance, where scholars try to determine how the individual mind functions when confronted with significant financial choices accompanied by little information, emotions, and moods, which can have a significant effect on individuals' financial choices (Candy & Novita, 2021).

Knowledge of behavioral influences on financial decisions is useful to lenders and borrowers. For example, lenders might employ behavioral scoring techniques to determine whether to extend or cut credit limits. In contrast, borrowers may employ behavioral assessment techniques to self-evaluate their behavioral adequacy toward loan acquisition and repayment (Gan et al., 2012). There is a chance for borrowers to fail to repay their debts purely on behavioral grounds. However, if given a chance, they might uncontrollably borrow more money to the extent that they become overwhelmed with debts they cannot repay (Thaler, 1993). At this juncture, it seems obvious how vital a proper understanding of self-control is in aiding lending and loan repayment decisions.

Several scholars across the globe have tried to establish the influence of self-control on loan repayment decisions. Thomas et al. (2022) determined that materialism, financial literacy, and risk perception were statistically significant indicators of the likelihood that young Indians would default on their home loans. They concluded that self-control was necessary to avoid falling into debt. Waga et al. (2021) used data from pension scheme members in Kenya and a cross-sectional study design. They looked at how self-control bias affects financial discipline and retirement planning. Their results show that people with self-control bias are 0.502 times less likely to have a complete retirement plan, even if they are financially responsible. Bu et al. (2019) conducted a longitudinal intervention involving students from five Chinese institutions to minimize online consumer debt. They determined that self-control training cut online borrowing and delinquent costs by reducing entertainment-related expenditure and borrowing. Grohmann & Hamdan (2021) conducted an experimental study and determined that reduced self-control results in impulsive borrowing. They augmented their research with a survey which also concluded that individuals with poor self-control had difficulty repaying consumer debt. Diomin (2020) determined a link between financial self-control, credit utilization, and social qualities that directly affect resources (material, intellectual, interpersonal). The conclusion was that financial self-control exposes the elements of a person's financial activities and synthesizes economic sociology and economic psychology. Peltier et al. (2016) explored the pre-debt and post-debt choices of college students and discovered that failures in self-control compounded their credit card debt. Strömbäck (2020) surveyed a Swedish adult sample and determined that Individuals with stronger self-control were more likely to participate in solid financial habits, were less concerned about finances, and felt more comfortable in their present and future financial circumstances. Haws et al. (2014) examined how self-control has been studied in consumer research and compared generic and domain-specific self-control metrics. They evaluated the correlation between self-control measures and how well they predict consumer attitudes and actions in financial decision-making. They conclude that self-control does not always lead to sound financial decision-making.

Even though several research has shown a correlation between self-control and financial choices, there is still a need to comprehend better the underlying mechanisms of self-control and how it might be employed to enhance loan repayment. It can be noted from Past studies that there are inconclusive findings, with some researchers concluding that self-control has a favorable effect (Bu et al., 2019; Diomin, 2020), while others have determined that it has a detrimental effect (Haws et al., 2014). Inconclusive findings combined with cultural and geographical variations provide a knowledge gap that must be addressed. Aside from that, self-control is a human quality that may be significantly impacted by upbringing and cultural environment; hence, it will be a topic that requires ongoing investigation across cultures. Another gap is generated by women's specific experiences and financial worries, as well as the limited number of research that have examined the self-control of women market vendors, resulting in a lack of knowledge of how self-control influences loan repayment choices among women market vendors.

This study examined the effect of self-control on loan repayment choices among women market vendors. This study contributes to the existing body of knowledge by addressing the inconclusive findings of earlier studies. It also provides a base for policy makers and microfinance dealers to shape policies and their business processes respectively by considering the results of this study.

This paper is divided into the following sections: Introduction, Literature Review and Hypothesis Development, Methodology, Results and Discussion, Conclusion, Implications and Recommendations. The Introduction gives an overview of the research topic and background information. It also explains why the study is being done. The Literature Review is a summary of the research that has already been done on the topic. It is used to help develop the research hypothesis. The Method section discusses how the research was set up and how the data was collected and analyzed. In the "Results and Discussion" section, the study results, including any statistical tests and results, are shown, and the results are interpreted and explained. The conclusion briefly summarizes what was found and talks about what it all means. The section called "Implications" discusses the research's practical uses and possible effects. The last part, "Recommendation," gives future research ideas based on this study's findings.

2. Literature review and hypothesis development

Self-control

Concepts of self-control might be very relevant to the repayment decision of consumer credit and, more particularly, to consumer over-indebtedness. Such relevance stems from the fact that self-control is vital in many facets of our life and that many of our everyday decisions, including the loan repayment decision, include exercising self-control (Lian et al., 2017). Mawad et al. (2022) conducted a study in Lebanon and determined that self-control had a positive impact on an individual's financial performance and behavior, particularly at highly educated levels. Bu et al., 2022, executed a study which showed that a self-control training program, including spending tracking, budgeting, and introspection about consumption choices, effectively reduced future online borrowing and delinquency charges. As such, it is quite clear that self-control has a huge role in affecting financial behaviour. Self-control may be described as the capacity to manage one's thoughts, emotions, and actions so as to maintain focus and achieve long-term objectives. It is the dimensional ability of being able to abstain from negative behaviors, control anger, and resist emotional urges(Bertelsen & Ozer, 2021).

Insufficient self-control may affect loan repayment. Fernández-López et al. (2023) conducted a study in Spain. People often overestimate their self-control and hardly comprehend how it affects their finances (Ganbat et al., 2021). They found that a lack of self-control is associated with increased consumer debt, particularly for unsecured personal loans, loans from family or friends, and credit card use. It has also been revealed in experiments that animals choose smaller immediate rewards over bigger, postponed benefits, failing to maximize the overall long-term gain and many individuals display similar Behaviour to that of animals (Fehr, 2002). We are prompted to argue that animalistic instincts and overestimation of self-control might affect loan repayment behavior.

Self-control will remain a matter of interest to researchers across the globe due to differences in culture, individualistic perception and passage of time and experience. It might be due to such diversity that Research in certain areas has failed to signify the positive effect of self-control on financial Behaviour. Sandy & Renanita (2018) carried out a study in Surabaya. From partial correlation analysis, they determined that there was no direct relationship between self-control and unhealthy usage of credit cards. Since there is limited literature linking self-control and loan repayment in Tanzania and inconclusive empirical results linking self-control and loan repayment, we propose the following hypothesis to provide additional knowledge to the existing literature.

H1: self-control has a direct effect on loan repayment behavior.

Application of Behavioral Finance in Low-Income Earners

Behavioral finance examines the psychological and behavioral influences on financial choices. It recognizes that people make decisions based on psychological, emotional, and social factors (Sedliačiková et al., 2020). Understanding financial behaviour through Behavioral finance research may aid low-income individuals in managing their finances. Low-income earners prioritize immediate needs above long-term objectives (Vuletich, 2020). They might also make inappropriate financial decisions due to overconfidence and the sunk cost fallacy. Financial advisors and policymakers may use an understanding of behavioural factors to aid low-income earners in making better financial decisions and achieving their goals. With an understanding of behaviour, financial literacy teaching might be coupled with psychological tools to help individuals plan, save and work towards responsible financial behavior.

Self-control and Psychological Biases

Psychological biases are mental shortcuts that allow us to assimilate information more rapidly (Burks, 2018). They may also lead to unreasonable or incorrect thinking processes. Psychological biases may make resisting temptation more difficult and picking the optimal course of action (Benjamin et al., 2012). They may lead to unreasonable or wrong thinking and make regulating one's thoughts and behavior more difficult. Psychological biases impede self-control by causing individuals to make judgments that are not in their best interests or are based on inadequate or incorrect information. In order to gain better self-control, individuals have to acknowledge their own psychological biases and attempt to overcome them by actively searching out other viewpoints before developing conclusions.

The sunk cost bias is among the common psychological biases that might cause individuals to lose control. Sunk costs make it challenging to control one's emotions. The fallacy of sunk costs happens when individuals continue to engage in something, although doing so is no longer advantageous to them. They continue due to having previously invested a substantial amount of time, money, or effort. They feel driven to see the project through Because they do not want to lose the money they have already invested (Tucker & Alewine, 2021). The availability heuristic is a second kind of bias that may impede willpower. This bias manifests itself anytime decisions are made based on readily available information, even if it is not the most relevant or correct (Stevenson, 2006).

Self-control in Financial Decisions

In the world of personal finance, self-control is a necessary trait because it removes the temptation to make quick judgements or decisions based on a restricted view, both of which have the potential to result in negative future results. Self-control is vital while making financial choices since it permits the analysis of alternatives and long-term consequences of various courses of action more completely. Before committing to a loan, one must practice self-control and assess the loan terms and the ability to make the required payments. Research has shown that having self-control is a key component in making solid financial judgements. It allows for selections aligned with long-term aims and inhibits impulsive or shortsighted choices that can have undesirable implications (Candy & Novita, 2021; Strömbäck, 2020; Thomas et al., 2022). Those who make a concerted effort to become more self-disciplined may improve their financial decisions and attain financial stability and security.

Determinant of Microloan Repayment

In order to increase microloan repayment rates and ensure the long-term success of microfinance programs, a great deal of research has been conducted on the factors that influence repayment. Scholars and practitioners have examined microloan repayment because it is vital to the sustainability of microfinance companies and their ability to serve economically disadvantaged communities (Ye, Lu, & Lu, 2022; Goda, & Gomera, 2022; Shahriar, Unda, & Alam, 2020). Repayment of a microloan depends on several factors, including the borrower's creditworthiness, income, financial stability, loan terms, motivation, dedication, and support network.

Practices of Women Market Vendors

Practices and behaviors of women market vendors may range widely based on factors like the type of market they work in, the products or services they provide, the location of their market, and the cultural and economic climate in which they conduct business. Women often gain a competitive advantage due to their agreeable nature moulded by social, religious and cultural processes in their context (Makwerere et al., 2020). With high agreeableness, they might obtain bulk purchases and negotiate suitable terms with manufacturers and suppliers. Amongst things women are noted for is cleanliness; thus, cleaning, straightening up, and fixing up their booth or stand at the market are all part of keeping their business running well. Women are also more likely to develop a strong client base via a variety of means, such as providing first-rate customer service and striking up conversations with repeat buyers

Financial Literacy among Women Market Vendors

Financial literacy involves the ability to understand and effectively manage financial matters. It is among the important factor in the success of women's market vendors. Several studies have analyzed the financial knowledge of women's market vendors. It was determined in Kenya that Women traders with higher levels of financial literacy were more likely to utilize formal financial services and report positive growth for their businesses (Mwaniki, 2014). Ugandan women traders and small shop owners who had improved their financial literacy also reported increased earnings and savings and fewer money-related problems (Haley & Marsh, 2021). As these studies and others have shown, enhancing the financial literacy of women market vendors may positively impact their business performance. Women-owned microenterprises, especially market stalls, may benefit from a greater understanding of financial matters, since this might forecast their success and longevity.

Theoretical Base

This paper is grounded on the theory of locus of control, which Julian B. Rotter put forth in 1954. According to this theory, individuals act to control their environment and events. Those with a sense of control over their lives are likely to be more self-reliant and productive, but a lack of control may lead to irrational decision-making and depression. Individuals with self-control are likely to seek superior goals, which makes them content and effective (Li et al., 2022). From such a perspective, we can argue that individuals with higher self-control are more likely to keep their financial decision on track and conduct themselves financially soundly. Equipped with self-control, individuals are more likely to pay off their debts and steer their financial well-being away from being over-indebted. Thus, from the standpoint of this paper, we sought to provide further proof to this theory by examining the role of self-control in loan repayment decisions among women vendors operating in markets situated in Mbeya municipality.

3. Method

This study used a mixed method of research. We started with a preliminary questionnaire and then conducted semi-structured interviews to back up the results from the questionnaire survey. This method was used as it gives the researchers room to gain a more in-depth understanding of the underlying factors contributing to the phenomenon observed in quantitative analysis (Othman et al., 2020). This research focused on women because of their unique experiences and the financial concerns that they face. Research has shown that Women entrepreneurs may have trouble getting loans or credit. Also, the gender wage gap indicates that women endure financial instability and that the playing field is not always level for them.

Table 1. Sampling Distribution among Markets/ Business Park

S/N	Market/ Business Park	Population	Sample size rate	Sample
1	Sokomatola & stand kuu	114	20%	23
2	Sido, Mwanjelwa and kabwe	431	20%	86
3	Uyole	358	20%	72
4	Mbalizi	244	20%	49
5	Isanga	124	20%	25
6	Maniwewe	97	20%	19
7	Sokoine	57	20%	11
8	Makunguru	135	20%	27
9	Ilomba	76	20%	15
10	Mwampongo	43	20%	9
11	Isyesye	62	20%	12
	Total	**1741**		**348**

The research was conducted in Mbeya municipality based on convenience and affordability. The research team had established connections that made it possible to conduct the research effectively in the Mbeya region. After determining the main population of women vendors to analyze, 348 women (20% of the research population) were chosen using stratified random selection. All participants were volunteers and were not paid for data collection. This research employed stratified sampling since the population came from multiple market squares. 20% of the population was sampled based on Yogesh (2006), who suggested selecting between 10-30% of the population. Therefore, 20% is the midway. 20% of women market vendors from markets/business parks were sampled. Table 1 shows the stratified sample from city markets/business districts

Data Collection

A total of 348 self-administered questionnaires were employed for the research. The study's main respondents were women market vendors willing to participate in the survey. The researchers formulated the questionnaire based on the literature, e.g., East (1993), Buchan (2005), Kennedy (2013), and Azwadi (2004). A total of 216 responses were returned and collected. The questionnaire had a Likert scale ranging from 1 being unimportant to 5 being extremely important.

Variable Measurements

The methodology used to measure self-control in this paper adopted the approach used by (Biljanovska & Palligkinis, 2018), who employed a series of questions to measure a wide range of psychosocial variables. Respondents were asked to report how satisfied they feel with their lives and relationships with others, their inherent personality traits and their evaluation of their behavior along several dimensions. In that regard, we identified from the literature the following statements that, if ranked using a Likert scale, could assist in explaining the state of the self-control of an individual

"When I have money, I do things that feel good at the moment but regret later" (Strömbäck et al., 2017)

According to this statement, the person may have difficulties exercising self-control about spending money. They tend to prioritize short-term satisfaction above longer-term goal achievement. This is a common struggle of many individuals as they attempt to balance the trade-off between meeting their immediate needs with the more vital but time-consuming process and preparing for the future. Individuals with higher self-control are expected to have a very low score as opposed to an individual with low self-control who will strongly agree with the statement

"I have a hard time breaking habits of making personal spending with business money" (Never, 2016)

In this statement, if the respondent agreed that they often use business funds to pay personal expenses, this may suggest a lack of self-control. If the funds are not used as planned, the business might be exposed to financial hardship, and the respondents either do not care or cannot control themselves. (Never, 2016), argued that the inability to resist temptations, such as diverting business monies for personal expenditures, indicates a lack of self-control. Individuals with high self-control were expected to have very low scores, and it was expected for self-control to diminish as the Likert score went up.

"Occasionally, I keep doing something, even if I know it is wrong" (Aldulaimi & Abdeldayem, 2021)

The circumstance described by this statement is one in which a person is actively participating in an action that they are aware is inappropriate despite this knowledge. The inability to regulate impulses or resist temptation indicates a lack of self-control. Self-control is keeping your impulses in check and sticking to your principles and long-term objectives, especially when confronted with temptation or stress. Because it displays an array in which an individual is having difficulty regulating his or her actions, this statement might be utilized as a gauge for self-control where those who strongly agree with the sentence will have low self-control, and those who strongly disagree will have higher levels of self-control

"I believe I have self-discipline when it comes to loan repayment."

Disciplined debt repayment necessitates setting debt repayment priorities and sticking to a debt repayment plan despite the presence of other, more alluring possibilities. In order to make the prudent financial choices required to repay one's obligations, one must practice self-control and self-discipline, which may be a difficult challenge. One way to show self-control and discipline in money management is to make a strategy for paying off debt and then adhere to it, no matter what happens. Thus, the statement indicates a person's self-control since it depicts a scenario in which the subject has successfully resisted temptation and made sound financial choices.

"I am good at resisting temptation not to pay loan" (Strömbäck et al., 2017)

A significant indication of a person's degree of self-control is how they can withstand temptations and triumph over their first instincts. People who resist temptation and postpone gratification from a young age are likelier to succeed in the most evaluated outcomes. People who strongly agree that they can resist the temptation not to repay the loan are likelier to have high self-control. In contrast, people who strongly disagree are likelier to have low self-control.

These items were put together and added to get a total score representing self-control. A similar approach was used by other researchers (Kim-Spoon et al., 2014; Strömbäck et al., 2017). Variables are composed to make data analysis easier and bring more meaning to the outcomes. The reliability and validity of the items chosen to make a composite score influence the validity of the composite score. Cronbach alpha and product moment correlation analysis were executed to determine the selected items' reliability and validity, as shown in Tables 2 and 3. All selected items passed the validity and reliability tests, so the composite score was used without worrying about spurious results.

Control Variables

We also considered a variety of socioeconomic and risk perception characteristics in our research. Each of these elements is known to affect a person's ability to repay loans and is connected to or may in some way have an effect on one's level of self-control. The included control variables are discussed in more depth in the following section of this study.

Perceived Risk

Research has shown that risk perception affects loan repayment and individual indebtedness (Azma et al., 2019; Rahman et al., 2020; Waqas & Siddiqui, 2021). Statements that measure risk perception were utilized as control variable since they show a person's view about how probable and severe a potential harm or loss is in a particular circumstance. When it comes to loan repayment, If the respondent believes the danger of loan default is significant, they might be more inclined to make timely and regular payments to prevent it. If they believe the danger of loan default is minimal, they may be more inclined to incur extra debt or make late payments. Thus, individuals with low-risk perceptions present a hazard of non-payment.

Social Influence Factors

Social influence factors are myriad elements that can transform or influence how people think, feel, and act in social situations (Dkhil, 2020). Social influence factors include peer pressure, social comparison, and social learning. When looking at factors affecting loan repayment Behavior, it is important to control for social influence factors. Research has shown that they can affect how people repay their loans. Studies have shown that a person's social network, support system, societal norms and expectations can affect their ability to repay loans(Kassegn & Endris, 2021; Aynalem, 2020; Bantu & Malik, 2022.)

The Desire for Profit Generation and Reinvestment

The desire for profit and its reinvestment might influence loan repayment Behaviour. For instance, a borrower interested in generating profit may be more inclined to prioritize loan repayment to continue obtaining loans, expand their business, and generate more revenue. Suppose a borrower's primary objective is to reinvest profits. In that case, they may not prioritise loan repayment since they are inclined to believe that money would be better spent on business development or expansion rather than paying back loans. Additionally, motivation to generate large revenues and profits may influence individuals to incur additional debt or seek out new loans that might pose a default risk.

Financial Literacy

Researchers from various parts of the globe have shown that Loan repayment rates are related to borrowers' financial literacy. Mohta (2020) and Pexídrová (2019) determined that individuals with greater financial literacy are better at budgeting, planning how to repay debts, and comprehending loan terms and conditions. Individuals with greater levels of financial literacy are far more likely to have a debt repayment plan and are less likely to fall behind on payments. Vijay et al. (2015) noted that persons who knew little about money were more likely to fall into high debts and financial insecurities, leading them to default on their debts. Thus, financial literacy should be employed as a control variable when investigating matters related to debt management and loan repayment. Table below presents a summary and operationalization of the variables

Table 2. Summary and Operationalization of The Variable

Variable	Operational Definition	Variable Measurements	Sources
Self-Control	Individuals' ability to regulate their impulses and prioritize long-term goals over short-term satisfaction.	1. I am good at resisting the temptation not to pay a loan 2. I am more self-disciplined when it comes to loan repayment 3. When I have money, I do things that feel good at the moment but regret later forgetting to pay the loan 4. When it comes to loan repayment am more concerned about what happens to me in the short run than in the long run 5. I have a hard time breaking habits of making personal spending with business money 6. Occasionally, when I am with money, I keep doing something, even if I know it is wrong	Biljanovska & Palligkinis, 2018; Strömbäck et al., 2017; Never, 2016; Aldulaimi & Abdeldayem, 2021; Kim-Spoon et al., 2014.
Perceived Risk	A person's view of the probability and severity of potential harm or loss in a particular situation.	1. I Consider late loan repayment as risky as failure to pay the loan 2. I think late payment of the loan will lead to financial risk for VICOBA 3. The loan default cost in VICOBA is of high consequence 4. Given the potential expenses associated with late loan repayment, the overall risk is very substantial 5. I make repayment to ensure our group does not disqualify for a loan	Azma et al., 2019; Rahman et al., 2020; Waqas & Siddiqui, 2021
Social influence factors	Influence of friends, loan officers, group members and peers on loan repayment behavior	1. I feel under social pressure to put money aside for loan repayment 2. I always get involved in financial management activities in our group 3. I always compare the timely loan repayment trend with my friends 4. My closest friends' approval of when to repay the loan is important to me 5. If I decided not to pay the loan, my colleagues would approve that decision 6. I regularly manage my repayment schedule because the loan officer taught me during my loan application 7. When it comes to loan repayment, I do not consider anyone as an example 8. I like to Compare my loan repayment habit to that of my friends 9. I pay close attention to timely loan repayment not to disappoint loan officers 10. We always decide on payment modality in the group 11. I stick with group payment decision	Kassegn & Endris, 2021; Aynalem, 2020; Bantu & Malik, 2022.

Variable	Operational Definition	Variable Measurements	Sources
The desire for Profit generation and reinvestment	motivation to generate profits and inclination to reinvest profits rather than prioritize loan repayment	1. I stick to and follow the plan I have on how to reinvest profit 2. When I get profit, I always reinvest before repaying the loan 3. I often consider whether there is a necessity for investment before paying the loan 4. I regularly put money aside for loan repayment as part of business expenses 5. I always think of loan repayment when its due date before reinvestment 6. I always make loan repayment decisions after calculating the profit	Immergluck, 2016; Maksum, et al. 2020; Morris, et al. 2021; Sjögrén, et al. 2014
Financial literacy	Borrower's understanding of financial management, debt repayment and financial planning	1. I know about managing loan repayment schedule 2. I have a better understanding of how to manage my credit use 3. I have adequate skills in managing my finances 4. I have a budget I follow before making loan repayment 5. I receive financial training before acquiring microloans 6. I can prepare my loan repayment schedule 7.5 I am knowledgeable about loan repayment procedures	Mohta, 2020; Pexídrová, 2019

Data analysis

Statistical Package for the Social Science (SPSS) version 20.0 was used to conduct multiple regression analyses in this research. The questionnaire results were placed into an Excel spreadsheet for further examination. The data were organized into groups of questions based on the appropriate variable category. To check for robustness, three estimations were done. Two of them, the control variable, were dropped to determine if self-control similarly affected loan repayment behaviour. The primary model employed was parameters for the functional relationships estimated in the regression equation were as follows:

$$LRB = \beta_0+\beta_1SC1 + \beta_2PR+ \beta_3PV + \beta_4SIF + \beta_5PGR + \beta_6FLT +\varepsilon \quad (1)$$

Where LRB was the dependent variable loan repayment behavior, SC is the self-control measure, PV is the perceived value measure, PR is the perceived risk measure, SIF is the social influence factors measure, PGR is the profit generation and reinvestment measure, FLT is the financial literacy measure, and ε is the error term. β_0, is the intercept value of the regression, and β_1 to β_6 are the coefficients of estimations.

4. Results and Discussion

Reliability and validity of the questionnaire

The validity and dependability of the findings rely on the premise that the data collection questionnaire is dependable and the estimated findings are error-free and not prone to any econometric issue. Cronbach alpha for reliability and two-tailed Pearson product-moment correlation tests for validity was carried out, and the results are shown in Tables 1 and 2. Similar approaches were employed to establish the soundness of the questionnaire and its results (Wijaya & Kloping, 2022). As seen in table 2, the entire Cronbach's alpha value was 0.965, indicating great congruence between the questions in the questionnaire. Le cong & Kwanboonchan (2021) recommended a Cronbach's Alpha value be 0.7 or higher for a scale to be reliable and unidirectional. It can be noted from Table 3 that the Cronbach alpha reliability statistics for each variable are above 0.7. These results indicated that the questionnaire used to collect data is trustworthy; consequently, comparable outcomes may be achieved when employed elsewhere. In accordance with the Pearson correlation analysis shown in Table 3, the r-value is substantially higher ($r > 0.243$, p 0.05) than the crucial value obtained from the table of the Pearson Product-Moment Correlation Coefficient for 45 items used in the questionnaire ($r > 0.243$, p 0.05) with two degrees of freedom. Except for one item, whose coefficient was 0.065 and thus had to be dropped for further analysis. These findings demonstrate a statistically acceptable degree of questionnaire items validity as Most of the correlations between individual questions and the total score fall within an acceptable range.

Table 3 displays questions of interest used to assess the variable self-control. Other questions were for assessing the control variable, such as perceived risk and financial literacy and are not displayed in the table.

Table 3. Reliability Statistics

Cronbach's Alpha	N of Items
.965	45

Table 4. Pearson Correlation Validity Statistics and Reliability Statistics

Variable		Variable measurement	Pearson product momentum correlation	R table	Reliability coefficient
Information about loan repayment	1	The information I have about loan repayment helps in making on-time payment	.639**	0.243	**0.795**
	2	I do not seek any advice before I set aside money for loan repayment	.644**	0.243	
	3	In general, I have good knowledge about the impacts of late loan repayment	.799**	0.243	
	4	I am well-informed about the lending process	.641**	0.243	
	5	The loan officers are making close supervision to make sure I make the loan repayment on time	.764**	0.243	
	6	The group lending model motivates timely loan repayment	.761**	0.243	
	7	I consider the increasing level of capital before repaying the loan	.566**	0.243	
Financial Literacy	1	I know about managing loan repayment schedule	.707**	0.243	**0.909**
	2	I have a better understanding of how to manage my credit use	.863**	0.243	
	3	I have adequate skills in managing my finances	.805**	0.243	
	4	I have a budget I follow before making loan repayment	.664**	0.243	
	5	I receive financial training before acquiring microloans	.523**	0.243	
	6	I can prepare my loan repayment schedule	.741**	0.243	
	7	I am knowledgeable about loan repayment procedures	.779**	0.243	
Generation and Reinvestment Need	1	I stick to and follow the plan I have on how to reinvest profit	.686**	0.243	**0.853**
	2	When I get profit, I always reinvest before repaying the loan	.523**	0.243	
	3	I often consider whether there is a necessity for investment before paying a loan	.581**	0.243	
	4	I regularly put money aside for loan repayment as part of business expenses	.778**	0.243	
	5	I always think of loan repayment when its due date before reinvestment	.653**	0.243	

Variable		Variable measurement	Pearson product momentum correlation	R table	Reliability coefficient
	6	I always make loan repayment decisions after calculating the profit	.683**	0.243	
Social Influence	1	I feel under social pressure to put money aside for loan repayment	.540**	0.243	0.846
	2	I always get involved in financial management activities in our group	.368**	0.243	
	3	I always compare the timely loan repayment trend with my friends	.527**	0.243	
	4	My closest friends' approval of when to repay the loan is important to me	.682**	0.243	
	5	If I decided not to pay the loan, my colleagues would approve that decision	0.065	0.243	
	6	I regularly manage my repayment schedule because the loan officer taught me during my loan application	.742**	0.243	
	7	When it comes to loan repayment, I do not consider anyone as an example	.545**	0.243	
	8	I like to Compare my loan repayment habit to that of my friends	.388**	0.243	
	9	I pay close attention to timely loan repayment not to disappoint loan officers	.683**	0.243	
	10	We always decide on payment modality in the group	.705**	0.243	
	11	I stick with group payment decision	.660**	0.243	
Perceived risk	1	I Consider late loan repayment as risky as failure to pay the loan	.746**	0.243	0.935
	2	I think late payment of the loan will lead to financial risk for VICOBA	.772**	0.243	
	3	The loan default cost in VICOBA is of high consequence	.739**	0.243	
	4	Given the potential expenses associated with late loan repayment, the overall risk is very substantial	.764**	0.243	
	5	I make repayment to ensure our group does not disqualify for a loan	.724**	0.243	
Perceived value	6	The loan payment of profit sharing is better than reinvesting	.507**	0.243	0.762
	7	The return on reinvesting fund supposed to be paid out is greater than the cost of late loan repayment	.431**	0.243	
Self-control	1	I am good at resisting the temptation not to pay a loan	.622**	0.243	0.759
	2	I am more self-disciplined when it comes to loan repayment	.817**	0.243	
	3	When I have money, I do things that feel good at the moment but regret later forgetting to pay the loan	.420**	0.243	

Variable		Variable measurement	Pearson product momentum correlation	R table	Reliability coefficient
	4	When it comes to loan repayment am more concerned about what happens to me in the short run than in the long run	.472**	0.243	
	5	Occasionally, when I am with money, I keep doing something, even if I know it is wrong	.342*	0.243	
	6	I have a hard time breaking habits of making personal spending with business money	.464**	0.243	
	7	I am interested in making loan repayment on time	.694**	0.243	

**. Correlation is significant at the 0.01 level
*. Correlation is significant at the 0.05 level

Respondent characteristics

The respondents in this study were women market vendors as they were purposively selected to be studied, majority of the respondents, that is 90% were middle aged between 35 to 50 years old, This demographic distribution is typical among female market vendors, as young women are not inclined to participate in such line of work being that they are at school or taking their shots at other sectors of the economy promising much larger income. Table 4 presents the respondents' characteristics. The majority of the respondents had attained only ordinary-level secondary education. None of them had attained a degree, while 1% had attained an ordinary diploma, and 95% percent of the respondent had a monthly income of less than 250,000 Tanzanian shillings (TZS), almost equivalent to approximately less than 107 united states dollars. It means, on average, they earn less than 3 united states dollars daily. Most of these women will depend on microloans and informal lending sources due to their low-income status.

Table 5. Respondents Characteristics

Age			
		Frequency	%
	20 -35	17	5%
	35 - 50	313	90%
	50 - 70	18	5%
Total		348	100%
Education Background			
	Secondary school	325	93%
	High school	18	5%
	Diploma	5	1%
	Undergraduate	0	0%
	Postgraduate	0	0%
	Other	0	0%
Total		348	100%
Monthly Income (TZS)			
	<250,000	330	95%
	250,000 - 500,000	15	4%
	>500,000	3	1%
Total		348	100%

Descriptive statistics

Using the descriptive statistics shown in Table 5 below, an overview of the data and a simplified comprehension of the participants' replies are obtained. The mean and standard deviation of the replies provide a sense of the general levels of the Likert score for all participants and the extent of variations in responses.

From table 5, it was observed that loan repayment Behaviour had the greatest mean value indicating that, on average, respondents had all the good intentions to repay the loan on time and in due amount. Since the standard deviation across all variables is close to one, we can conclude that the answers from the respondents are not very widely dispersed across any of the variables. The mean value ranging from 3.24 to 4.17 across all variables indicates that the majority of the respondents considered the items in question to be important.

Table 6. Descriptive Statistics

	Mean	Std. Deviation	Range
Self-control			
When I have money, I do things that feel good at the moment but regret later	3.35	1.33	1-5
I have a hard time breaking habits of making personal spending with business money	3.17	1.47	1-5
Occasionally, I keep doing something, even if I know it is wrong	2.68	1.52	1-5
I believe I have self-disciplined when it comes to loan repayment	3.95	1.27	1-5
I am good at resisting the temptation not to pay a loan	3.81	1.42	1-5
Perceived value	3.24	1.41	1-5
Perceived risk	3.73	1.33	1-5
Social influence factors	3.4	1.42	1-5
Profit generation reinvest	3.71	1.27	1-5
Financial Literacy	3.67	1.37	1-5
Loan repayment behavior	4.17	1.18	1-5

Model summary

Our interest is in the coefficient of determination (adjusted R squared), which measures how well the model fits the data. Before proceeding to interpret regression results, we must observe the model summary showing the correlation (R) and the coefficient of determination (adjusted R squared). Table 6 presents the model summary. It depicts the extent to which the variation in the dependent variable can be pinned on the independent variables employed in the model.

Table 7. Model Summary

Category	Results
R	.890[a]
R Square	.792
Adjusted R Square	.785
Std. Error of the Estimate	3.68105
R Square Change	.792
F Change	106.580
df1	6
df2	168
Sig. F Change	.000
Durbin-Watson	2.278

a. Predictors: (Constant), self_control, porfit_generation_reinvestment, perceived_value, socia_influence_factors, perceived_risk, financial_literacy
b. Dependent Variable: loan_repayment_decision

We can observe from the model summary that the coefficient of determination is 0.785, which means the model can explain 78.5% of the variations in loan repayment behaviour by utilizing the independent variables. If the model can explain 78.5 %, there is a high probability that it is a good fit for the data.

Analysis of Variance (ANOVA)

Using ANOVA in conjunction with regression analysis, we could determine how relevant the predictor variables were in explaining the difference in the dependent variable and whether the model fitted the data effectively. The result of ANOVA are presented in Table 7

Table 8. ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8665.009	6	1444.168	106.580	.000[b]
	Residual	2276.420	168	13.550		
	Total	10941.429	174			

a. Dependent Variable: loan_repayment_decision
b. Predictors: (Constant), self_control, porfit_generation_reinvestment, perceived_value, socia_influence_factors, perceived_risk, financial_literacy

It can be seen from Table 7 that the F-value was 106.580. A high F value indicates that the model does a good job of describing the data since the differences that can be explained outnumber the ones that the model cannot. Also, the F value was statistically significant (P< 0.05), meaning if picked randomly, the probability of obtaining it by chance is less than 5%. Thus, we can conclude that the model was significant and could be used to explain the outcomes.

Regression Analysis

We conducted multiple regression analyses to examine the influence of self-control and other control variables on loan repayment behaviour. The analysis intended to establish which factors most affected loan repayment behaviour. Loan repayment was the dependent variable, while self-control, financial literacy, perceived risk, profit creation and reinvestment, social impact factor, and perceived value served as control factors. Table 6 presents the results of the regression analysis.

Table 8 shows the multiple regression line equation: Loan Repayment Decision = 0.05 + 0.226FI + 0.092PGR + 0.141 SIF + 0.65PR + 0.533PV- 0.155SC. This result indicates that holding all other factors constant, an increase in self-control will have a negative and significant effect on loan repayment. Behaviour as the coefficient for self-control is negative, and the p-value indicates that the variable is significant at 5%. These results are similar to those of (Haws et al., 2014), who concludes that an increment in self-control does not necessarily lead to sound financial decision-making. The results contradict those of (Grohmann & Hamdan, 2021), who concluded that individuals with poor self-control had difficulties repaying their loans.

Table 9. Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	Sig.	Collinearity Statistics	
		B	Std. Error	Beta		Tolerance	VIF
1	(Constant)	.085	1.309		.948		
	financial literacy	.226	.073	.230	.002	.222	4.496
	Profit generation & reinvestment	.092	.086	.068	.286	.306	3.271
	Social influence factors	.141	.046	.184	.002	.350	2.858
	Perceived risk	.650	.085	.491	.000	.301	3.323
	Perceived value	.533	.163	.160	.001	.519	1.927
	Self-control	-.155	.071	-.116	.029	.443	2.260

Financial literacy and social influence factors were the control variables that had a significant effect on loan repayment. Looking at the standardized betas, which produce coefficients after controlling for the effects of another variable, we can see that the coefficient of self-control fell from -0.155 to -0.116, a decrease of 25.16%. In comparison, the coefficient of control variable financial literacy increased from 0.226 to 0.23, an increase of 2%, while the social influence factor coefficient increased from 0.14 to 0.18, an increase of 29%. Since standardized betas consider the effect of other variables in the model, they can be used to determine which independent variables have the largest effect on the dependent variable of interest (Garver & Williams, 2020). Thus, we can argue that financial literacy and social influence factors have the greatest influence compared to self-control, and their presence, coupled with self-control, positively enhances loan repayment. Financial literacy and social influence factors decrease the negative effect of self-control when it stands alone, and self-control enhances the effect of financial literacy and social influence factors compared to when they stand alone. Standardized betas signify that apart from self-control having a negative effect on loan repayment, it is not a dominant factor in comparison to the control variables.

Perhaps we ought to ask ourselves how come an individual with high self-control is hesitant or even consider not repaying the loan at all. Perhaps we can assume that individuals with strong self-control are less likely to borrow and, when they do borrow, are less likely to pay on time as they have the awareness to consider all the viable options before departing with the cash they have in their hands. Thus, they will not hesitate if they are in circumstances that prompt them not to repay loans they will not hesitate. This angle of thought and the results obtained in this research align with the locus of control theory, which posits that Individuals with self-control are likely to seek superior goals, making them content and effective (Li et al., 2022).

Our interest was in knowing when and why they would not repay their loans. To provide more answers to the question, we used semi-structured interviews to obtain further insight from the women's market vendors. Quotes from three women are presented below.

1st woman

"*Though loans are helpful, I never pass up an opportunity to avoid repaying one or to postpone its due date. The lenders are always rude and merciless; once, my ill sister was lying sick in bed. They removed the mattress and bed from under her and left her lying on the floor because she failed to repay her loan instalments on time. If they are pushy, I have no option but to pay, but if I can afford to entice them in and put off paying a bank loan, I will do that for as long as it takes.*"

2nd woman

"I get a great sensation whenever I successfully postpone repaying a loan from those ungrateful loan sharks. I am not the one to give up easily when parting with the money I have worked hard for. If the time it takes me to repay the loan can be prolonged, I believe I cannot only put the money to good use but also cover the extra fees that will be spent. Whenever my debts threaten to spin out of hand, I turn to my friends and family for help. I highly advise my fellow women to seek help if they struggle to repay their loans."

3rd woman

"Money lenders are tough, and they use threats to get money back from people who owe them money. I had to fight my fears when I tried to put off paying my loan or let it go into default. I used to live in Sumbawanga, but I had to leave because I missed paying back my loans three times, and I knew the moneylenders would come after everything I had if I did not. Because of this, I sold everything I had in Sumbawanga and relocated to Mbeya. It was a hard decision, but I wanted to grow my business so much that I moved it to this place with the little I had left. I would not suggest that fellow women get loans from these money lenders if they cannot handle the problems that would come with them".

Of note from the context presented is that the loans are obtained from loan sharks who are rude and merciless. When a woman vendor is dealing with loan sharks it takes self-control to remain calm, face the fears, persist through the constant harassment and control the impulse to give in and surrender her money for repayment. Under these circumstances, an individual with low self-control will bow at first sight of a threat from loan sharks. Making any effort not to repay loans under such circumstances will need a strong stance of resistance; perhaps that is why an increment in self-control negatively affects loan repayment behaviour.

5. Conclusion

Our research found that a strong sense of self-control negatively affects loan repayment among women who own small businesses in the market**.** Responses from the interview also indicated that they would take any chance to fend off loan sharks if they could, but it is a hard task. (Cobb-Clark et al., 2022) argued that in life, every choice has trade-offs, and as a result, Self-control has wide-ranging ramifications for people's decisions, actions, and results. Higher self-control leads to greater contentment with financial well-being. With higher self-control, no one would want to depart easily with their money. Thus, it is no surprise that self-control has a negative effect on loan repayment amongst women market vendors in Mbeya municipality. We concur that better self-control may benefit women market vendors in reaching higher financial well-being and staying away from debt.

This study has several limitations. First, the study relied on self-reported data, which may not fully represent respondents' actual behaviors. Second, the study was done inside a particular cultural setting and may not apply to other cultures. A future study might apply more rigorous approaches, such as experimental or observational designs, to overcome these constraints. Incorporating various characteristics, such as income and credit history, might give a deeper knowledge of loan repayment behavior. These initiatives would aid in expanding our knowledge of the variables that affect loan repayment. In addition, cross-cultural research might give useful insight into how loan repayment behavior differs among cultures.

Our study enhances the self-control literature by offering additional data on self-control's effect on behavioral finance (Thaler, 1993). It highlights self-control's potential effect on economic well-being and debt status. Our research offers a focused picture of the possible repercussions of self-control on loan repayment decisions. It thus offers the money lender a guiding tool to use if they consider the relevance of self-control when making loan offering decisions. This study also highlights the advantages of self-control for women market vendors, their offspring, and society. We urge the government and policymakers to support social initiatives to enhance Tanzanian citizens' self-control and offer affordable loans with convenient repayment schedules.

Author Contribution:

Both authors contributed equally to the concept development and finalization of this study

Financial Disclosure

We received no funding to execute or publish this article

Conflict of Interest Statement

We declare that we haven't got any conflict of interest with regards to the contents of this publication.

References

Aldulaimi, S. H., & Abdeldayem, M. M. (2021). How Behavioral Change Wheel Strength Self-Control in Health Behaviors? *European Journal of Molecular & Clinical Medicine*, *8*(3), 352–367.

Aynalem, K. (2020). *Challenges Of Loan Repayments in Amhara Credit and Saving Institution in The Case Of Yifat Claster* [PhD Thesis]. Debre Berhan, Ethiopia

Azma, N., Rahman, M., Adeyemi, A.A. and Rahman, M.K. (2019), "Propensity toward indebtedness: evidence from Malaysia", Review of Behavioral Finance, Vol. 11 No. 2, pp. 188-200. https://doi.org/10.1108/RBF-05-2017-0046

Bank, G. S. (2022). Applying for a personal loan–what's the process? *Great Southen Bank*. 6th march 2023, <https://www.greatsouthernbank.com.au/about/guide/applying-for-a-personal-loan-whats-the-process>

Bantu, A. N., & Malik, N. S. (2022). *Effect of Borrower's Characteristics on Loan Repayment Performance and sustainably of Youth Revolving Fund in Oromia Regional State, Ethiopia*. *Innovations journal,* 69, 806 - 825

Benjamin, Daniel J, Rabin, Matthew and Raymond, Collin, (2012) A Model of Non-Belief in the Law of Large Numbers. Available at SSRN: https://ssrn.com, http://dx.doi.org/10.2139/ssrn.1945916

Bertelsen, P., & Ozer, S. (2021). Grip on Life as a possible antecedent for self-control beliefs interacts with well-being and perceived stress. *Scandinavian Journal of Psychology*, *62*(2), 185–192.

Biljanovska, N., & Palligkinis, S. (2018). Control thyself: Self-control failure and household wealth. *Journal of Banking & Finance*, *92*, 280–294.

Bu, D., Hanspal, T., Liao, Y., & Liu, Y. (2019). *Financial literacy and self-control in FinTech: Evidence from a field experiment on online consumer borrowing*. SAFE Working Paper No. 273, frankfurt

Bu, D., Hanspal, T., Liao, Y., & Liu, Y. (2022). Cultivating self-control in FinTech: Evidence from a field experiment on online consumer borrowing. *Journal of Financial and Quantitative Analysis*, *57*(6), 2208–2250.

Burks, C. C. (2018). *Understanding (Mis) Behaviour and Bias: An Integrative Review of the Literature on Behavioural International Relations*. [master's thesis], university of pretoria

Candy, C., & Novita, I. (2021). Herding Behavior of Indonesia Investor: Role of Personality Traits and Motivation Factors. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, *5*(2).

Cobb-Clark, D. A., Dahmann, S. C., Kamhöfer, D. A., & Schildberg-Hörisch, H. (2022). The Predictive Power of Self-Control for Life Outcomes. *Journal of Economic Behavior and Organization*, *197*, 725–744. https://doi.org/10.1016/j.jebo.2022.02.028

Diomin, A. (2020). Financial Self-Control: Links with Credit Behavior and Individual's Social Characteristics. *Sotsiologicheskie Issledovaniya*, *6*, 72–81.

Dkhil, N. S. A. D. (2020). *The Influence of Culture and Gender on the Acceptance of E-Learning System in Higher Education*. [master's thesis], Stockholm university.

Fehr, E. (2002). The economics of impatience. *Nature*, *415*(6869), 269–272.

Fernández-López, S., Castro-González, S., Rey-Ares, L., & Rodeiro-Pazos, D. (2023). Self-control and debt decisions relationship: Evidence for different credit options. *Current Psychology*, 1–18. https://doi.org/10.1007/s12144-023-04251-7

Freeman, R. E. (2018). The "business sucks" story. *Humanistic Management Journal*, *3*(1), 9–16.

Ganbat, M., Batbaatar, E., Bazarragchaa, G., & Ider, T. (2021). behavioral sciences Effect of Psychological Factors on Credit Risk: A Case Study of the Microlending Service in Mongolia. *Behavioral Sciences*, 1–22.

Garver, M. S., & Williams, Z. (2020). Utilizing relative weight analysis in customer satisfaction research. *International Journal of Market Research*, *62*(2), 158–175.

Grohmann, A., & Hamdan, J. (2021). The Effect of Self-Control and Financial Literacy on Impulse Borrowing: Experimental Evidence. *Experimental Evidence. SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3864924

Haley, C., & Marsh, R. (2021). Income generation and empowerment pathways for rural women of Jagusi Parish, Uganda: A double-sided sword. *Social Sciences & Humanities Open*, *4*(1), 100225.

Haws, K., Dholakia, U., Davis, S., & Yoon, Y. (2014). Control Over What? Assessing General and Domain-Specific Self-Control. *ACR North American Advances in consumer research, 42, 506 - 507.*

Kassegn, A., & Endris, E. (2021). Factors affecting loan repayment rate among smallholder farmers got loans from the Amhara Credit and Saving Institution: In the case of Habru District, Amhara Regional State, Ethiopia. *International Area Studies Review*. https://doi.org/10.1177/22338659211040993

Kim-Spoon, J., Farley, J. P., Holmes, C., Longo, G. S., & McCullough, M. E. (2014). Processes linking parents' and adolescents' religiousness and adolescent substance use: Monitoring and self-control. *Journal of Youth and Adolescence*, *43*(5), 745. https://doi.org/10.1007/s10964-013-9998-1

Le Cong, B., & Kwanboonchan, S. (2021). *Model of physical activities and sports in leisure of university students in ho chi minh city*. [PhD thesis] Srinakharinwirot University.

Li, J., Chen, Y., Lu, J., Li, W., Zhen, S., & Zhang, D. (2022). Does Self-Control Promote Prosocial Behavior? Evidence from a Longitudinal Tracking Study. *Children*, *9*(6), 854.

Lian, H., Yam, K. C., Ferris, D. L., & Brown, D. (2017). Self-control at work. *Academy of Management Annals*, *11*(2), 703–732.

Makwerere, D., Zvavahera, R. R., & Zivanai, J. (2020). Women Traditional Psychosocial Coping Mechanisms Against Domestic Violence in Zimbabwe. *Canadian Social Science*, *16*(12), 46–54.

Mawad, J. L., Athari, S. A., Khalife, D., & Mawad, N. (2022). Examining the impact of financial literacy, financial self-control, and demographic determinants on individual financial performance and behavior: An insight from the Lebanese Crisis Period. *Sustainability*, *14*(22), 15129.

Mohta, S. (2020). Student loans and seed-funds: assessing the need for early-career financial planning in urban india. *International Journal of Social Science and Economic Research*, *05*(09).

Mwaniki, S. M. (2014). *Influence of financial literacy training on financial performance of women self help groups: A case of equity bank customers, Isiolo branch, Kenya* [PhD Thesis]. University Of Nairobi.

Never, B. (2016). Behave and save?: Behaviour, energy efficiency and performance of micro and small enterprises in Uganda. *Energy Research & Social Science*, *15*, 34–44.

Othman, S., Steen, M., & Fleet, J. (2020). A sequential explanatory mixed methods study design: An example of how to integrate data in a midwifery research project. *J. Nurs. Educ. Pract*, *11*, 75–89.

Patnaik, G. (2021). *Positive Psychology for Improving Mental Health & Well-Being*. Tamil nadu, Notion Press.

Peltier, J. W., Dahl, A. J., & Schibrowsky, J. E. (2016). Sequential loss of self-control: Exploring the antecedents and consequences of student credit card debt. *Journal of Financial Services Marketing*, *21*(3), 167–181. https://doi.org/10.1057/s41264-016-0002-5

Pexídrová, O. (2019). *Is the lack of financial literacy the reason for the debt trap in the Czech Republic?* [PhD Thesis]. Empire State College.

Rahman, M., Azma, N., Masud, M. A. K., & Ismail, Y. (2020). Determinants of indebtedness: Influence of behavioral and demographic factors. *International Journal of Financial Studies*, *8*(1), 8.

Sandy, D. A., & Renanita, T. (2018). The Relationships of Self Control and Neuroticism Personality Tendency To Unhealthy Credit Card Usage of Career Women in Surabaya. *Jurnal Entrepreneur Dan Entrepreneurship*, 7(1), 11–18.

Sedliačiková, M., Stroková, Z., Klementová, J., Satanová, A., & Moresová, M. (2020). Impacts of behavioral aspects on financial decision-making of owners of woodworking and furniture manufacturing and trading enterprises. *Acta Facultatis Xylologiae Zvolen Res Publica Slovaca*, *62*(1), 165–176.

Spósito, N. H. (2022). Just a human error…? Case study of a condensate vessel explosion. *Process Safety Progress*.

Stevenson, R. C. (2006). *The Human Dimension of the Hardened and Networked Army: The Lessons of Friendly Fire*. Land Warfare Studies Centre.

Strömbäck, C. (2020). *Self-Control, Financial Well-Being, and Motivated Reasoning: Essays in Behavioral Finance* [Linköping University]. https://doi.org/10.3384/diss.diva-170094

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance*, *14*, 30–38.

Thomas, S. S., George, J. P., Godwin, B. J., & Siby, A. (2022). Young adults' default intention: Influence of behavioral factors in determining housing and real estate loan repayment in India. *International Journal of Housing Markets and Analysis*.

Tucker, B. P., & Alewine, H. (2021). The sunk cost fallacy and throwing the baby out with the bathwater: A little like rocket science. *Accounting, Auditing & Accountability Journal*, *34*(4), 1016–1017.

Vedadi, A., & Greer, T. H. (2021). Revisiting how perceived uncertainty and herd behavior influence technology choice. *Journal of Organizational and End User Computing (JOEUC)*, *33*(6), 1–19.

Vijay, A., Prakash, V., & Natarajan, S. (2015). Gap analysis on financial knowledge and practice: Teachable opportunities. *Mediterranean Journal of Social Sciences*, *6*(4), 62–62.

Vuletich, H. A. (2020). *How Socioeconomic Status Shapes Perceptions of Time: Consequences for Decision-Making and Academic Achievement*. [Phd Thesis], university of North Carolina

Waga, C. S., Memba, F., & Muriithi, J. (2021). Financial Behaviour and Retirement Planning in Kenya, Assessing the Role of Self-Control Bias. *European Scientific Journal, ESJ*, *17*(23), 348.

Waqas, M., & Siddiqui, D. A. (2021). Does Materialism, Emotions, Risk and Financial Literacy Affects the Propensity for Indebtedness in Pakistan: The Complementary Role of Hedonism and Demographics. *Emotions, Risk and Financial Literacy Affects the Propensity for Indebtedness in Pakistan: The Complementary Role of Hedonism and Demographics (October 14, 2021)*.

Wijaya, M. C., & Kloping, Y. P. (2022). Validity and reliability testing of the Indonesian version of the eHealth Literacy Scale during the COVID-19 pandemic. *Health Informatics Journal*, *27*(1), 1460458220975466. https://doi.org/10.1177/1460458220975466