### "Financial well-being of Vietnamese students"

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## FINANCIAL WELL-BEING OF VIETNAMESE STUDENTS

#### **Abstract**

This study aims to analyze financial well-being as well as the factors affecting the financial well-being of Vietnamese students. The study surveyed 658 students in Vietnam via email and Facebook groups with suitable survey subjects in the period from May to June, 2021. The study also collected demographic information and the status of independence or financial dependence of students participating in the survey in Vietnam. The study analyzes the direct and indirect effects of six groups of independent factors on the financial well-being of Vietnamese students through the PLS-SEM model. Empirical study results show that three factors, such as Financial Attitude, Financial Behavior, and Financial Self-Efficacy, have a direct impact, while two other factors, Financial Knowledge and Financial Skills, have an indirect impact on financial wellbeing of students in Vietnam. Although there are some limitations in the representative level of students participating in the survey, sampling methods and the number of respondents in the survey, the study achieved its research objectives. This study provides more empirical evidence and insights to the Ministry of Education and Training and economics universities in designing training programs that equip students with knowledge and skills to achieve financial well-being.

**Keywords** financial attitude, financial behavior, financial knowledge, financial self-efficacy, financial skills

**JEL Classification** E44, G41, I22

#### INTRODUCTION

The COVID-19 pandemic has had a negative impact on the health and financial stability of individuals, households and the whole society. It also reaffirmed the importance of maintaining personal financial health in order to have savings and backups for future unexpected problems and financial contingencies. Financial health is important not only for individuals, but also for families and the whole society, as it can affect a person's health and well-being (Mahendru, 2020). Managing to maintain financial health is the basis for each individual to achieve financial well-being (Sehrawat et al., 2021).

Financial well-being has become an increasingly popular research topic, especially for students who often face financial difficulties (Gutter & Copur, 2011; Williams & Oumlil, 2015; Brüggen et al., 2017; Philippas & Avdoulas, 2020). The main reason for this problem is that students often commit overspending behavior due to the lack of knowledge and experience in personal financial management skills. In addition, they are often under pressure from high educational fees, uncertain job opportunities and debt burden (Gutter & Copur, 2011; Philippas & Avdoulas, 2020).

The remainder of this paper is organized as follows: Section 1 introduces the literature review and hypotheses development. Section 2 presents methods and data. Section 3 presents the results of the study. Section 4 presents a discussion. The paper ends with conclusions.

# 1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

One of the main goals of every individual and household is to achieve financial well-being. It is a determinant of quality of life. An individual encountering financial problems is likely to be anxious and stressed about the income, debt, work, etc., these pressures affect the mental and physical health of each individual, thereby reducing work performance (Xie et al., 2020; Iramani & Lutfi, 2021).

Financial well-being is defined as a feeling of financial security both in the present and in the future. Financial well-being is the condition in which a person is able to meet the needs of life, feel secure in the future, enjoy life in the present, and be able to cope with unexpected financial demand in the future (Predergast et al., 2018). Financial well-being reflects the financial condition where an individual or family has enough resources to live a comfortable life. Financial well-being means being financially healthy, happy and worry-free (Brüggen et al., 2017; Mahendru, 2020; Philippas & Avdoulas, 2020).

Financial well-being is being in control of one's finances, feeling free of financial stress, and having enough resources to be able to deal with financial shocks. Financial well-being is a state in which a person is able to meet their financial obligations now and feel secure about his/her future financial situation (Gutter & Copur, 2011; Strömbäck et al., 2017; Cherney et al., 2020).

Financial well-being is achieved when: (i) you have the ability to manage your finances over a period (day, week, month, year); (ii) you can afford to face and deal with a financial shock; (iii) you are on track to achieve your financial goals, and (iv) you have a financial freedom to choose what you need to enjoy life. The ultimate goal of financial education is to help people achieving financial well-being or financial health.

Financial attitude is an individual's thoughts, opinions, and judgments about financial matters. It is an important factor in helping individuals

achieve a stable, balanced state to achieve financial well-being. Individuals with the right financial attitudes are more positive in financial well-being. (Renaldo et al., 2020).

Perceived behavior control emphasizes one's thinking problem in controlling the internal and external situations affecting each individual. Perceived behavior control is also a psychological variable with certain predispositions. People with good Perceived behavior control are likely to have a happier financial state. (Renaldo et al., 2020; Iramani & Lutfi, 2021; Chavali et al., 2021; Selvia et al., 2021).

Financial behavior is an individual's attitude and actions to do something related to their finances. Positive financial behaviors, such as financial planning, financial and decision-making management will promote one's happiness, and vice versa. Buying unimportant things beyond one's financial means has a negative impact on their financial happiness. People who express their positive financial behaviors, such as maintaining budget, savings, avoiding risky financial decisions, or controlling spending, usually have higher financial happiness (Starobin et al., 2013; Mahendru et al., 2020; Chavali et al., 2021; Iramani & Lutfi, 2021; Selvia et al., 2021).

Financial self-efficacy is an individual's belief in his or her ability to set a series of actions to achieve ambition. It demonstrates one's confidence in fulfilling their responsibilities. Individuals with financial self-efficacy often take positive actions to achieve personal goals and are likely to achieve a better state of financial well-being (Renaldo et al., 2020; Selvia et al., 2021).

Financial skills help consumers with effective budgeting, spending and investing techniques. Financial skills also help each individual to have the ability to process information and understand factors such as compound interest, terms and investment conditions to create for consumers in financial decisions (Mahendru et al., 2020). Financial skills are expected to have a direct impact on financial attitude and an indirect impact on financial well-being.

Financial knowledge is the knowledge and ability to understand, analyze and manage finances.

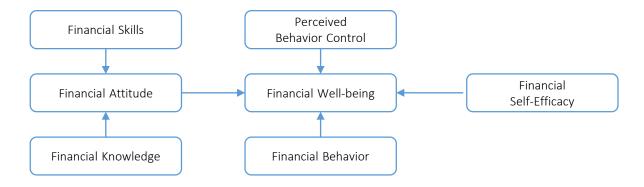


Figure 1. Proposed model of factors affecting financial well-being of Vietnamese students

Financial knowledge helps with making the best financial decisions, avoiding financial problems and moving towards a state of financial well-being. One's financial knowledge requires developing financial skills and learning how to use financial tools, such as budget preparation, investment planning, and insurance planning. Financial knowledge is one of the key aspects of determining financial well-being. People with good financial knowledge tend to save more and invest more for the future. They are likely to have greater wealth accumulation and more positive financial attitudes (Renaldo et al., 2020; Mahendru et al., 2020; Chavali et al., 2021; Iramani & Lutfi, 2021; Selvia et al., 2021; Sehrawat et al., 2021). Financial knowledge is expected to have a direct impact on financial attitude and an indirect impact on financial well-being

Philippas and Avdoulas (2020) studied the relationship between financial knowledge, financial fragility and financial well-being of 456 students in the academic year 2018–2019 in Greece through the logistic regression model. Research results indicate that students with higher levels of financial knowledge are often better able to respond to financial shocks and have higher levels of financial well-being.

Aydin and Akben Selcuk (2019) analyzed the impact of financial knowledge on financial well-being through the structural equation modeling. The study used data from 1,443 students from 14 universities in Turkey. Research results show that students with higher financial knowledge scores often have more positive financial attitudes and behaviors. The study results also confirm the positive impact of financial knowledge on financial well-being of Turkish students.

Falahati and Paim (2011) analyzed the factors affecting financial happiness and financial satisfaction of Malaysian university students through path analysis method. The study used data from 350 students from 11 universities in Malaysia. Research results show that there is a difference in financial happiness between male and female students, and financial socialization and financial knowledge are two factors that have a strong impact on the financial well-being of Malaysian students.

Gutter and Copur (2011) analyzed the impact of financial behavior on financial well-being of university students using the OLS regression method. The data for the study were collected in 2008 from a survey of 15,977 students at 15 higher education institutions in the United States. Research results indicate that demographic characteristics, financial characteristics, financial education and orientation have a strong influence on the financial well-being of American students.

The study proposes six research hypotheses, which are as follows:

- H1: The right financial attitude will positively affect financial well-being.
- H2: Good perceived behavior control will have better financial well-being.
- H3: Financial behavior has a positive effect on financial well-being.
- H4: The higher the financial self-efficacy, the better the financial well-being.

H5: Financial knowledge has a positive indirect impact on financial well-being through financial attitude.

H6: Financial skills have a positive indirect impact on financial well-being through financial attitude.

#### 2. METHODS AND DATA

The survey was conducted in June – July 2021 with the respondents being students at universities and colleges in Vietnam. At the end of the survey, 658 valid questionnaires were obtained. The survey questionnaire has been translated into Vietnamese to help respondents understand the information.

Survey data were collected through an online survey sent to email and Facebook groups with student members in June - July 2021. Then, the survey was shared by the lecturers and students who took the survey among Facebook groups whose members are mostly students. The questionnaire was designed based on the previous studies of Philippas and Avdoulas (2020), Shim et al. (2009), Oquaye et al. (2020), and Renaldo et al. (2020), then converted into an online survey on Google Forms in Vietnamese language so that respondents can fully understand the meaning. The questionnaire includes 41 questions, of which 6 are about students' demographic and personal information, including Year, Major, Age, GPA, Residence, and Financial independence. The remaining 30 questions are designed on a 5-point Likert scale, including 6 groups of independent factors with 26 questions, and a group of dependent factors, namely Financial Well-Being (4 items). A snowball sampling method was employed in this study.

All 676 people took the survey but there were 18 invalid responses, so the dataset has a total of 658 valid responses. Invalid responses are responses that are missing information or all answers have the same value. Before analysis, the data were verified to ensure the validity of the responses and the variables were encoded. After removing invalid responses, the final dataset contains 658 valid responses. All raw data were pre-processed with Excel before being entered and analyzed with SPSS version 23.0 and SmartPLS version 3.2.9. Figure 2 presents a proposed research model on the factors affecting the financial well-being of Vietnamese students.

The study used the Structural Equation Modeling (SEM), a combination of Confirmatory Factor Analysis (CFA) and multivariate regression analysis, which allows the presentation of latent variables in the interdependence relationship and calculates measurement errors. The study performed tests to ensure that the measurement model fits the data before integrating all variables in a common measurement model. The evaluation criteria in the study include (i) Measuring the goodness of fit of the model through the Chi-square, p-value and SRMR statistical index (Hulland (1999); (ii) Convergence through Cronbach's Alpha (Chin, 1998; Hair et al., 2013); (iii) The discriminant value through the total variance extracted (AVE) with the general rule of appropriate AVE values being greater than or equal to 0.50 (Hair et al., 2013); (iv) Evaluation of the reliability of the passed scale and the coefficient of composite reliability (CR) (Chin, 1998; Hair et al., 2013). The study applied SmartPLS 3.2.9 software (Ringle et al., 2015) into PLS-SEM analysis and associated tests of the model.



Figure 2. Research model

#### 3. RESULTS

Table 1 shows the descriptive statistics of demographic variables of Vietnamese students, including year, major, age, GPA, residence, and financial situation. Classified by academic year, the second-year students accounted for the highest number with 37.54% of the total 658 participants in the survey. Statistical results show that up to 83.28% of the students are in the business sector and the remaining 16.72% is from other sectors. In terms of age, the majority is 20-year-old with 228 students, which accounted for 34.65%. GPA from 3.0-3.5 accounted for the largest rate with 66.41%. There were 341 students renting apartments during studying at the university. In terms of financial status, 90.58% of students answered that they were financially dependent on their families, only 9.42% of students had the ability to be independent and financially self-sufficient during their studies.

**Table 1.** Descriptive statistics of demographic variables

| Variables            |                           | Frequency<br>(N=658) | Percentage,<br>% |  |
|----------------------|---------------------------|----------------------|------------------|--|
|                      | Freshman                  | 227                  | 34.50            |  |
| What year            | Sophomore                 | 247                  | 37.54            |  |
| are you in?          | Junior                    | 124                  | 18.84            |  |
|                      | Senior                    | 60                   | 9.12             |  |
| What are you         | Business                  | 548                  | 83.28            |  |
| majoring in?         | Non-business              | 110                  | 16.72            |  |
|                      | 18                        | 40                   | 6.08             |  |
|                      | 19                        | 200                  | 30.40            |  |
|                      | 20                        | 228                  | 34.65            |  |
| What is your age?    | 21                        | 135                  | 20.52            |  |
|                      | 22                        | 33                   | 5.02             |  |
|                      | 23                        | 13                   | 1.98             |  |
|                      | 24                        | 9                    | 1.37             |  |
|                      | Lower than<br>2.5         | 26                   | 3.95             |  |
| What is your GPA?    | 2.6–2.9                   | 146                  | 22.19            |  |
|                      | 3.0-3.5                   | 437                  | 66.41            |  |
|                      | 3.6-4.0                   | 49                   | 7.45             |  |
|                      | Dormitory                 | 196                  | 29.79            |  |
| Where are you        | Apartment<br>(rent)       | 341                  | 51.82            |  |
| going to live during | House (rent)              | 15                   | 2.28             |  |
| the school year?     | House (own)               | 13                   | 1.98             |  |
|                      | Live at home with parents | 93                   | 14.13            |  |
| Are you financially  | Yes                       | 62                   | 9.42             |  |
| independent?         | No                        | 596                  | 90.58            |  |

Table 2 provides detailed descriptive statistics for the 5 groups of independent variables, including (i) Financial attitude; (ii) Financial behavior; (iii) Financial knowledge; (iv) Perceived behavior control; (v) Financial skills; (vi) Financial self-efficacy, and a dependent variable of Financial well-being.

**Table 2.** Mean, standard deviation, kurtosis and skewness

| Variables | Mean  | Standard<br>Deviation | Excess<br>Kurtosis | Skewness |
|-----------|-------|-----------------------|--------------------|----------|
| FA1       | 3.576 | 1.002                 | -0.284             | -0.364   |
| FA2       | 3.655 | 0.888                 | -0.017             | -0.299   |
| FA3       | 3.377 | 0.98                  | -0.427             | -0.085   |
| FA4       | 3.847 | 0.905                 | 0.177              | -0.567   |
| FB1       | 3.652 | 1.186                 | -0.717             | -0.518   |
| FB2       | 4.429 | 0.817                 | 1.771              | -1.437   |
| FB3       | 3.83  | 1.073                 | -0.295             | -0.65    |
| FB4       | 3.795 | 0.98                  | -0.13              | -0.523   |
| FK1       | 3.549 | 0.993                 | -0.267             | -0.336   |
| FK2       | 3.722 | 0.982                 | 0.046              | -0.618   |
| FK3       | 4.112 | 0.911                 | 0.651              | -0.938   |
| FK4       | 3.884 | 0.983                 | 0.112              | -0.663   |
| FK5       | 4.318 | 0.796                 | 0.873              | -1.031   |
| PBC1      | 4.249 | 0.832                 | 1.208              | -1.082   |
| PBC2      | 4.067 | 0.964                 | 0.874              | -1.043   |
| PBC3      | 4.219 | 0.853                 | 0.686              | -0.995   |
| PBC4      | 3.749 | 1.022                 | -0.421             | -0.458   |
| FS1       | 3.65  | 0.967                 | -0.331             | -0.344   |
| FS2       | 3.906 | 0.953                 | -0.115             | -0.633   |
| FS3       | 4.064 | 0.852                 | 0.35               | -0.729   |
| FS4       | 3.792 | 0.941                 | -0.351             | -0.386   |
| FSE1      | 4.055 | 0.827                 | 0.097              | -0.619   |
| FSE2      | 3.693 | 0.985                 | -0.44              | -0.407   |
| FSE3      | 3.623 | 0.896                 | -0.244             | -0.201   |
| FSE4      | 3.891 | 0.809                 | -0.452             | -0.265   |
| FSE5      | 3.568 | 0.998                 | -0.327             | -0.286   |
| FWB1      | 3.716 | 1.003                 | -0.198             | -0.486   |
| FWB2      | 3.502 | 1.051                 | -0.351             | -0.41    |
| FWB3      | 3.669 | 0.961                 | -0.105             | -0.429   |
| FWB4      | 3.480 | 1.135                 | -0.486             | -0.501   |

Table 3 and Figure 3 present the result of the first PLS-SEM algorithm analysis based on the proposed research model.

Table 3. The result of PLS-SEM algorithm analysis

| Variables | Items          | Loading | Cronbach's Alpha | Composite Reliability | Average Variance Extracted (AVE) |
|-----------|----------------|---------|------------------|-----------------------|----------------------------------|
| Fin       | ancial Attitu  | ude     | 0.816            | 0.878                 | 0.644                            |
| 1         | FA1            | 0.787   |                  |                       |                                  |
| 2         | FA2            | 0.856   |                  |                       |                                  |
| 3         | FA3            | 0.803   |                  |                       |                                  |
| 4         | FA4            | 0.762   |                  |                       |                                  |
| Fina      | ancial Beha    | vior    | 0.708            | 0.816                 | 0.535                            |
| 1         | FB1            | 0.757   |                  |                       |                                  |
| 2         | FB2            | 0.474   |                  |                       |                                  |
| 3         | FB3            | 0.851   |                  |                       |                                  |
| 4         | FB4            | 0.787   |                  |                       |                                  |
| Fina      | ncial Knowl    | edge    | 0.778            | 0.850                 | 0.535                            |
| 1         | FK1            | 0.789   |                  |                       |                                  |
| 2         | FK2            | 0.841   |                  |                       |                                  |
| 3         | FK3            | 0.782   |                  |                       |                                  |
| 4         | FK4            | 0.566   |                  |                       |                                  |
| 5         | FK5            | 0.646   |                  |                       |                                  |
| Fi        | inancial Skil  | ls      | 0.797            | 0.867                 | 0.621                            |
| 1         | FS1            | 0.820   |                  |                       |                                  |
| 2         | FS2            | 0.796   |                  |                       |                                  |
| 3         | FS3            | 0.701   |                  |                       |                                  |
| 4         | FS4            | 0.828   |                  |                       |                                  |
| Finan     | icial Self-Eff | ficacy  | 0.814            | 0.869                 | 0.57                             |
| 1         | FSE1           | 0.723   |                  |                       |                                  |
| 2         | FSE2           | 0.768   |                  |                       |                                  |
| 3         | FSE3           | 0.739   |                  |                       |                                  |
| 4         | FSE4           | 0.753   |                  |                       |                                  |
| 5         | FSE5           | 0.791   |                  |                       |                                  |
| Perceive  | ed Behavior    | Control | 0.573            | 0.731                 | 0.421                            |
| 1         | PBC1           | 0.477   |                  |                       |                                  |
| 2         | PBC2           | 0.457   |                  |                       |                                  |
| 3         | PBC3           | 0.750   |                  |                       |                                  |
| 4         | PBC4           | 0.827   |                  |                       |                                  |
| Fina      | ncial Well-b   | eing    | 0.850            | 0.898                 | 0.688                            |
| 1         | FWB1           | 0.820   |                  |                       |                                  |
| 2         | FWB2           | 0.861   |                  |                       |                                  |
| 3         | FWB3           | 0.813   |                  |                       |                                  |
| 4         | FWB4           | 0.824   |                  |                       |                                  |

After the first PLS-SEM algorithm in Figure 3 analysis results based on the proposed research model, the variables (i) Perceived behavior control and items (i) FB2, (ii) FK4 and (iii) FK5 were excluded from the model. In the next step, the research con-

ducted the second PLS\_SEM algorithm analysis to derive the final research model in Figure 4.

Table 4 shows the result of the second PLS-SEM algorithm analysis. Figure 4 shows the final

Table 4. The result of the second PLS-SEM algorithm analysis

| Variables               | Cronbach's Alpha | Composite Reliability | Average Variance Extracted (AVE) |
|-------------------------|------------------|-----------------------|----------------------------------|
| Financial Attitude      | 0.816            | 0.878                 | 0.644                            |
| Financial Behavior      | 0.730            | 0.848                 | 0.651                            |
| Financial Knowledge     | 0.811            | 0.889                 | 0.727                            |
| Financial Self-Efficacy | 0.814            | 0.869                 | 0.570                            |
| Financial Skills        | 0.797            | 0.867                 | 0.621                            |
| Financial Well-being    | 0.850            | 0.898                 | 0.689                            |

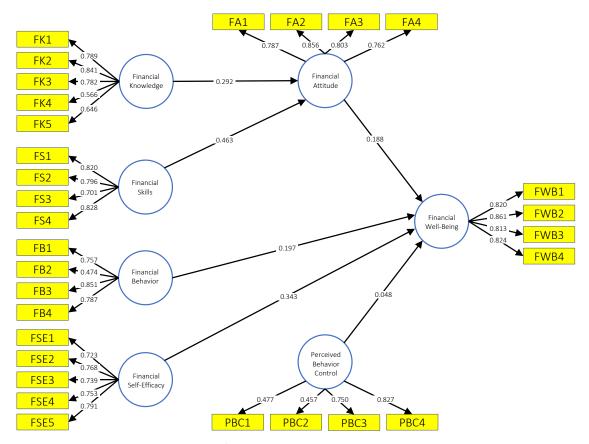


Figure 3. The first PLS-SEM algorithm analysis results

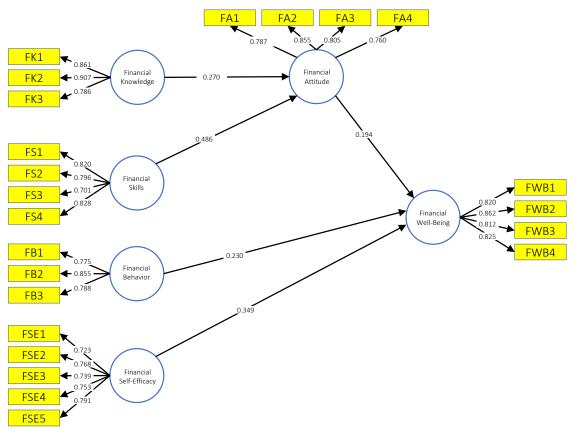


Figure 4. Final model

Table 5. Results of the direct effects

| Hypothesis | Relationship                                   | β     | <i>t</i> -stats | <i>P</i> -values | Decision  |
|------------|------------------------------------------------|-------|-----------------|------------------|-----------|
| H1         | Financial Attitude → Financial Well-being      | 0.194 | 4.386           | 0.000            | Supported |
| Н3         | Financial Behavior → Financial Well-being      | 0.230 | 6.307           | 0.000            | Supported |
| H4         | Financial Self-Efficacy → Financial Well-being | 0.349 | 8.315           | 0.000            | Supported |
| H5.1       | Financial Knowledge → Financial Attitude       | 0.27  | 7.613           | 0.000            | Supported |
| H6.1       | Financial Skills → Financial Attitude          | 0.486 | 14.099          | 0.000            | Supported |

Table 6. Results of the indirect effects

| Hypothesis | Relationship                               | β     | <i>t</i> -stats | P-values | Decision  |
|------------|--------------------------------------------|-------|-----------------|----------|-----------|
| H5         | Financial Knowledge → Financial Well-being | 0.052 | 3.949           | 0.000    | Supported |
| H6         | Financial Skills → Financial Well-being    | 0.094 | 4.113           | 0.000    | Supported |

model on factors affecting the financial well-being of Vietnamese students.

The results of the PLS-SEM model presented in Figure 4 and Table 5 show that the model has a Chi-square statistical value of 1,427.483 with p-value = 0.000 < 0.005. The model receives an SRMR = 0.069 < 0.1 (Hulland, 1999); the research model is concluded to be consistent with the factors affecting Vietnamese students' financial well-being.

The results and reliability of this study were performed through non-parametric Bootstrap analysis (Bootstrap test). The technique of resampling over 1000 observations (n = 1000) with an initial sample size of 658 observations is a suitable strategy to test the model.

Figure 4 and Table 5 describe the path coefficient ( $\beta$ ), t-statistics and p-value of each hypothesis. The results of hypothesis validation in Tables 5 and 6 of the study show that the factors such as (i) Financial Attitude; (ii) Financial Behavior; (iii) Financial Self-Efficacy have a direct impact on the Financial well-being of students in Vietnam. Particularly, two factors, (i) Financial Knowledge and (ii) Financial Skills, have a direct impact on Financial Attitude and an indirect impact on Financial well-being of Vietnamese students.

Hypotheses H1 ( $\beta$  = 0.194, t-stats = 4.386), H2 ( $\beta$  = 0.230, t-stats = 6.307) and H3 ( $\beta$  = 0.349, t-stats = 8.315) are supported and confirmed that the factors of Financial Attitude, Financial Behavior and Financial Self-Efficacy have a positive impact on the Financial Well-being of students in Vietnam.

Hypotheses H4 ( $\beta$  = 0.27, t-stats = 7.613) and H5 ( $\beta$  = 0.486, t-stats = 14.099) show that the factors Financial Knowledge and Financial Skills have a direct impact on the Financial Attitude of Vietnamese students.

Hypotheses H6 ( $\beta$  = 0.052, t-stats = 3.49) and H7 ( $\beta$  = 0.094, t-stats = 4.113) are supported and confirmed the indirect and positive impact of two factors, Financial Knowledge and Financial Skills, on Financial Well-being of students in Vietnam.

#### 4. DISCUSSIONS

The results presented in Tables 5 and 6 show that the financial well-being of Vietnamese students is directly and indirectly affected by five factors: (i) Financial Attitude; (ii) Financial Behavior; (iii) Financial Self-Efficacy, (iv) Financial Knowledge, and (v) Financial Skills.

First, Financial Self-Efficacy is a significant factor that directly, positively and strongly affects the Financial well-being of students in Vietnam. The results of empirical research on students in Vietnam indicate that students' confidence in making and implementing financial plans in the future leads to financial well-being. The results also confirm that the positive relationship between Financial Self-Efficacy and Financial well-being is similar to the studies by Renaldo et al. (2020) and Selvia et al. (2021).

Second, Financial Behavior is the second most influential factor on the financial well-being of students in Vietnam. Research results show a positive relationship that students who have right financial behavior such as budget balance, savings, spending control, risk consideration, etc. have better financial well-being. The empirical research results in Vietnam are quite similar to other previous international studies (Starobin et al., 2013; Mahendru et al., 2020; Chavali et al., 2021; Iramani & Lutfi, 2021; Selvia et al., 2021).

Third, about the Financial Attitude factor, the research results show that Financial Attitude has a direct and positive impact on the Financial well-being of Vietnamese students. Empirical study results show that students with the right, intelligent, and reasonable financial mindset and attitudes often have a more positive financial well-being state. This experimental result is supported by Renaldo et al. (2020).

Fourth, Financial Knowledge has a direct impact on the Financial Attitude factor and has an indirect impact on the Financial well-being of

Vietnamese students. Research results show that Financial Knowledge is the basis for Vietnamese students to form the right Financial Attitude in order to have a more positive financial well-being. Students with better Financial Knowledge often have the right and smart Financial Attitude to achieve better financial well-being (Renaldo et al., 2020; Mahendru et al., 2020; Chavali et al., 2021; Iramani & Lutfi, 2021; Selvia et al., 2021; Sehrawat et al., 2021).

Finally, the Financial Skills factor has an indirect and positive impact on the Financial well-being of students in Vietnam through Financial Attitude. Empirical research results confirm that students with better Financial Skills often have better Financial Attitude because they have a more effective plan for budgeting, spending and investment. As a result, students with better Financial Skills often have a better financial well-being with a more appropriate Financial Attitude (Mahendru et al., 2020).

#### CONCLUSION

The purpose of this empirical study is achieved when five groups of factors were identified that have a direct and indirect impact on the financial well-being of Vietnamese students. The main results show that Financial Self-Efficacy is the factor that has the strongest impact on financial well-being of Vietnamese students. Following are the factors Financial Behavior, Financial Attitude, Financial Knowledge and Financial Skills that are significant and affect the financial well-being of Vietnamese students. The study used the PLS-SEM method with a bootstrapping technique and re-sampling of 1000 to analyze the direct and indirect effects of factors on the financial well-being of Vietnamese students.

Although some specific objectives have been achieved, the study still has certain limitations such as: (i) surveyed students live mainly in Ho Chi Minh city. Therefore, these surveyed students do not represent all students in Vietnam; (ii) the representativeness of the research sample is not high due to the used snowball sampling method; and finally, (iii) the sample size of only 658 is too small to represent all of the nearly 1.7 million students in Vietnam.

The paper recommends that in order to help Vietnamese students achieve financial well-being, education managers and universities need to pay attention to providing financial knowledge and financial skills to Vietnamese students. In addition, the formation of good and correct Financial Behavior and Financial Attitude is very important from the family for students in Vietnam to achieve a state of financial well-being.

#### **AUTHOR CONTRIBUTIONS**

Conceptualization: Nguyen Minh Sang. Data curation: Nguyen Minh Sang. Formal analysis: Nguyen Minh Sang. Methodology: Nguyen Minh Sang. Visualization: Nguyen Minh Sang.

Writing – original draft: Nguyen Minh Sang. Writing – review & editing: Nguyen Minh Sang

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