

Exploratory Factor Analysis (EFA) And Reliability Analysis of Financial Well-being Instrument Among Trainee Teachers

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Abstract

Financial Well-Being (FWB) of a person leads to a prosperous and happy life. Financial problems such as bankruptcy become an obstacle to the achievement of the desire to achieve FWB. Nevertheless, as per past literature with respect to FWB, financial problems with high indebtedness are among the youth. Therefore, Exploratory Factor Analysis (EFA) was employed in this study to test the validity and reliability of instruments that can measure FWB. To establish reliable measurements with regard to the FWB construct, this paper utilised a cross-sectional research methodology. The items were adapted as well as modified to fit the needs of this study. A structured questionnaire was used to collect data from 100 randomly chosen young people from the Institute of Teacher Education (IPG). The study then used Statistical Package for the Social Science (IBM-SPSS) version 22.0 to perform EFA. Initially, a total of 19 items were created to measure the FWB construct. Nonetheless, after completing the EFA technique, this research discovered that all 19 items with factor loadings more than the threshold of .60 were kept and declared fit for measuring the FWB construct. This investigation evaluated the parameters used to calculate FWB. As a result, this instrument is helpful to Malaysian universities or institutions responsible for training teachers by testing their FWB before graduation. This study presents that this measuring tool has construct validity and reliability that can be used for research purposes to measure the FWB of youth among trainee teachers.

Keywords: Financial Well-Being (FWB), Financial Ability, Financial Comfort, Financial Resilience.

Introduction

Malaysian's FWB is the nation's top priority in the National Financial Literacy Strategy (SLKK) 2019-2023. The goal of the strategy has also been outlined, which is to ensure that all Malaysians of all ages are skilled and confident in making financial decisions to attain FWB. It

can be achieved through knowledge empowerment by improving people's financial literacy so that people can make wise financial decisions. Note that financial education is a prerequisite to support and empower the nation's desire for the people to achieve FWB. Bank Negara Malaysia is one of the agencies held accountable by the Malaysian government for making the SLKK 2019-2023 successful (Malaysia National Strategy for Financial Literacy 2019-2023, 2019). This strategy is designed and compiled with relevant parties to ensure Malaysians achieve FWB. Consequently, FWB is attainable, provided that financial problems can be overcome (Malaysia National Strategy for Financial Literacy 2019-2023, 2019). Financial problems related to high indebtedness, bankruptcy, job loss, inability to buy current necessities, no savings, or dwindling savings are the causes of difficulty in achieving FWB.

The Credit Counselling and Debt Management Agency (AKPK) study, which crosses different incomes, discovered that the overall FWB level pertaining to Malaysian households is between medium and low. In contrast, the level of individual well-being discovered that the FWB of the B40 group is the lowest. The financial difficulties faced by the B40 group reflect the high financial pressure and make it difficult to improve their FWB (Mahdzan et al., 2020). Moreover, the Malaysian People's Well-Being Index (IKRM) reports that the percentage of the index decreased by 2.1% in 2019 due to the global economy struggling with covid-19 (Department of Statistics Malaysia, 2022). In contrast, the bankruptcy problem recorded an upsurge in the number of cases. In 2022, the number of bankruptcy cases administered will be as many as 5,695 cases. From 2018 to 2022, it was reported that almost 60% of individuals involved in bankruptcy cases were youth under age 54 (Department of Statistics Malaysia, 2022).

The difficulty of achieving FWB is due to financial problems with high indebtedness among the youth. A total of 54.3% of youth in the city are involved with mortgage loans, whereas 33.3% of them have personal loans. Other than that, 34% of young people possess insufficient income, and 47% of them own more debt than assets, as per the ratio of assets to debt (Bukhari et al., 2020; M. F. Sabri & Dass, 2017). The Bank Negara report (2019) related to Malaysia's level of financial knowledge indicates that 51.54% have basic financial knowledge, and only 37% of Malaysians are financially literate (Bank Negara Malaysia, 2020). Apart from that, the youth's level of financial literacy is low, especially concerning interest rates, inflation, and risk diversification. Almost half of all respondents among the youth still do not know about the concept of investment. Most youths are discovered to lack knowledge in some aspects of financial management, especially those related to credit, takaful, and Islamic finance (Abdullah et al., 2013, 2019; F. Sabri et al., 2018; M. F. Sabri & Zakaria, 2015).

A study by AKPK present that those who face difficulties in achieving FWB are those who experience a high cost of living (36.8%), poor financial planning (36%), business failure (11.7%), job loss (8.9%) and medical education high (5.4%). AKPK Operations Division General Manager, Nor Fazleen Zakaria stated that every year the age group (30 to 40 years old) dominates the number of credit management participants due to several factors, including a lack of proper financial planning and expensive living expenses. As per AKPK statistics, a total of 246,041 participants in the program were recorded as of last year, and 100,543 people (40.9%) were involved in the age group of 30 to 40 years (AKPK, 2020).

If the issue of heavy debt or bankruptcy can be handled from the start, FWB can be attained. Based on this finding, the national bank organises strategies through SLKK. Financial literacy education is important to be developed in the national education curriculum as an initial step to achieving holistic national well-being. Other than that, the teaching and learning of financial literacy also need to be improved with current changes and needs so that the well-

being of people's lives can be achieved according to the era of the 21st century (Bank Negara Malaysia, 2020).

Concerning financial issues and problems, it is increasingly difficult to overcome the pandemic due to covid-19. The country's economy is undergoing an era of recovery, which is the right time for all parties to take appropriate steps toward achieving FWB. Furthermore, researchers find it an opportune time to explore smart steps to prepare graduates to acquire financial literacy in order for them to obtain FWB before graduation. This situation also prompts higher education to shoulder the responsibility of equipping students by ensuring that graduates have strong financial resilience to face the economic turmoil after graduation. Note that bankruptcy factors among youth are closely related to high indebtedness. The study's results indicate that high indebtedness among the youth who have graduated is due to their attitude and how they control and manage their finances (Syah et al., 2022).

The IPG has provided financial education to IPG trainee teachers in Malaysia since 2014. Financial education at IPG focuses on aspects of personal financial management for trainee teachers to be applied during and after they graduate. Financial education at IPG, or the Financial Literacy course, is offered to all trainee teachers in the Bachelor of Teacher Education program (PISMP). Note that the Financial Literacy Course is implemented using a personal finance financial management module with course content parallel to the elements of financial literacy provided in the primary and secondary school curriculum (Institut Pendidikan Guru Malaysia, 2013; Salleh et al., 2020). Graduates, among teacher trainees, also need to be trained and equipped with financial education knowledge so that they can not only achieve FWB but also convey knowledge about effective financial education (Salleh et al., 2020). Despite this, there are currently not enough studies on well-being conducted on IPG trainee teachers. Therefore, the researcher conducted a study that measured the validation and reliability of the FWB item of IPG trainee teachers. The following are the research's goals:

- To test the construct validation with regards to the instrument of the Financial Well-Being (FWB) of teacher trainers
- To test the reliability of the Financial Well-Being (FWB) construct of trainee teachers

Literature Review

Financial well-being (FWB)

FWB is the capacity of a person to fulfil existing financial management obligations, withstand shocks to income, realise future financial goals, and make financial choices that enhance the overall quality of life. FWB is like a business that is in a good financial condition to face unexpected financial challenges and take advantage of emerging opportunities to increase and secure future financial growth (Bank Negara Malaysia, 2020; Barrafreem et al., 2020; Mokhtar, 2018; Sehwat et al., 2021).

The term "FWB" refers to an individual's financial condition that can meet current needs, provide comfort to the whole household, and also security to face challenges in the future (Sehwat et al., 2021). However, some assessed the level of FWB via material and financial status. Financial status is related to material and non-material. Meanwhile, improving the standard of living is assessed through the ability to meet basic needs, comfort, and financial security. Being satisfied with the income obtained depends on a person's perception in assessing the standard of living (Chikezie & Sabri, 2017). Therefore, FWB is a tool to measure an individual's degree of concern regarding their ability to meet both immediate and long-term financial requirements. This FWB is also used as an indicator to make current financial

improvements for those who are more comfortable with achieving FWB later in life (Barrafrem et al., 2020). FWB operates on an individual's assessment of their own finances. Hence, it can only assess FWB individually. A person will evaluate their financial level based on the life situation they experience (Brüggen et al., 2017). Other than that, the FWB definition is divided into two ways of explanation, namely, objectively and subjectively. The objective meaning of FWB explains the income of an individual, while the subjective meaning refers to how a person manages their finances (Mohamed, 2017; Razali et al., 2021). It also states that FWB is a condition when a person is in control of their finances, feels financially secure both now and in the future, and is able to cover expenses while still having money to spare (Muir et al., 2017). Based on the definition discussed above, it can be more clearly stated that the meaning of a person's well-being includes the financial ability to meet current needs, financial comfort for a comfortable life, and financial resilience to ensure strong finances to face any problems in the future.

Financial Capability

Financial capability refers to a person's ability to perform financial responsibilities to provide basic needs, spend on daily goods and meet current needs, including the ability to get all the necessities without borrowing or going into debt. In general, financial ability can be defined as someone who can practice spending according to current needs with sufficient finances without spending more than their income (Mokhtar, 2018). Financial ability is when an individual feels financially prosperous when they have enough money to meet their current needs without borrowing from others. An individual is deemed capable of earning a living if they are in a position to pay their bills on time, purchase desired goods, and is not in debt to buy basic needs. Some even say they have achieved FWB when their financial situation has the ability to pay all of their existing financial obligations (Sehrawat et al., 2021).

Organisations and leaders are implementing national policies trying to help the next generation have the ability to achieve financial capability through new models and shaping strategies and priorities. Here, the financial capability development model can explain how young people typically develop the attitudes, habits, skills, and cognitive abilities they need to effectively manage their financial resources and achieve well-being as adults (Consumer Financial Protection Bureau, 2019). The Canadian Financial Capability Survey (CFCS) was designed to provide information about Canadians' financial decision-making on knowledge, skills, and attitudes. While learning about Canadians' understanding of financial services and approaches to budgeting, day-to-day financial management, financial planning, and long-term money management for the future also aids those Canadians who are struggling with their finances (Financial Consumer Agency of Canada, 2019).

Financial Comfort

Financial comfort is when a person has implemented financial management wisely, starting with good planning and obtaining a financial surplus for savings after spending all the necessities. Apart from that, financial comfort is obtained through savings and investments, gaining awareness of every cent of their money usage. In addition, they can buy goods according to their brand choice with a clear knowledge of the goods they buy. Financial comfort can provide the opportunity to pay zakat or give charity to relatives and close friends. In other words, financial comfort is when a person feels that their finances are sufficient for current needs and there is a surplus to enjoy a more comfortable life. Being in a situation where one can comfortably retire, fulfil short-term and long-term financial goals, and have

some spare cash at the end of the month means being in a comfortable financial position (Mokhtar, 2018).

Razali et al. (2021) categorise subjective FWB into three domains, namely sufficiency, comfort, and satisfaction. Financial comfort is focused on the condition of a person buying goods for comfort. The situation can also be linked to using money to meet a comfortable lifestyle for a person. Note that the majority stated that saving is for emergencies which is also a concept of FWB. Another financial comfort item is when one has a provision for children's education. Therefore, they are more careful in using finance as financial control to ensure they feel comfortable and at ease if any difficulty befalls them later (Razali et al., 2021).

Financial Resilience

Financial resilience is associated with someone who practices planned spending, setting aside savings before managing fixed and irregular expenses. Consequently, financial resilience is when a person can defend their finances for a more challenging future, and their finances are not affected when difficult and difficult situations appear suddenly. Financial resilience is the capacity to access and employ one's own resources and materials from external sources that are suitable, acceptable, and attainable in times of need (Muir et al., 2017). It is also defined as the capacity to adapt or endure in the face of both anticipated and unforeseen financial situations, challenges, and unexpected events in life (Financial Consumer Agency of Canada, 2019, 2021). When someone can afford RM1,000 in emergency charges, RM 2,500 in medical bills, and three months' worth of living expenses in the event of a layoff, that individual is deemed to exhibit financial resilience (Mokhtar, 2018). On the other hand, financial resilience is the financial strength of the whole household, being able to maintain finances and overcome shocks in the reduction of income (Castellanos-Gamboa, 2020; Lusardi et al., 2021). In January 2020, an example of when financial fragility occurred, there were 27% of respondents financially fragile. Moreover, it occurred prior to the pandemic's economic impact. It has been reported that they find it difficult to make ends meet. Meanwhile, 31% of respondents felt that constraints from debt payments caused insufficient finances to address other financial priorities, and 38% reported that they did not save regularly in preparation for retirement. Furthermore, financial resilience becomes more fragile when a pandemic occurs. Many Americans are facing financial stress due to their inability to save, and during the pandemic, many were laid off (Lusardi et al., 2021).

Methodology

This study employs a questionnaire designed to measure the reliability and validity pertaining to the construct of FWB among IPG trainee teachers. Quantitative data was obtained through an online self-administered survey questionnaire. Note that this study involves a literature review as a way to examine the items utilised in measuring the FWB constructs. A total of 100 respondents among IPG trainee teachers were randomly selected before the distribution of the questionnaire (Baistaman et al., 2020; Jani et al., 2023; Memon et al., 2020; Munisamy et al., 2022). Subsequently, EFA was used in IBM-SPSS version 22.0 to analyse the data.

Research instrument

This study uses a 19-item instrument that has been adapted from previous studies as an instrument to measure FWB according to the suitability of the respondent's situation among trainee teachers (Mahdzan et al., 2020; Mokhtar, 2018; M. F. Sabri & Zakaria, 2015; Zaimah, 2019). Respondents were asked to respond confidently to the statement that best describes

their financial situation. Here, the FWB instrument has three sub-constructs based on prior research: financial ability, comfort, and resilience (Mahdzan et al., 2020b; Mokhtar, 2018b). This study employs a 7-point Likert scale. For reliability of perception from respondents in the survey, relative to the 5-point scale, the 7-point scale most certainly reveals higher performance. A 7-point scale offers additional options and indicates more information. Other than that, the 7-point scale can increase the probability of meeting the objective reality of the respondent's choice. In addition, the 7-point scale as a motive attracts more attention to the respondent's mind to make a choice (Fan & Park, 2021; Hair & Brunsveld, 2019; Joshi et al., 2015; Mahdzan et al., 2020; Munisamy et al., 2022; Wu & Leung, 2017).

Expert Content Validation

The literature review helps generate temporary items to be included in the questionnaire. Face validity and content validity are the steps that come afterwards. The expert services of evaluators have been employed to assess the items used. Correspondingly, the refinement of construct items was done by the experts (Muda et al., 2020; Munisamy et al., 2022; Sehwat et al., 2021). Items were reworded, edited, added, and deleted, and item statements were reviewed as part of the refinement process. After the questionnaire had been modified, it was reviewed by two experts: senior lecturers and professors, for face validity and content validity as a pre-test. This was done to make sure that the instrument items were appropriate for the research's objective and easy to understand. Note that a professional statistician determines the criteria for validity and certifies that the scale chosen to assess the data is appropriate for statistical analysis. In order to avoid asking the same thing twice, several questions were simplified and rearranged in response to the experts' significant comments. Consequently, the researcher distributes the questionnaire to the respondents to collect data from at least 100 respondents for EFA after making all the necessary adjustments in light of the pre-test outcomes (Baistaman et al., 2020; Hair et al., 2020a; Rahlin et al., 2023).

Pilot Test

A pilot study is a mini study of an actual study conducted using study respondents taken from the actual research population. This pilot study aims to see a few things before the actual research. It ensures that the study sample resembles the population's characteristics, determines the shortcomings of the study instrument, and provides preliminary findings about the completeness of the study hypothesis. The importance of a pilot study is to guarantee that the actual investigation can be carried out smoothly by making improvements and refining deficiencies or errors obtained from the findings of the pilot study. According to (Ehido et al., 2020), (Bahkia et al., 2019), (Hoque et al., 2018), (Rahlin et al., 2023), and (Shkeer & Awang, 2019), pre-testing and pilot testing are required to validate the modified instrument. This is crucial, especially if the original instrument was designed for a different culture and industrial population from this study (Baistaman et al., 2020).

Exploratory Factor Analysis (EFA)

Analysis of research data was done using IBM SPSS version 22.0 software, with instrument validity testing and construct validity tested through EFA using varimax rotation. Note that EFA is required to determine the fundamental layout of the analysis's variables. Factors are latent constructs that represent a group of things for measurement but cannot be measured directly. When there is uncertainty regarding the number of potential factors in a set of variables, the EFA approach is utilised (Ehido et al., 2020; Hair et al., 2020; Zainudin et al.,

2018). The EFA procedure needs to be performed on each construct to identify if there is a difference in item dimensions with previous studies.

On the other hand, the researcher employed Cronbach's Alpha statistical test to evaluate the instrument's level of reliability (Ali et al., 2021; Jani et al., 2023; Zakaria et al., 2016). The researcher implemented an EFA to establish the dimensions of the items that assess each construct employing data gathered from the pilot study on whether all items fall into one or several dimensions. At this level, researchers can rename the appropriate dimensions (Mahdzan et al., 2020; Sahid & Habidin, 2018; Zainudin et al., 2018). EFA analysis should be conducted on each construct to check whether there are changes in the dimensions of the latest research item with previous research and also differences in terms of population characteristics (Bahkia et al., 2019; Dehisat & Awang, 2020; Rahlin et al., 2021; Shkeer & Awang, 2019; Yahaya et al., 2018).

Result

Exploratory Factor Analysis (EFA) of Financial Well-Being (FWB)

Table 1 displays descriptive statistics for each of the 19 items in the questionnaire (denoted as Q1 to Q19), which measure the FWB construct. Each item's mean value is between 5.66 and 6.12, and its standard deviation lies between 0.653 and 0.816.

The three fundamental components that comprise the FWB construct from the literature research were used to analyse the EFA process. Here, each subcomponent pertaining to FWB (financial capability, financial comfort, as well as financial resilience) was examined simultaneously. EFA analysis was used. Consequently, 19 items were grouped into three different components, and all 19 items were retained because all factor loadings were above 0.6 after the analysis was conducted. The items categorised under each component are shown in the rotated component matrix accordingly.

Table 1

Descriptive statistics pertaining to items that measure of FWB construct.

Item	Statement	Mean	Std. deviation
	Financial Ability		
Q1	I am satisfied with my current financial level.	6.01	.718
Q2	I am satisfied with my financial situation today.	6.09	.653
Q3	I often deal with adequate allowances/scholarships	6.05	.716
Q4	I manage well the payment of bills (electricity, telephone, installment payments, credit cards).	6.03	.703
Q5	I am confident that my financial position is stable enough to cover my daily needs.	6.12	.656
Q6	I don't need to borrow to buy basic necessities	6.10	.704
Q7	I can afford the things I want	6.03	.745
	Financial comfort		
Q8	I feel my current finances are sufficient.	5.72	.740
Q9	I feel my financial situation is at a comfortable level.	5.80	.816
Q10	I am confident that I have enough money to support my old age.	5.68	.750
Q11	I am confident that my financial position is stable enough to live comfortably after retirement.	5.73	.763

Item	Statement	Mean	Std. deviation
Q12	I am confident of achieving my long-term financial goals	5.75	.796
Q13	I have money left at the end of the month	5.68	.777
Q14	I am confident that my financial position is stable enough to cover the cost of a vacation of RM4,000	5.66	.742
Q15	Financial resilience I am confident that I have the power to control my personal finances.	5.99	.772
Q16	I am confident that my finances can cover emergency expenses of RM1,000	5.94	.722
Q17	I am confident that my finances are stable enough to cover medical costs of RM2,500.	5.97	.658
Q18	I feel my financial future is very strong.	5.99	.689
Q19	I am confident that my finances can cover expenses for three months if I am laid off.	6.03	.658

Kaiser-Meyer-Olkin (KMO)

EFA was performed on 19 items that measure the FWB construct via the principal component extraction approach with varimax rotation (variation maximisation). Table 2 displays the findings, demonstrating a significant Bartlett's Test of Sphericity value (p -value < 0.05). Other than that, the Kaiser-Meyer-Olkin (KMO) measurement of sample accuracy is favourable since it fulfils the predetermined value of 0.6 (Dehisat & Awang, 2020; Munisamy et al., 2022). Bartlett's Test is also significant, with $KMO > 0.6$, both establishing that the data are eligible to proceed with the next step in the data reduction process (Dehisat & Awang, 2020; Munisamy et al., 2022).

Table 2

KMO and Bartlett's for Financial Well-being

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.917
Bartlett's Test of Sphericity	Approx. Chi-Square	1867.656
	df	171
	Sig.	.000

Components and Total Variance

With regard to Eigenvalues larger than 1.0, the findings presented in Table 3 demonstrate that there exist three dimensions or components emerging as a consequence of the EFA technique. Component 1 has a variance value of 57.52%, Component 2 of 13.15%, and Component 3 of 6.47%. Hence, the variance value for the three components is 77.17%. This indicates that each component's number of components and items is appropriate to assess the FWB construct as the total variance exceeds 60% (Dehisat & Awang, 2020; Munisamy et al., 2022).

Table 3
 Components and total variance explained for the Financial Well-Being (FWB) constructs

Components	Initial eigenvalues			Extraction sums of squared loadings		
	Total	Variance (%)	Cumulative	Total	Variance (%)	Cumulative
Financial ability	10.928	57.518	57.518	10.928	57.518	57.518
Financial comfort	2.498	13.150	70.668	2.498	13.150	70.668
Financial resilience	1.234	6.497	77.165	1.234	6.497	77.165

Additionally, the screen plot for the FWB construct divides the 19 items into three components (Figure 1). Three components for this construct resulted from the EFA method, as presented by the screen plot in Figure 1. Subsequently, the 19 items were divided into three groups by the EFA procedure. There are a specific number of items for each component, which are arranged under their respective components in the rotated component matrix (Ehido et al., 2020; Jani et al., 2023). In summary, according to the Eigenvalue, cumulative value, as well as scree plot, FWB consists of three components.

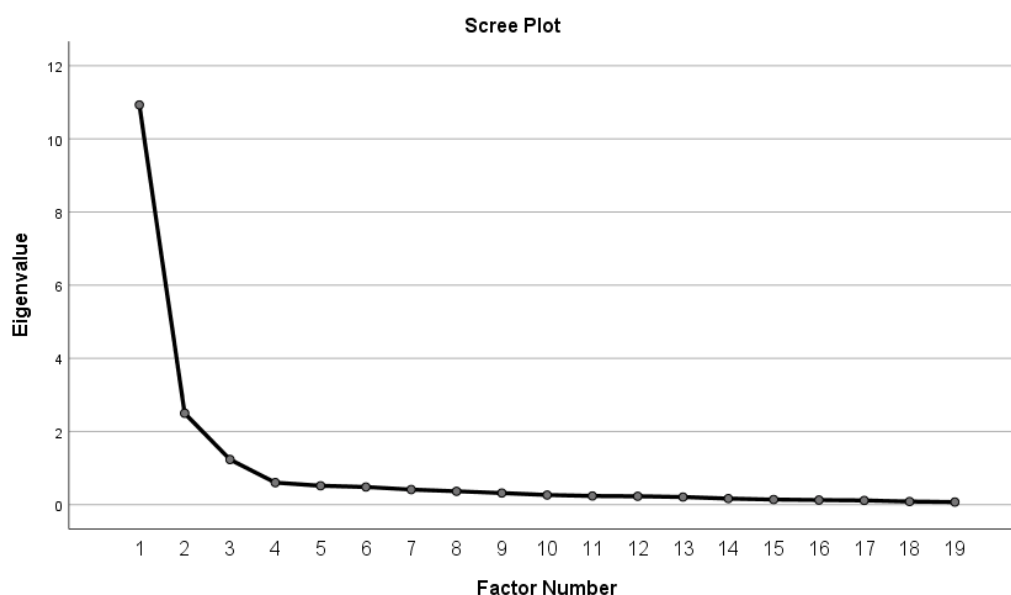


Figure 1. Screen plot of the Financial Prominence construct

Rotation Component Matrix

The decision for the division of dimensions or components comes next. Table 4 below presents the three dimensions or components formed from the EFA procedure on 19 items. The latent factor value for each item is above 0.6. However, no items need to be discarded because all items have latent factor values that meet conditions above 0.6 (Awang et al., 2018). Hence, all items are maintained together with three components.

Table 4

EFA and each item in the components

Item	Component 1	Component 2	Component 3
Q1	.791		
Q2	.829		
Q3	.786		
Q4	.848		
Q5	.827		
Q6	.845		
Q7	.734		
Q8		.821	
Q9		.738	
Q10		.766	
Q11		.797	
Q12		.763	
Q13		.824	
Q14		.678	
Q15			.695
Q16			.781
Q17			.821
Q18			.780
Q19			.797

Reliability

Calculating each construct's internal reliability is the last phase. Considering there are three components that are utilised for measuring this construct, it is important to determine Cronbach's Alpha for each component. This is vital in order to evaluate the internal reliability of particular components used to measure the construct. As per Table 6, it can be seen that Cronbach's Alpha test for all three components reached 0.9 and exceeded 0.7, confirming the reliability of this component (Ali et al., 2021; Dehisat & Awang, 2020; Ehido et al., 2020; Munisamy et al., 2022).

Table 6

Cronbach's Alpha for each component and construct

No	Component	Number of items	Cronbach's Alpha
1	Financial ability	7	0.944
2	Financial comfort	7	0.939
3	Financial resilience	5	0.946
4	Financial well-being	19	0.958

Discussion

This study aims to measure the validity and reliability of FWB items among IPG trainee teachers using the EFA procedure. The use of a 7-point interval scale is used because it offers more precision for the measurement model compared to a 5-point scale and provides greater choice and freedom. This study uses a sample size of 100 among trainee teachers which is sufficient to measure using EFA (Abdol Jani et al., 2023; Baistaman et al., 2020; Munisamy et al., 2022). Based on the EFA results, the three components that measure the FWB construct

explain 60.0% of the variance in the relationship between items. All 19 items in the questionnaire were retained because all 19 items for the FWB construct have factor loadings above 0.50. The final findings of this study have established three components for the FWB construct. The three components also have high reliability (Cronbach's α from 0.939 to 0.946) (Dehisat & Awang, 2020; Hoque et al., 2018; Munisamy et al., 2022). Further research is still needed to determine the existing relationships between the latent variables through confirmatory factor analysis (CFA) procedures.

Limitations And Recommendations

The challenge beyond the researcher's control is to get respondents among the trainee teachers. Through the pandemic era, researchers have employed online questionnaire administration via email. Subsequently, respondents are randomly selected using an Excel application using an email table. However, respondent feedback is difficult to obtain. It is suggested for future research to administer the questionnaire face-to-face. The first limitation is by attending in person on campus since the respondents of this study are only IPG trainee teachers. Therefore, the study after this can be extended to trainee teachers from IPT that offer teacher education programs. In addition, this study is limited to using an FWB questionnaire using three constructs: financial ability, financial comfort, and financial resilience. There are likely to be other items that can measure the FWB of trainee teachers.

Conclusion

The findings of EFA indicate that the construct of FWB can be measured using several components, and each of them is represented by a number of related items. As per the findings pertaining to the instrument's reliability, the items for the three components, namely financial ability, financial comfort, and financial resilience, can measure the construct of FWB because all three constructs show good internal consistency. The three components' readings for Cronbach's Alpha values were higher than the required threshold of 0.7. In order to measure the FWB construct, the researcher can rearrange the items for each component and be able to use it for data collection for the actual study.

Contribution of this Research

This study has helped researchers gain validity and reliability through EFA to continue the actual study at the next level by increasing the number of respondents. Future study is advised to acquire the necessary components to measure FWB more precisely.

References

- Abdullah, N., Fazli, S. M., & Arif, A. M. M. (2019). The relationship between attitude towards money, financial literacy and debt management with young worker's financial well-being. *Pertanika Journal of Social Sciences and Humanities*, 27(1), 361–387.
- Abdullah, N., Sabri, M. F., Rahim, H. A., Othman, Mohd. A., Arif, A. M. M., & Zakaria, N. F. (2013). Pengurusan kewangan dalam kalangan pekerja muda. *Jurnal Pengguna Malaysia*, 34, 16–34.
- AKPK. (2020). Sahabat kewangan anda annual report 2020. *Agensi Kaunseling Dan Pengurusan Kredit (AKPK)*, 5(1), 33–37.
- Ali, Z. M., Ismail, N. N., Suradi, N. U. R. R., Mustafa, Z., & Ismail, M. (2021). Faktor penentu kesejahteraan kewangan dalam kalangan belia melayu menggunakan pemodelan kuasa dua terkecil separa. *Journal of Quality Measurement and Analysis*, 17(2), 51–64.

- Awang, Z., Hui, L. S., & Zainudin., N. F. S. (2018). *Pendekatan mudah structural equation modeling*. MPWS Rich Resources Sdn. Bhd.
- Bahkia, A. S., Awang, Z., Afthanorhan, A., Ghazali, P. L., & Foziah, H. (2019). Exploratory factor analysis on occupational stress in context of Malaysian sewerage operations. *AIP Conference Proceedings*, 1–6. <https://doi.org/10.1063/1.5121111>
- Baistaman, J., Awang, Z., Afthanorhan, A., & Zulkifli Abdul Rahim, M. (2020). Developing and validating the measurement model for financial literacy construct using confirmatory factor analysis. *Humanities and Social Sciences Reviews*, 8(2), 413–422. <https://doi.org/10.18510/hssr.2020.8247>
- Bank Negara Malaysia. (2020). *Economic and monetary review*.
- Barrafrem, K., Västfjäll, D., & Tinghög, G. (2020). Financial well-being, COVID-19, and the financial better-than-average-effect. *Journal of Behavioral and Experimental Finance*, 28, 1–5. <https://doi.org/10.1016/j.jbef.2020.100410>
- Brüggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. *Journal of Business Research*, 79, 228–237. <https://doi.org/10.1016/j.jbusres.2017.03.013>
- Bukhari, N. J., Hyun, K. K., Idris, A., & Yunus, M. M. (2020). Budaya dan kesannya ke atas perbelanjaan belia melayu Kuala Lumpur. *Journal of Social Sciences and Humanities*, 17(4), 9–26.
- Castellanos-Gamboa, S. (2020). *Essays on consumer credit in the United Kingdom: Consumer protection, consumption and well-being, and financial resilience*. Bangor University.
- Chikezie, O. C., & Sabri, M. F. (2017). The financial well-being of Nigerian students in Universiti Putra Malaysia. *Journal of Education and Social Sciences*, 6(2), 287–294.
- Consumer Financial Protection Bureau. (2016). *Building blocks to help youth achieve financial capability. A new model and recommendations*.
- Consumer Financial Protection Bureau. (2019). *Getting started with measuring financial well-being: A toolkit for financial educators*.
- Dehisat, M. M., & Awang, Z. (2020). Exploring items and developing instrument for measuring organizational performance among small medium enterprises in Jordan. *International Review of Management and Marketing*, 10(6), 51–57. <https://doi.org/10.32479/irmm.10531>
- Department of Statistics Malaysia. (2022). *Indeks kesejahteraan rakyat Malaysia (IKRM) 2021*.
- Ehido, A., Awang, Z., Abdul Halim, B., & Ibeabuchi, C. (2020). Developing items for measuring quality of work life among Malaysian academics: An exploratory factor analysis procedure. *Humanities and Social Sciences Reviews*, 8(3), 1295–1309. <https://doi.org/10.18510/hssr.2020.83132>
- Fan, L., & Park, N. (2021). Factors mediating the association between financial socialization and well-being of young adults: Testing a conceptual framework. *Journal of Financial Counseling and Planning*, 32(2), 202–216. <https://doi.org/10.1891/JFCP-20-00056>
- Financial Consumer Agency of Canada. (2019). *Canadians and their money : Key findings from the 2019 Canadian financial capability survey*.
- Financial Consumer Agency of Canada. (2021). *Make change that counts : National financial literacy strategy 2021-2026*. Financial Consumer Agency of Canada.
- Hair, J. F., & Brunsveld, N. (2019). *Essentials of business research methods*. Routledge. <https://doi.org/10.4324/9780429203374>

- Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110. <https://doi.org/10.1016/j.jbusres.2019.11.069>
- Hoque, A. S. M. M., Siddiqui, B. A., Awang, Z. Bin, & Baharu, S. M. A. T. (2018). Exploratory factor analysis of Entrepreneurial orientation in the context of Bangladeshi small and medium Enterprises (SMEs). *European Journal of Management and Marketing Studies*, 3(2), 81–94. <https://doi.org/10.5281/zenodo.1292331>
- Institut Pendidikan Guru Malaysia. (2013). *Modul pengurusan kewangan peribadi* (Institut Pendidikan Guru Malaysia, Ed.). Institut Pendidikan Guru Malaysia.
- Jani, W. N. F. A., Razali, F., Ismail, N., & Ismawi, N. (2023). Exploratory factor analysis: Validity and reliability of teacher's Knowledge construct instrument. *International Journal of Academic Research in Progressive Education and Development*, 12(1), 944–953. <https://doi.org/10.6007/ijarped/v12-i1/16236>
- Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, 7(4), 396–403. <https://doi.org/10.9734/bjast/2015/14975>
- Lusardi, A., Hasler, A., & Yakoboski, P. J. (2021). Building up financial literacy and financial resilience. *Mind and Society*, 20(2), 181–187. <https://doi.org/10.1007/s11299-020-00246-0>
- Mahdzan, N. S., Zainudin, R., Abd Sukor, M. E., Zainir, F., & Wan Ahmad, W. M. (2020). An exploratory study of financial well-being among Malaysian households. *Journal of Asian Business and Economic Studies*, 27(3), 285–302. <https://doi.org/10.1108/JABES-12-2019-0120>
- Malaysia national strategy for financial literacy 2019-2023. (2019). In *Financial Education Network*.
- Memon, M. A., Ting, H., Cheah, J.-H., Thurasamy, R., Chuah, F., & Cham, T. H. (2020). Sample size for survey research: Review and recommendations. *Journal of Applied Structural Equation Modeling*, 4(2), 1–20. [https://doi.org/10.47263/jasem.4\(2\)01](https://doi.org/10.47263/jasem.4(2)01)
- Mohamed, N. A. (2017). Kesejahteraan kewangan generasi muda : Satu kerangka konseptual. *Seminar on Transdisiplin Education (STEd2017)*, 206–217.
- Mokhtar, M. M. (2018). *Financial behaviour and state of financial well-being of Malaysian working adults*.
- Muda, H., Baba, Z. S., Awang, Z., Badrul, N. S., Loganathan, N., & Ali, M. H. (2020). Expert review and pretesting of behavioral supervision in higher education. *Journal of Applied Research in Higher Education*, 12(4), 767–785. <https://doi.org/10.1108/JARHE-02-2019-0029>
- Muir, K., Hamilton, M., Noone, J. H., Marjolin, A., Salignac, F., Saunders, P., & Australia, F. L. (2017). *Exploring financial wellbeing in the Australian context*.
- Munisamy, A., Sahid, S., & Hussin, M. (2022). Exploratory factor and reliability analysis of financial literacy instrument to assess low-income groups in Malaysia. *Journal of Social Economics Research*, 9(1), 39–51. <https://doi.org/10.18488/35.v9i1.2966>
- Rahlin, N. A., Awang, Z., & Fauzi, S. N. M. (2023). A mediation model of safety performance in small and medium enterprises: A structural equation modelling. *Lecture Notes in Networks and Systems*, 856–866. https://doi.org/10.1007/978-3-031-08954-1_72
- Rahlin, N. A., Bahkia, A. S. @ S. A., Zainudin Awang, Razak, R. A., & Idris, S. (2021). A step by step of content validity assessment process on approach towards safety knowledge, safety climate and SMEs safety performance framework. *Journal of Contemporary*

- Issues in Business and Government*, 27(2), 6253–6271.
<https://doi.org/10.47750/cibg.2021.27.02.61>
- Razali, M. F., Rosnon, M. R., & S. Gill, S. (2021). Kesejahteraan subjektif kewangan dalam kalangan Orang Asli Mah Meri di Pulau Carey, Selangor. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 6(7), 27–39.
<https://doi.org/10.47405/mjssh.v6i7.916>
- Sabri, F., Dass, N. A., & Jusoh, O. (2018). Tingkah laku pengurusan kewangan, masalah kewangan, kesejahteraan hidup dan program sokongan pengguna di Wilayah Persekutuan Labuan. *Jurnal Pengguna Malaysia*, 30(6), 103–121.
- Sabri, M. F., & Dass, T. A. M. (2017). The financial status, financial problems and personal well-being of urban poor youths. *International Journal of Academic Research in Business and Social Sciences*, 7(8), 665–672. <https://doi.org/10.6007/ijarbss/v7-i8/3274>
- Sabri, M. F., & Zakaria, N. F. (2015). The influence of financial literacy, money attitude, financial strain and financial capability on young employees' financial well-being. *Pertanika Journal of Social Sciences and Humanities*, 23(4), 827–848.
- Sahid, S., & Habidin, N. F. (2018). Exploring measurement model for entrepreneurial marketing construct: A marketing for SME's. *International Journal of Supply Chain Management*, 7(6), 674–683.
- Salleh, S., Mohamad, S. I. S., Haris@Harith, Z., & Nor, M. S. M. (2020). Literasi kewangan siswa guru program persediaan ijazah sarjana muda perguruan (PPISMP) di Institut Pendidikan Guru Kampus Ilmu Khas. *Jurnal Penyelidikan Tempawan*, 37, 59–68.
- Sehrawat, K., Vij, M., & Talan, G. (2021). Understanding the Path Toward Financial Well-Being: Evidence From India. *Frontiers in Psychology*, 12, 1–20.
<https://doi.org/10.3389/fpsyg.2021.638408>
- Shkeer, A. S., & Awang, Z. (2019). Exploring the items for measuring the marketing information system construct: An exploratory factor analysis. *International Review of Management and Marketing*, 9(6), 87–97. <https://doi.org/10.32479/irmm.8622>
- Syah, N. A. N. M., Sha'ari, H., Nasir, W. N. W. M., & Razaki, M. M. (2022). Faktor-faktor muflis dalam kalangan belia di Malaysia. *RABBANICA - Journal of Revealed Knowledge*, 3(1), 1–18.
- Wu, H., & Leung, S. O. (2017). Can Likert scales be treated as interval scales?—A Simulation study. *Journal of Social Service Research*, 43(4), 527–532.
<https://doi.org/10.1080/01488376.2017.1329775>
- Yahaya, T. A. B., Idris, K., Suandi, T., & Ismail, I. A. (2018). Adapting instruments and modifying statements: The confirmation method for the inventory and model for information sharing behavior using social media. *Management Science Letters*, 8(5), 271–282.
<https://doi.org/10.5267/j.msl.2018.4.021>
- Zaimah, R. (2019). The probability factor influences the level of financial well-being of workers in Malaysia. *Malaysian Journal of Society and Space*, 15(3), 122–135.
<https://doi.org/10.17576/geo-2019-1503-09>
- Zainudin, A., Lim, S. H., & Nur Fairuza Syahira, Z. (2018). *Pendekatan mudah : SEM (Structural Equation Modelling)*. MPWS Rich Resources Sdn Bhd.
- Zakaria, S., Hoesni, S. M., Murni, R., Rahman, A., Zainah, &, & Zamani, A. (2016). Exploratory factor analysis (EFA) bagi parental sleep attitudes scale (PSAS) versi bahasa melayu. *Journal of Social Sciences and Humanities*, 11, 173–184.