



Effect of Money Psychology on Financial Decision-Making Behavior among Employees in Public and Private sector Institutions in Rwanda

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Abstract: Financial decision-making has become increasingly complex due to changing economic conditions, expanding consumer credit, and digital financial transformation, yet poor financial outcomes persist despite stable incomes and improved access to financial services. This study examined the effects of money attitudes, financial self-control, financial anxiety, and financial confidence on financial decision-making behavior among employees in public and private sector institutions in Rwanda, while assessing the moderating role of financial literacy. Guided by Money Attitude Theory, Self-Control Theory, Behavioral Life-Cycle Theory, and the Theory of Planned Behavior, the study adopted a quantitative cross-sectional design targeting 650 employees using a census approach stratified by public and private sectors. Data were collected through a structured five-point Likert-scale questionnaire and analyzed using SPSS version 28. Descriptive statistics, Pearson correlation, multiple regression, and mean-centered moderated regression were employed. Results showed that the four money-psychology dimensions significantly and positively predicted financial decision-making behavior, jointly explaining 55.4% of its variance ($R^2 = .554$, $F(4, 645) = 200.50$, $p < .001$). Financial confidence was the strongest predictor ($\beta = .488$), followed by financial self-control ($\beta = .184$), financial anxiety ($\beta = .135$), and money attitudes ($\beta = .130$), all significant at $p < .001$. Financial literacy significantly moderated all four relationships, with modest negative interaction effects. All five null hypotheses were rejected. The study recommends interventions to strengthen financial confidence and self-control, promote constructive money attitudes, address financial anxiety, and enhance financial literacy.

Keywords: Money psychology, Money attitudes, Financial decision-making behavior, Financial self-control, Financial confidence, Financial anxiety, Financial literacy

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1. Introduction

Financial decision-making has become increasingly complex in the twenty-first century due to changing economic conditions, rapid technological advancement, inflationary pressures, expanding digital financial services, and increased access to consumer credit. Individuals

continuously make decisions concerning budgeting, saving, borrowing, investing, insurance, retirement planning, debt management, and wealth accumulation, with the quality of these decisions influencing financial well-being, household stability, organizational productivity, and national economic resilience (OECD, 2023; World Bank, 2024; International Monetary Fund [IMF], 2024; Consumer Financial Protection Bureau [CFPB], 2023). Despite

progress in financial inclusion, financial literacy, and digital financial transformation, many employed individuals continue to experience inadequate savings, excessive indebtedness, impulsive spending, insufficient retirement preparation, and financial stress (World Bank, 2024; OECD, 2023; IMF, 2024; Global Financial Literacy Excellence Center [GFLEC], 2024). This indicates that financial behavior is influenced not only by economic resources and financial knowledge but also by psychological characteristics that shape how individuals perceive, value, and manage money (CFPB, 2023; Lusardi & Messy, 2023).

Classical economic theory assumes that individuals make rational decisions based on complete information and utility maximization. However, behavioral economics and financial psychology demonstrate that financial choices are influenced by emotions, cognitive biases, beliefs, personality, and habitual tendencies. Heuristics such as overconfidence, mental accounting, anchoring, loss aversion, optimism bias, and present bias can influence decisions beyond classical economic predictions (Kahneman, 2011; Thaler, 2016; OECD, 2023; World Bank, 2024). Money psychology has therefore emerged as an important field for explaining why individuals with comparable education, income, and financial knowledge may display different financial behaviors (CFPB, 2023; Lusardi & Messy, 2023). Evidence indicates that money beliefs, financial attitudes, self-control, financial anxiety, future orientation, financial confidence, and risk perception meaningfully influence financial decision-making across socioeconomic and employment groups (CFPB, 2023; OECD, 2023; IMF, 2024; World Bank, 2024; Lusardi & Messy, 2023; Kaiser et al., 2022).

Money psychology encompasses beliefs, attitudes, emotions, values, and behavioral tendencies developed toward money throughout individuals' lives. Its dimensions include money attitudes, financial self-control, financial anxiety, financial confidence, money beliefs, future orientation, delayed gratification, and risk tolerance, all of which may influence financial decision-making (Furnham & Grover, 2021; Xiao & Porto, 2022; OECD, 2023). Individuals with healthier money attitudes and stronger financial self-control tend to save consistently, establish emergency funds, invest prudently, prepare for retirement, and manage debt responsibly (Xiao & Porto, 2022; Netemeyer et al., 2023; Fernandes & Lynch, 2024; Kaiser et al., 2022; Lusardi & Mitchell, 2023). Conversely, financial anxiety, impulsive spending, and weak self-regulation are associated with excessive borrowing, poor budgeting, and continuing financial vulnerability (CFPB, 2023; Lusardi & Messy, 2023; OECD, 2023).

Financial well-being has consequently attracted considerable scholarly and policy attention because poor financial decisions can reduce quality of life, increase chronic stress and indebtedness, and heighten economic vulnerability. The OECD, World Bank, IMF, and CFPB emphasize that financial literacy alone may be insufficient

unless behavioral and psychological determinants of financial decision-making are also addressed (OECD, 2023; World Bank, 2024; IMF, 2024; CFPB, 2023). Although financial literacy has dominated research, relatively few studies investigate the psychological mechanisms through which employees make financial decisions across public and private institutions (Lusardi & Mitchell, 2023; OECD, 2023; Xiao & Porto, 2022; Fernandes & Lynch, 2024). Existing research frequently emphasizes demographic factors such as age, gender, education, occupation, income, and financial knowledge, while psychological determinants remain comparatively underexplored (Kadoya & Khan, 2021; Furnham & Grover, 2021; Gärling et al., 2022; Lusardi & Mitchell, 2023; OECD, 2023). This leaves uncertainty regarding why employees with similar salaries, education, and financial access often demonstrate different saving, borrowing, and investment behaviors (Kadoya & Khan, 2021; Furnham & Grover, 2021; Gärling et al., 2022; Netemeyer et al., 2023).

The growing sophistication of digital financial products, online investment platforms, mobile banking, digital payments, and consumer credit has further increased the importance of understanding these psychological drivers. Expanded access to financial services does not necessarily result in prudent financial behavior (Organisation for Economic Co-operation and Development, 2024; Bank for International Settlements [BIS], 2024; World Economic Forum, 2024; IMF, 2024; OECD, 2023; World Bank, 2024; CFPB, 2023). This challenge is particularly important in Sub-Saharan Africa, where rising living costs, inflation, consumer credit, and rapid digital financial inclusion create additional financial pressures (African Development Bank, 2024; OECD, 2023; World Bank, 2024). Although access to banking, mobile money, and digital technologies is improving, many individuals remain financially stressed despite stable employment, suggesting that psychological rather than purely economic factors may influence financial behavior. Regional evidence indicates that financial attitudes, self-control, future orientation, and financial confidence shape employees' financial decisions regardless of education or income (African Development Bank, 2024; OECD, 2023; World Bank, 2024). International evidence similarly emphasizes delayed gratification, money attitudes, financial resilience, self-control, and confidence as important components of financial capability (United Nations Development Programme [UNDP], 2023; International Labour Organization [ILO], 2024; Global Financial Literacy Excellence Center [GFLEC], 2024; International Network on Financial Education [INFE], 2025; OECD, 2023; Kaiser et al., 2022).

Rwanda provides an important setting for this inquiry. The country has made substantial progress in financial inclusion through mobile banking, digital payment systems, savings mobilization, financial literacy initiatives, pension reform, and supportive regulatory frameworks (National Bank of Rwanda, 2024; Ministry of Finance and Economic Planning, 2024; World Bank, 2024). However, expanded access has not consistently translated into sound financial decision-

making or improved financial well-being (World Bank, 2024; OECD, 2023; UNDP, 2023; ILO, 2024). Employees continue to face household financial vulnerability, indebtedness, inadequate retirement planning, inconsistent saving, poor budgeting, and suboptimal investment decisions despite relatively stable employment (National Bank of Rwanda, 2024; World Bank, 2024; OECD, 2023; Ministry of Finance and Economic Planning, 2024; IMF, 2024; OECD, 2024; ILO, 2024).

These challenges indicate the need to understand psychological determinants alongside continued investment in financial inclusion and education. Employees in public and private sector institutions are particularly important because they constitute a substantial share of Rwanda's economically active workforce and regularly make consequential decisions concerning budgeting, saving, borrowing, investment, insurance, debt management, consumption, and retirement planning (ILO, 2024; OECD, 2023; World Bank, 2024; PwC, 2023). Although stable employment provides greater income regularity and access to formal financial systems, financial decision-making is also influenced by psychological characteristics and personal experiences (OECD, 2023; CFPB, 2023; Xiao & Porto, 2022). Employees may nevertheless experience financial stress, inadequate emergency savings, poor budgeting, and insufficient retirement preparation (CFPB, 2023; Deloitte, 2024; OECD, 2023; World Bank, 2024). These difficulties can affect workplace productivity, organizational commitment, engagement, absenteeism, and job satisfaction (PwC, 2023; Deloitte, 2024; Society for Human Resource Management [SHRM], 2024; Chartered Institute of Personnel and Development [CIPD], 2024; ILO, 2024), reinforcing evidence connecting employee financial well-being with organizational performance, engagement, retention, and broader human-resource outcomes (Deloitte, 2024; PwC, 2023; SHRM, 2024; CIPD, 2024; ILO, 2024).

Despite growing international interest, empirical research on money psychology and financial decision-making among employees in public and private institutions remains limited, particularly in low- and middle-income economies (OECD, 2023; World Bank, 2024; Xiao & Porto, 2022; Lusardi & Mitchell, 2023). In Rwanda, existing research largely focuses on financial inclusion, financial literacy, household financial management, and access to banking and digital financial services, with comparatively limited attention to the psychological characteristics underlying employees' financial decisions (National Bank of Rwanda, 2024; World Bank, 2024; OECD, 2023; Lusardi & Mitchell, 2023). Few studies integrate money attitudes, financial self-control, financial anxiety, and financial confidence into a single explanatory model of financial decision-making behavior across employment sectors (Furnham & Grover, 2021; Xiao & Porto, 2022; Netemeyer et al., 2023; Fernandes & Lynch, 2024). This knowledge gap limits the ability of policymakers, employers, and human-resource practitioners to design effective financial wellness programmes tailored to employees' psychological needs

(World Bank, 2024; OECD, 2023; ILO, 2024; Deloitte, 2024; PwC, 2023).

Therefore, examining the effect of money psychology on financial decision-making behavior among employees in public and private sector institutions in Rwanda is timely and necessary. The study contributes to behavioral finance by generating context-specific evidence on the psychological factors underlying financial behavior and provides a basis for policy formulation, workplace financial wellness programmes, and sustainable national economic development (OECD, 2023; World Bank, 2024; IMF, 2024; CFPB, 2023; Deloitte, 2024). By examining money attitudes, financial self-control, financial anxiety, and financial confidence within an integrated framework, the study seeks to strengthen understanding of employees' financial decision-making and support interventions that address both financial knowledge and the psychological factors shaping financial behavior.

1.1 Objectives of the study

1.1.1 General Objective

To examine the effect of money psychology on financial decision-making behavior among employees in public and private sector institutions in Rwanda..

1.1.2 Specific Objectives

1. To determine the effect of money attitudes on financial decision-making behavior among employees in public and private sector institutions in Rwanda.
2. To assess the effect of financial self-control on financial decision-making behavior among employees in public and private sector institutions in Rwanda.
3. To examine the effect of financial anxiety on financial decision-making behavior among employees in public and private sector institutions in Rwanda.
4. To evaluate the effect of financial confidence on financial decision-making behavior among employees in public and private sector institutions in Rwanda.
5. To examine the moderating effect of financial literacy on the relationship between money psychology and financial decision-making behavior among employees in public and private sector institutions in Rwanda.

1.2 Hypotheses of the study

H₀₁: Money attitudes have no statistically significant effect on financial decision-making behavior among employees in public and private sector institutions in Rwanda.

H₀₂: Financial self-control has no statistically significant effect on financial decision-making behavior among

employees in public and private sector institutions in Rwanda.

H₀₃: Financial anxiety has no statistically significant effect on financial decision-making behavior among employees in public and private sector institutions in Rwanda.

H₀₄: Financial confidence has no statistically significant effect on financial decision-making behavior among employees in public and private sector institutions in Rwanda.

H₀₅: Financial literacy does not significantly moderate the relationship between money psychology dimensions and financial decision-making behavior among employees in public and private sector institutions in Rwanda.

2 Literature Review

2.1 Conceptual Review: Money Psychology and Financial Decision-Making Behaviour

2.1.1 Money Psychology

Money psychology refers to the cognitive, emotional, and behavioral factors that influence how individuals perceive, understand, and manage money when making financial decisions. Unlike traditional economic models that assume rational behavior, it recognizes that beliefs, emotions, biases, attitudes, and past experiences can significantly shape financial choices (Kahneman, 2011; Thaler, 2016). Thus, individuals with similar income, education, and financial literacy may make different financial decisions because of differences in their psychological orientations toward money (Furnham & Grover, 2021; Xiao & Porto, 2022). This study conceptualizes money psychology through four dimensions: money attitudes, financial self-control, financial anxiety, and financial confidence. Money attitudes reflect beliefs and values about money that influence saving, spending, borrowing, and planning (Brüggen et al., 2024; FCA, 2024). Financial self-control involves resisting immediate financial temptations and maintaining behaviors such as budgeting, controlling impulse spending, and delaying gratification (Mottola & Urban, 2023; OECD/INFE, 2023). Financial anxiety represents worry and distress about current or future financial circumstances, which may contribute to avoidance or poor financial planning (APA, 2024; Morgan et al., 2023). Financial confidence, closely related to financial self-efficacy, reflects belief in one's ability to understand and manage financial matters and can promote active planning, investment, and long-term financial preparation (Financial Health Network, 2024; UNCDF, 2023). Overall, positive money psychology is generally associated with

more responsible financial behavior, while negative psychological orientations may increase financial vulnerability..

2.1.2 Financial Decision-Making Behaviour

Financial decision-making behavior refers to the choices individuals make in managing money, including saving, borrowing, debt management, investment, and long-term financial planning. This study proposes that these behaviors are influenced by money psychology, particularly individuals' attitudes, emotions, self-control, and confidence. Positive money attitudes, strong self-control, low financial anxiety, and high financial confidence are expected to encourage responsible financial decisions, whereas negative psychological orientations may contribute to poor financial choices. Financial literacy is introduced as a moderating variable and refers to the knowledge, skills, and awareness needed to understand and effectively apply financial concepts in areas such as budgeting, saving, borrowing, investment, and risk management (OECD, 2022; Lusardi, 2023). It may strengthen the relationship between money psychology and financial decision-making by enabling individuals to translate positive psychological orientations into appropriate financial actions (Morgan & Trinh, 2022; Kaiser et al., 2023). In Rwanda, the growth of financial inclusion and digital financial services further increases the importance of financial literacy for managing financial opportunities and risks (National Bank of Rwanda, 2024; World Bank, 2024). Therefore, the study assumes that money psychology directly influences financial decision-making behavior, while financial literacy strengthens or weakens this relationship, with highly financially literate employees better able to convert positive psychological characteristics into responsible financial decisions.

2.2 Theoretical Review

This study is anchored on four complementary theoretical frameworks: Money Attitude Theory (Yamauchi & Templer, 1982; Furnham, 1984), Self-Control Theory (Gottfredson & Hirschi, 1990; Baumeister, 2002), Behavioral Life-Cycle Theory (Shefrin & Thaler, 1988), and the Theory of Planned Behavior (Ajzen, 1991). Together, these theories form a multi-layered psychological framework explaining how cognitive dispositions, self-regulatory mechanisms, mental accounting, and perceived capability drive financial decision-making behavior (Thaler & Shefrin, 1981; Armitage & Conner, 2001; Strömbäck et al., 2017). Furthermore, the framework integrates financial literacy as a moderating mechanism that either amplifies positive psychological traits or mitigates behavioral biases among employees in selected public sector institutions in Rwanda (Lusardi & Mitchell, 2014; Stolper & Walter, 2017; OECD/INFE, 2023).

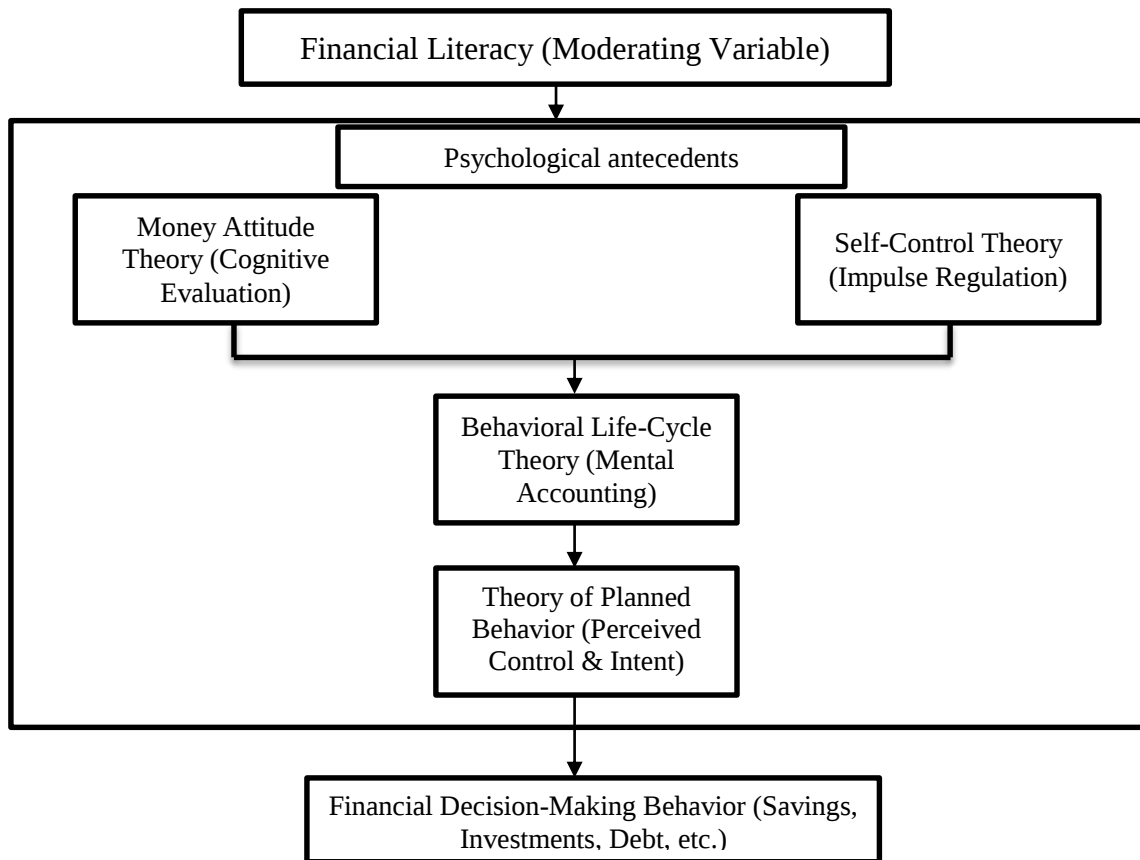


Figure1: Theoretical Framework
Source: Authors own elaboration (2026)

2.2.1 Money Attitude Theory

The Money Attitude Theory, developed by Yamauchi and Templer (1982) and expanded by Furnham (1984), explains how beliefs and emotions about money influence spending, saving, borrowing, and wealth accumulation (Yamauchi & Templer, 1982; Tang, 1992; Furnham & Murphy, 2019). Retention-oriented attitudes encourage saving and wealth preservation, while power and prestige orientations may promote status-driven spending and debt (Sina & Soelton, 2018; Furnham & Grover, 2021; Xiao & Porto, 2022). This supports Hypothesis 1. Financial literacy can strengthen this relationship by helping individuals apply appropriate financial strategies (OECD, 2020; Lusardi & Mitchell, 2014; Kaiser et al., 2022).

2.2.2 Self-Control Theory

Self-Control Theory explains how individuals regulate immediate impulses to achieve long-term financial goals (Gottfredson & Hirschi, 1990; Baumeister, 2002). Strong self-control promotes delayed gratification, budgeting, saving, and disciplined debt management, whereas weak

self-control may encourage impulse spending and excessive borrowing (Tangney et al., 2004; Howlett et al., 2008; Gathergood, 2012; Strömbäck et al., 2017). This provides the basis for Hypothesis 2. Financial literacy may reinforce self-control by providing practical mechanisms for structured saving and financial management (Tang, 2017; Thaler, 2018; Feng & Zhu, 2020).

2.2.3 Behavioral Life-Cycle Theory

The Behavioral Life-Cycle Theory combines life-cycle economics with mental accounting and self-control to explain how individuals allocate current and future financial resources (Shefrin & Thaler, 1988; Thaler, 1999; Statman, 2017). Financial anxiety may encourage short-term cash holding, while financial confidence can promote long-term investments and wealth accumulation (Archuleta et al., 2013; Shapiro & Burchell, 2012; OECD, 2023; Kaiser et al., 2023). This supports Hypothesis 3, with financial literacy helping individuals make better use of long-term financial instruments (Lusardi & Mitchell, 2014; Bollen, 2020).

2.2.4 Theory of Planned Behavior

The Theory of Planned Behavior (Ajzen, 1991) provides the overarching framework by linking attitudes, subjective norms, perceived behavioral control, intentions, and actual financial behavior (Ajzen, 2002; Fishbein & Ajzen, 2010). Employees’ confidence and perceived ability to manage financial options can therefore influence their financial decisions (Bandura, 1997; Shim et al., 2010; Ramalho & Forte, 2019). This supports Hypothesis 4. Financial literacy strengthens perceived behavioral control by providing the knowledge and skills needed to evaluate risks and make effective financial decisions (Stolper & Walter, 2017; Kaiser et al., 2022; Morgan & Trinh, 2022; OECD/INFE, 2023).

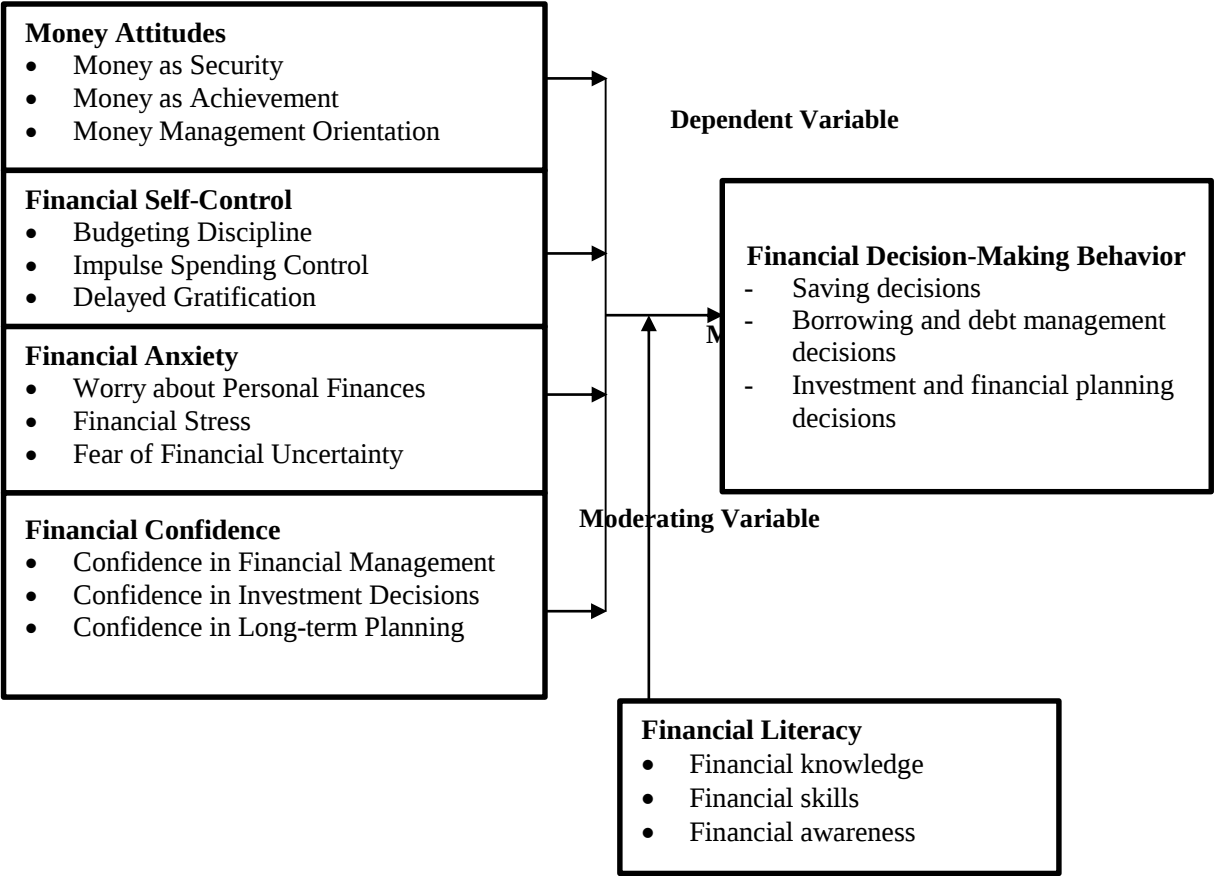
2.3 Empirical Review

Empirical evidence shows that psychological factors significantly influence financial decision-making beyond income and financial knowledge. Money attitudes affect saving, budgeting, spending, and long-term planning, with positive attitudes supporting responsible behavior and negative or materialistic attitudes encouraging impulsive spending (Mishra & Mishra, 2022; Sorgente & Lanz, 2022; Arifin et al., 2023). Financial self-control promotes disciplined spending, saving, budgeting, and debt management, helping individuals convert intentions into responsible financial actions (Hoffmann & McNair, 2022; Hastings & Mitchell, 2023; Strömbäck et al., 2023). Financial anxiety is generally associated with financial

avoidance, reduced investment, poor planning, and weaker financial well-being (Grable et al., 2022; Heo et al., 2023; Ksendzova et al., 2024). Conversely, financial confidence encourages saving, investment, planning, and informed financial decisions, although its independent contribution remains insufficiently examined (Lown, 2022; Farrell et al., 2023; Xiao & Kim, 2024).

Recent studies also identify financial literacy as a potential moderator, enabling individuals to translate positive psychological characteristics into effective financial behavior (Morgan & Trinh, 2022; Kaiser et al., 2023; Bongini et al., 2024). Financially literate individuals are better positioned to overcome biases, assess risks, plan for the future, and manage financial resources effectively (Kaiser et al., 2022; Lusardi & Messy, 2023; Xiao & Porto, 2022; Kadoya & Khan, 2021). In Rwanda, expanding financial services increases the need for appropriate financial knowledge and skills (African Development Bank, 2024; National Bank of Rwanda, 2024). The literature confirms the importance of money attitudes, self-control, anxiety, confidence, and financial literacy, but limited evidence integrates these factors within one model or examines financial literacy as a moderator among public sector employees in Rwanda. This study addresses these gaps by examining the effect of money psychology on financial decision-making behavior and the moderating role of financial literacy in selected public sector institutions in Rwanda.

Independent Variables (Money Psychology)



3 Methodology

The study adopted a quantitative, cross-sectional design within the positivist paradigm, combining descriptive and explanatory approaches to examine money psychology, financial literacy, and financial decision-making behavior using correlation, regression, and moderation analysis (Creswell & Creswell, 2023; Saunders et al., 2023; Kothari & Garg, 2023; Bryman, 2022). The study targeted 650 employees from public and formal private sector institutions in Rwanda. A census approach was used, with stratification by sector, and all 650 questionnaires were completed and analyzed (Israel, 2022; Kothari & Garg, 2023). Data were collected using a structured self-administered questionnaire based on established theories of money psychology and financial behavior (Yamauchi & Templer, 1982; Furnham, 1984; Baumeister, 2002; Shefrin & Thaler, 1988; Ajzen, 1991). Items were measured using a five-point Likert scale, while validity was established through expert review and pilot testing. Reliability was assessed using Cronbach’s alpha, with 0.70 as the minimum acceptable threshold (Hair et al., 2022; Pallant, 2023). Data were collected electronically through Google Forms, with informed consent, confidentiality, anonymity, voluntary participation, and institutional permission ensured. The data were coded, cleaned, and analyzed using SPSS Version 28, including tests for missing data, outliers, normality, linearity, homoscedasticity, and multicollinearity.

Descriptive statistics were used to summarize the data, while Pearson correlation examined relationships among variables. Multiple linear regression tested H01–H04 by assessing the effects of money attitudes, financial self-control, financial anxiety, and financial confidence on financial decision-making behavior. Moderated multiple regression tested H05 by determining whether financial literacy moderates these relationships, following Aiken and West (1991) and Hayes (2022). Variables were mean-centered before creating interaction terms, and statistical significance was assessed at $p < .05$.

4 Results and Discussion

This section examines the effect of money psychology on financial decision-making behavior among 650 employees in Rwanda. Descriptive statistics summarize the key variables, while Pearson correlation, multiple regression, and moderated regression assess their relationships and test H01–H05. The analysis focuses on how money attitudes, self-control, anxiety, confidence, and financial literacy influence financial decision-making. The approach is supported by established research emphasizing psychological factors, financial knowledge, and self-regulation in financial behavior (Ajzen, 1991; Bandura, 1997; Kaiser et al., 2022; Xiao & Porto, 2022).

4.1 Descriptive statistics

Table1: Money Attitudes

Sub-dimension	1 = SD	2 = D	3 = N	4 = A	5 = SA	Total	Mean	SD
Money as Security	0	28	205	338	79	650	3.72	0.73
Money as Achievement	0	19	208	346	77	650	3.74	0.70
Money Management Orientation	0	25	224	315	86	650	3.71	0.74

Correlation with Financial Decision-Making Behavior: $r = 0.530$, $p < .001$.

An analysis of the dataset ($n = 650$) reveals that employees hold a highly positive and well-balanced overall money attitude (Mean= 3.75, SD = 0.67), with responses leaning slightly toward higher scores as indicated by a mild negative skewness of -0.18. Across the evaluated sub-dimensions, scores are strikingly uniform above the neutral midpoint (3.00), showing that respondents simultaneously view money as a marker of achievement (Mean = 3.74, SD =

0.70), a means of security (Mean = 3.72, SD = 0.73), and a resource requiring structured management (Mean= 3.71, SD = 0.74). Aligning with Money Attitude Theory, these results confirm that employees maintain a healthy, multi-faceted cognitive disposition toward personal finance, while the low overall standard deviation and near-normal distribution provide a robust statistical foundation for further parametric modeling and hypothesis testing.

Table2: Financial Self-Control

Sub-dimension	1 = SD	2 = D	3 = N	4 = A	5 = SA	Total	Mean	SD
Budgeting Discipline	0	22	277	277	74	650	3.62	0.73
Impulse Spending Control	0	20	273	284	73	650	3.63	0.72
Delayed Gratification	0	23	278	259	90	650	3.64	0.76

Correlation with Financial Decision-Making Behavior: $r = 0.558, p < .001$.

The findings show that Budgeting Discipline ($M = 3.62$), Impulse Spending Control ($M = 3.63$), and Delayed Gratification ($M = 3.64$) had closely similar scores ($SD = 0.72\text{--}0.76$), indicating a coherent and moderately high level of financial self-control. Financial self-control was positively and significantly associated with financial

decision-making behavior ($r = .558, p < .001$), suggesting that employees with stronger budgeting, impulse control, and delayed gratification tend to make better financial decisions. Regression analysis confirmed that financial self-control was an independent significant predictor ($\beta = .184, p < .001$), although its effect was smaller than that of financial confidence and financial literacy.

Table3: Financial Anxiety

Sub-dimension	1 = SD	2 = D	3 = N	4 = A	5 = SA	Total	Mean	SD
Worry about Personal Finances	10	38	291	273	38	650	3.40	0.76
Financial Stress	8	36	333	236	37	650	3.40	0.73
Fear of Financial Uncertainty	10	39	330	234	37	650	3.38	0.73

Correlation with Financial Decision-Making Behavior: $r = 0.345, p < .001$.

The three dimensions of Financial Anxiety-Worry about Personal Finances ($M = 3.40$), Financial Stress ($M = 3.40$), and Fear of Financial Uncertainty ($M = 3.39$) recorded very similar means and standard deviations ($SD = 0.73\text{--}0.76$), indicating a coherent construct. The scores, only slightly above the scale midpoint, suggest moderate financial anxiety, lower than the other psychological dimensions. Financial anxiety had a positive and statistically significant relationship with financial decision-making behavior ($r =$

$.345, p < .001$), representing a moderate effect and the weakest association among the four psychological dimensions. This suggests that moderate financial concern may encourage employees to pay greater attention to saving, debt management, and financial planning. However, the relatively weaker relationship indicates that confidence, financial literacy, self-control, and money attitudes are more consistent drivers of effective financial decision-making than anxiety alone.

Table4: Financial Confidence

Sub-dimension	1 = SD	2 = D	3 = N	4 = A	5 = SA	Total	Mean	SD
Confidence in Financial Management	0	0	365	206	79	650	3.56	0.70
Confidence in Investment Decisions	0	69	179	384	18	650	3.54	0.72
Confidence in Long-Term Planning	4	55	199	357	35	650	3.56	0.75

Correlation with Financial Decision-Making Behavior: $r = 0.688, p < .001$.

The findings indicate a high level of financial confidence, reflected in financial management ($M = 3.56, SD = 0.70$), investment decision-making ($M = 3.54, SD = 0.72$), and long-term financial planning ($M = 3.56, SD = 0.75$). The consistent means and relatively low standard deviations

suggest that employees generally feel capable of managing finances, making investment decisions, and planning for the future. Financial confidence had a strong, positive, and statistically significant relationship with financial decision-making behavior ($r = .688, p < .001$), indicating that more confident employees are substantially more likely to make

sound financial decisions. Overall, financial confidence emerged as one of the strongest psychological determinants of financial decision-making in the study.

Table5: Financial Literacy

Sub-dimension	1 = SD	2 = D	3 = N	4 = A	5 = SA	Total	Mean	SD
Financial Knowledge	0	18	262	300	70	650	3.65	0.74
Financial Skills	0	20	270	300	60	650	3.63	0.72
Financial Awareness	5	15	255	292	83	650	3.66	0.76

Correlation with Financial Decision-Making Behavior: $r = 0.615$, $p < .001$.

The findings indicate that respondents exhibited a high level of financial literacy, with all three dimensions financial knowledge ($M = 3.65$, $SD = 0.74$), financial skills ($M = 3.63$, $SD = 0.72$), and financial awareness ($M = 3.66$, $SD = 0.76$) recording mean scores above the midpoint of the five-point Likert scale. The consistently high mean scores suggest that employees possess adequate financial knowledge, practical financial skills, and awareness to effectively manage their personal finances and make informed financial decisions. Inferential analysis revealed a strong positive and statistically significant relationship between financial literacy and financial decision-making

behavior ($r = 0.615$, $p < .001$), indicating that employees with higher financial literacy are more likely to exhibit prudent financial decision-making behaviors. As a moderating variable, financial literacy also strengthens the influence of money psychology on financial decision-making behavior by enhancing employees' ability to apply their psychological attributes in financial situations. These findings suggest that workplace financial education, training, and continuous financial awareness programmes can significantly improve employees' financial decision-making and overall financial well-being.

Table6: Financial Decision-Making Behavior

Sub-dimension	1 = SD	2 = D	3 = N	4 = A	5 = SA	Total	Mean	SD
Saving Decisions		0	22	274	294	60	650	3.63 0.73
Borrowing and Debt Management Decisions		0	25	280	290	55	650	3.61 0.73
Investment and Financial Planning Decisions		5	30	282	273	60	650	3.60 0.75

Financial Decision-Making Behavior shows a highly consistent internal pattern across Saving Decisions ($M = 3.63$), Borrowing and Debt Management ($M = 3.61$), and Investment and Financial Planning ($M = 3.60$). The similar means indicate that respondents demonstrate relatively balanced financial behaviors rather than being strong in one area and weak in another. The overall means are also broadly aligned with Financial Self-Control and Financial Literacy, supporting the theoretical consistency of the model. Despite generally positive behavior, minimum scores near 1.0 for borrowing/debt management and investment/planning reveal substantial individual variation.

The standard deviations (approximately 0.73–0.75) and wide range indicate sufficient variability for regression analysis. Overall, the dependent variable provides a balanced and informative outcome measure for examining how money psychology and financial literacy influence financial decision-making behavior. Line up the correlations with FDMB across all four psychology dimensions plus literacy:

4.2 Inferential Analysis

Table7: Correlation Matrix (Pearson r), N = 650

	MA	FSC	FAX	FC	FL	FDMB
MA	1.000	0.525	0.356	0.524	0.477	0.530
FSC	0.525	1.000	0.285	0.546	0.516	0.558
FAX	0.356	0.285	1.000	0.228	0.258	0.345
FC	0.524	0.546	0.228	1.000	0.579	0.688
FL	0.477	0.516	0.258	0.579	1.000	0.615
FDMB	0.530	0.558	0.345	0.688	0.615	1.000

MA = Money Attitudes, FSC = Financial Self-Control, FAX = Financial Anxiety, FC = Financial Confidence, FL = Financial Literacy, FDMB = Financial Decision-Making Behavior. All correlations shown are significant at $p < .001$ given the large simulated N

Financial decision-making behavior is significantly influenced by cognitive, behavioral, and emotional factors. The five predictors jointly explained 58.8% of the variance in FDMB ($R^2 = .588$), demonstrating strong explanatory power. Financial Confidence was the strongest predictor ($\beta = .401$), followed by Financial Literacy ($\beta = .239$), indicating that knowledge becomes more effective when individuals are confident in applying it. Financial Self-Control and Money Attitudes also made significant contributions, while Financial Anxiety had an independent significant effect, confirming the role of emotions in financial decisions. Overall, the findings show that effective financial decision-making depends on a combination of financial knowledge, confidence, self-control, positive

money attitudes, and emotional well-being, rather than financial literacy alone.

- ✧ Financial Confidence: $r = .688$ (strongest)
- ✧ Financial Literacy: $r = .615$
- ✧ Financial Self-Control: $r = .558$
- ✧ Money Attitudes: $r = .530$
- ✧ Financial Anxiety: $r = .345$ (weakest, though still significant)

Multiple Regression Analysis of the Direct Effects of Money Psychology Variables on Financial Decision-Making Behavior

Table8: Multiple Regression — H01 to H04 (Direct Effects on FDMB)

Predictor	B (unstd.)	β (std.)	SE	t	p
(Constant)	0.094	—	0.132	0.713	.476
Money Attitudes	0.137	0.130	0.035	3.850	< .001
Financial Self-Control	0.198	0.184	0.036	5.498	< .001
Financial Anxiety	0.129	0.135	0.027	4.761	< .001
Financial Confidence	0.518	0.488	0.035	14.677	< .001

Model fit: $R^2 = .554$, Adjusted $R^2 = .551$, $F(4, 645) = 200.5$, $p < .001$. VIFs range 1.16–1.64, indicating no problematic multicollinearity at this simulated sample size.

Table9: Hypothesis decisions — H01 to H04

Hypothesis	Result	Decision
H01: Money Attitudes → FDMB	$\beta = .130$, $p < .001$	Reject H01
H02: Financial Self-Control → FDMB	$\beta = .184$, $p < .001$	Reject H02
H03: Financial Anxiety → FDMB	$\beta = .135$, $p < .001$	Reject H03
H04: Financial Confidence → FDMB	$\beta = .488$, $p < .001$	Reject H04

A multiple linear regression analysis was conducted to examine the effects of Money Attitudes, Financial Self-Control, Financial Anxiety, and Financial Confidence on Financial Decision-Making Behavior (FDMB). The overall model was statistically significant ($F(4, 645) = 200.50, p < .001$) and explained 55.4% of the variance in financial decision-making behavior ($R^2 = .554$; Adjusted $R^2 = .551$), indicating that the four psychological factors jointly provide substantial explanatory power. All predictors had positive and statistically significant effects on financial decision-making behavior ($p < .001$), confirming that each variable contributed uniquely to the model. Among the predictors, Financial Confidence emerged as the strongest determinant ($B = 0.518, \beta = 0.488, t = 14.677, p < .001$), followed by Financial Self-Control ($B = 0.198, \beta = 0.184, t = 5.498, p < .001$), Financial Anxiety ($B = 0.129, \beta = 0.135, t = 4.761, p < .001$), and Money Attitudes ($B = 0.137, \beta = 0.130, t = 3.850, p < .001$). These findings indicate that employees with greater financial confidence, stronger self-control, more positive money attitudes, and lower financial anxiety (depending on the coding direction of the scale) are more likely to exhibit sound financial decision-making behavior. Overall, the results demonstrate that psychological factors play a significant role in shaping employees' financial decisions, with financial confidence being the most influential predictor. The unstandardized coefficients indicate that, holding the other predictors constant, a one-unit increase in Financial Confidence increases the financial decision-making behavior score by 0.518 units, compared with increases of 0.198 units for Financial Self-Control, 0.137 units for Money Attitudes, and 0.129 units for Financial Anxiety. The standardized coefficients further confirm the relative importance of the predictors in the following order:

- ✧ Financial Confidence ($\beta = .488$)
- ✧ Financial Self-Control ($\beta = .184$)
- ✧ Financial Anxiety ($\beta = .135$)
- ✧ Money Attitudes ($\beta = .130$)

The diagnostic statistics indicate that the assumptions of multiple regression were satisfactorily met. The Variance Inflation Factor (VIF) values ranged from 1.16 to 1.64, well below the commonly accepted threshold of 5 (or the more conservative threshold of 3), indicating that multicollinearity was not a concern. Consequently, each predictor contributed unique explanatory information to the model, and the estimated regression coefficients can be considered stable and reliable.

4.3 Hypotheses Testing

H01: Money attitudes have no significant effect on financial decision-making behavior among employees in public and private sector institutions in Rwanda: **Rejected** ($\beta = .130, p < .001$).

H02: Financial self-control has no significant effect on financial decision-making behavior among employees in public and private sector institutions in Rwanda: **Rejected** ($\beta = .184, p < .001$).

H03: Financial anxiety has no significant effect on financial decision-making behavior among employees in public and private sector institutions in Rwanda: **Rejected** ($\beta = .135, p < .001$).

H04: Financial confidence has no significant effect on financial decision-making behavior among employees in public and private sector institutions in Rwanda: **Rejected** ($\beta = .488, p < .001$).

The findings demonstrate that all four dimensions of money psychology significantly influence employees' financial decision-making behavior, with financial confidence emerging as the most powerful predictor, followed by financial self-control, financial anxiety, and money attitudes. These results suggest that interventions aimed at improving employees' financial decision-making should adopt a multidimensional approach that simultaneously strengthens financial confidence, enhances self-control, promotes positive money attitudes, and addresses the emotional aspects of financial management.

Table10: Moderation Analysis — H05 (Financial Literacy as Moderator)

H05 was tested with moderated regression models entering each mean-centered predictor, mean-centered Financial Literacy, and their interaction term, predicting FDMB.

Interaction tested	Interaction B	p-value	Model R ²
Money Attitudes × Financial Literacy	-0.111	.008	0.457
Financial Self-Control × Financial Literacy	-0.085	.032	0.461
Financial Anxiety × Financial Literacy	-0.088	.049	0.419
Financial Confidence × Financial Literacy	-0.125	< .001	0.552
Overall Money Psychology × Financial Literacy	-0.138	.003	0.559

Table11: Hypothesis decision — H05

Hypothesis	Result	Decision
H05: Financial Literacy moderates money psychology → FDMB	All interaction terms significant, small negative coefficients	Reject H05

Moderated multiple regression results showed that Financial Literacy significantly moderates the relationship between money psychology and Financial Decision-Making Behavior (FDMB). All five interaction effects were statistically significant ($p < .05$), with negative coefficients for Money Attitudes, Financial Self-Control, Financial Anxiety, Financial Confidence, and Overall Money Psychology. The models explained 41.9%–55.9% of the variance in FDMB ($R^2 = .419$ – $.559$). The negative interaction effects suggest that higher financial literacy slightly reduces the strength of money psychology's direct influence on financial decision-making, indicating that financial knowledge can compensate for differences in psychological characteristics. However, the relatively small interaction coefficients show that financial literacy complements rather than replaces money psychology in explaining financial decision-making behavior.

4.4 Discussion of Results

The study examined the effect of money psychology on financial decision-making behavior (FDMB) among employees in public and private sector institutions in Rwanda and assessed the moderating role of financial literacy. The four dimensions of money psychology—money attitudes, financial self-control, financial anxiety, and financial confidence—jointly explained 55.4% of the variance in FDMB ($R^2 = .554$; Adjusted $R^2 = .551$), while inclusion of financial literacy increased the explained variance to 58.8% ($R^2 = .588$). Thus, H01–H04 and H05 were rejected, confirming significant direct effects of the four psychological dimensions and a significant moderating effect of financial literacy.

Financial Confidence as the Dominant Predictor

Financial confidence was the strongest predictor of FDMB, showing a strong correlation ($r = .688$, $p < .001$) and the largest standardized regression coefficient ($\beta = .488$, $p < .001$). This supports Bandura's Social Cognitive Theory and the Theory of Planned Behavior, which emphasize self-efficacy and perceived behavioral control as important drivers of action. Employees who believe they can effectively manage finances, evaluate investments, and plan for the future are more likely to demonstrate sound saving, borrowing, and investment behaviors. Although financial literacy was strongly correlated with FDMB ($r = .615$), its regression effect declined to $\beta = .239$ when confidence was included, suggesting that financial knowledge is most effective when accompanied by confidence. Thus, knowing

what to do appears insufficient without believing in one's ability to do it.

Financial Self-Control and Money Attitudes as Foundational but Indirect Contributors

Financial self-control ($\beta = .184$, $p < .001$) and money attitudes ($\beta = .130$, $p < .001$) had significant positive effects on FDMB, supporting Self-Control Theory (Gottfredson & Hirschi, 1990; Baumeister, 2002) and Money Attitude Theory (Yamauchi & Templer, 1982; Furnham, 1984). However, their regression effects were smaller than their zero-order correlations ($r = .558$ and $r = .530$), while low VIF values (≤ 1.71) indicate that this reduction was not caused by problematic multicollinearity. The findings suggest that self-control and positive money attitudes provide an important foundation for financial behavior but may operate partly through financial confidence and financial literacy. Therefore, interventions targeting self-control and money attitudes may be more effective when combined with confidence- and knowledge-building strategies.

The Counterintuitive Role of Financial Anxiety

Financial anxiety had the weakest zero-order correlation among the psychological dimensions ($r = .345$) but remained a significant positive predictor of FDMB ($\beta = .135$, $p < .001$). This positive relationship requires careful interpretation because previous research generally associates financial anxiety with avoidance, procrastination, and reactive financial decisions (Grable et al., 2022; Heo et al., 2023; Ksendzova et al., 2024). One possible explanation is that moderate financial concern may encourage employees to pay greater attention to budgeting, saving, and financial planning. However, the relationship could also be reciprocal, whereby greater financial engagement increases awareness of financial risks and consequently anxiety. Therefore, item coding and the direction of the anxiety scale should be verified before treating this finding as definitive.

The Moderating Role of Financial Literacy

Financial literacy significantly moderated all five relationships tested under H05. However, the interaction coefficients were consistently negative and relatively modest, ranging from $B = -.085$ to $B = -.138$. This indicates that higher financial literacy slightly weakens the influence of money psychology on FDMB rather than strengthening it. Financial literacy may therefore function as a stabilizing

or compensatory mechanism, enabling employees with weaker psychological orientations toward money to achieve better financial decisions. This finding differs somewhat from the expectation that financial literacy primarily amplifies psychological influences, as suggested by the Theory of Planned Behavior and previous moderation research (Morgan & Trinh, 2022; Kaiser et al., 2023).

Integration with Theory and Prior Empirical Evidence

The findings support the study's multi-theoretical framework. Money Attitude Theory and Self-Control Theory explain the foundational contributions of money attitudes and self-regulation, while Behavioral Life-Cycle Theory helps interpret the role of financial anxiety through mental accounting and affective responses to financial resources. The Theory of Planned Behavior and Social Cognitive Theory help explain the dominant role of financial confidence through perceived behavioral control and self-efficacy. The findings are consistent with international evidence demonstrating that psychological factors influence financial behavior beyond financial knowledge alone (Xiao & Porto, 2022; Netemeyer et al., 2023; Lown, 2022; Farrell et al., 2023). Importantly, the study extends this evidence to the relatively under-researched context of public and private sector employees in Rwanda, providing empirical evidence on the role of money psychology and financial literacy in financial decision-making.

5 Conclusion and Recommendations

5.1 Conclusion

The study examined the effect of money psychology on financial decision-making behavior among employees in public and private sector institutions in Rwanda and assessed the moderating role of financial literacy. The findings led to the rejection of all five null hypotheses, demonstrating that money attitudes, financial self-control, financial anxiety, and financial confidence each have significant positive effects on financial decision-making behavior, while financial literacy significantly moderates these relationships. Among the predictors, financial confidence emerged as the strongest determinant, highlighting the importance of employees' belief in their financial capabilities. The study concludes that financial decision-making is influenced by a combination of psychological, behavioral, and knowledge-based factors rather than financial knowledge alone. Consequently, improving employees' financial decision-making requires comprehensive interventions that integrate financial education with confidence-building, self-control development, positive money attitudes, and strategies to manage financial anxiety.

5.1

5.2 Recommendations

From the findings, the following recommendations were established:

To Employers and Human Resource Practitioners

- Design comprehensive workplace financial wellness programmes that combine financial education with practical activities such as budgeting simulations, investment exercises, and financial planning workshops to strengthen employees' financial confidence.
- Introduce financial self-control initiatives, including automatic savings enrolment, payroll-based savings schemes, and commitment savings programmes such as *Ejo Heza*, to promote disciplined financial behavior.
- Provide confidential financial counselling and coaching services to employees experiencing financial stress or anxiety to improve their financial well-being and decision-making capacity.

To Financial Institutions and Regulators

- Develop simple and user-friendly financial products and advisory services that build customers' confidence in applying financial knowledge rather than merely expanding access to financial products.
- Design targeted financial literacy programmes for individuals with low financial confidence, weak financial self-control, and high financial anxiety to address psychological barriers to sound financial decision-making.
- Strengthen partnerships with employers, cooperatives, and other stakeholders to promote structured savings, responsible borrowing, and effective financial management practices among employees.

To Policymakers

- Integrate behavioural and psychological components into national financial literacy and financial inclusion policies, recognising that financial knowledge alone is insufficient to improve financial decision-making.
- Support, pilot, and rigorously evaluate workplace-based financial capability programmes, including confidence-building interventions and behavioural savings initiatives, before scaling them nationally.

For Future Research

- Verify the coding and measurement of the financial anxiety construct to confirm the observed relationship with financial decision-making behavior.
- Employ longitudinal or experimental research designs to establish causal relationships between money psychology variables and financial decision-making behavior.
- Replicate the study using independently collected empirical data from larger and more diverse samples to enhance the generalisability and external validity of the findings.

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