THE MEDIATING ROLE OF PERSONAL FINANCE COURSE IN SHAPING FINANCIAL SELF-EFFICACY AND ATTITUDE

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Abstract: The primary objective of this research is to investigate the mediating influence of personal finance course on the link between financial self-efficacy and financial attitude among the business administration students attending North Eastern Mindanao State University. This study employed a descriptive-correlational and regression methodology involving students in their second to fourth years who had previously demonstrated proficiency in a personal finance course taken at the first-year level. The survey questionnaires used in this study were adapted from research that had been done in the past, and 351 students took part in the study. The results reveal that the level of one's financial self-efficacy, personal finance course and financial attitude achieved an exceptionally high level. The Sobel's z-value demonstrate that the personal finance course was shown to partially mediate the association between financial self-efficacy and financial. Moreover, the MedGraph illustrated that the analysis of mediation was significant. This model is extremely helpful for the academic officials of the university to provide students with a more comprehensive financial education framework, not only for the enhancement of the business administration program, but also for the enhancement of all of the academic programs offered by the university.

Keywords: financial self-efficacy; personal finance course; financial attitude.

1. Introduction

Many Filipino college students tend to rely heavily on their parents for financial support. A study by Aquino and Pedalizo (2018) revealed that students often expect their parents to provide them with money for their daily expenses, leading to a lack of financial independence. Lack of financial knowledge is a significant problem among Filipino college students, especially in personal finance management (Bonifacio et al., 2020). Poor financial management, which can lead to loss of income, imprudent decisions, and a high desire to spend money, are the most prevalent mistakes. These are due to a lack of education about money and a failure to communicate effectively about money (Adiputra, 2021).

The college students are the primary purchasers of financial products and services. Their financial attitude should be prudent; nonetheless, students frequently spend more than they can afford (Susilowati et al., 2017). Galang and Magsino (2018) found that students tend to spend their money on non-essential products like electronics, clothing, and food, which can put them in a challenging financial position. The financial stability of college students is especially intriguing when examining their demographic profile. College students who are just beginning their lives as independent adults must learn to budget, track their income and expenses, and pay their bills (Johan et al., 2021). Susan (2018) argued that many people, mainly younger people, will confront a lack of financial awareness, which leads to poor financial management. For example, during the 2019 Financial Inclusion Survey conducted by the Bangko Sentral ng Pilipinas, the survey revealed that Filipinos may be aware of inflation's effects. However, they appear to have a poor understanding of interest's impact on savings and the power of compounding.

Other studies revealed that having a positive financial attitude (Castro et al., 2020) counteracts the influence of having knowledge of finances on behavior; as a result, young professionals need to have the right attitude to profit from having knowledge of finances. Further, Cardenas and Fonte (2021) inferred in their study that student decision-making, attitude, and conduct in the financial market are all influenced by a lack of financial literacy; thus, teaching these skills is essential. As a term, "financial attitude" refers to one's general disposition toward monetary issues. The ability to save money regularly and prepare for the future is crucial (Rai et al., 2019). In the vast amount of research focused on the factors that influence people's financial behavior, topics concerning financial attitudes and knowledge had garnered attention in recent years.

A significant amount of research indicates that people's attitudes toward saving, their comfort level with taking risks, and the extent to which they undervalue future rewards are all potential determinants of their financial well-being and future financial outcomes (Bhattacharya & Gill, 2020). Balboa and Abiad (2019) investigated the connection between millennial Filipinos' financial attitudes and financial self-efficacy. The findings demonstrated a strong positive correlation between financial attitude and financial self-efficacy The authors suggested that improving financial self-efficacy among Filipino millennials may be necessary for promoting positive financial attitudes and behavior.

Two characteristics that have been found to have connections with financial attitude are financial self-efficacy and personal finance courses. Faique et al. (2017) and Radianto (2020) found statistical significance in the relationships between financial self-efficacy and financial attitude. Looking into their survey findings, Farrell et al. (2016) concluded that a statistically significant association had developed between women's personal finance behavior and financial self-efficacy. Findings also revealed in their study that the mediation of financial self-efficacy (Riaz et al., 2022) between attitude toward money and financial literacy has the most significant impact, which shows that students with a positive attitude and high levels of self-efficacy develop high levels of financial literacy. In addition, research has demonstrated that financial self-efficacy has a substantial relationship with personal finance. Examining the study of Domingo and Buvanendra (2021), when other factors such as age, education, and income are held constant, a person's finance, such as savings, investments, credit management, cash management, and insurance choices are correlated with their sense of financial self-efficacy. Contrary to Johan's findings, there was no significant relationship between personal finance courses and the financial attitude of university students in Indonesia (Johan et al., 2021). Yogasnumurti et al. (2019) argue that one can roughly divide personal finance into two groups, that is, finance is the study of, or the practice of, managing money, while something being "personal" is that it pertains to a specific individual. In the context of this study, personal finance refers to a specific course taken by university students.

In the above context, this study emerged to determine which of the variables above may affect or mediate the effect of one variable on the other. Although many studies have already been undertaken regarding financial self-efficacy, financial attitude, and personal finance, these studies were treated as separate constructs with bivariate relationships complemented by other notable variables. This paper integrates the three constructs in one study, which has determined the significance of the interrelationships among financial self-efficacy, personal finance, and financial attitude. It also aimed to determine the mediating effect of personal finance on the relationship between financial self-efficacy and financial attitude. In contrast to other research that has been done previously, this study is grounded on well-known theoretical frameworks covering financial self-efficacy and financial attitude with personal finance as the mediating variable in one single investigation. In its holistic view, this could be used to inform financial education programs by highlighting the importance of building financial self-efficacy and positive financial attitudes to improve personal finance management. Moreover, this empirical research offers a paradigm for improving the educational content of business administration programs by making more complex learning inputs on personal finance, financial self-efficacy, and financial attitude available to students.

Hence, this empirical research sought the following specific objectives:

1. described the level of financial self-efficacy of the business administration students in terms of:
    1.1 saving and investing;
    1.2 knowledge about financial resources;
    1.3 financial goals achievement; and
    1.4 cash flow management and credit basis.
2. ascertained the level of personal finance course of the business administration students.

3. assessed the level of financial attitude of the business administration students in terms of:
    3.1. managing money;
    3.2. managing risk;
    3.3. planning ahead;
    3.4. choosing products; and
    3.5. staying-up-to-date
4. determine the relationship between
    4.1. financial self-efficacy and financial attitude;
    4.2. financial self-efficacy and personal finance course; and
    4.3. personal finance and financial attitude.
5. determine the mediating effect of personal finance on the relationship between financial self-efficacy and financial attitude of the business administration students.

Investigations in this research were designed to test the hypotheses on how one variable affected the other variables considering the varying conditions. The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant relationship between financial self-efficacy and financial attitude, financial self-efficacy and personal finance course, personal finance course and financial attitude.
2. Personal finance course does not significantly mediate the relationship between financial self-efficacy and financial attitude.

The remaining section of this paper is organized as follows. The next section outlines the theoretical and conceptual framework. The third section introduces the methodology. The section 3 presents the result and discussion. Finally, section 5 provides the summary of the findings and conclusion.

1.1 Theoretical Framework and Conceptual Framework

Albert Bandura's Social Cognitive Theory (SCT) provides a theoretical framework for understanding the relationships among financial self-efficacy, personal finance, and financial attitude. Social cognitive theory posits that individuals' beliefs about their capabilities to perform specific actions or self-efficacy influence their behavior and the outcomes they achieve (Bandura, 1977). Social cognitive theory points out that verbal persuasion, physiological and affective states, personal experiences, and vicarious experiences all contribute to developing self-efficacy beliefs. According to this idea, there are four main sources of effect on self-efficacy: social modeling, physiological and affective state, social persuasion, and mastery experiences. Social modeling refers to observing others performing similar tasks and gaining confidence from their successes. Physiological and affective states refer to an individual's physical and emotional states, impacting their confidence in performing a task. Social persuasion refers to receiving feedback and encouragement from others. Mastery experiences refer to an individual's past experiences and successes in performing similar tasks.

Financial self-efficacy is positively correlated with financial actions and outcomes, as demonstrated by several research that have adapted Bandura's SCT to the setting of personal finance (Gutter et al., 2010; Kim & Chatterjee, 2013; Lown et al., 2011). The concept of financial self-efficacy refers to an individual's belief in their capacity to manage their finances and make financially responsible choices (Lown et al., 2011).

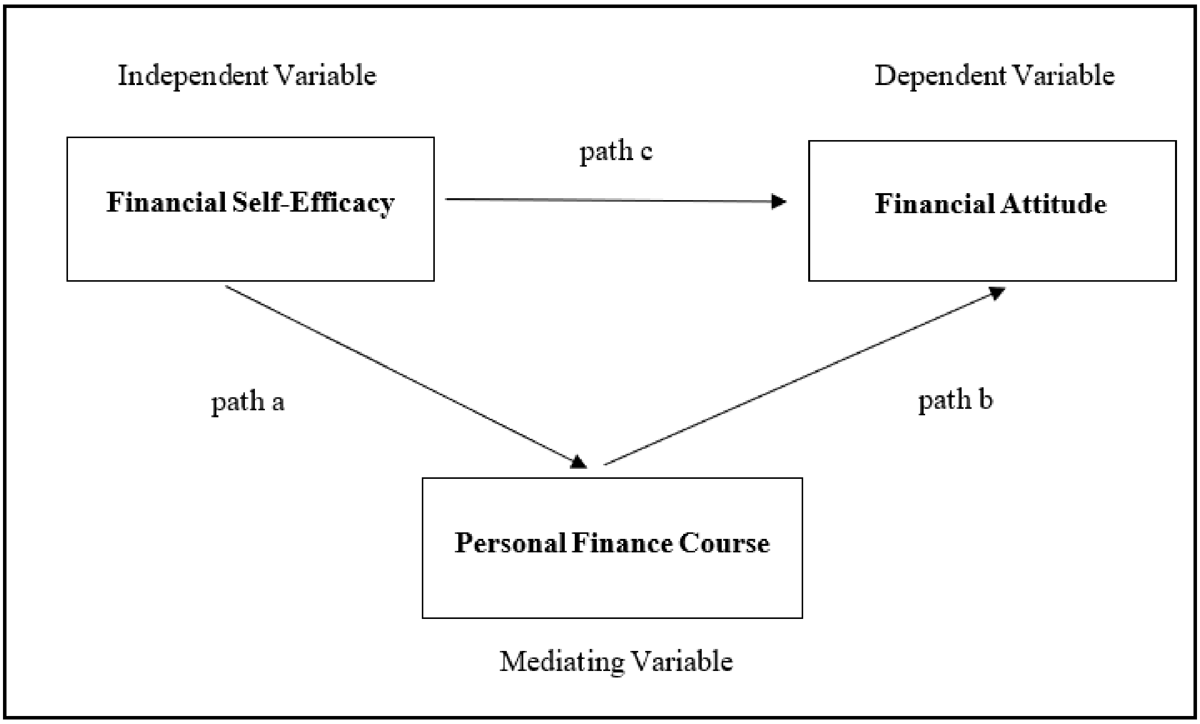
Social cognitive theory posits that an individual's financial self-efficacy may affect their financial behaviors and attitudes regarding personal finance. Studies have indicated that people with greater levels of financial self-efficacy are inclined to participate in desirable financial behaviors, like retirement planning, investing, and saving (Gutter et al., 2010; Kim & Chatterjee, 2013; Lown et al., 2011). Furthermore, it has been discovered that financial well-being and satisfaction are significantly predicted by financial self-efficacy (Gutter et al., 2010; Kim & Chatterjee, 2013).
Synthesizing social cognitive theory suggests that social modeling can be an essential source of self-efficacy for personal finance. Observing others who successfully manage their personal finances can increase an individual's confidence in their ability to do so. In addition, social persuasion can be an essential factor in increasing financial self-efficacy. Positive feedback and encouragement from others, such as financial professionals or family

members, can increase individuals' confidence in their financial abilities.

Social cognitive theory provides a valuable framework for understanding the relationship between financial self-efficacy, personal finance, and financial attitudes. By recognizing the importance of self-efficacy and its sources, financial educators and professionals can design interventions and programs to increase individuals' confidence in managing their personal finances.

The interplay of the constructs is illustrated through a path analysis conceptual framework depicted in Figure 1. Path "a" points out the relationship between financial self-efficacy (Nguyen, 2016) and personal finance course (Martinez, 2016). Path "b" illustrates the relationship between personal finance course and financial attitude (Johan et al., 2021). Path "c" forms the fundamental relationship between financial self-efficacy and financial attitude. All these constructs are hypothesized to have significant relationships with each other.

Figure 1: Conceptual Framework of the Study



2. Methodology

This study employed a descriptive-correlational and regression methodology. The information from the respondents was gathered using three separate sets of survey questionnaires, each modified from a different source. The content validity of the questionnaires was evaluated in order to guarantee that the instruments would produce accurate results. Business administration students in their first year were chosen to participate in a pilot test since they formed part of the study's exclusion criteria. Cronbach's alpha yielded a value of 0.95 after the reliability measurement was performed, which indicated that the revised questionnaire was highly acceptable in its standard configuration.

The financial self-efficacy scale was taken from Nguyen (2016) and constructed with four different variables. The personal finance course scale is a seven-item scale that was adapted from Martinez (2016). In this study, personal finance is a three-unit course offered during the first semester to all BSBA students in their first-year level. The financial attitude scale, which has five factors, was taken from the study of Johan et al. (2021).
The research instrument is designed according to a Likert scale, which consists of five levels of measurement. A score of 5 indicates that a respondent strongly agrees, while a rate of 1 indicates that the respondent strongly

disagrees. Other than the descriptive statistics, which measured the level of each construct, the correlational research strategy was chosen for this study's investigation because it was certain to shed light on the bivariate interactions that exist between the three different constructs. These bivariate interactions were essential as a requisite for the mediation analysis.

The regression analysis was utilized to measure the influence of financial self-efficacy and a personal finance course on the student's financial attitudes. The mediating influence of the personal finance course on the hypothesized relationship between financial self-efficacy and financial attitude was employed using Jose's (2013) MedGraph, which was created with the Sobel z-test.

3. Results and Discussion

3.1 Level of Financial Self-Efficacy

Table 1 shows the mean scores for the indicators of financial self-efficacy, with an overall mean of 4.35 (sd = 0.45) described as very high. The very high level could be attributed to the high ratings the respondents gave in two of the three dimensions of financial self-efficacy.

Table 1: Level of Financial Self-Efficacy

Dimension	sd	Mean	Descriptive Level
Saving and Investing	0.48	4.41	Very High
Knowledge about Financial Resources	0.56	4.17	High
Financial Goals Achievement	0.50	4.51	Very High
Overall	0.45	4.35	Very High

The findings of the study denote that the essence of financial self-efficacy is always manifested in the eyes of the respondents in terms of saving, investing, knowledge about financial resources, and financial goals achievement. The findings of the study are in accord with Bandura (1977), who argued that people who have high financial self-efficacy are more likely to engage in behaviors that promote financial well-being, such as saving and investing, while those with low financial self-efficacy may avoid financial tasks or engage in risky behaviors. Financial self-efficacy has also been found to be an important predictor of retirement planning behavior. Higher levels of financial self-efficacy were associated with increased retirement savings behavior and more positive retirement expectations (Lachance et al., 2014).

3.2 Level of Personal Finance Course

Presented in Table 2 are the mean scores for the items of personal finance course with an overall mean of 4.56 (sd = 0.50) described as very high. This remark could be attributed to the optimal high remarks of the respondents having it manifested at all times. Among all responses, *making aware of the importance of personal finance* generated the highest mean of 4.62. This is followed by *increasing knowledge of personal finance* and *helping improve how one's personal finances are managed* both obtained the mean of 4.61. The course *being taught how to manage one's personal finances* obtained a mean of 4.57 in the next rank. Students *have better understanding on how to manage one's personal finances* and *recommending the Personal Finance Course to other colleges of the university* have remarkable means of 4.52. Students rated the lowest mean (4.49) on *helping become more confident in one's personal financial management skills* but still on a very high level of agreement.

Table 2: Level of Personal Finance Course

Items	sd	Mean	Descriptive Level
Making aware of the importance of personal finance.	0.62	4.62	Very High
Increasing knowledge of personal finance.	0.62	4.61	Very High

Helping improves how one's personal finances are managed.	0.62	4.61	Very High
Being taught how to manage one's personal finances.	0.60	4.57	Very High
Have better understanding on how to manage one's personal finances.	0.59	4.52	Very High
Recommending the Personal Finance Course to other colleges of the university.	0.64	4.52	Very High
Helping become more confident in one's personal financial management skills" but still on a very high level of agreement.	0.64	4.49	Very High
Overall	**0.50**	**4.56**	**Very High**

The results showed that respondents had high mean scores and positive feedback, indicating that students strongly agreed that taking a personal finance course would help them become more financially knowledgeable and skilled. These findings are consistent with studies by Johan et al. (2021) and Yahaya et al. (2019), which discovered that students who enrolled in financial management and personal finance courses had much better financial understanding than those who did not. This entails having a better understanding of financial management concepts, being more adept at handling personal funds, and having a greater confidence in their financial judgments.

3.3 Level of Financial Attitude

Illustrated in Table 3 is the level of financial attitude as perceived by the respondents. The overall level generated a mean of 4.27 (sd = 0.52), which is remarkably very high. This is attributed to the high ratings given by the respondents as financial attitude is manifested at all times in their day-to-day living in terms of staying up-to-date ($\bar{x}$ = 4.68), choosing products ($\bar{x}$ = 4.67), planning ahead ($\bar{x}$ = 4.27), managing risk ($\bar{x}$ = 4.19), and managing money ($\bar{x}$ = 3.96).

Table 3: Level of Financial Attitude

Dimension	sd	Mean	Descriptive Level
Staying up-to-date	0.61	4.68	Very High
Choosing Products	0.55	4.67	Very High
Planning Ahead	0.62	4.27	Very High
Managing Risk	0.61	4.19	High
Managing Money	0.66	3.96	High
Overall	**0.52**	**4.27**	**Very High**

The results showed that financial attitudes play a significant role in determining financial behaviors and outcomes, as seen by the high mean scores. According to Kim and Chatterjee (2013), financial attitudes have a big impact on financial behavior, especially when it comes to investing and saving. Grable and Joo (2006) described financial attitude as a psychological construct reflecting an individual's subjective perceptions of their financial situation and ability to manage financial resources effectively. According to the study of Yahaya et al. (2019), financial attitude significantly impacts financial behavior among university students.

3.4. Correlation between Constructs

Demonstrated in Table 4 is the correlation between constructs which are used in this study. These relationships are essential as requisites in mediation analysis. The r-value of 0.654 with a p-value < 0.05 signified the rejection of the null hypothesis. This suggests that financial self-efficacy and financial attitude are statistically significant with each other. Moreover, financial self-efficacy and personal finance course enrolled by the business administration students are also statistically significant, with each other having the r-value of 0.610 ($p < 0.05$), thus rejecting the null hypothesis. It means that financial self-efficacy and personal finance course are significantly associated to each other. With an r-value of 0.614, the personal finance course had a statistically significant relationship with financial attitude ($p < 0.05$). It shows that there is a positive relationship between a personal finance course and financial attitude.

Table 4: Correlation between Constructs

Correlated Constructs	r-value	p-value	Decision H_0
Financial Self-Efficacy and Financial Attitude	0.654	0.000	reject
Financial Self-Efficacy and Personal Finance	0.610	0.000	reject
Personal Finance and Financial Attitude	0.614	0.000	reject

The result on financial attitude and financial self-efficacy is aligned with Dare et al. (2022), who find a positive association between greater financial self-efficacy and better financial well-being in terms of more favorable behavior (e.g., investing, saving, and budgeting). Moreover, based on a few studies, there is a positive relationship between financial self-efficacy and financial attitude (Balboa & Abiad, 2019; Faique et al., 2017; Radianto, 2020; Riaz et al., 2022). Similarly, the positive relationship between financial self-efficacy and personal finance course is also parallel with several research findings (Domingo & Buvanendra, 2021; Farrell et al., 2016), as well as the study of Heckman and Grable (2011), which found a positive link between the college students' financial knowledge and financial self-efficacy. Moreover, the finding on the positive association between personal finance course and financial attitude contrasts with the study of Johan et al. (2021), who found that personal finance education does not significantly influence financial attitude. However, the finding is congruent with the study of Coskun and Dalziel (2020), who stated that there is a positive association between financial knowledge level and the financial attitude of university students. Another study also concluded that students who took financial education courses had high financial knowledge, which positively and significantly affected their financial attitude (Yahaya et al., 2019).

3.5. Mediating Effect of Personal Finance Course on the relationship between Financial Self-Efficacy and Financial Attitude

The regression analysis is displayed in Table 5. Mediation analysis developed by Baron and Kenny (1986) was used as the initial analysis for mediation. There are three steps to comply with for a third construct to act as a mediator, as depicted in Table 5. These are categorized as Step 1, Step 2, and Step 3. Step 4 is the mediation stage. In Step 1, financial self-efficacy significantly predicts the financial attitude of the students. In Step 2, the personal finance course predicts financial attitude. In step 3, financial self-efficacy significantly predicts the personal finance course of the students. The regression results in the three steps are all significant ($p<.05$); hence, the mediation analysis recommended using a MedGraph. This constitutes the Sobel z test to assess the significance of the mediation effect. If the effect of the independent variable on the dependent variable becomes non-significant at the final step of the analysis, the mediation is null. This means that no mediation is achieved, although the constructs are significant with each other in the regression analysis. Conversely, partial mediation is achieved if the regression coefficient is substantially reduced at the final step (Step 4) but remains significant. This suggests that financial self-efficacy is mediated by personal finance course and other factors are either direct or mediated by other variables not included in the model.

In this study, the result of mediation analysis, as seen in Figure 2, demonstrated the Sobel z-value of 6.43357, $p < 0.05$; hence, partial mediation is evident. The association between financial self-efficacy and financial attitude had been significantly reduced by including the mediating variable, the personal finance course. This was proven when the regression of the basic relationship was reduced from 0.654 to 0.444, that is, on path c between financial self-efficacy and financial attitude. The 95% confidence interval conclusively suggests that the significant mediation is evidently illustrated. It yielded a standard error of 0.03687 derived from getting the difference between the lower and upper limits and dividing it by 3.92 (constant value). The small standard error measures the precision of the estimate of the coefficient. The smaller the standard error, the more precise the estimate becomes.

The effect size of 0.319, seen in Table 6, measures how much of the effect of financial self-efficacy on financial attitude could be attributed to the indirect path through the inclusion of the mediating variable, the personal finance course. The total effect of 0.654 is the raw correlation between financial self-efficacy and financial attitude (path c). The direct effect of 0.444 is the regression coefficient after including the mediating variable, personal finance course. The indirect effect of 0.209 is the amount of the basic correlation between financial self-efficacy and financial attitude that goes through the personal finance course, then to financial attitude (a*b) where "a" denotes the path between financial self-efficacy and personal finance course and "b" pertains to the path between personal finance course and financial attitude. The total ratio is calculated by dividing the indirect effect by the total effect (0.209/0.654); hence, 0.319. Nearly 32% of the total effect of financial self-efficacy on financial attitude goes through personal finance course. Sixty-eight percent of the total effect could either be directly or mediated by other variables not covered in this model.

Table 5: Mediating effect of Personal Finance Course on the relationship between Financial Self-Efficacy and Financial Attitude

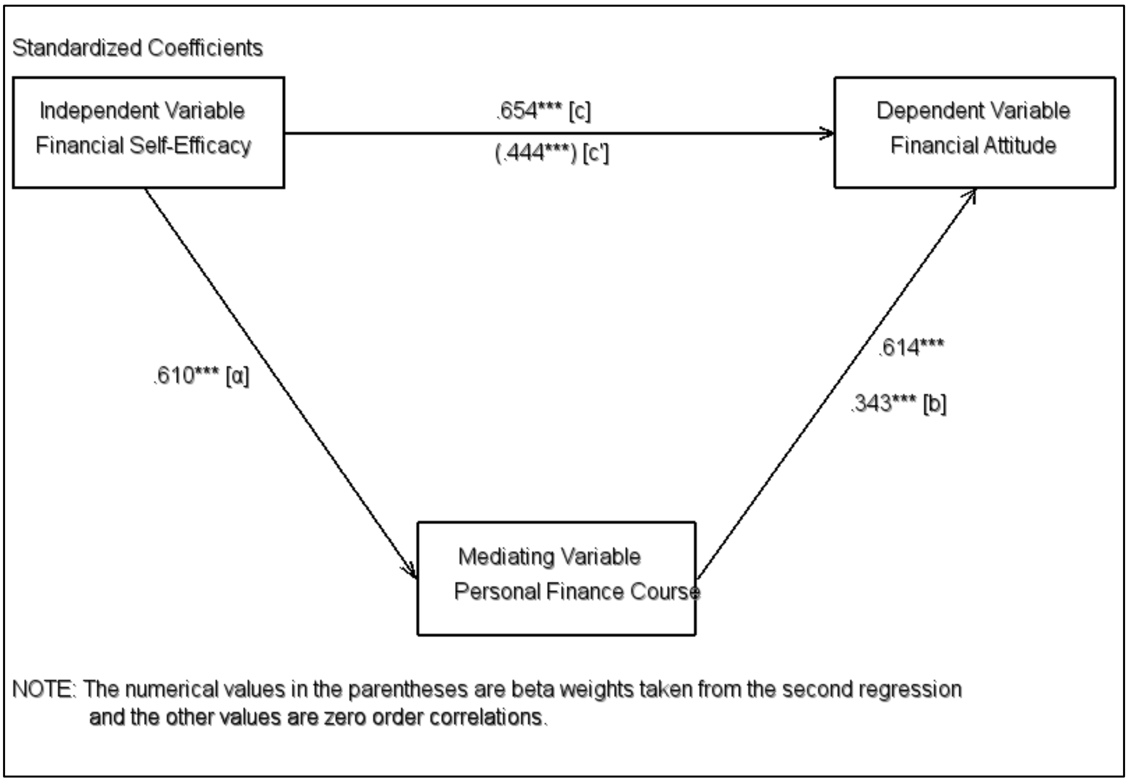
Steps	
1. Path C (IV and DV)	
Financial Attitude on Financial Self-Efficacy	
B (Unstandardized regression coefficient)	0.741
Standard Error	0.046
Significance	0.000
2. Path B (MV and DV)	
Financial Attitude on Personal Finance Course	
B (Unstandardized regression coefficient)	0.632
Standard Error	0.043
Significance	0.000
3. Path A (IV and MV)	
Personal Finance Course on Financial Self-Efficacy	
B (Unstandardized regression coefficient)	0.672
Standard Error	0.047
Significance	0.000
4. Combined influence of the three constructs	
Personal Finance Course	
B (Unstandardized regression coefficient)	0.353
Standard Error	0.049
Beta (Standardized regression coefficient)	0.343
Part Correlation	0.272
Financial Self-Efficacy	
Beta (Standardized regression coefficient)	0.444
Part Correlation	0.352
Total R Square	.501

Legend: Independent Variable (IV), Mediating Variable (MV), Dependent Variable (DV)

Table 6: Statistical Results in Mediation Analysis

Results		
Significance of Mediation		Significant
Sobel z-value	6.43357	p = 0.000001
95% symmetrical confidence interval		
Lower	0.16495	
Upper	0.30948	
Unstandardized Indirect Effect		
a*b	0.23722	
se	0.03687	
Effect Size Measures		
Standardized Coefficients		
Total	0.654	
Direct	0.444	
Indirect	0.209	
Indirect to Total Ratio:	0.319	

Figure 2: MedGraph using Regression Paths of the Variables



4. Conclusion

The results of the study proved that the levels of financial self-efficacy, personal finance course, and financial attitude were very high, manifesting at all times as perceived by the respondents. Using the correlation technique, the three constructs used in this study were significantly related to one another. Its significance led to the examination of the mediation analysis for further association. Using Sobel's z-value and Jose's MedGraph, personal finance as a course in the business administration program partially mediated the relationship between financial self-efficacy and financial attitude. The significant results showed that if business administration students had high levels of financial self-efficacy, they would likely experience a greater sense of financial attitude. This relationship could be partially explained by detailing the inclusion of enrolling in a personal finance course. More specifically, students who had higher levels of financial self-efficacy were believed to have learned more after finishing the personal finance course. Those students who finished taking up personal finance course in their first-year level reported to have higher levels of financial attitude than those students who had no idea or had not yet taken up personal finance as a course in the business administration program.

Interestingly, the results gave profound importance to the field of financial management. This study may help the school administration provide meaningful policy reviews to enhance student's knowledge in various dimensions of financial education, which is much more than just financial literacy. Those students who are not business administration majors may be given the opportunity to learn financial self-efficacy and financial attitude, which are both found in personal finance course. Promoting financial education to college students may help them become more responsive to the financial environment surrounding them. They will become professionals of their own, and learning financial education through enrolling in a Personal Finance course will equip them to make the right decisions pertaining to financial matters. This empirical research can be pursued in the future by identifying other factors or dimensions that may significantly impact financial self-efficacy, personal finance, and financial attitude. Qualitative studies may be explored to uncover more factors that contribute to the significance of the constructs used.

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