

PSYCHOLOGICAL BELIEFS (SUBJECTIVE KNOWLEDGE, FINANCIAL ATTITUDE, LOCUS OF CONTROL) AND FINANCIAL WELL-BEING AMONG WORKING ADULTS IN GHANA: THE MEDIATING ROLE OF FINANCIAL BEHAVIOUR

Abstract

Purpose: The financial well-being (FWB) of working Ghanaians is explored in this study, examining the complex interplay between their thoughts on money, their financial actions, and their overall financial health. The study focused on three key areas of their psychological beliefs: Subjective Financial Knowledge (SFK), Financial Attitude (FA) and Locus of Control (LOC). Researchers looked at how these beliefs might influence financial behavior (FB), acting as a bridge between them and overall FWB.

Design/methodology/approach: Using a quantitative research design, data were collected from 444 working adults through a structured questionnaire. Descriptive statistics were computed using SPSS version 27, and the structural model was tested through Structural Equation Modelling (SEM) in Smart PLS 4.0 to assess the hypothesised relationships and control variables.

Findings: The results showed that SFK has a positive and significant influence on both FWB ($\beta = 0.154$, $p < 0.05$) and FB ($\beta = 0.447$, $p < 0.001$), supporting H1a and H1b. The findings further showed FA having an affirmative correlation on both FWB ($\beta = 0.300$, $p < 0.001$) and FB ($\beta = 0.252$, $p < 0.001$) backing H2a and H2b. However, LOC yielded insignificant positive correlations on FWB ($\beta = 0.090$, $t = 1.587$, $p = 0.113$) and FB ($\beta = 0.100$, $t = 1.526$, $p > 0.05$, $p = 0.127$), leading to the rejection of both H3a and H3b. H4 was accepted by the findings ($\beta = 0.332$, $p < 0.001$) which shows FB been a strong predictor of FWB. The finding also established that FB significantly mediates the relationships between SFK and FWB ($\beta = 0.148$, $p < 0.001$) and between FA and FWB ($\beta = 0.084$, $p < 0.001$) supporting H5a and H5b. On the contrary, findings of the study suggested that FB does not play a significant role in mediating the relationship between LOC and FWB ($\beta = 0.033$, $p = 0.134$) leading to the rejection of H5c. Control variables showed no significant influence on FWB.

Practical implications – These results emphasize the role of financial literacy and fostering a positive mindset about money in promoting financial security for Ghanaians. This research offers valuable insights for policymakers, financial professionals, and academics, filling a gap in our understanding of how psychological factors interact with financial practices to influence overall FWB. By recognizing how people's beliefs about money affect their FWB and overall well-being, stakeholders can design better interventions that promote positive financial literacy and attitude. This can ultimately lead to a more financially secure and resilient working population in Ghana.

Originality/value – This study sheds light on the intricate relationships between PB and FWB among working adults in Ghana, with a particular focus on the mediating role of FB. Research on financial capability has been heavily concentrated in developed economies, yet this work situates the framework within Ghana's socio-economic realities, where income variability, limited access to financial services, and cultural norms around money management shape financial decision-making. Thus, by contextualizing financial literacy and behavior within these constraints, the study offers a nuanced understanding of how financial capability operates in lower-middle-income settings.

Keywords: Subjective Financial Knowledge, Financial Attitude, Financial Well Being, Financial Behavior, Locus of control, Ghana, Sub-Saharan Africa.

Introduction

The consequences of poor financial well-being (henceforth FWB) are far-reaching. Dissatisfaction with one's financial circumstances can precipitate mental health challenges, lower self-esteem, strained relationships, and diminished workplace productivity (Charkhabi, 2020; Jackson & Fransman, 2019; Ranta & Salmela-Aro, 2021; Estela-Delgado et al., 2023). Evidence from corporate surveys underscores the scale of the problem: a PricewaterhouseCoopers (PwC) study reported that 53% of working adults experience financial stress severe enough to impair their work performance, costing organizations substantial economic losses (PwC, 2020). Given the rising cost of living and the growing complexity of personal financial decision-making, the relationship between psychological beliefs (Subjective Knowledge, Financial Attitude, Locus of Control – hereafter, SFK, FA, LOC), Financial behavior (FB), and FWB warrants urgent scholarly and practical attention.

Financial well-being (FWB) has emerged as a critical determinant of the overall happiness, health, and productivity of working adults, influencing domains such as life satisfaction, physical and mental health, and interpersonal relationships (Netemeyer et al., 2018; She et al., 2021; Olajide et al., 2023). Far from being a purely economic concept, FWB encompasses both objective financial conditions and subjective perceptions of security and control over personal finances. Working adults face unique pressures compared to other demographic groups, including the simultaneous demands of debt repayment, retirement preparation, and the financial support of dependents (Samuel et al., 2022; Wang & Ford, 2020; Ranta & Salmela, 2019). These challenges underscore the urgent need to understand the mechanisms that shape financial wellness in this group, particularly to design effective interventions, policies, and workplace programs that strengthen financial security and, by extension, overall well-being.

Within this context, psychological beliefs (PB) about money, encompassing thoughts, feelings, and attitudes toward financial matters, play a pivotal role in determining FWB. These beliefs not only influence how individuals perceive their financial situation but also shape their financial behaviors (FB), such as budgeting, saving, and debt management (Dewi et al., 2023; Hoang et al., 2023). Positive beliefs, such as a strong sense of financial control or valuing long-term savings, are often associated with healthier financial practices that contribute to greater security and reduced stress. Conversely, negative or fatalistic beliefs can foster risky behaviors, such as chronic overspending or high-interest borrowing, that erode financial stability and heighten psychological distress (Respati et al., 2023; Ratnawati et al., 2023; Mendoza, 2023). While the link between PB and FWB is widely acknowledged, existing scholarship often treats these constructs in isolation, overlooking the mediating role of FB as the behavioral expression of underlying financial attitudes.

Financial behavior (FB) represents the practical, everyday decisions that connect psychological orientations with measurable outcomes in FWB (Netemeyer et al., 2018). A growing body of research suggests that FB may serve as a bridge between financial mindset and financial outcomes (Thanoi et al., 2023; Junça & Dias, 2023; Bhatia & Singh, 2023).

However, despite this recognition, much of the literature adopts either a Western or student-centered focus, neglecting the distinct socio-economic realities of working adults in emerging economies. This gap is particularly evident in Sub-Saharan Africa, where inflationary pressures, limited access to formal credit, and a prevalence of informal financial practices present a different set of constraints and opportunities for managing personal finances. Addressing this gap requires not only empirical attention but also theoretical frameworks that

can capture the interplay of cognitive, behavioral, and socio-cultural factors influencing financial outcomes.

This study responds to that need by examining the development of FWB among working adults in Ghana, a context that remains underrepresented in the literature despite its unique economic and cultural landscape. Drawing on cognitive development theory (Cartwright, 2001), the research emphasizes the importance of aligning financial actions with beliefs, knowledge, and lived experience. The study further incorporates subjective financial knowledge (SFK), financial attitude (FA), and locus of control (LOC) as antecedents of FB, positioning FB as a potential mediator between these psychological factors and overall FWB. By integrating these elements into a single conceptual model, the research provides a holistic framework for understanding how cognitive and behavioral components interact to shape financial outcomes in resource-constrained environments.

Research objective

The study seeks to examine the psychological and behavioral drivers of financial well-being among working adults in Ghana by investigating the impact of psychological beliefs (subjective knowledge, financial attitude, and locus of control) and analysing the mediating role of financial behaviour in these relationships.

Literature Review and Hypotheses Development

Theoretical Framework

Jean Piaget proposed a theory that explores how people build knowledge and comprehension of the world through their experiences (Barrouillet, 2015). This theory highlights the significant shifts in thinking that happens as individuals progress through various stages of development. These stages, characterized by distinct cognitive skills and ways of grasping the world, include sensorimotor, concrete operational, preoperational, and formal operational (Piaget, 1952 as cited by Bamicha and Drigas, 2022).

PB encompass attitudes, perceptions, and thought patterns that individuals hold about themselves and the world around them. Cognitive development theory suggests that individuals' cognitive abilities and ways of thinking evolve over time, influencing their PB and behaviors (Lind, 2023). For instance, adults in the formal operational stage are capable of abstract thinking and hypothetical reasoning, which may shape their FA and beliefs differently from those in earlier stages. The mediating role of FB is crucial in understanding how cognitive development theory relates to FWB and PB among working adults.

The relevance of cognitive development theory in the context of FWB among working adults lies in its explanatory power regarding the developmental trajectory of FB and attitudes. Understanding how cognitive abilities and thought processes develop can inform interventions aimed at promoting healthier FB and enhancing FWB among adults.

Hypothesis Development

Subjective Financial Knowledge (SFK) against Financial Well-being (FWB) and Financial Behavior (FB)

People's personal beliefs and understanding of finances, also known as SFK, can significantly impact their FWB (Lind et al., 2020). This personal perception of financial knowledge can be even more influential than objectively measured financial knowledge according to some studies (Hlaing, 2023; Allotey, 2023). People with high SFK are more likely to take control of their finances, which is a key aspect of financial literacy (Dewi et al., 2020; Tuffour et al., 2022). This financial knowledge empowers individuals to make sound financial decisions, ultimately

leading to better financial outcomes (Bakar and Bakar, 2020). In contrast, those with lower financial literacy may struggle with complex financial issues and end up with more debt or risky investments (Raut, 2020; Mutlu and Özer, 2022). Tracking your finances is an important part of financial literacy, and both subjective and objective financial knowledge play a vital role in shaping FB and overall well-being. Hence, the research, propose the following hypothesis:

H_{1a}. SFK is positively related to FWB among working adults.

H_{1b}. SFK is positively related to FB among working adults.

Financial Attitudes (FA) against Financial Well-being (FWB) and Financial Behavior

Individuals' FWB can be predicted by their outlook on money. This outlook, called FA, is a mental preference towards certain FWB. It's a key concept in personal finance, influencing how people make financial decisions (Goyal et al., 2021; Raut, 2020). Studies on college students (Johan et al., 2021; Nazah et al., 2022) show a positive FA directly impacts their FWB. Several studies (Nazah et al., 2022; Dewi et al., 2020; Castro- Utkarsh et al., 2020) highlight that FA can directly affect financial outcomes, beyond just influencing behavior. FA is a critical factor in understanding and predicting FB and FWB. Positive FA are linked to responsible financial management and better financial outcomes. This highlights the importance of considering this psychological factor in personal finance. Based on the above assumptions it was hypothesized that:

H_{2a}. FA has a significant positive effect on FWB among working adults

H_{2b}. FA has a significant positive effect on FB among working adults

Locus of Control (LOC) against Financial Behavior (FB) and Well-being (FWB)

Central to well-being, a person's belief in their influence over life events is called LOC (Farnier et al., 2021; Adiputra, 2021). While research on the link to financial security is limited (Sehrawat et al., 2021; Choi et al., 2020), a connection between this belief and financial contentment or savings has been found (Adiputra, 2021). People who hold a stronger internal LOC, meaning they believe their actions have a greater impact, tend to experience less financial stress and more financial security (Mahdzan et al., 2019; Magli et al., 2021). In contrast, an external LOC, where people believe outside forces like luck control their outcomes, is considered less relevant (Arkorful and Hilton, 2022; Peetz et al., 2021). Therefore, focusing on the internal LOC is more suitable for this study, as it provides a better lens for investigating the psychological and social factors of FWB. Given the significant influence of this belief on personal FB and financial security, this study proposes the following hypotheses:

H_{3a}. LOC has a significant positive effect on the FWB of among working adults

H_{3b}. LOC has a significant positive effect on the FB among working adults

Financial Behavior (FB) against Financial Well-being (FWB)

Researchers have shown a clear link between these two things (Bruggen et al., 2017; Serido et al., 2019; Shim et al., 2019; Strömbäck et al., 2017; Xiao and Porto, 2017). Joo and Grable (2018) even say that how people handle their cash, credit, budgets, and overall finances directly impacts their satisfaction with their money situation. In fact, people who make good choices about money, especially saving regularly and planning for the future, tend to be more financially secure and have a better overall standard of living (Chu et al., 2017; Serido et al., 2019; Veludo-de-Oliveira et al., 2019; Xiao and Porto, 2017). This study builds on prior research by looking at FB in a more comprehensive way, instead of just focusing on saving and spending. It uses a theory about mental development to understand how people's FWB is linked to their actions and how those actions align with their existing beliefs. Hence, the following hypotheses were proposed:

- H₄. FB is positively related to FWB among working adults.*
H_{5a}. FB mediates the positive relationship between SFK and FWB among working adults.
H_{5b}. FB mediates the positive relationship between FA and FWB among working adults.
H_{5c}. FB mediates the positive relationship between LOC and FWB among working adults.

Conceptual Framework

Figure 1 illustrates how PB impact the FWB of working adults in Ghana, with FB playing a mediating role in this relationship.

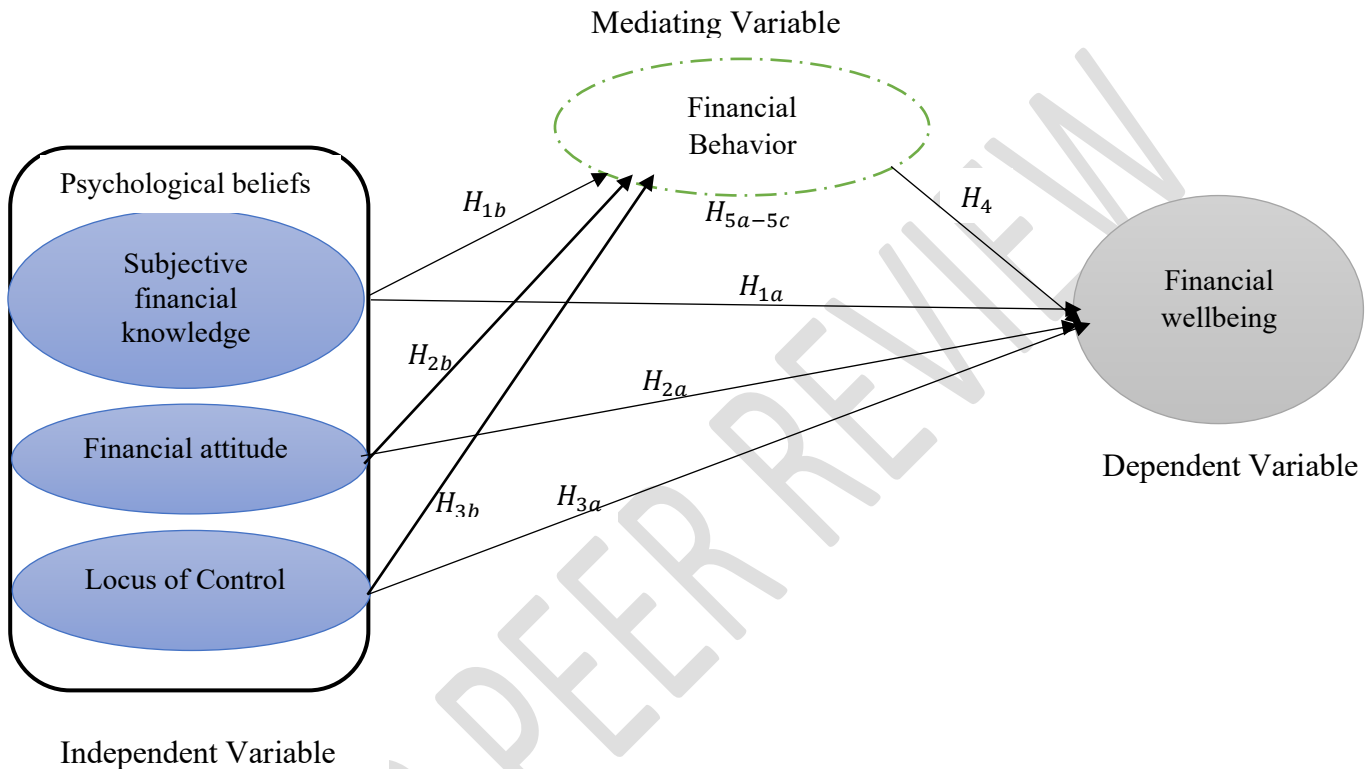


Figure 1: Conceptual framework

Source: She, Rasiah, Turner, Guptan & Nia (2021)

RESEARCH METHODOLOGY

Research Design and Approach

This research uses a cross-sectional and quantitative approach to investigate the factors that shape PB and FWB in working adults, while also examining how FB acts as a mediator. This method, as noted by Levin (2018), allows for a cost-effective and timely analysis of the variables in question, which is essential for understanding the relationships relevant to this study. The choice of a quantitative approach, which relies on established measures of PB, is ideal for exploring research questions related to SFK, LOC, and FA. Grable and Joo (2019) support the use of quantitative methods for this kind of research as they facilitate the statistical examination of both direct and mediating effects among the variables.

Population, Sampling, and Sample Size

The focus of this study is on working adults that is age 18 and over. This group includes people who work full-time as well as those who have part-time jobs and also, self-employed and employed (salaried staff). Individuals in this age bracket are constantly making important financial decisions, such as managing debt, controlling spending, shaping their FA, and deciding on investments, which all significantly affect their overall well-being (Lusardi, 2019).

Ghana was the focus because it's characterized by economic volatility, diversify financial sector and also its positioning as a leading emerging economy in Sub-Saharan Africa.

Data Collection

This study used a non-probability sampling technique, specifically purposive convenience sampling, to recruit participants. This method involves selecting individuals who are easily accessible and willing to participate, rather than using a randomized selection process (Etikan et al., 2016). For participant recruitment, the study targeted individuals with both full-time and part-time jobs in Ghana. A total of 444 working adults were recruited through social media platforms like WhatsApp, Facebook, and LinkedIn. A structured questionnaire was used, tailored for gathering quantitative data through closed-ended questions with fixed response options (Baburajan et al., 2020; Dalati and Gómez, 2018). The questionnaire comprised four sections:

The first section collected demographic details such as gender, age, and educational background. Sections B to D focused on different aspects: PB (including SFK, FA, and LOC), FWB, and FWB.

The questionnaire was administered via self-administration using Google Forms, ensuring flexibility for respondents to complete it at their convenience within specified deadlines. To ensure clarity and effectiveness, the questionnaire underwent a review process involving 30 individuals who provided feedback on technical aspects, completion time, and question flow. This feedback was instrumental in refining the questionnaire content and structure.

Data Analysis

Data analysis was conducted using SPSS 27.0 and Smart PLS 4.0. Measurement and structural models were assessed following Hair et al.'s (2019) two-stage PLS-SEM approach. Convergent validity, reliability, mediation, discriminant validity, effect sizes, and predictive relevance were systematically evaluated using bootstrapping (5,000 resamples).

Measurement of Instrument

Table 1: Variable Descriptions

Table 1 indicates the descriptions and comprehensive measurements of the independent, mediator, and control variables.

Variable	Description	Constructs	Code	Item	Scale	Source
Independent	PSYCHOLOGICAL BELIEFS	Subjective Financial Knowledge	SFK	7	Likert Scale -5 point	Shanmugam & Zainal Abidin (2013)
		Financial Attitude	FA	6	Likert Scale -5 point	Davis & Hustvedt (2012)
		locus of control	LOC	3	Likert Scale -5 point	Sapp & Harrod (1993)
Mediator	FINANCIAL BEHAVIOUR	Financial Behaviour	FB	9	Likert Scale -5 point	Dew & Xiao (2011)
Dependent	FINANCIAL WELL-BEING	Financial Well-Being	FWB	6	Likert Scale -5 point	Prawitz et al. (2006).
Control	DEMOGRAPHICS CHARACTERISTICS	Gender Age Education level Marital Status Income				

Ethical Considerations

With regard to informed consent, participants receive thorough explanations of study purposes, expectations, risks, and rights prior to deciding enrolment. Formal documented consent procedures detailed the voluntary nature so subjects can make fully informed decisions without undue influence. In terms of confidentiality, anonymous survey administration and data storage with access limited to direct research staff only is used to maintain participant confidentiality. No names or individual identifiers link results.

Results

Profile of Respondents

Table 2 presents data on the demographic characteristics of the study participants. As can be seen from the table, 58.1% of the males while 41.9% were also females. 12.4% of the study participants were between 18-24 years, 48% were between 25-44 years, 16.4% were between 45-60 years and 23.2% were also above 60 years. 48% of the study participants were bachelor's degree holders, 15.3% were BECE/WAEC/O' and A' level holders, 16.7% diploma/HND holders and 14.4% master's degree holders. The data also shows 31.5% of the study participants were employed while 68.5% were self-employed. The data also indicated that 14% of the study participants make above GHS15,000 monthly and 86% make an income below GHS15,000 monthly.

Table 2: Profile of Respondents

Demographic Characteristics	Frequency	Percent
Gender		
<i>Female</i>	186	41.89
<i>Male</i>	258	58.11
Age		
<i>18 - 24 years</i>	55	12.38
<i>25 - 44 years</i>	213	47.97
<i>45 - 60 years</i>	73	16.44
<i>Above 60 years</i>	103	23.19
Educational Background		
<i>Bachelor's degree</i>	213	47.97
<i>BECE/WAEC/O' Level/A' Level</i>	68	15.31
<i>Chartered</i>	25	5.63
<i>Diploma/HND</i>	74	16.67
<i>Master's Degree</i>	64	14.41
Employment Status		
<i>Employed</i>	140	31.53
<i>Self-Employed</i>	304	68.47
Monthly Income		
<i>Above GH¢15,000</i>	62	13.96
<i>GH¢12,001 - GH¢ 15,000</i>	23	5.18
<i>GH¢10,001 - GH¢12,000</i>	11	2.47
<i>GH¢8,001 - GH 10,000</i>	104	23.42
<i>GH¢6,001 - GH¢8,000</i>	71	15.99
<i>GH¢4,000 - GH¢6,000</i>	121	27.25
<i>Less than GH¢4,000</i>	52	11.71

Source: Field Survey (2024)

Descriptive Statistics

The standard deviations, ranging from 0.6 to 0.8, suggest minimal variation around the means. This, combined with the negatively skewed means (which are higher), indicates participants clustered their evaluations towards the positive side with little variability. However, most skewness values fall within an acceptable range (under ± 2), signifying a slight leftward skew with more responses above the means, but not severe deviations from normality.

The table 3 includes response counts (N), minimum and maximum scores, means, standard deviations, skewness, and kurtosis for each item used to evaluate the constructs.

Notably, all item means fall between 3.9 and 4.4 on a 5-point Likert scale, implying a positive overall evaluation by participants with average responses exceeding the neutral midpoint. Additionally, kurtosis values for all items lie between ± 2 , indicating no significant outliers compared to a normal distribution.

The lack of extreme imbalances and the presence of positive evaluations suggest the data leans towards normality, which is suitable for advanced modeling techniques like smart-PLS that rely on this assumption. In other words, these findings support the use of factor analysis and structural equation modeling on this data.

Table 3: Descriptive Statistics

Items	Minimum	Maximum	Mean	Std..Dev	Skewness	Kurtosis
SFK1	1.000	5.000	4.081	0.740	3.107	-1.135
SFK2	1.000	5.000	4.322	0.761	0.612	-0.955
SFK3	2.000	5.000	4.135	0.674	0.192	-0.434
SFK4	1.000	5.000	4.354	0.776	1.104	-1.113
SFK5	1.000	5.000	4.414	0.768	1.549	-1.283
SFK6	1.000	5.000	4.408	0.776	2.381	-1.403
SFK7	1.000	5.000	4.047	0.735	2.348	-0.927
FA1	1.000	5.000	4.216	0.832	0.906	-0.965
FA2	1.000	5.000	4.126	0.718	1.240	-0.668
FA3	1.000	5.000	4.365	0.758	2.332	-1.281
FA4	1.000	5.000	4.009	0.738	2.286	-0.924
FA5	1.000	5.000	4.054	0.695	2.984	-1.001
FA6	1.000	5.000	4.394	0.741	0.854	-1.080
LOC1	1.000	5.000	4.347	0.806	0.672	-1.099
LOC2	1.000	5.000	4.302	0.830	0.619	-1.041
LOC3	2.000	5.000	4.351	0.734	0.399	-0.934
FB1	1.000	5.000	4.408	0.767	1.378	-1.235
FB2	1.000	5.000	4.126	0.656	2.111	-0.714
FB3	1.000	5.000	4.372	0.782	1.366	-1.212
FB4	1.000	5.000	4.126	0.663	2.132	-0.751
FB5	1.000	5.000	4.011	0.793	0.843	-0.674
FB6	1.000	5.000	4.047	0.756	0.364	-0.518
FB7	2.000	5.000	4.065	0.779	-0.335	-0.459
FB8	1.000	5.000	4.063	0.803	0.523	-0.717
FB9	1.000	5.000	4.029	0.801	0.578	-0.661
FWB1	1.000	5.000	4.045	0.673	1.921	-0.721
FWB2	1.000	5.000	4.324	0.770	0.514	-0.957
FWB3	1.000	5.000	4.401	0.754	1.657	-1.287
FWB4	1.000	5.000	4.104	0.709	2.253	-0.912
FWB5	1.000	5.000	4.252	0.843	-0.058	-0.822
FWB6	1.000	5.000	3.935	0.731	1.643	-0.732

Source: SPSS 27.0

Common Method Bias and Sampling Adequacy Test

Common Method Bias

When analyzing self-reported data, it's essential to consider the potential impact of common method bias, as respondents may provide answers that are influenced by social desirability (Podsakoff et al., 2003). To address this, the study followed the guidelines set by Podsakoff and Organ (1986) and conducted statistical tests to assess common method bias. Specifically, we employed the Harmon one-factor test to examine whether the intercorrelations among our measures were affected by common method bias. Our analysis in Table 4 revealed that only one factor emerged, accounting for 36.459% of the variance, which is below the 50% threshold. While some variance was attributed to common methods, it was not significant enough to impact our findings.

Table 4: Common method bias test

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% Variance	of Cumulative %
1	11.302	36.459	36.459	11.302	36.459	36.459

Extraction Method: Principal Axis Factoring

Source: SPSS 27.0

Sampling Adequacy

This study, evaluated the sample's representativeness using the Bartlett sphericity test and the Kaiser-Meyer-Olkin (KMO) measure. The KMO score of 0.926 indicates a sufficient level of readiness for factor analysis, which is highly satisfactory. Furthermore, the significant Bartlett's test result ($\chi^2 = 7861.648$, $df = 465$, $p < 0.05$) confirms that the dataset is suitable for factor analysis, ensuring appropriate sampling. These findings, presented in Table 5, demonstrate the significance and reliability of our chosen sample size.

Table 5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.926
Bartlett's Test of Sphericity	Approx. Chi-Square	7861.648
	Df	465
	Sig.	.000

Source: SPSS 27.0

Construct Reliability

The provided data illustrates that all constructs examined exhibit acceptable CR values, ranging from 0.827 to 0.896. This indicates that the items within each construct effectively measure the same underlying concept.

Construct Validity

Average Variance Extracted (AVE) serves as a metric for construct validity, reflecting the extent to which a construct explains variance in its indicators, independent of measurement error. Typically, an AVE value above 0.5 is considered satisfactory. The data indicated in Table 6 reveal that all constructs analyzed demonstrate acceptable AVE values, ranging from 0.606 to 0.872. This indicates that the constructs adequately capture distinct variance and aren't merely measuring random error.

Table 6. Confirmatory factor analysis

Code	Factor loadings	Cronbach's (CA)	alpha	Composite (CR)	reliability	Average variance extracted (AVE)
FA1	0.797					
FA3	0.834	0.781		0.859		0.606
FA4	0.794					
FA6	0.781					
FB1	0.806					
FB2	0.764	0.796		0.863		0.613
FB3	0.813					
FB4	0.746					
FWB1	0.759					
FWB2	0.838	0.807		0.872		0.631
FWB3	0.850	0.827		0.897		0.744
FWB4	0.723					
LOC1	0.894					
LOC2	0.857					
LOC3	0.835					
SFK2	0.829					
SFK4	0.799	0.845		0.896		0.683
SFK5	0.853					
SFK6	0.822					

Source: SmartPLS 4.0

Discriminant Validity

The Fornell-Larcker criterion results indicate that all constructs in the analysis exhibit satisfactory discriminant validity. For instance, the AVE of FA (0.778) in Table 7 surpasses the squared correlation between FA and FB ($0.655^2 = 0.429$), indicating their distinctiveness. Similarly, the AVE of FB (0.783) exceeds the squared correlations between it and other constructs, reinforcing its uniqueness. Overall, these findings from the discriminant validity analysis affirm that the constructs are distinct, capturing individual variances rather than measuring identical underlying constructs.

Table 7 Discriminant Validity (Fornell-Larcker criterion)

Constructs	1	2	3	4	5
FA	0.778				
FB	0.655	0.783			
FWB	0.699	0.690	0.794		
LOC	0.752	0.594	0.618	0.862	
SFK	0.734	0.700	0.668	0.680	0.826

Source: Smart PLS 4.0

The HTMT (Heterotrait-Monotrait) serves as the second approach for assessing discriminant validity. It entails calculating the average correlation among the indicators within a construct, as outlined by (Henseler, Ringle, & Sarstedt, 2015). In the current study, the specified threshold for establishing discriminant validity using the HTMT method has been a subject of discussion. While some studies propose a correlation between constructs of less than 0.90 (Clark & Watson, 1995), others suggest a correlation of 0.792 (Gold, Malhotra, & Segars, 2015). Table

8 illustrates that the obtained results fall below both recommended thresholds, indicating the satisfactory achievement of discriminant validity in the study.

Table 8: Heterotrait-Monotrait Ratio (HTMT Criterion)

Constructs	1	2	3	4
FA				
FB	0.797			
FWB	0.853	0.841		
LOC	0.734	0.679	0.720	
SFK	0.898	0.807	0.776	0.811

Source: Smart PLS 4.0

Model Fit

Coefficient of Determination and Predictive Power

Table 9 illustrates the R-square and Adjusted R-square metrics concerning FB and FWB. R-square reflects the proportion of variance accounted for by independent variables, with FB at 53.7% and FWB at 59.7%. Despite a slight reduction in Adjusted R-square values due to predictor adjustments, the overall robustness of explanatory power remains evident. In essence, the results indicate significant contributions from independent variables towards elucidating both constructs.

Table 9: R-square and Adjusted R-square

Endogenous Constructs	R-square	Adjusted R-square
FB	0.537	0.534
FWB	0.597	0.594

Source: SmartPLS 4.0

Model Fit Indices

Table 10 depicts model fit measures for both the saturated and estimated models. The Standardized Root Mean Square Residual (SRMR), reflecting the average deviation between observed and predicted correlations, registers at 0.097 for both models, indicating a satisfactory fit. Similarly, the discrepancy measures (d_ULS and d_G) exhibit identical values for both models, indicating comparable fit. However, significant Chi-square values of 1344.056 for both models suggest inadequate fit, contrasting with the Normed Fit Index (NFI) scores of 0.738, implying reasonable fit. While some indices suggest acceptable fit, the notable Chi-square values warrant further scrutiny of the models' adequacy.

Table 10 Model Fit Indices

	Saturated model	Estimated model
SRMR	0.097	0.097
d_ULS	1.793	1.793
d_G	0.496	0.496
Chi-square	1344.056	1344.056
NFI	0.738	0.738

Source: SmartPLS 4.0

Figure 2 shows the results of the measurement model assessment with factor loadings and Cronbach's alpha of each construction.

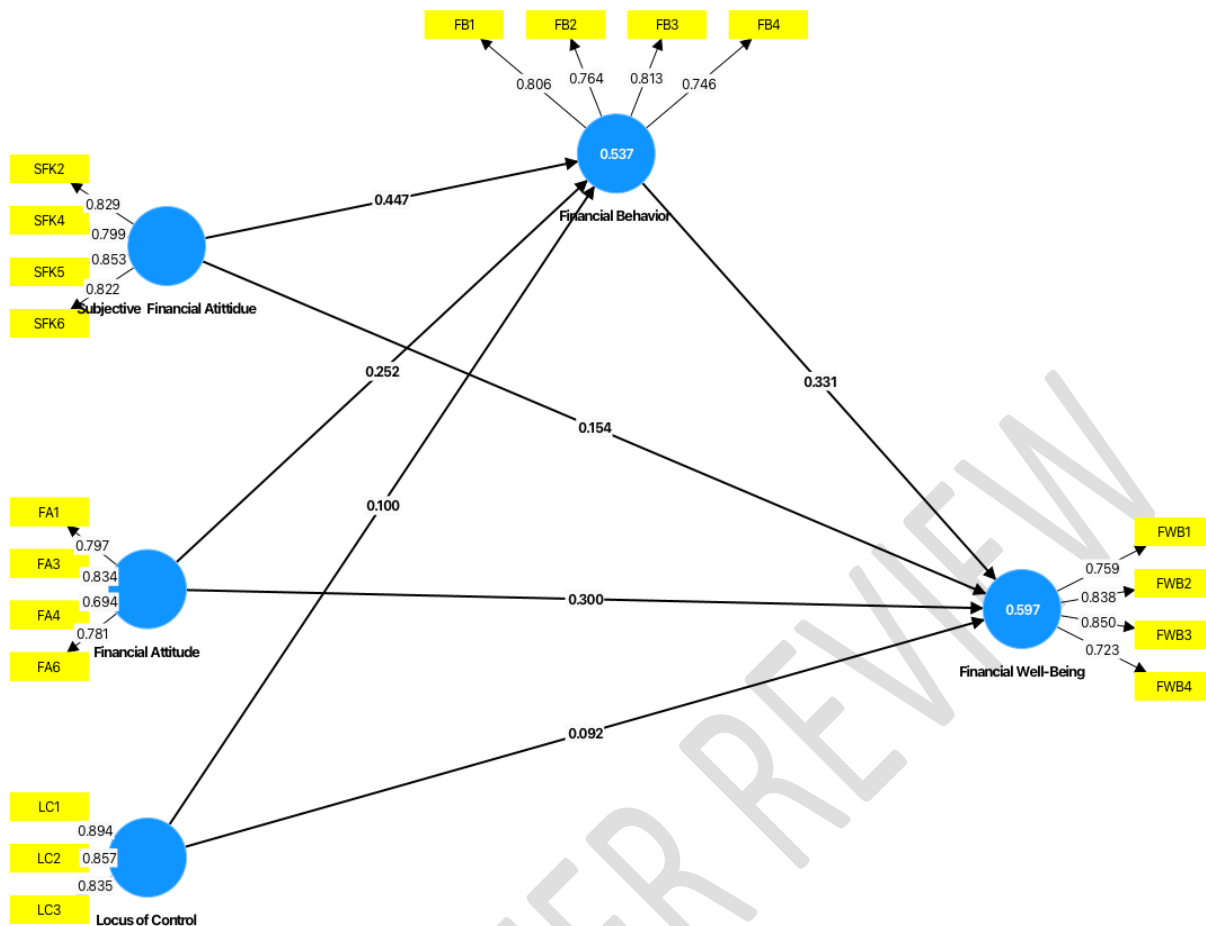


Figure 2: Measurement Model

Source: Smart PLS 4.0

Adapted and modified: She, Rasiah, Turner, Guptan & Nia (2021)

Structural Model

Direct Effect

The initial hypothesis suggested a direct link between personal understanding of finances and one's financial health, with results indicating a clear and meaningful connection ($\beta = 0.154$, $t = 2.167$, $p < 0.05$, $p = 0.030$). Consequently, H1a was confirmed, indicating that proficient knowledge in financial matters among employed individuals correlates with improved financial habits and well-being. Similarly, there was a positive and significant association between SFK and financial practices ($\beta = 0.447$, $t = 6.628$, $p < 0.001$, $p = 0.000$), supporting H1b, suggesting that those who perceive themselves as financially literate are more inclined towards responsible FWB, ultimately leading to stability and well-being in financial matters among employed individuals in Ghana.

The second hypothesis suggested a noteworthy and affirmative correlation between one's attitude towards finances and their FWB, which was substantiated by the findings ($\beta = 0.300$, $t = 3.883$, $p < 0.001$, $p = 0.000$), backing H2a. This implies that individuals with positive FA generally experience better FWB, underscoring the significance of fostering such attitudes to achieve improved financial outcomes. Moreover, a significant positive relationship was observed between FA and behavior ($\beta = 0.252$, $t = 3.768$, $p < 0.001$, $p = 0.000$), affirming H2b, indicating that those with favorable FA are more inclined towards responsible financial practices, such as effective budgeting and investing.

The third hypothesis anticipated a substantial and positive connection between LOC and FWB, which, however, yielded insignificant positive correlations ($\beta = 0.090$, $t = 1.587$, $p > 0.05$, $p = 0.113$), leading to the rejection of H3a. These findings suggest that, within this context, a strong internal LOC does not significantly impact FWB among the sample population. It implies that factors like SFK and FA might exert more influence in determining FWB. Similarly, the anticipated positive and significant relationship between LOC and FB was not supported by the findings ($\beta = 0.100$, $t = 1.526$, $p > 0.05$, $p = 0.127$), leading to the rejection of H3b. This indicates that a strong internal LOC does not notably affect FB among the studied group, suggesting that other factors might play a more influential role.

Lastly, the fourth hypothesis suggested a substantial and positive association between FB and FWB, which was confirmed by the findings ($\beta = 0.332$, $t = 5.068$, $p < 0.001$, $p = 0.000$), supporting the acceptance of H4. This implies that individuals exhibiting positive and prudent FWB tend to enhance their financial stability.

Mediating Effect

The model, as shown in Table 11, also examines the mediating effect of FB on the relationship between PB and FWB. The findings of the study suggest that FB plays a significant role in mediating the relationship between SFK and FWB. The beta coefficient ($\beta = 0.148$) indicates a positive impact and the p-value of 0.000, being less than 0.001, confirms that this impact is significant, representing a meaningful effect on the relationship between SFK and FWB. This leads to the acceptance of H5a. Furthermore, the study found that FB significantly mediates the relationship between FA and FWB which confirms H5b. The beta coefficient ($\beta = 0.084$) indicates a positive impact which is significant with proof of significance where the p-value is 0.000, being less than 0.001. This leads to the acceptance of H5b.

On the contrary, findings of the study suggest that FB does not play a significant role in mediating the relationship between LOC and FWB. Although the hypothesis proposed that FB significantly mediates the relationship between LOC and FWB, the results did not support this. The beta coefficient ($\beta = 0.033$) indicates a positive impact. However, this impact is weak and not statistically significant. The p-value of 0.134, being greater than 0.05, confirms that this relationship is likely due to chance rather than representing a meaningful effect. The insignificant findings imply that FWB, despite being a positive factor, does not significantly alter influence the impact of LOC on FWB. This leads to the rejection of H5c. Additionally, the study investigates the impact of control variables on FWB. The findings indicated that none of the control variable had a significant influence on FWB.

Table 11: Hypothesis Results

<i>Hypotheses: Path</i>	<i>Original sample (O)</i>	<i>T statistics</i>	<i>P values</i>	<i>Decision</i>
<i>Direct Effect</i>				
SFK-> FWB	0.154	2.167	0.030	Accept
FA -> FWB	0.300	3.883	0.000	Accept
LOC -> FWB	0.090	1.587	0.113	Reject
FB-> FWB	0.332	5.068	0.000	Accept
<i>Mediating Effect</i>				
SFK-> FB	0.447	6.628	0.000	Accept
FA -> FB	0.252	3.768	0.000	Accept
LOC -> FB	0.100	1.526	0.127	Reject
<i>Control Effect</i>				
FA -> FB-> FWB	0.084	2.884	0.004	Accept
LOC -> FB-> FWB	0.033	1.501	0.134	Reject
SFK -> FB-> FWB	0.148	3.844	0.000	Accept

Gender -> FWB	-0.033	0.507	0.612	Reject
Age -> FWB	-0.016	0.528	0.598	Reject
Educational Background -> FWB	0.045	1.481	0.139	Reject
Monthly income -> FWB	0.003	0.095	0.925	Reject

Significance level is at 0.01*, .05**, and .001*** levels, respectively.

Figure 3 shows the diagram of the results of the structure model assessment.

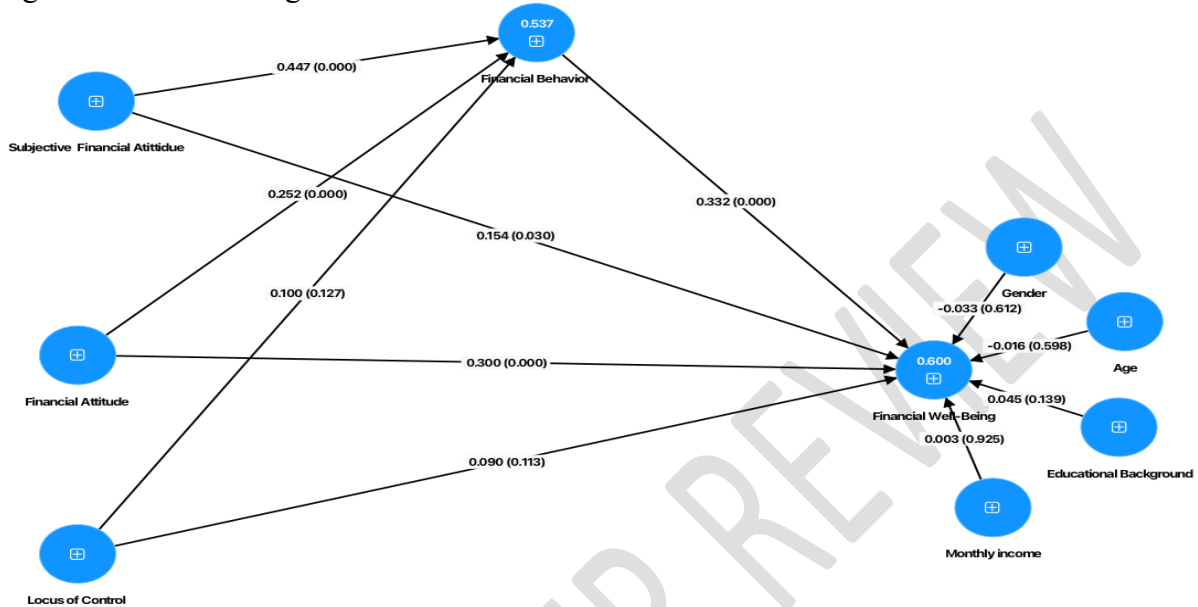


Figure 3: Structural Model

Source: Smart PLS 4.0

Adapted and modified: She, Rasiah, Turner, Guptan & Nia (2021)

Discussion of Findings

Relationship between Psychological Beliefs (subjective knowledge, financial attitude, and locus of control) and Financial Well-Being

The study's outcomes provide compelling support for the idea that individuals' subjective understanding of financial concepts significantly shapes their FWB and overall well-being. This echoes the conclusions drawn in prior research conducted by Lind et al. (2020), Hlaing (2023), and Allotey (2023), which consistently reveal a positive relationship between SFK and adept financial management skills. Individuals who possess a deeper subjective grasp of financial matters tend to make more informed decisions regarding their finances, leading to improved financial outcomes. This sentiment is further substantiated by investigations such as those by Dewi et al. (2020) and Tuffour et al. (2022), emphasizing the pivotal role of SFK in fostering individuals' FWB. Consequently, it can be deduced that SFK serves as a critical determinant of FWB, consequently influencing overall FWB.

Likewise, the study reaffirms the substantial impact of positive FA on individuals' FWB. This finding echoes prior research by Goyal et al. (2021) and Raut (2020), underscoring the correlation between positive FA and responsible FWB. Individuals who harbor optimistic views regarding financial matters are more inclined to engage in prudent financial practices, such as budgeting, saving, and making wise investments, which ultimately contribute to their overall FWB. This finding is consistent with the results of studies by Ianole-Calin et al. (2021) and Nazah et al. (2022), highlighting the pivotal role of positive FA in shaping behaviors conducive to financial health. Therefore, cultivating positive FA among individuals emerges as a crucial endeavour for fostering FWB.

However, the study did not uncover a significant association between LOC and FWB, consistent with findings in some existing research. Studies by Sehrawat et al. (2021) and Choi et al. (2020) have similarly reported a lack of direct correlation between LOC and FWB. Although LOC has been linked to aspects of financial contentment and security, its direct impact on FWB remains less established. This suggests that other psychological factors may yield a more significant influence in determining FWB. Nevertheless, it is imperative to acknowledge that LOC may still exert an indirect influence on FWB through its effects on FWB and attitudes. Consequently, further exploration is warranted to dissect the nuanced relationship between LOC and financial outcomes.

Relationship Between Psychological Beliefs Beliefs (subjective financial knowledge (SFK), financial attitude (FA), and locus of control (LOC)) and Financial Behavior

The study's investigation into the correlation between PB and FB yields valuable insights into the determinants guiding individuals' financial choices and actions. Initially, the results reaffirm the substantial influence of SFK on financial conduct (H1b), echoing prior research emphasizing the pivotal role of financial acumen in shaping FWB. This assertion is supported by studies conducted by Tuffour et al. (2022) and Goyal and Kumar (2021), which underscore the positive impact of SFK on individuals' financial decision-making processes.

Similarly, the study underscores the significance of FA in molding responsible FWB (H2b), consistent with existing literature. Research by Nazah et al. (2022) and Dewi et al. (2020) consistently demonstrates a positive association between favorable FA and behaviors conducive to FWB. Individuals harboring optimistic perspectives towards financial matters are more likely to embrace prudent financial practices, such as living within their means, steering clear of debt, and engaging in long-term financial planning. This highlights the pivotal role of psychological factors, particularly attitudes, in shaping individuals' approaches to financial decision-making.

However, the study's observation of a lack of a significant association between LOC and FB (H3b) mirrors prior research suggesting that LOC may not directly impact FWB. Studies by Arkorful and Hilton (2022) and Peetz et al. (2021) similarly note a marginal correlation between LOC and FWB. While LOC reflects individuals' beliefs regarding their ability to influence events in their lives, its direct influence on FWB appears limited. This implies that other psychological determinants, such as SFK and attitudes, may exert a more pronounced influence on individuals' financial decision-making processes and behaviors.

Relationship between Financial Behavior and Financial Well-Being

The examination of the correlation between FB and FWB in this study sheds light on the critical relationship between individuals' financial decisions and their overall financial health. The results affirm that positive FWB are strongly linked to improved financial stability (H4), echoing previous research emphasizing the association between prudent FWB and positive financial outcomes. Studies conducted by Bruggen et al. (2017) and Serido et al. (2019) consistently illustrate that individual practicing responsible FWB, such as budgeting, saving, and managing debt effectively, tend to experience greater financial stability and security. These behaviors signal sound financial management and are correlated with heightened financial resilience, enabling individuals to navigate financial challenges and pursue their financial objectives more effectively.

Furthermore, the study's validation of the positive correlation between positive FWB and FWB underscores the significance of cultivating healthy financial habits for overall financial health. Engaging in behaviors such as regular saving, adhering to a budget, and avoiding excessive debt not only contributes to immediate financial stability but also lays the groundwork for long-

term financial security and prosperity. This finding aligns with prior research, which suggests that individuals demonstrating disciplined FWB are more likely to report higher levels of financial satisfaction and subjective well-being (van der Meer et al., 2020; Shim et al., 2019). Additionally, the study's implications for policymakers and practitioners aiming to enhance FWB among individuals and communities are noteworthy. By emphasizing the importance of positive FWB in achieving financial stability and security, policymakers can develop interventions and initiatives geared towards promoting financial literacy and encouraging responsible financial practices. Educational programs that equip individuals with the knowledge and skills needed to manage their finances effectively can empower them to make informed financial decisions and adopt behaviors conducive to FWB (Fernandes et al., 2014; Hastings and Mitchell, 2020). Similarly, financial institutions and employers can contribute to promoting positive FWB by offering financial education programs, incentivizing savings, and providing access to affordable financial products and services (Carpena et al., 2017; Lusardi and Mitchell, 2014).

Mediating Effect of Financial Beliefs

The investigation conducted in this study concerning the mediating influence of FB on the relationship between PB and FWB illuminates the intricate mechanisms that underpin individuals' financial outcomes. The results demonstrate that FB serves as a mediator between SFK and FWB(H5a), as well as between FA and FWB(H5b), which resonates with earlier research emphasizing the pivotal role of FB in translating PB into tangible financial outcomes (Çera et al., 2021; Saurabh and Nandan, 2018). This underscores the significance of individuals' actions and decisions in shaping their FWB, underscoring the necessity of cultivating positive FWB to enhance overall financial health.

However, the study's identification of a non-significant mediating effect of FB on the relationship between LOC and FWB (H5c) aligns with existing literature indicating a weak or negligible impact of LOC on FB and outcomes (Adiputra, 2021; Sehrawat et al., 2021). While LOC reflects individuals' beliefs concerning their capacity to influence events in their lives, its direct influence on FWB appears limited. This suggests that other psychological factors, such as SFK and attitudes, may exert a more substantial influence on individuals' financial decision-making processes and subsequent FWB.

Conclusion

This study sheds light on the intricate relationships between PB and FWB among working adults in Ghana, with a particular focus on the mediating role of FB. The research underscores that SFK and positive FA significantly enhance FWB. This finding suggests that individuals who perceive themselves as knowledgeable about financial matters and hold favorable attitudes towards financial management are more likely to experience financial stability and prosperity. However, the study also reveals that the impact of LOC on FWB is minimal, indicating that while a belief in personal control over financial outcomes is generally positive, it does not directly translate to better FWB within this specific context. This highlights the need for a more nuanced approach that goes beyond personal control beliefs to improve financial outcomes for working adults in Ghana. The study further highlights the crucial role of FB as a mediator between PB and FWB. It shows that positive FB, such as budgeting, saving, and investing, are pivotal in translating financial knowledge and attitudes into tangible financial benefits. The significant mediation effect of FB implies that enhancing financial practices is essential for leveraging PB to achieve better FWB. This underscores the importance of practical financial management programs that not only increase financial knowledge and foster positive attitudes but also encourage sound FWB among working adults in Ghana.

Recommendations/Implications

Based on the findings of the study on PB and FWB among working adults in Ghana, several recommendations can be made to enhance FWB through targeted interventions that address financial knowledge, attitudes, and behaviors:

It is recommended that financial literacy programs be expanded and intensified, focusing on equipping individuals with comprehensive knowledge of financial concepts, products, and practices. These programs should be tailored to the needs of working adults and should include practical training on budgeting, saving, and investing. Collaborations between educational institutions, financial organizations, and community groups can ensure wider reach and impact. Given the significant positive impact of FA on FWB, efforts should be made to foster positive FA among working adults.

Policymakers should consider developing policies that promote financial inclusion and access to financial services for all working adults. This includes creating a supportive regulatory environment for financial education initiatives, encouraging financial institutions to offer affordable and accessible financial products, and providing incentives for participation in financial literacy programs.

To bridge the gap between financial knowledge and actual behavior, it is essential to provide working adults with practical tools and resources that facilitate good financial practices. This can include budgeting software, mobile apps for tracking expenses, and online platforms for financial planning.

Behavioral interventions that encourage positive financial habits should be implemented. These can include incentives for regular saving, workshops on debt management, and programs that promote the benefits of investing. Behavioral nudges, such as automatic savings plans and reminders for bill payments, can also be effective in encouraging responsible FWB.

Scientific Contributions

This study makes both theoretical and empirical contributions to the financial well-being (FWB) literature by developing and validating an integrated framework linking personal behavior (PB), subjective financial knowledge (SFK), financial attitudes (FA), and financial behavior (FB) among working adults in Ghana. Grounded in behavioral finance and financial capability theories, the research reveals how PB influences FWB both directly and indirectly through SFK, FA, and FB. By empirically demonstrating the mediating role of FB between PB and FWB, the study advances the theoretical understanding of how financial literacy and attitudes translate into tangible outcomes. It also emphasizes that improving FWB requires more than the provision of information; it demands integrated interventions that simultaneously address cognitive, affective, and behavioral dimensions of financial capability. This approach broadens the conceptualization of financial literacy and deepens insights into the mechanisms driving financial well-being in emerging economies.

Another key contribution lies in the study's contextual originality. Research on financial capability has been heavily concentrated in developed economies, yet this work situates the framework within Ghana's socio-economic realities, where income variability, limited access to financial services, and cultural norms around money management shape financial decision-making. Thus, by contextualizing financial literacy and behavior within these constraints, the study offers a nuanced understanding of how financial capability operates in lower-middle-income settings. Furthermore, the study addresses a research gap by incorporating behavioral elements, often overlooked in financial literacy models, into the analysis of FWB. It validates the notion that even in environments where financial resources are limited, strategic interventions can enhance resilience, reduce vulnerability, and foster long-term financial stability. This integrative framework thus provides a replicable model for similar economies.

seeking to improve FWB through targeted literacy, attitudinal change, and behavioral reinforcement.

Implications for Practice and Policy

The findings of this study provide clear guidance for policymakers, educators, and financial service providers in designing interventions to enhance the FWB of working adults in Ghana. First, there is a pressing need to expand and intensify financial literacy programs, ensuring they go beyond basic awareness to cover budgeting, saving, investing, and debt management in practical, context-specific ways. Such programs should be tailored to the realities of Ghana's workforce, incorporating interactive workshops, digital learning platforms, and community-based initiatives. Collaboration between government agencies, educational institutions, financial organizations, and civil society can ensure greater reach and sustained impact.

Given the strong positive influence of FA on FWB, interventions should actively cultivate constructive attitudes towards money management. Campaigns highlighting the benefits of long-term planning, prudent spending, and disciplined saving, backed by relatable role models and community success stories, can shift mindsets toward more sustainable financial practices. Financial institutions, in particular, should embed attitudinal change elements into their client engagement strategies. At the policy level, financial inclusion must be prioritized. Regulators should create an enabling environment for accessible and affordable financial services by reducing bureaucratic barriers, lowering transaction costs, and encouraging innovations such as simplified mobile banking solutions. Incentives for participation in financial education programs, such as fee waivers, rewards for regular savings, or tax benefits, can further encourage adoption of good financial practices.

To close the gap between knowledge and action, working adults should be provided with practical tools and resources to support financial decision-making. Budgeting software, mobile expense trackers, automated savings schemes, and debt repayment reminders are examples of tools that can translate literacy into habitual practice. These tools should be designed with user-friendliness and accessibility in mind, ensuring adoption across varying levels of digital literacy. Finally, the study underscores the need for behavioral interventions that actively reinforce positive financial habits. Automatic enrollment in savings plans, community savings groups, and structured debt management programs can serve as behavioral nudges that normalize responsible financial actions. Integrating these with educational and attitudinal initiatives can create a holistic system for improving FWB, one that is culturally grounded, data-driven, and scalable for broader national impact.

Limitations and Future Studies

Based on the findings from the study on PB and FWB among working adults in Ghana, several recommendations for future research can be proposed to further advance understanding in this area:

- Future studies should investigate the interaction effects between different psychological constructs such as SFK, FA, and LOC. While this study examined these variables individually, understanding how they interact and potentially amplify or diminish each other's effects could provide deeper insights into the mechanisms influencing FB and FWB. Advanced statistical techniques, such as moderation and mediation analysis, can be employed to explore these interactions.
- Conducting longitudinal studies that track changes in PB and FWB over time would be valuable. This approach can help determine causal relationships and the long-term impact of psychological constructs on FWB. It would also allow researchers to examine how changes in financial knowledge and attitudes influence FB and FWB over different stages of life.

- Future research should integrate broader psychological theories, such as the Theory of Planned Behavior (TPB) or Self-Determination Theory (SDT), to examine FWB. These theories can offer additional dimensions for understanding how motivation, intention, and perceived control over behaviors contribute to financial practices and outcomes. This interdisciplinary approach can enrich the theoretical framework and provide a more holistic understanding of FWB.
- Future studies should explore how cultural and contextual factors influence the relationship between PB and FWB. This research can include cross-cultural comparisons to determine if the findings observed among Ghanaian working adults hold true in other cultural contexts or if there are significant variations. Understanding the cultural specificity of FB and FWB can inform the development of more culturally sensitive theoretical models.
- The role of socioeconomic status (SES) and education in shaping financial knowledge, attitudes, and behaviors should be further examined. Future research could explore how different levels of SES and education influence the acquisition and application of financial knowledge, as well as the development of FA. This would contribute to a more nuanced understanding of the pathways through which PB impact FWB.
- Researchers should consider expanding the concept of FWB to include broader dimensions such as emotional and psychological aspects of financial health. This could involve incorporating measures of financial stress, satisfaction, and security into the theoretical framework. Understanding FWB as a multidimensional construct can lead to more comprehensive theories that capture the complexity of financial health.
- Future research should employ mixed-methods approaches that combine quantitative and qualitative data to provide a richer understanding of the psychological factors influencing FWB. Qualitative methods such as interviews and focus groups can uncover deeper insights into individuals' financial beliefs and behaviors, while quantitative methods can validate and generalize findings. This comprehensive approach can enhance the theoretical robustness and applicability of the research.

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Conflict of interest statement

The authors declare there are no conflict of interest regarding the publication of this article.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author, O.N. The data are not publicly available due to (they contain personal information that could compromise the privacy of research participants).

The data that support the findings of this study are available from the corresponding author, (O.N), upon reasonable request. The participants of this study did not give written consent for their data to be shared publicly, so due to the personal nature of the research supporting data is not available.

Ethical Statement

This study was classified as minimal risk and conducted in accordance with established ethical standards for research involving human participants. Under local regulations and institutional policy, a formal ethics committee review was not required, as the project involved a non-sensitive, low-risk survey and did not include vulnerable groups or topics that could place participants at risk. Participation was entirely voluntary, with all individuals receiving clear information about the study's purpose and procedures prior to providing consent. No identifying information was collected, and all data were managed and stored securely to ensure strict confidentiality and protect participant privacy. For further details can be accessed here:

<https://www.knust.edu.gh/sites/default/files/2019-02/RESEARCH%20POLICY%202018.pdf>

Consent Statement

The authors secured written informed consent from all participants prior to their involvement in the survey.

Disclaimer (Artificial intelligence)

Author(s) hereby declares that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

UNDER PEER REVIEW

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FA4	I do not buy things that I cannot afford	1	2	3	4	5
FA5	It is worth saving as I might live a long life	1	2	3	4	5
FA6	I can afford to put money aside for future spending at the moment	1	2	3	4	5
LOC	Locus of Control					
LOC 1	When I make plans, I am almost certain to make them work	1	2	3	4	5
LOC 2	Getting people to do the right thing depends on ability; luck has nothing to do with it	1	2	3	4	5
LOC 3	What happens to me is my own doing	1	2	3	4	5

Source: Adopted and modified from Sapp & Harrod (1993)

SECTION C: FINANCIAL BEHAVIOUR (FB)

Indicate the extent to which you agree or disagree with each statement by checking the appropriate number from 1 to 7 using the following scale:

1 = Strongly Disagree 2 = Disagree 3 = Neutral
4 = Agree 5 = Strongly Agree

Item	Statement	1	2	3	4	5
FB1	I paid all my bills on time	1	2	3	4	5
FB2	I kept a written or electronic record of my monthly expenses	1	2	3	4	5
FB3	I stayed within my budget or spending plan	1	2	3	4	5
FB4	I paid off credit card balance in full each month	1	2	3	4	5
FB5	I did not max out the limit on one or more credit cards	1	2	3	4	5
FB6	I began or maintained an emergency savings fund	1	2	3	4	5
FB7	I saved money from every pay check	1	2	3	4	5
FB8	I saved for a long-term goal such as a car, education, home etc	1	2	3	4	5
FB9	I contributed money to a retirement account	1	2	3	4	5

Source: Adopted and modified from Dew & Xiao (2011)

SECTION D: Financial Well-Being (FWB)

Indicate the extent to which you agree or disagree with each statement by checking the appropriate number from 1 to 7 using the following scale:

1 = Strongly Disagree 2 = Disagree 3 = Neutral
4 = Agree 5 = Strongly Agree

Item	Statement	1	2	3	4	5
FWB1	I am financially stressed these days.	1	2	3	4	5
FWB2	I feel satisfied with my present financial situation	1	2	3	4	5
FWB3	I feel good about my present financial situation	1	2	3	4	5
FWB4	I am confident that I can find the money to pay for financial emergency that costs about twice my weekly income	1	2	3	4	5
FWB5	Because of my money situation, I feel like I can purchase things that I want in life	1	2	3	4	5
FWB6	I am confident that the money I have will last for a long time	1	2	3	4	5

Source: Adopted and modified from Prawitz et al. (2006).

Thank you for your participation