

DETERMINANTS OF PERSONAL FINANCIAL MANAGEMENT BEHAVIOUR: EMPIRICAL EVIDENCE FROM VIETNAM

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ABSTRACT

This paper examined the effects of demographics, financial attitude, childhood consumer experience, and general financial knowledge on people's personal financial management behaviour (PFMB) living in Vietnam. The researchers proposed three new factors: "financial independence", "investment experience", and "personal financial management intention" as predictors of personal financial management behaviour. Mechanical analysis was used by the researchers to analyse the regression using the SPSS and AMOS software version 20.0 software applications. The outcomes of the data analysis, collected from 308 people, showed that all the independent variables significantly positively affected personal financial management behaviour. Moreover, almost all the demographic variables, except gender, affected the dependent variables. On this basis, the present study will help researchers develop more comprehensive related frameworks and provide specific recommendations for individuals, families, and schools to more efficiently manage personal finance.

Keywords: Personal finance; Personal financial management; Personal financial management behaviour; Personal financial management intention; Financial independence

INTRODUCTION

Financial management behavior can be defined as the acquisition, allocation, and use of financial resources oriented toward some goal (Topa, 2018). Personal financial management behavior refers to the actions, habits, and decisions that individuals undertake to effectively manage their financial resources. Atkinson and Messy's (2012) study found that mere knowledge of basic finance concepts was futile unless reflected in financial behaviour.

Personal financial management is becoming increasingly crucial, particularly given the unstable state of today's global economy. The economic implications of the COVID-19 pandemic and the Russia-Ukraine war have added more uncertainty to many people's already precarious financial situations. Regarding an individual's financial status, poor financial management behaviour or a lack of information concerning personal financial management might have unanticipated effects, such as personal credit default. Therefore, broadening individuals' understanding of personal finance has been playing an increasingly important role in the balance and prosperity of individuals and the development of the economy in general. For emerging markets, financially savvy citizens may ensure that the financial sector can effectively contribute to real economic growth and poverty reduction (Faboyede *et al.*, 2015).

Vietnam is currently one of the world's developing countries. However, the financial literacy of Vietnamese people remains very low, especially in the 16 to 30 age group. Therefore, studying the factors affecting personal financial management behaviour has been crucial to providing recommendations to help manage individuals' finances more effectively. In the "Financial literacy around the World" survey conducted by S&P Global in 2020, only about 24% of Vietnam's population knew about personal financial management, while the average for the world was 33%. According to another study by the ADB Institute, "Fintech and Financial Literacy in Vietnam", published in 2020, the level of financial knowledge of Vietnamese people was much lower than that of China, Korea, and other countries in Southeast Asia.

Based on several studies concerning personal financial management, the present paper examined the determinants of PFMB by investigating several factors: financial attitude, childhood consumer experience, general financial knowledge, financial independence, investment experience, and personal financial management intention. Demographic variables, such as gender, age, income, and marital status, were also investigated regarding PFMB. The major difference between this article and earlier research is that the authors proposed three new variables: financial independence, investment experience, and personal financial management intention. Moreover, the present paper focused on the PFMB of Vietnamese people, which has not been greatly discussed until now. Therefore, the results of the present study have contributed to the existing body of literature concerning PFMB issues. The results will also help people in Vietnam raise their awareness regarding personal finance and its importance, thus, helping them manage their finances better.

LITERATURE REVIEW

Personal financial management behaviour

Parrotta Jodi Lynne Mcfarlane (1992) revealed that personal financial management behaviour could be described as a learning process in planning, taking action following planning and making improvements to implement financial plans that need to be addressed in individuals or families. According to Sina and Noya (2012), one of the efforts in shaping the character of financial behaviour has been by growing personal financial management behaviour by carrying out financial planning and self-control of money.

According to Xiao & Dew (2011), a person's financial management behaviour can be classified through four factors: consumption, cash-flow management, savings and investments, and credit management. "Personal Financial Management Behavior (PFMB) is a process which assimilates all components of individuals' financial interests. These include cash flow management, investments, risk management, retirement planning, tax planning, and estate planning" (Altfest, 2004).

From the definitions of financial management behaviour according to the experts above, it can be concluded that individuals with good financial management behaviour are more likely to be familiar with preparing financial plans, implementing financial plans by controlling themselves, evaluating the initial planning actions that are not following the conditions has occurred and implemented improvements to financial problems, and always monitoring the conditions of financial problems (Asandimitra & Kautsar, 2020).

Determinants of personal financial management behaviour

Demographics

The demographic factors proposed in this study comprised gender, age, income, and marital status.

Among these demographic factors, gender has been considered the most effective differentiating and classifying factor (Bajtelsmit & Bernasek, 1996). In their experimental study, Loewenstein *et al.* (2001) indicated that attitudes toward personal financial management differed between men and women due to the role of emotional variables. Males were likelier to be more confident in investing and other financial decisions. Men had more financial knowledge and wealth and would take risks (Bruce, 1995; Barber & Odean, 2001). As a result, the present study proposed the following hypothesis:

H1.1: Gender influences personal financial management behaviour.

Age has also affected people's behaviour toward personal financial management. Younger people borrow from the future to fulfil current consumption, while middle-aged people are wealth accumulators (Mitchell & Utkus, 2006). Wang & Hanna (1998) in their study pointed out that risk aversion comparably decreased with people's age whilst other variables were held constant. Grable & Lytton (1999) stated that older individuals tolerated more risk than younger investors. Moreover, older people have typically gained investment knowledge and experience and, thus, make better choices (Korniotis & Kumar, 2011). Thus, the present research proposed the following hypothesis:

H1.2: Age influences personal financial management behaviour.

Besides gender and age, marital status has also been a popular demographic variable in previous studies. Single individuals are less risk-averse than married individuals because they have responsibilities for themselves and their dependents (Roszkowski *et al.*, 1993; Lazzarone, 1996; Barber & Odean, 2001). Hence, the present study proposed the following hypothesis:

H1.3: Marital status influences personal financial management behaviour.

The demographic factor which caused a higher level of influence during the financial decision-making process was income. Andrew (2014) demonstrated that income significantly affected individuals' financial behaviour, as individuals with higher incomes demonstrated wiser financial behaviour than those with lower incomes. Several researchers have explored whether risk tolerance increased with income (Blume *et al.*, 1994; Wehrung & Maccrimmon, 1988; Bernheim *et al.*, 2001). Therefore, the present research proposed the following hypothesis:

H1.4: Income influences personal financial management behaviour.

Financial Attitude

Financial attitude can be defined as an individual having a personal inclination toward financial matters and their ability to plan and maintain savings account matters (Rai *et al.*, 2019). The positive relationship between financial attitude and personal financial management was reported by Pathirannahalage & Abeyrathna (2020). Several studies have also stated similar results (Abriani *et al.*, 2020; Mien & Thao, 2015; Parrotta & Johnson, 1998; Ramadhan & Asandimitra, 2019; Suryadi & Elfarosa, 2019). Therefore, the present research proposed the following hypothesis:

H2: Financial attitude has a positive influence on personal financial management intention.

Childhood Consumer Experience

Childhood consumer experience is commonly known as the financial experiences that individuals gain during childhood, for example, children's discussions regarding finances with their parents (Sabri *et al.*, 2010). Several studies, including those by Falahati *et al.* (2012), Ullah & Yusheng (2020), and Junita *et al.* (2021), have found a favourable association between childhood consumer experience and financial behaviour. This finding was reviewed and explained by Ramadhan & Asandimitra (2019): the earlier a person gets involved in financial activities, the better they manage money in adulthood since they already have an intention, experience, and information from the past. Thus, the present study proposed the following hypothesis:

H3: Childhood consumer experience positively influences personal financial management intention.

General Financial Knowledge

According to Aprilia (2015), financial knowledge refers to a person's grasp of mathematical computations, particularly those involving the value of money or interest rates, inflation rates, and various other financial media. Halim and Astuti (2015) reported that such knowledge helped people manage their money and spending wisely and enabled them to make more intelligent judgments while resolving financial issues. Therefore, people with higher degrees of finance may make better financial decisions, whereas those with low levels are hampered (Asih & Khafid, 2020). Hence, the present research proposed the following hypothesis:

H4: General financial knowledge positively influences personal financial management intention.

Investment Experience

Although not directly mentioned in earlier research papers concerning the factors affecting personal financial management behaviour, past investment experience has been considered a factor affecting individuals' investment decisions. Awais *et al.* (2016) stated that the higher an individual's investment experience, the greater their risk tolerance, leading to more risky investment decisions. Therefore, the present study proposed the following hypothesis:

H5: Investment experience has a positive effect on personal financial management intention.

Financial Independence

There have been various interpretations of the phrase "Financial Independence", one of which is the ability to move out on one's own: make enough money to get one's place and pay all of the bills without relying on the support of family or friends. This interpretation was adopted in the present research as its definition of "Financial Independence" where the more financially independent an individual is, the higher the percentage of their self-paying expenses (house, electricity, water, etc) will be. Although not mentioned in previous studies regarding PFMB, this factor has been expected to positively affect an individual's financial management behaviour (the more independent a person is, the better their financial management). On that basis, the present study proposed the following hypothesis:

H6: Financial independence has a positive effect on personal financial management intention.

Personal Financial Management Intention

Behavioural intention, defined as the expression of each person's willingness to perform a specified behaviour by Fishbein and Ajzen (1975), is a direct premise leading to the behaviour. Based on the Theory of Reasoned Action (TRA), the authors pointed out that the most important factor determining human behaviour was the intention to perform that behaviour. According to the Theory of Intended Behavior (TPB) studied by Ajzen, behaviour is affected by intention. Therefore, the present research proposed the following hypothesis:

H7: Personal financial management intention positively affects personal financial management behaviour.

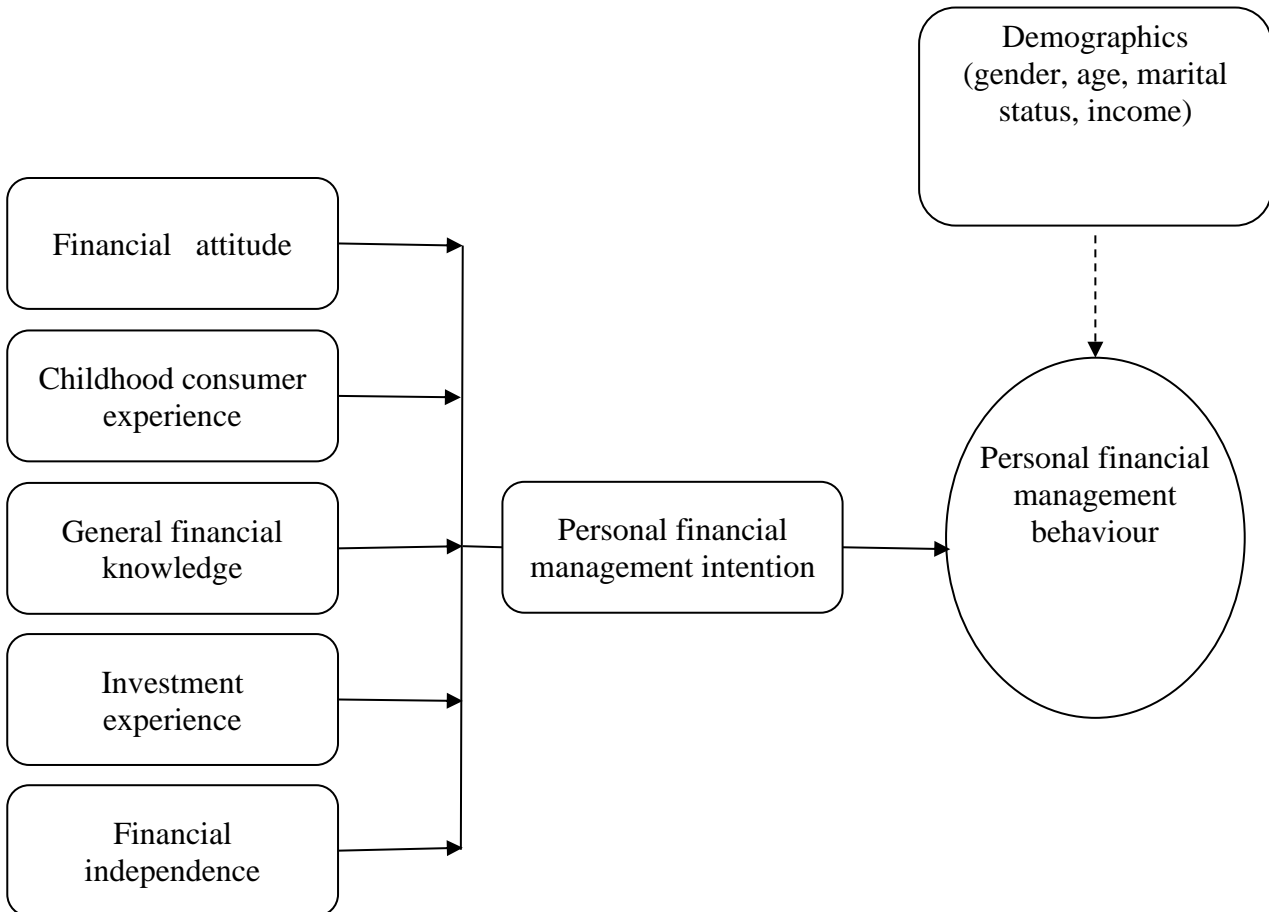
METHODOLOGY

Empirical method

In finance studies, various theoretical models have been proposed to predict the intentions and behaviour of personal financial management. The most popular theoretical models are the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB). The TRA (Ajzen and Fishbein, 1980) maintains that volition and intention predict behaviour. According to the TRA, if people evaluate the suggested behaviour as positive (attitude) and if they think others want them to perform the behaviour (subjective norm), this results in a higher intention (motivation), and they are more likely to perform the behaviour. Ajzen developed the Theory of Planned Behavior from his earlier Theory of Reasoned Action due to recognising the TRA's limitation on the assumption that human behaviour is completely governed by reason. The TPB is more developed than the TRA in that it has added a new component, Perceived Behavioral Control, besides the two old factors, Attitude and Subjective Norm.

The TRA and the TPB have been used repeatedly in studies related to personal financial management behaviour, such as money management trends (Turrisi, 2004), saving behaviour (Copur & Gutter, 2019), financial consumption behaviour (Barbić *et al.*, 2019), etc. In studying personal financial management behaviour, some authors have also applied the theory of intended behaviour to their research. Arifin (2017) chose the TPB as the foundation theory to study several factors affecting financial behaviour, such as financial knowledge, control points and income. In India, Bapat (2020) also developed a research model based on the theory of intended behaviour, giving results similar to the theory: there is a relationship between financial attitudes and financial management behaviour. The models have proven useful in understanding behaviour, with important contributions to perceived behavioural control.

Figure 1: The empirical model



Source: Authors' recommendation

The present study's authors designed a questionnaire with 35 observations, including six independent variables, one intermediate variable, and one dependent variable. Each observed variable was expressed by a 5-level Likert scale ranging from strongly disagree, disagree, uncertain, agree, to strongly agree. Specifically, Financial attitude, with four observations, was adopted from Parrotta and Johnson (1998), Rajna *et al.* (2011), Mien và Thao (2015) and Childhood consumer experience, with five observations, was adopted from Sabri *et al.* (2012). General financial knowledge, with four observations, was adopted from Xiao *et al.* (2014) and Perry and Morris (2005); in contrast, Investment experience, with four observations, was referenced to the scale from the study of V. And Mr G.Ramkumar (2012) and proposed by the research team. Financial independence, with four observations, was adopted from Xiao *et al.* (2014), Schelleman-Offermans and Massar (2020), while Personal financial management intention, with four observations, was proposed by the present study's research team, and Personal financial management behaviour, with six observations, was adopted from Mien and Thao (2015) and Xiao and Dew (2011).

Research method

The present study's authors collected research data from people living in Hanoi, Vietnam, via online questionnaires sent on popular social media platforms and forums targeted at young people. Among the 347 responses, 308 were valid for further investigation, accounting for 88.8%.

The data sample was selected by removing questionnaires that selected only one answer from start to finish and questionnaires containing contradictory responses (with the same answer to two opposing questions). Of the 347 returned questionnaires, 39 were invalid because all answers were the same (30) or contained conflicting answers (9). Finally, the number of valid responses numbered 308.

The data sample was processed and analysed using the SPSS 20 and AMOS 20 software applications. Specifically, descriptive analysis was used to describe the sample's general characteristics; Cronbach's Alpha tested the scale's reliability to check each factor's consistency. Exploratory factor analysis (EFA) was used to verify the value of the scale, while confirmatory factor analysis (CFA) was used to evaluate convergent and divergent validity. The relationships between the variables were modelled based on structural equation modelling (SEM). Finally, the research team performed a one-way ANOVA test to observe the differences between groups of subjects for personal financial management behaviour.

RESULTS

Descriptive analysis

Table 1. Respondents' Characteristics

	Frequency	Percentage (%)
Gender		
Male	93	30.2
Female	215	69.8
Age		
18 – 35 years old	207	67.2
36 – 45 years old	51	16.6
46 – 59 years old	43	14.0
Over 60 years old	7	2.3
Marital Status		
Single	182	59.1
Married	124	40.3
Divorced	2	0.6
Monthly Earning		
	Frequency	Percentage (%)
Below 05 million VND	99	32.1
05 – 15 million VND	88	28.6
15 – 25 million VND	68	22.1
25 – 35 million VND	22	7.1
35 – 45 million VND	14	4.5
45 – 60 million VND	7	2.3
Over 60 million VND	10	3.2

Source: Aggregated from analysis

Table 1 shows that the gender of the respondents was not uniform: the proportion of females (69.8%) was more than double of their male counterparts (30.2%). In terms of age, the majority of the survey participants were in the age group of 18 and 35 (67.2%), followed by the age group 36 to 45 (16.6%), 46 to 59 (14%), and over 60 (7%). Most people participating in the survey were either single (59.1%) or married (40.3%), and there were only two people who were divorced (0.6%). Up to 32.1% of the respondents were earning less than 5 million VND a month because of the high proportion of people aged 18 to 35 years, many of whom were still students. In contrast, higher income brackets did not make up significant proportions of the sample: 35 to 45 million (4.5%), 45 to 60 million (2.3%), and over 60 million (3.2%).

Reliability analysis

The present study conducted a Cronbach's Alpha test to estimate the validity of the variables. According to Hair *et al.* (2009), Cronbach's Alpha value of 0.6 and above is acceptable in exploratory research. As shown in Table 2, all variables' Cronbach's Alpha coefficients were much greater than 0.6, with 0.790 being the lowest and 0.885 being the highest. Looking at the values in more detail, if any observations of the variable were deleted in each variable, Cronbach's Alpha value would decrease. This outcome meant that the scales of all variables were suitable. Additionally, the corrected item-total correlation was greater than 0.3

in all variables. Therefore, all the items on the scale were considered reliable, and the factors were suitable for the study.

Table 2. Cronbach's Alpha Reliability Results

	Items	Observations	Cronbach's Alpha	Corrected item-total correlation
Financial Attitude	TD	4	0.790	~ 0.55 – 0.65
Childhood Consumer Experience	TN	5	0.846	~ 0.65
General Financial Knowledge	KT	4	0.799	~ 0.6
Investment Experience	DT	4	0.869	~ 0.7
Financial Independence	DL	4	0.871	~ 0.7
Personal Financial Management Intention	YD	4	0.868	~ 0.7
Personal Financial Management Behaviour	HV	6	0.885	~ 0.7

Source: Aggregated from analysis

Exploratory Factor Analysis (EFA)

The Significant Value of Bartlett's Test of Sphericity was 0.000 (<0.05), showing that all independent variables were related to the dependent variable. Moreover, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) coefficient) was 0.877 > 0.5. These two results indicated that using EFA was suitable for the database.

Table 3. The result of the KMO and Bartlett's tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.877
Bartlett's Test of Sphericity	Approx. Chi-Square	4937.574
	Df	465
	Significance	0.000
Total Variance Explained		67.495%

Source: Aggregated from analysis

Seven factors had eigenvalues higher than 1. The total variance extracted from these factors was calculated at 67.495%, meaning they explained 67.495% of the information in the original variables. The measurement result also revealed that all seven variables had loading factors of approximately 0.6 or higher, which ensured discriminant validity between the factors. The results from the EFA concluded that all the observed variables were suitable and were retained for further confirmatory factor analysis.

Confirmatory factor analysis (CFA)

CFA was used to test the fit of the model: how well the measured variables represented the factors, and whether they had an impact on the total factor or not through a number of indexes including CMIN/df, GFI, TLI, CFI, RMSEA, PCLOSE, and P-value. The Chi-Square test (CMIN) indicates the overall fit of the entire model at the p-value of 0.05 (Josserkog and Sorbom, 1989). However, the Chi-Square index is sensitive to the sample size, so the ratio of Chi-Square/degrees of freedom (CMIN/df) is commonly used. If CMIN/df < 5 with sample more than 200, or CMIN/df < 3 with sample less than 200, the model is considered suitable (Kettinger and Lee, 1995).

According to Hu & Bentler (1999), the values of GFI, TLI, CFI ≥ 0.9 are good, and the RMSEA should be lower than 0.06 to be satisfactory (in some cases, lower than 0.08 is acceptable). For GFI index, as it depends a lot on the number of scales, the number of observed variables and the sample size, it is difficult in some cases to achieve the level of 0.9. Therefore, the threshold of 0.8 is acceptable for this index according to two studies by Baumgartner and Homburg (1995) and Doll, Xia, and Torzadeh (1994). Pclose value > 0.05 means that hypothesis H0 cannot be rejected: the model is good. Thus, if Pclose is higher than 0.05, the model is considered to be a good fit (Arbuckle and Wothke, 1999; Rupp and Segal, 1989).

In this study, the CFA result showed that CMIN/df = 1.711 < 3, p = 0.000, GFI = 0.874, TLI = 0.929, and CFI = 0.937. These indexes indicated that the theoretical and realistic models had no differences. Other indicators: RMSEA = 0.048 < 0.06 and PCLOSE = 0.689 > 0.05, also implied that the model had a proper fit to the data collected.

Table 4. Model Fit Indexes

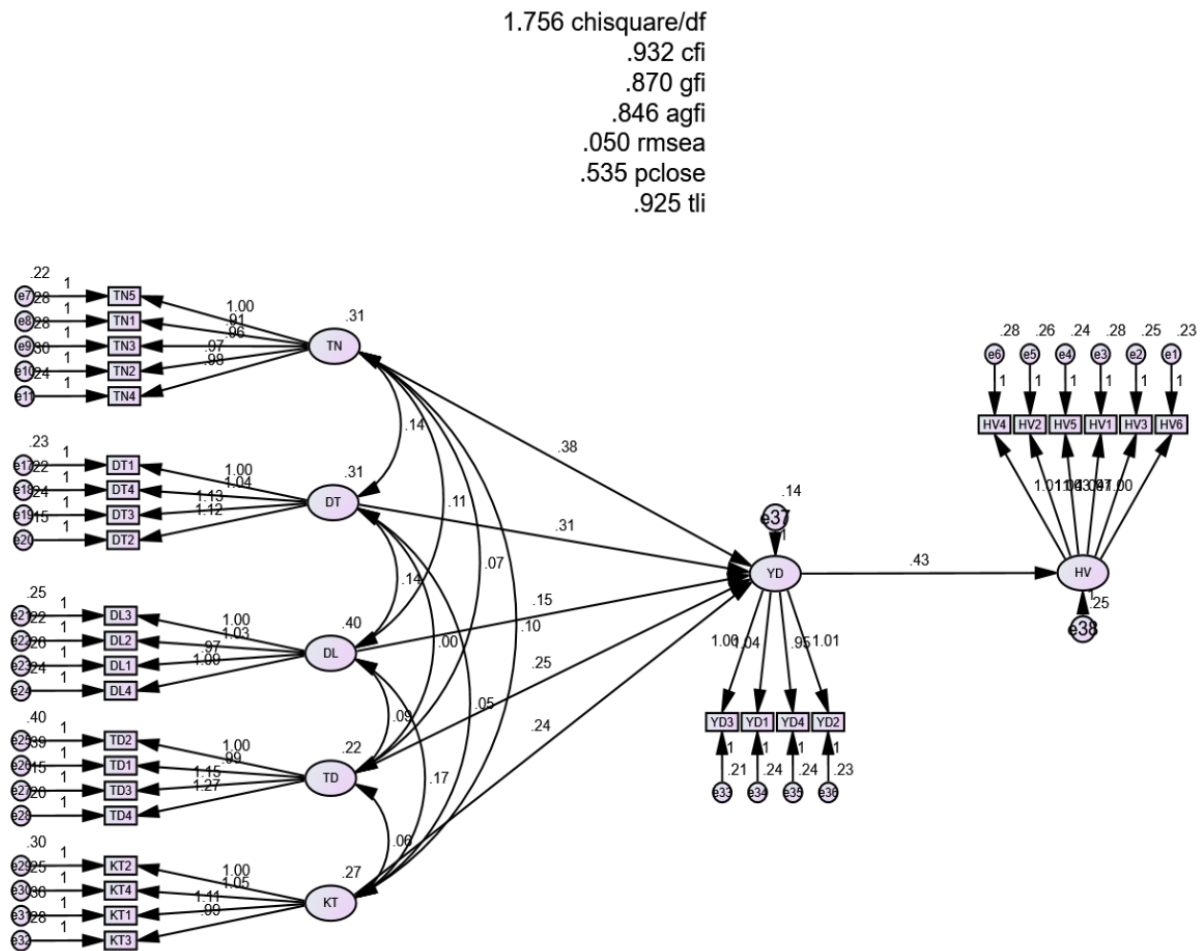
Index	Estimate	Condition	Result
CMIN/df	1.711	≤ 3	Good
GFI	0.874	≥ 0.8	Accepted
TLI	0.929	≥ 0.9	Good
CFI	0.937	≥ 0.9	Good
RMSEA	0.048	≤ 0.06	Good
PCLOSE	0.689	≥ 0.05	Good
p-value	0.000	< 0.05	Accepted

Source: Aggregated from analysis

Structural equation modelling (SEM)

After checking the model's fit through CFA, the present study's research team tested the hypothesis using the Structural Equation Model (SEM). The results are shown in the figure below:

Figure 2. Unstandardised Structural Equation Model



Source: Aggregated from analysis

According to Figure 2, the fitness indices of the hypothesis testing were as follows: the chi-square divided by the degree of freedom was 1.756 (< 3), CFI was 0.932 (> 0.9), GFI was 0.870 (> 0.8), RMSEA was 0.050 (< 0.06), and Pclose was 0.535 > 0.05. These results indicated that the model achieved compatibility with the research data.

Table 5. Structural equation modelling test results

Hypothesis	Relationship	SE	CR	P	Standardised Coefficients	Conclusion
H2	YD <--- TD	0.073	3.416	***	0.193	Accepted
H3	YD <--- TN	0.071	5.303	***	0.344	Accepted
H4	YD <--- KT	0.076	3.105	0.002	0.201	Accepted
H5	YD <--- DT	0.069	4.532	***	0.284	Accepted
H6	YD <--- DL	0.063	2.313	0.021	0.151	Accepted
	R ² (YD) = 0.623					

H7	HV <--- YD	0.061	7.032	***	0.462	Accepted
	R ² (HV) = 0.213					

Source: Aggregated from analysis

Table 5 presents a summary of the results of the hypothesis testing. Since the p-values of each item were below 0.05, all five independent variables (TD, TN, KT, DT, DL) affected the variable "Personal financial management intention" (YD). Besides, the YD variable also impacted HV (p-value = 0.000 < 0.05). Thus, none of the hypotheses were rejected.

The test results also revealed that the unstandardised coefficients of all relationships were above 0, which meant that all five items indirectly and positively affected "Personal financial management behaviour" through "Personal financial management intention". Among the five independent variables, "Childhood consumer experience" (TN) contributed the greatest influence toward "Personal financial management intention" with a coefficient of 0.344, followed by "Investment experience" (DT) with 0.284 and "General financial knowledge" (KT) with 0.201. Meanwhile, "Financial independence" (DL) had the least impact on the intention of managing personal finance. "Personal financial management intention" also significantly predicted "Personal financial management behaviour" with a standardised coefficient of 0.462.

The result of the R-squared coefficient of YD was 0.623, which indicated that the five indicators, TD, TN, KT, DT, and DL, explained 62.3% of the variable YD. Meanwhile, the R-squared coefficient of HV was only 0.213, showing that YD explained 21.3% of the variability of HV.

Analysis of variance (ANOVA)

One-way ANOVA analysis was used to test the differences in the financial management behaviour of selected demographic factors. Overall, there are two main cases:

- Case 1: If Sig ≤ 0.05, it is concluded that the variance of the group values is not homogeneous, thus, the assumption of One-way ANOVA is not satisfied. In this case, the results of ANOVA cannot be used, but Welch test.
- Case 2: If Sig value > 0.05, it can be confirmed that there is a homogeneity of variance between groups of variables. The results of ANOVA analysis can be used.

In this article, the Levene test results of all variables gave P-values lower than 0.05, so Welch test was used instead of ANOVA. A summary of the tests is displayed in the following table:

Table 6. Results of the analysis of differences in PFMB by demographic factors

	Hypothesis	Sig. (Levene test)	Sig. (Welch test)	Result
H1.1	There are differences in personal financial management behaviour between males and females	0.049 < 0.05	0.971 > 0.05	Rejected
H1.2	There are differences in personal financial management behaviour by different ages	0.019 < 0.05	0.000 < 0.05	Not Rejected
H1.3	There are differences in personal financial management behaviour by different marital statuses	0.016 < 0.05	0.010 < 0.05	Not Rejected
H1.4	There are differences in personal financial management behaviour by different income levels	0.025 < 0.05	0.000 < 0.05	Not Rejected

Source: Aggregated from analysis

Table 6 shows that gender was the only factor that had a significance in the Welch test greater than 0.05, indicating no differences in personal financial management behaviour between males and females. All three variables: age, marital status, and income, had a Welch test significance of 0.000, 0.010, and 0.000, respectively (all < 0.05), which meant differences in how people of different groups managed their finances. In summary, age, marital status, and income impacted personal financial management behaviour, whilst gender did not influence personal finance management.

DISCUSSION AND RECOMMENDATIONS

Discussion

In developing countries, there has been a growing interest in personal financial management behaviour recently. This situation has resulted in a series of studies over the past few years, such as in Malaysia (Falahati *et al.*, 2012; Loke, 2017; Sabri *et al.*, 2012); Thailand (Htet & Wongsunopparat, 2020) and Indonesia (Abriani *et al.*, 2020; Arifin, 2017; Astuti, 2020). However, the number of personal finance studies in the context of Vietnam has been small. Moreover, most non-Vietnamese-centred studies were conducted some time ago (typically between 2000 to 2010) and, thus, are no longer considered up-to-date, considering the current economic context and the differences between past and present generations. Therefore, the present research has filled the gap in

the topic in the context of Vietnam.

Additionally, although there have been many non-Vietnamese-centred studies, most have focused on studying the influence of people's financial literacy, financial attitudes, and financial knowledge on personal financial management behaviour. Thus, the present research has identified the influence of some less-commonly employed factors, such as family background and childhood consumption experience. The present study's research team also introduced two new factors: investment experience and level of financial independence. After testing the initial hypotheses, the present study's authors discovered relationships between the factors proven outside of Vietnam with personal financial management intentions and behaviours. These factors positively impacted the behaviour of personal financial management when put into the context of Vietnam.

Financial Attitude

Financial attitudes had a positive impact on personal financial management intentions and behaviours. People with better financial attitudes tend to manage their finances better. This outcome was consistent with Ajzen (1991): attitude influences intention, thereby influencing behaviour. In addition, this result was similar to previous conclusions, such as there is a positive relationship between financial attitude and personal financial management behaviour (Pathirannahalage & Abeyrathna, 2020; Abriani *et al.*, 2020; Mien & Thao, 2015; Parrotta & Johnson, 1998). People with thoughts, judgments, and views that saving is not important will prevent themselves from doing it; meanwhile, those who consider it important will stick with it and even form the habit of saving (Junita *et al.*, 2021).

Financial Knowledge

General financial knowledge positively influences the intention and behaviour of personal financial management. Thus, general financial knowledge indirectly influences personal financial management behaviour. This result was similar to the previous conclusions of Arifin (2017), Dwiastanti (2017), and Goyal *et al.* (2021) that people with better financial knowledge tend to have better personal financial management behaviours. The greater people's knowledge of financial issues, the less satisfied they are with their financial situation (Mugenda *et al.*, 1990). Explaining this negative effect, the author argued that greater financial knowledge leads to attention to the positive and negative aspects of an individual's financial status. In summary, knowledge negatively contributes to satisfaction with personal financial well-being. Therefore, individuals tend to change their financial status by changing their financial management behaviour.

Childhood Consumer Experience

Childhood consumption experience positively influenced the intention and behaviour of personal financial management. When experience increased by 1 unit, the intention to manage personal finances increased by 0.344, indicating the largest impact among the five independent variables in the research model.

Ullah & Yusheng (2020) explained that early exposure to financial activities could help individuals in adulthood become more confident in making financial decisions, thereby managing personal financial management better. Another explanation by Ramadhan & Asandimitra (2019) was that people with early financial experience tended to have good financial management because they had accumulated intention, experience, and information. Thus, in Hanoi, childhood consumption experience influenced personal financial management behaviour: the earlier people were exposed to financial-related activities, the more likely they would be to manage their finances better.

Investment experience

The research team's results showed that most of the survey participants had little investment experience since most respondents were students and working people aged 18-35 (accounting for 67.2% of the sample), and most had participated in investing without knowledge of the market risks. This situation could lead to failure and make them evaluate their investment experience. This result was consistent with the research results of (Nguyen Trong Tai, 2016), where up to 66% of investors in the Vietnamese stock market had very little experience (only 1-5 years of experience), while only about 23% of investors had over five years of experience.

Financial independence

When the degree of financial independence increased by 1 unit, the intention to manage personal finances increased by 0.151 units, which was the lowest level of impact among the observed variables. The survey results showed that, in general, Vietnamese people were not completely financially independent (with the result of choosing "Neutral" on a 5-point scale). This outcome was quite understandable given that in Vietnam, most people live with their parents and grandparents in households comprising several generations. Therefore, being completely financially independent is uncommon. However, the test results also showed a positive relationship between the level of financial independence and the behaviour of personal financial management or that the less financial support people receive, the better their financial management behaviour.

Demographics

With the significance of the Welch test = 0.971, gender had no impact on personal financial management behaviour, which also concurred with the results of previous studies (Parrotta & Johnson, 1998; Sovitha, 2020; Mai *et al.*, 2021). This result could be explained by the high level of gender equality in education, investment, and access to financial literacy in Vietnam today.

With the significance of the Welch test = 0.000, the age factor impacted personal financial management behaviour. It can be seen that most people have tended to be more cautious in their financial decisions since the outbreak of the COVID-19 pandemic. Some people have reduced their risk preferences due to reduced income while spending more, leading to a change in personal financial management behaviour. Wang & Hanna (1998) showed that risk aversion decreased relative to people's age while other variables remained constant.

With the significance of the Welch test = 0.010, the marital status factor impacted personal financial management behaviour. The results showed that married people were likelier to develop a personal financial plan than single people. This situation arises

because many short- and long-term expenses will arise after marriage. Therefore, married couples carry a risk-free mentality for themselves and their families.

Income was an influential factor in personal financial management behaviour. This result concurred with the studies of Parrotta & Johnson (1998) and Loke (2017). Income was observed to affect the level of financial satisfaction, thereby causing a difference in personal financial management planning and behaviour.

Recommendations

To help improve personal finance management skills, the present study's authors propose some recommendations for individuals, families, schools, and society in Vietnam.

Individuals

Individuals need to improve their knowledge regarding personal financial management actively. Besides learning theory from books, it is equally important to experience and learn from practice. Each person needs to plan their income and expenses to become more aware of their spending habits, allocating appropriate spending sources and ensuring their spending is controlled.

Families

Parents should educate their children about financial matters from an early age. In particular, parents must change their perspective on financial education for children, choose the right methods, and continuously monitor and adjust, relying on the personality characteristics of their children.

Schools and society

Schools need to place basic financial management subjects into the curriculum for students. Government agencies must propagate and strongly disseminate the importance of financial management. It is necessary to have supportive policies and create a legal corridor for financial service providers to develop financial management models for customers and create awareness and habits for people concerning financial management.

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