R Approach in Digital Financial Literacy Influence Subjective Financial Well-Being

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Abstract

Millennial workers' financial well-being in the digital financial era is nonetheless anxious and insecure. This quantitative study aims to analyze the effect of digital financial literacy on millennial workers' financial well-being through digital financial behavior as a mediator. Well-being is seen subjectively as anxious or secure in their financial conditions. This study collected data by distributing questionnaires to four hundred twenty-five millennial workers born between 1981 and 2005 actively working in Greater Jakarta as a research sample. Utilizing PLS-SEM and the free software R Studio, the collected data was analyzed using descriptive statistics to determine the demographics of the respondents. The study's findings show that millennial workers in Greater Jakarta can improve their financial well-being by developing good digital financial literacy and practicing effective digital financial management behavior in using digital financial products. These workers believe this will alleviate their financial worries or provide security for the future. Following this study's findings, millennial workers must master the management of various digital financial service products early on to make financial decisions safely without worrying about financial well-being in their behavior.
JEL Classification: G59, I31.

Keywords: financial well-being, millennial workers, digital financial literacy, digital financial behavior, financial technology.

El enfoque R en la educación financiera digital influye en el bienestar financiero subjetivo

Resumen

El bienestar financiero de los trabajadores millennials en la era financiera digital es, sin embargo, ansioso e inseguro. Este estudio cuantitativo tiene como objetivo analizar el efecto de la alfabetización financiera digital en el bienestar financiero de los trabajadores milenarios a través del comportamiento financiero digital como mediador. El bienestar se ve subjetivamente como ansioso o seguro en sus condiciones financieras. Este estudio recogió datos mediante la distribución de cuestionarios a cuatrocientos veinticinco trabajadores milenarios nacidos entre 1981 y 2005 que trabajaban activamente en el Gran Yakarta como muestra de investigación. Utilizando PLS-SEM y el software libre R Studio, los datos recogidos se analizaron utilizando estadísticas descriptivas para determinar la demografía de los encuestados. Los hallazgos del estudio muestran que los trabajadores millennials en el Gran Yakarta pueden mejorar su bienestar financiero mediante el desarrollo de una buena educación financiera digital y la práctica de un comportamiento efectivo de gestión financiera digital en el uso de productos financieros digitales. Estos trabajadores creen que esto aliviará sus preocupaciones financieras o proporcionará seguridad para el futuro. Siguiendo los hallazgos de este estudio, los trabajadores millennials deben dominar la gestión de varios productos de servicios financieros digitales desde el principio para tomar decisiones financieras de forma segura sin preocuparse por el bienestar financiero en su comportamiento.
Clasificación JEL: G59, I31.

Palabras clave: bienestar financiero, trabajadores millennials, educación financiera digital, comportamiento financiero digital, tecnología financiera.

1. Introduction

In this increasingly modern era of life, the financial world offers a variety of choices for people to manage their finances. Indonesia has very high development in the financial technology industry after China (Davis et al., 2017). Financial technology has benefited Indonesia's industrial world by bringing financial products closer to businesses and their employees.

Based on the publication of the State of the Labor Force in Indonesia in 2021, Statistics Indonesia (2021b) reported that the millennial generation, which ranges in age from 20 to 34 years, currently makes up the majority of the workforce in Indonesia. Millennial workers are undoubtedly familiar with internet access using smartcell phones. Statistics Indonesia (2021a) has published the 2021 Indonesian Telecommunication Statistics in the form of data stating that from 2010 to 2021, the population that accesses the internet the most is from the age group of 19 years and over.

Unfortunately, according to some studies, young people aged 18 to 29 have additional financial issues, and those between the ages of 20 and 30 are especially at risk (Brüggen et al., 2017; Williams & Oumlil, 2015). According to Cwynar et al. (2019), young adults borrow money or take out a loan to cover insufficient income to fulfill consumption preferences, hoping they can return the credit in the future. Furthermore, Strömbäck et al. (2017) state that some people feel anxious due to their financial behavior and are vulnerable to perceived security related to their financial situation.

The problems above have led this research to focus on things that can affect the financial well-being of millennial generation workers. The internal and external interventions required to enhance financial well-being are one of the main research areas on this topic (Mahendru et al., 2022). According to Zulfiqar & Bilal (2016), age, income, and education are all associated positively with financial well-being. Financial well-being can be determined using personal behavioral finance, claim Garman & Forgue (2006). Financial behavior and financial literacy are linked to students' financial well-being, according to research from Sabri et al. (2008).

Therefore, pursuing financial well-being for everyone, especially the millennial working generation, is crucial today. Several previous studies have discussed the topic of determinants of individual financial well-being. Studies looking at how improving financial literacy affects a person's financial well-being (Drever et al., 2015; Mahendru et al., 2020; Postmus et al., 2015; Riitsalu & Murakas, 2019; Schmeiser & Seligman, 2013). However, prior research has ignored the explicit contribution of digital technology to financial literacy as an explanator of financial well-being (Kumar et al., 2022).

Then, some studies concentrate on how personal financial behavior affects financial well-being (Brüggen et al., 2017; Castro-González et al., 2020; Cwynar et al., 2019; Houmanfar et al., 2015; Limbu & Sato, 2019; Mahdzan et al., 2020; Riitsalu & Murakas, 2019; Strömbäck et al., 2017; Zyphur et al., 2015). Nevertheless, only Strömbäck et al. (2017) mentioned psychological aspects of financial conditions. Some people feel anxious due to their financial behavior and are vulnerable to perceived security related to their financial situation.

In addition, a tiny number of scholars have investigated financial behavior as a mediating variable to examine financial well-being. One example is Younas et al. (2019), who found that financial behavior variables that mediate financial literacy and self-control impact their financial

well-being. Besides that, financial trust, socialization, attitude, and literacy are other findings from Setiyani & Solichatun (2019) that positively impact financial well-being via financial behavior.

Based on these previous studies, a research gap can be identified: Very little research, particularly among millennial workers, examines the influence of digital financial literacy on financial well-being by considering psychological aspects of financial circumstances and the digital finance context through digital financial behavior as a mediator when using financial technology. Therefore, this study emphasizes novelty in digital financial engagement and how people feel about their financial situation through their behavior.

Almost all the topics in previous research show that most industrialized countries view financial well-being as very important (Brüggen et al., 2017). Financial well-being is not only an economic factor of a nation but also a psychological aspect that shapes individuals' perceptions of their financial circumstances (Halvorsen, 2016). Attention to financial well-being is becoming increasingly urgent. In the context of this study, understanding the impact of digital technology's transformation on millennial workers' financial well-being holds particular significance. So, there is an urgent need for a comprehensive understanding of how digital financial literacy and behavior affect the financial well-being of millennial workers psychologically when utilizing financial technology.

An important topic for governments, employers, and charitable organizations is concern for financial well-being (Rickard, 2018). Based on a study undertaken by Davis et al. (2017), the development of financial technology in Indonesia is growing rapidly and has doubled in the past year, so the Government must quickly create a legal basis to formally cover financial technology entities and provide protection for consumers and the state. Changing Indonesia's digital finance rapidly, the Indonesian Government must swiftly establish a robust legal framework. This framework not only provides formal regulation for financial technology entities but also ensures the protection of consumers and the integrity of the state. Therefore, when consumers feel safe using financial technology, they probably have no anxiety about their current or future financial condition.

In line with the information and studies above, examining the factors that influence millennial workers' financial well-being is the goal of this study that they feel subjectively in the form of anxiety or a sense of security in their financial situation through their behavior when utilizing digital finance.

2. Literature Review

2.1 Financial Well-Being

According to Bruggen et al. (2017), the "perception of continuing to enjoy desired current and expected living standards and financial freedom" means financial well-being. Financial well-being is characterized by Joo & Grable (2004) as being generally content with one's financial circumstances. Based on a person's subjective appraisal of their financial situation, other researchers define financial well-being as "a declaration of having a good life, being delighted, and not worrying about money" (Joo et al., 2008).

Straightforward enjoyment or satisfaction with a person's substance or financial situation has been replaced as the definition of financial well-being by a complex perception that considers a variety of perceptions of both non-material and material aspects of a human's financial condition

(Delafrooz & Paim, 2011). According to objective and subjective indicators by Shim et al. (2009), financial well-being is the declaration of being satisfied with people's present financial situation and level of debt. Financial well-being is also described by the CFPB (2015) as the freedom to make safe financial decisions on an ongoing basis. Based on some of the explanations in the previous research above, it can be concluded that what is meant by financial well-being is a person's condition that can be in the form of satisfaction, security, or freedom over personal financial status to decide something both now and in the future.

Research on financial well-being primarily examines three areas: (a) objective and evaluative financial well-being measures, (b) necessary interventions to enhance financial well-being, and (c) the role of financial well-being in determining overall individual well-being (Mahendru et al., 2022). Strömbäck et al. (2017) also gauge the impact on a person's financial well-being using perceived anxiety and security dimensions. According to Zulfiqar & Bilal (2016), age, income, and education are all associated favorably with financial well-being. According to Garman & Forgue (2006), financial well-being can be partly defined by one's behavioral finance. Substantial evidence is provided by Sabri et al. (2008) that students' financial well-being is reflected in their financial behavior and literacy.

2.2 Digital Financial Literacy

Digital financial literacy, according to Rahayu et al. (2022), is a newly invented concept that refers to one's level of comprehension of all aspects of financial literacy as they relate to digital technology. Digital financial literacy is people's mastery of online purchases and payment through online payment services (Prasad et al., 2018).

Digital financial literacy is a broad concept that includes understanding digital financial risks, being familiar with digital financial risk management tools, being aware of customer rights, and being aware of digital financial dispute resolution processes (P. Morgan et al., 2019). Furthermore, using financial technology products and services effectively while being warned about online fraud like phishing and hacking is another benefit of digital financial literacy (OECD, 2020). Digital financial literacy enables people to navigate the digital finance domain easily, skillfully, and wisely, making the right financial decisions that result in long-term financial well-being, according to Kumar et al. (2022). These definitions lead to the conclusion that digital financial literacy is a relatively new term that refers to a person's knowledge of digital financial products and ability to apply those skills to create wise financial decisions to help them maintain their financial well-being.

In addition, young adults are gullible consumers because they have inadequate literacy capabilities to make essential financial judgments (O'Connor et al., 2019). According to Setiawan et al. (2022), one's social characteristics significantly affect the degree of digital financial literacy. They also note that one's income and education level significantly impact their degree of digital financial literacy. Besides that, they state that the impact of either digital financial literacy or non-digital financial literacy on financial behavior must be equal. Financial well-being among students is positively and significantly impacted by financial literacy, according to Sabri & Falahati (2012).

Therefore, this study identified digital financial literacy as a determinant factor of digital financial behavior, financial anxiety, and financial security. Thus, the hypotheses that are proposed in this research are the following:

H1 : Digital financial literacy has a direct positive effect on digital financial behavior
H2 : Digital financial literacy has a direct negative effect on financial anxiety
H3 : Digital financial literacy has a direct positive effect on financial security

2.3 Digital Financial Behavior

The Theory of Planned Behavior (TPB) is among the models with the most significant sway in explaining human social behavior (Ajzen, 2011). TPB is an expansion of the Theory of Reasoned Action (TRA), which was founded by Fishbein & Ajzen (1975) and was created by Ajzen (1991). Joo & Grable (2004) relate behavioral issues to financial ones; the attitude and behavior of a person regarding finances is referred to as financial behavior.

One of the fundamental ideas in finance, particularly regarding effective money management, is financial management behavior (Thi et al., 2015). A person's or household's ability to manage their financial resources, which includes creating budgets for investments, insurance, and savings, is another definition of financial behavior (Hasibuan et al., 2018). Furthermore, human behavior relating to money management can be included in the definition of financial behavior (Gutter & Copur, 2011). Based on the researchers' explanation above, we can say that behavioral finance is a combined concept of behavior and finance in which a person or family makes financial arrangements, starting from planning and spending to future goals.

An excellent financial balance can be maintained by spending and saving habits that align with healthy financial behavior (Damian et al., 2020). Financial socialization, financial literacy, financial confidence, and financial attitude are among the findings of studies by Setiyani & Solichatun (2019) that positively impact financial well-being through mediated variable financial behavior. In addition, the results of studies by Rahayu et al. (2022) revealed that digital financial literacy could direct the young generation's digital financial behavior in making decisions. Increased financial literacy encourages preferred financial behaviors and then leads to high levels of perceived financial well-being, as Falahati & Paim (2011) demonstrated. According to Akben-Selcuk (2015), three factors— attitudes toward money, financial literacy, and financial socialization agents —influence college students' financial behavior. Meanwhile, three factors, including financial attitude, external locus of control, and financial knowledge, were found to have an impact on personal financial management behavior in studies by Thi et al. (2015)

The explanation identified digital financial behavior as a determinant factor of financial anxiety and financial security and a mediating factor for both. Hence, this research proposed the following hypotheses:

H4 : Digital financial behavior has a direct negative effect on financial anxiety
H5 : Digital financial behaviour has a direct negative effect on financial security
H6 : Digital financial behavior significantly mediates the relationship between digital financial literacy and financial anxiety

H7   :   Digital financial behavior significantly mediates the relationship between digital financial literacy and financial security

Starting from a theoretical presentation and supported by various relevant previous studies, the conceptual framework that this study suggests is shown in Figure 1.:
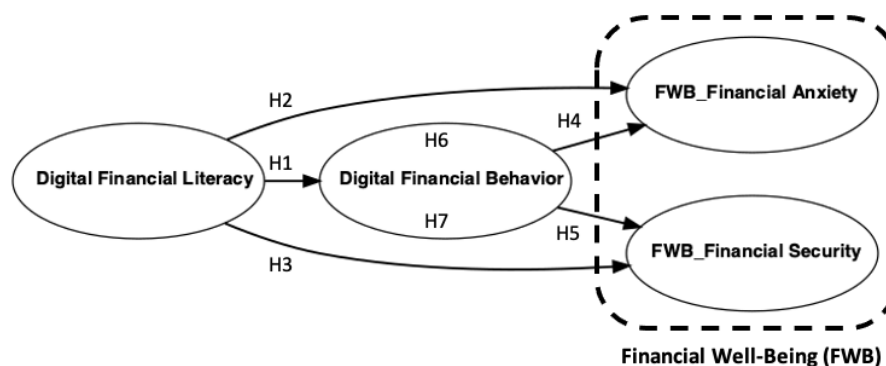

Figure 1. Conceptual Framework
Source: Processed by the author, 2023

3. Research Methodology

This study is quantitative, in which the independent variable is digital financial literacy, the dependent variables are financial well-being and digital financial behavior, and the mediating variable is digital financial behavior. A survey method with an explanatory focus was the precise methodology employed in this study (Rahayu et al., 2022). This method was selected because it can be used to learn more about the status of the symptoms while conducting research. The explanatory approach taken is to use a structural model. The structural model was selected for this study because it can demonstrate the direction of the influences of the independent, mediating, and dependent variables.

This research has a scope of limitations in the form of research subjects. The study focuses on millennials born between 1980 and 1996 and employed in the Greater Jakarta region of Indonesia, including Jakarta, Bogor, Depok, Tangerang, and Bekasi (Carlson, 2008). Furthermore, twenty-eight questions were presented in a questionnaire distributed to respondents from 26 February to 12 March 2023 for affordability and the available data relevant to the research.

Based on data from Statistics Indonesia, the total population in Grater Jakarta is around 34 million people, with a distribution of the number of millennials in Grater Jakarta around 11.5 million. The population of this study is information on the number of millennials. In addition, the Slovin Formula is used in this study to calculate the sample size (n = N/(1+N(e2)), where n is the sample size, N is the population size, and e is the 0.05 percent margin of error). Thus, the sample size obtained from these calculations is 400 samples. Therefore, this study distributed 425 questionnaires, but only 396 respondents filled out entirely and validly. Thus, the response rate of respondents obtained was around 93 percent, and the sample used as many as 396 samples.

Next, the respondents were the young workers from the Greater Jakarta area who met the criteria for the purposive sampling technique. Thus, the sampling procedure used is active workers in an institution located in the Greater Jakarta area in any business sector and have a year of birth between 1981 and 2005 or a minimum age of 18 years and a maximum of 42 years in 2023, so that young workers who work outside the Grater Jakarta area are not included in the desired sample criteria in this study.

This study determines the measurement for each variable studied through an instrument for gathering survey data through a questionnaire. The questionnaire has 28 statement indicator items, which respondents are asked to respond to based on personal preferences. These items are all indicators of the variables examined in this study.

The financial well-being variable is measured by indicators compiled by Strömbäck et al. (2017) on a scale of 1-5 from Likert (1932), which contains two dimensions, namely financial anxiety (FWBa) with four indicator items and financial security (FWBs) with three indicator items, Cronbach's Alfa is 0.68 and 0.91 respectively so that all indicator items are in the reliable category.

In addition, digital financial behavior (DFB) variables follow measurements through indicators developed by Alonso-García et al. (2017); Furnham (1999); Setiawan et al. (2022); Watson (2003) with a slight modification of 10 items with a scale of 1-5 from Likert (1932). Because these variables are relatively rare, the Delphi method validates each indicator, collecting expert opinions from eight panelists from several related institutions. There were two rounds in the Delphi process. Thus, all indicators were deemed reliable because, on average, all panelists agreed with each indicator.

Besides that, the measurement of digital financial literacy (DFL) variables adopts property indicators P. Morgan et al. (2019); P. J. Morgan & Trinh (2019); Prasad et al. (2018); Setiawan et al. (2022) a total of 11 indicator items categorized into four main categories: knowledge, skills, awareness, and experiences with a scale of 1-5 from Likert (1932) with a Cronbach Alpha score of 0.822 so that all indicator items are in the reliable category. Clear indicators or questionnaire items for all variables are presented in Table 1.

This study's data were collected via online self-administered questionnaires using Google Forms, which the respondents then completed. Then, the respondent's answer data will be automatically saved on Google Drive. Then, the respondent's answer data will be compiled into the researcher's working paper to be processed and analyzed based on predetermined respondent criteria.

Table 1. Research Instrument Indicators

Variable	Code	Indicator
Financial well-being. (Strömbäck et al., 2017)		
financial anxiety	FWBa. 1	I get unsure of the terminology and suggestions of financial experts.
	FWBa. 2	I am anxious about my own financial and monetary affairs.
	FWBa. 3	I frequently put off making financial decisions.
	FWBa. 4	After making a financial decision, I was anxious about whether I was right or wrong.
Financial security	FWBs. 1	I am comfortable with my current financial situation.

	FWBs. 2	I have faith in my financial future.
	FWBs. 3	Regardless of how long I live, I can financially support myself in retirement.
Digital financial behaviour. (Alonso-García et al., 2017; Furnham, 1999; Setiawan et al., 2022; Watson, 2003)	DFB. 1	I shop regularly using e-commerce.
	DFB. 2	I shop more using digital platforms (Shoppee, Tokopedia, etc.) than conventional platforms (traditional markets, supermarkets, malls, etc.).
	DFB. 3	I choose to shop using digital platforms to buy personal products.
	DFB. 4	I prefer to shop using digital platforms to relax and have fun.
	DFB. 5	I choose to shop using a digital platform because of its convenience.
	DFB. 6	I save on digital financial products for transaction/shopping motives.
	DFB. 7	I save in digital financial savings products for speculative/investment motives.
	DFB. 8	I save digital financial products for emergencies.
	DFB. 9	I have a security perception of saving by using digital financial products.
	DFB. 10	I get the satisfaction of saving by using digital financial products.
Digital financial literacy. (P. Morgan et al., 2019; P. J. Morgan & Trinh, 2019; Prasad et al., 2018; Setiawan et al., 2022)	DFL. 1	I understand digital payment products like e-wallets, e-debit, e-credit, e-money, and mobile/internet banking well.
	DFL. 2	I understand that products like Finansialku, Tanamduit, and Bareksa are used for digital asset management.
	DFL. 3	I understand digital loan products like Kredivo and Seeds quite well.
	DFL. 4	I understand digital insurance products like Rajapremi and Asuransiku.id pretty well.
	DFL. 5	I understand the processes for filing service complaints with digital financial providers and the rights and protections of customers.
	DFL. 6	I have used digital payment services like LinkAja, Gopay, and OVO.
	DFL. 7	I have extensive experience with fintech platforms like CoinWorks, Investree, Modalku, and Amarta for investment and financing (loans).
	DFL. 8	I have extensive experience utilizing Finansialku, Tanamduit, and Bareksa, among other fintech products and services, for asset management.
	DFL. 9	I know the potential financial risks of utilizing fintech, such as interest rates, transaction costs, and the legitimacy of fintech providers.
	DFL. 10	I can manage my finances using digital platforms, including controlling transaction fees.
	DFL. 11	I am proficient in handling my finances through digital platforms by evaluating spending.

Source: Processed by the author, 2023

The data successfully collected from the survey results are converted into a Microsoft Excel file format (.xlsx), and then all data is reviewed by the authors before being analyzed. Furthermore, data analysis will rely on the open-source software R Studio version 4.2.2 with the SEMinR package. As a start, a demographic analysis will be presented in the form of characteristics or brief profiles of respondents. Then, a descriptive analysis will be conducted, followed by SEM (Structural Equation Modeling) analysis utilizing the PLS (Partial Least Square) algorithm approach, also known as PLS-SEM, which will explain the results of the evaluation measurement model (outer model) and structural model (inner model). The analysis of the outer model comprises convergent validity, discriminant validity, and composite reliability. Meanwhile, the inner model analysis tests the model's goodness (model fit) and the hypothesis. The results of the analysis are then linked to the theories and empirical research described in the literature review to test hypotheses and answer research objectives.

The effect of dependent variables on independent variables directly is notated as follows:

$$DFB_i = \alpha_i + \beta_1 DFL_i + e_i \tag{1}$$

$$FWBa_i = \alpha_i + \beta_1 DFL_i + e_i \tag{2}$$

$$FWBs_i = \alpha_i + \beta_1 DFL_i + e_i \tag{3}$$

$$FWBa_i = \alpha_i + \beta_1 DFB_i + e_i \tag{4}$$

$$FWBs_i = \alpha_i + \beta_1 DFB_i + e_i \tag{5}$$

The effect of dependent variables toward independent variables through a mediating variable is notated as follows:

$$FWBa_i = \alpha_i + \beta_1 DFB_i + \beta_2 DFL_i + e_i \tag{6}$$

$$FWBs_i = \alpha_i + \beta_1 DFB_i + \beta_2 DFL_i + e_i \tag{7}$$

The bootstrap method will calculate All equations' results because PLS-SEM is nonparametric. For considering the direction of the effect and hypotheses result, equation (1) to equation (5) will examine the significance level using T-Statistic, and it is strengthened by the percentile method, which is called a confidence interval (CI). Additionally, equation (6) and equation (7) will be used to analyze the mediating variable, including its significance, which investigates direct effect, indirect effect, and total effect, as well as determining the type of mediation.

This research procedure departs through several stages, starting from determining the population and sample of respondents, then preparing research instruments, collecting research data through distributing questionnaires online for data analysis, evaluating the measurement and structural research models, discussing the findings, and concluding with conclusions and implications.

4. Results and Discussion

4.1 Respondent Demographics

Respondent data is collected in Table 2. which describes the demographics of respondents in the form of gender, age, last education, location of work, sector or field of work, length of service, and monthly income (expressed in US dollars). 224 (56.6%) more male respondents than 172 (43.4%) female respondents. Meanwhile, the age of the respondents was dominated by 26 to 30 years of age with 158 (39.9%), and most of the respondents' recent education was bachelor's degree with 249 (62.9%). Furthermore, most respondents worked in DKI Jakarta, amounting to 123 (31.1%). Then, the infrastructure sector became the largest number of respondents, with 44 (11.1%). In addition,

most respondents had a working period of 1 to 5 years, a total of 149 (37.6%). Finally, respondents have the most monthly income of $387 - $645, as many as 204 (51.5%).

Table 2. Respondent Demographics

Gender	Respondents	%	Sector/Field of Work	Respondents	%
Man	224	56.6%	Basic Materials	33	8.3%
Woman	172	43.4%	Consumer Cyclicals	17	4.3%
Total number	396	100.0%	Consumer Non-Cyclicals	37	9.3%
Age	**Respondents**	**%**	Energy	12	3.0%
18 – 25 years	71	17.9%	Financials	37	9.3%
26 – 30 years	158	39.9%	Government Services	22	5.6%
31 – 35 years	135	34.1%	Healthcare	30	7.6%
> 35 years	32	8.1%	Industrials	23	5.8%
Total number	396	100%	Infrastructures	44	11.1%
Last education	**Respondents**	**%**	Properties & Real Estate	22	5.6%
Senior high school	43	10.9%	Technology	39	9.8%
1st / 2nd diploma	18	4.5%	Transportation & Logistics	42	10.6%
3rd diploma	43	10.9%	Other Sectors	38	9.6%
Bachelor's degree	249	62.9%	Total number	396	100%
Master's degree	42	10.6%	**Working Period**	**Respondents**	**%**
Doctoral degree	1	0.3%	< 1 year	44	11.1%
Total number	396	100%	15 years	149	37.6%
Workplace Location	**Respondents**	**%**	5 - 10 years	129	32.6%
DKI Jakarta	123	31.1%	10 - 20 years	71	17.9%
Bogor City	33	8.3%	> 20 years	3	0.8%
Bogor Regency	24	6.1%	Total number	396	100%
City of Depok	34	8.6%	**Income per Month**	**Respondents**	**%**
Tangerang City	48	12.1%	< $195	12	3.0%
Tangerang Regency	34	8.6%	$195 - $323	56	14.1%
South Tangerang City	48	12.1%	$387 - $645	204	51.5%
Bekasi City	43	10.9%	$710 - $1,290	112	28.3%
Bekasi Regency	9	2.3%	> $1,290	12	3.0%
Total number	396	100%	Total number	396	100%

Source: Author's calculation using Ms. Excel, 2023

4.2 Measurements/Outer Models

The measurement model is constructed by designing the relationship between latent construct variables measured by multiple indicators. The results of testing the validity and reliability of each indicator for each latent variable are presented in Table 3. The convergent validity test concentrates on each indicator's latent variable's loading factor value. This study, like Hair, Black, et al. (2019); Setiawan et al. (2022), retains indicators with a loading factor value of greater than 0.4 and removes indicators with a loading factor value of less than 0.4.

Six indicators have loading factor values below 0.40, namely DFB.1, DFB.4, DFB.7, DFL.2, DFL.7, and DFL.10, where the six indicators mean they do not meet the convergent validity requirements. In addition, researchers are also concerned about three other indicators with loading factor values close to 0.4, namely FWBs.1, DFB.2, and DFL.8, which are vulnerable to meeting convergent validity requirements. Therefore, the researcher decided to adjust the model by eliminating the nine indicators in stages and recalculating them with the R Studio software so that all indicators met the criteria for convergent validity and no variables were removed from the model.

In addition, the discriminant validity test utilizes the HTMT ratio criterion for the direction of influence of latent construct variables in the current study. Henseler et al. (2015), as the inventor

of the HTMT ratio criterion, determine the threshold value for the HTMT ratio < 0.85 so that it can be said to be valid. Even Hair et al. (2021) strengthen if the latent construct variable has a similar concept, then the validity of the measurement model uses a threshold value of the HTMT ratio <0.90. Table 3 shows that all directions of the influence of latent construct variables in this study have a value of HTMT ratio <0.85 or <0.90, so it can be concluded that the measurement model created has been valid with discriminant validity. Accordingly, each indicator used is valid in explaining each latent variable.

The reliability test of a construct variable in a structural model in this study was carried out by considering the value of Cronbach's alpha and the value of rho_a and rho_c. Hair, Risher, et al. (2019) said that a construct variable can be indicated as reliable if it has a threshold value of rho_a and rho_c > 0.7 and is reinforced by a value of Cronbach's alpha > 0.7. Besides that, according to Sarstedt et al. (2011), the composite reliability value, as reflected by rho_a and rho_c of 0.6 – 0.7, is considered to have good reliability. Table 3 shows that all the construct variables examined in this study are in a composite reliability position of 0.6 – 0.7, so it can be concluded that the results obtained by all construct variables are reliable and meet the test criteria. Thus, this condition provides stability and consistency of the results (data) belonging to the construct variables, which are explained by the latent variables when used in different studies and at different times.

Table 3. Validity and Reliability Test

Variable	Indicator	Loading Factor	HTMT	Cronbach's alpha	rho_c	rho_a	Results
Criteria		**>0.4**	**<0.85**	**>0.7**	**>0.6**	**>0.6**	
Financial Anxiety				0.694	0.683	0.705	Reliable
	FWBa. 1	0.727					Valid
	FWBa. 2	0.476					Valid
	FWBa. 3	0.493					Valid
	FWBa. 4	0.656					Valid
Financial Security				0.750	0.758	0.771	Reliable
	FWBs. 2	0.857					Valid
	FWBs. 3	0.701					Valid
Digital Financial Behavior			DFB→FWB_Anx: 0.834 DFB→FWB_Sec: 0.654	0.721	0.719	0.730	Reliable
	DFB. 3	0.487					Valid
	DFB. 5	0.555					Valid
	DFB. 6	0.480					Valid
	DFB. 8	0.549					Valid
	DFB. 9	0.696					Valid
	DFB. 10	0.505					Valid
Digital Financial Literacy			DFL→DFB: 0.707 DFL→FWB_Anx: 0.781 DFL→FWB_Sec: 0.722	0.783	0.740	0.762	Reliable
	DFL. 1	0.432					Valid
	DFL. 3	0.595					Valid
	DFL. 4	0.457					Valid
	DFL. 5	0.633					Valid
	DFL. 6	0.434					Valid
	DFL. 9	0.732					Valid
	DFL. 11	0.454					Valid

Source: Author calculations using R Studio, 2023

4.3 Structural/Inner Models

After confirming from the outer model that all indicators meet the valid and reliable criteria, the evaluation of the structural model will be discussed in the next step. In the PLS-SEM context, the structural model is also referred to as the inner model, which connects constructs and displays the direction of influence between constructs without including indicators (Hair et al., 2021).
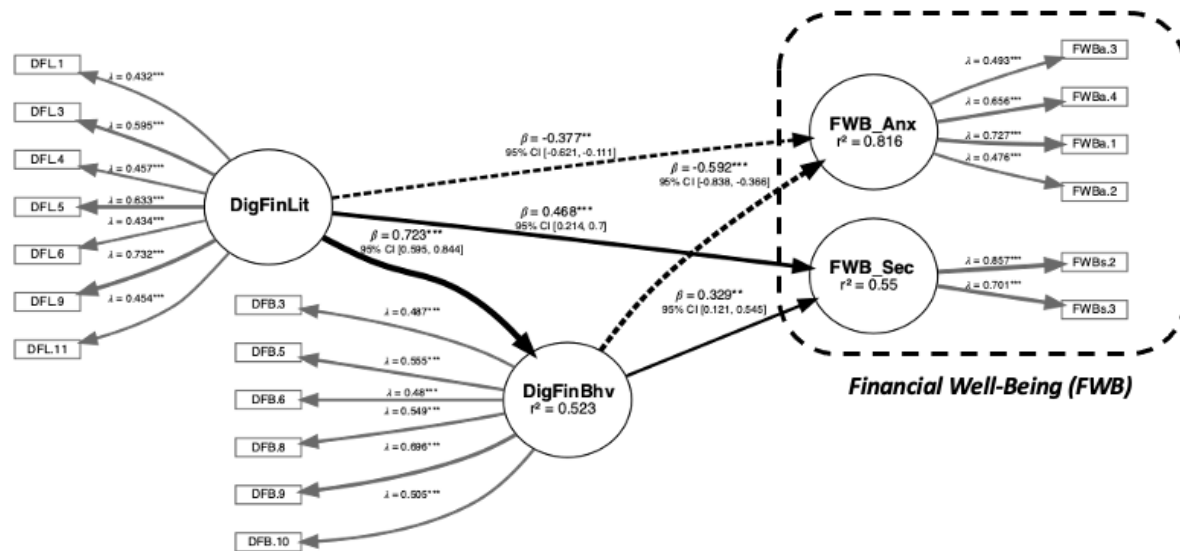

Figure 2. Structural Model Calculation Results
Source: Author calculations using R Studio, 2023

The model goodness-of-fit test measured the coefficient of determination (R^2) of all the dependent (endogenous) construct variables studied. R^2 indicates the extent to which independent variables in a model can explain the dependent variable (Shmueli & Koppius, 2010). R^2 values range from 0 to 1, with higher values or values closer to 1 indicating a greater ability of the independent variable to explain the dependent variable and, thus, the better the model (Hair et al., 2021). According to Hair et al. (2011), R^2 values of 0.75, 0.50, and 0.25 are considered substantial (strong), moderate (medium), and weak (weak) in a variety of social science disciplines.

Figure 2 shows the value of R^2 digital financial behavior of 0.523 with moderate criteria (medium), the value of R^2 financial anxiety of 0.816 with substantial criteria (strong), and the value of R^2 financial security of 0.550 with moderate (medium) criteria and no dependent variable included in the weak (poor) criteria. All R^2 values indicate that the variance in the independent variable's contribution to the dependent variable in this study is greater than moderate (medium) and close to substantial (strong). In another sense, as much as 52.3%, 81.6%, and 55% of the variation in the dependent variable can be convincingly explained by changes or variations in the independent variables of this study. In contrast, the rest is explained by other factors outside of this study.

Table 4. Hypothesis Testing Results

hypothesis	Variable Relations	Path Coefficient	T-Statistics	2.5% CI	97.5% CI	Results
H1	DFL→DFB	0.723	11,674	0.595	0.844	Accepted
H2	DFL→FWBa	-0.377	-3,035	-0.621	-0.111	Accepted
H3	DFL→FWBs	0.468	3,827	0.214	0.700	Accepted
H4	DFB→FWBa	-0.592	-5,176	-0.838	-0.366	Accepted
H5	DFB→FWBs	0.329	2,954	0.121	0.545	Accepted
H6	DFL→DFB→FWBa	-0.428	-4,250	-0.670	-0.263	Accepted
H7	DFL→DFB→FWBs	0.238	2,740	0.089	0.419	Accepted

Source: Author calculations using R Studio, 2023

Hypothesis testing can be done after it is known that a research model is believed to be good or fit. The PLS-SEM method is nonparametric. Consequently, bootstrap the data to estimate standard errors and calculate confidence intervals (Hair et al., 2021). Thus, the bootstrap can minimize the problem of abnormal research data. Hair et al. (2021) continued their explanation that the bootstrap process produces t-values in the form of T-Statistics in the open-source software R Studio with the SEMinR package, which must then be compared with the critical value of the significance level so that it can be known whether the hypothesis can be accepted or rejected based on the results of the significance of the direction of influence from the path statistical coefficients. This study uses a critical value for a significance level of 5%, and if the T-Statistic value is > +/-1,960 (two-tailed test), then the direction of influence of the path coefficient is said to be significant. The research hypothesis can be accepted, and vice versa.

Besides that, to strengthen the significance test using the T-Statistic, Hair et al. (2021) also suggests the rule of confidence intervals, abbreviated CI, as an alternative way of testing for significance. Then, according to Aguirre-Urreta & Ronkkö (2018), researchers must typically employ the percentile method to obtain a bootstrap confidence interval. The critical value for the significance level used in this study is 5%, so the CI with the two-tailed test ranges from 2.5% to 97.5% percentile. If between the 2.5% and 97.5% percentile values are not included or do not pass the zero value (0), then the direction of influence of the path coefficient can be considered statistically significant, and the hypothesis is considered acceptable, and vice versa.

Table 4 displays the results of the statistical hypothesis testing for the seven hypotheses formulated for this study, all of which are accepted. In detail, the direction of influence (path coefficient) between the construct variables produced by all the various hypotheses, including hypothesis one, hypothesis three, hypothesis five, and hypothesis seven, have a positive influence direction. On the contrary, hypothesis two, hypothesis four, and hypothesis six have a negative influence direction. Even though each hypothesis has a varying direction of influence, the T-Statistic values of all hypotheses are > +/-1,960, which adjusts to the direction of influence of each hypothesis, so all directions of influence are said to be significant. The research hypothesis can be accepted, and vice versa.

After that, Zhao et al. (2010) suggest continuing the procedure of mediating variable analysis. First, the significance of the indirect effect of DFL on FWBa through DFB in the sixth hypothesis (H6) is significant. Second, the significance of the direct effect of DFL on FWBa in the second hypothesis (H2) is also known to be significant. Third, the direction of influence of the total effect is obtained from all the relationship variables involved in the indirect and direct effects. In the indirect effect,

there are two directions of influence, namely, the direction of influence of DFL on DFB in the first hypothesis (H1) is known to be positive, and the direction of influence of DFB to FWBa in the fourth hypothesis (H4) is known to be negative. Meanwhile, in the direct effect, there is one direction of influence, namely, the direction of the influence of DFL on FWBa in the second hypothesis (H2), which is known to be negative. Thus, the direction of influence of the total effect has the opposite sign. In conclusion, the type of mediation produced is partial and competitive mediation, with significant indirect and direct effects even though they lead in opposite directions. Therefore, a competitive partial mediating variable in this research model decreases the total effect's value, but the effect is still significant (Hair et al., 2021).

Furthermore, the analysis of the second mediating variable was also carried out. First, the significance of the indirect effect of DFL on FWBs through DFB in the seventh hypothesis (H7) is significant. Second, the significance of the direct effect of the DFL effect on FWBs in the third hypothesis (H3) is also known to be significant. Third, the direction of influence of the total effect (total effect) is obtained from all the relationship variables involved in the indirect and direct effects. In the indirect effect, there are two directions of influence, namely, the direction of influence of DFL on DFB in the first hypothesis (H1) is known to be positive, and the direction of influence of DFB to FWBs in the fifth hypothesis (H5) is known to be positive. Meanwhile, in the direct effect, there is one direction of influence, namely, the direction of the influence of DFL on FWBs in the third hypothesis (H3) is known to be positive. Thus, the direction of influence of the total effect has the same directional sign. In conclusion, the type of mediation produced is partial mediation in the form of complementary or complementary mediation, where both the indirect and direct effects are significant and point in the same direction. Therefore, the presence of complementary partial mediating variables in this research model decreases the total effect's value, but the effect is still significant (Hair et al., 2021).

4.4 Discussions

Digital financial literacy has a significantly positive effect on digital financial behavior, a negative effect on financial anxiety, and a positive effect on financial security. Kumar et al. (2022); P. Morgan et al. (2019); Prasad et al. (2018); Rahayu et al. (2022); Setiawan et al. (2022) explained in one voice that digital financial literacy has a positive effect on digital financial behavior and has become a necessity for individuals and organizations to make the right decisions in the digital era. Thus, understanding digital financial products is highly recommended to be mastered by various elements, especially for millennial generation workers, so that behavior in managing finances becomes wiser and adapts to the most prioritized needs.

Furthermore, by finding a significant effect, it turns out that this is a positive impact from the campaign effort of The Indonesia Financial Services Authority (OJK) (2022), which is busy voicing the importance of financial literacy from various financial products to all levels of Indonesian society. Then, referring to the demographics of the respondents, the OJK initiative was welcomed by millennial generation workers, dominated by ages 26 to 35 years with a minimum education of bachelor's degree, who are known to be highly literate in technology and adept at operating digital

applications on personal devices as well as the rise of information, regarding financial product education through social media from both the Government and the private sector.

Unfortunately, very few previous reports explore how to control anxiety and security in one's financial condition (Strömbäck et al., 2017), even in a digital context. In line with this statement, Rahayu et al. (2022) asserted that digital financial literacy is a newly conceived concept that measures how much an individual understands everything about finances using digital technology. However, digital financial literacy directs individuals to make wise and appropriate financial decisions to reduce feelings of worry in the long term (Kumar et al., 2022). Besides that, P. Morgan et al. (2019) and OECD (2020) explained that the benefits of knowledge about digital finance would provide awareness of the risks of warning about the threat of digital crime that is feared to occur in personal financial conditions in the future. Fünfgeld & Wang (2009) also revealed that someone with high self-confidence would feel more secure about his financial situation. Therefore, millennial generation workers, especially in the Greater Jakarta area, are strongly encouraged to master digital financial literacy to be aware of the potential risks they are worried about and increase their sense of security in the current and future financial situation. Thus, the level of financial well-being they feel subjectively will be high.

Digital financial behavior has a significantly negative effect on financial anxiety and a positive effect on financial security. Some people feel anxious because of their financial behavior related to financial conditions (Strömbäck et al., 2020). Besides that, Rahayu et al. (2022) revealed that digital financial knowledge could direct the digital financial behavior of the younger generation. Thus, millennial generation workers should pay attention to their behavior when managing finances digitally with the mastery of financial technology products so that cash flow can be controlled to prevent anxiety and create feelings of security about the current and future financial condition. Thus, the level of financial well-being they feel subjectively will be high.

Furthermore, with the discovery of a significant influence, it turns out that the millennial workers' demographics influence this. They are predominantly aged 26 to 35 and have a minimum education of a bachelor's degree with a monthly income of $387 - $645. In addition, most of these mineral workers' workplace locations are in DKI Jakarta, which is known as the center of the capital city and has a high standard of living costs in Indonesia. Concerning these conditions, they manage their monthly income effectively by utilizing digital financial applications to prevent anxiety and create a sense of security in their financial situation in the future.

Digital financial behavior has been proven to be a partial mediator, specifically as a competitive mediator in the relationship between digital financial literacy and financial anxiety and as a complementary mediator between digital financial literacy and financial security. In this regard, Falahati & Paim (2011) revealed that an upper level of financial knowledge predicts improved financial behavior and, consequently, a high level of perceived financial well-being. Additionally, Setiyani & Solichatun (2019) found that financial literacy, socialization, attitudes, and trust influence financial well-being via financial behavior. Thus, millennial generation workers, especially in the Greater Jakarta area, are highly recommended to improve their behavior when managing personal finances effectively through the use of financial technology by increasing literacy regarding various digital financial products so that they can eliminate feelings of anxiety and foster a feeling of security in their financial condition when this and the future. Thus, the level of financial well-being they feel subjectively will be high.

5. Conclusion and Recommendation

This study aims to investigate the effect of digital financial literacy on the financial well-being of millennial workers, as expressed by feelings of anxiety or feelings of security about their financial condition, and the mediating effect of digital financial behavior.

All hypotheses proposed in this study can be concluded that all are accepted. Digital financial literacy has a significantly positive effect on digital financial behavior, a negative effect on financial anxiety, and a positive effect on financial security. Digital financial behavior has a significant negative influence on financial anxiety and a positive influence on financial security. Digital financial behavior has been proven to be a partial mediator, specifically as a competitive mediator in the relationship between digital financial literacy and financial anxiety and as a complementary mediator between digital financial literacy and financial security.

Based on the findings, having effective digital financial literacy and behavior is a must for millennial workers in the Greater Jakarta region. It is strongly recommended that they enhance their mastery of digital financial literacy and adopt effective digital financial management practices when using digital financial products. So, they can pursue stability and financial well-being consistently all year round. Also, cash flow can be controlled as needed to prevent feelings of anxiety and create feelings of security about the current and future financial situation.

This study still has limited context in digital finance, with the time frame of research under one month, and it involves a small region. For further research, it is crucial to keep in mind that millennial workers' financial well-being still needs more guidance and effective direction. So, keep looking into broader contexts, longer duration, and heterogenous areas to produce more comprehensive study findings that will provide a more complete picture.

References

[1]   Aguirre-Urreta, M. I., & Rönkkö, M. (2018). Statistical Inference with PLSc Using Bootstrap Confidence Intervals. *MIS Quarterly*, *42*(3), 1001–1020. https://doi.org/10.25300/MISQ/2018/13587

[2]   Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

[3]   Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. In *Psychology and Health* (Vol. 26, Issue 9, pp. 1113–1127). https://doi.org/10.1080/08870446.2011.613995

[4]   Akben-Selcuk, E. (2015). Factors Influencing College Students' Financial Behaviors in Turkey: Evidence from a National Survey. *International Journal of Economics and Finance*, *7*(6). https://doi.org/10.5539/ijef.v7n6p87

[5]   Alonso-García, J., Bateman, H., Bonekamp, J., Van Soest, A., & Stevens, R. (2017). *Saving preferences in retirement: the impact of pension policy design and health status*. www.cepar.edu.au

[6]   Badan Pusat Statistik. (2021a). *Labor Force Situation in Indonesia*.

[7]   Badan Pusat Statistik. (2021b). *Telecommunication Statistics in Indonesia 2021*.

[8]   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

[9]   Carlson, E. (2008). The Lucky Few. In *Springer Dordrecht*. Springer Netherlands. https://doi.org/10.1007/978-1-4020-8541-3

[10] Castro-González, S., Fernández-López, S., Rey-Ares, L., & Rodeiro-Pazos, D. (2020). The Influence of Attitude to Money on Individuals' Financial Well-Being. *Social Indicators Research*, *148*(3), 747–764. https://doi.org/10.1007/s11205-019-02219-4

[11] CFPB. (2015). *Measuring financial well-being*.

[12] Cwynar, A., Cwynar, W., Baryla-Matejczuk, M., & Betancort, M. (2019). Sustainable debt behaviour and well-being of young adults: The role of parental financial socialisation process. *Sustainability (Switzerland)*, *11*(24). https://doi.org/10.3390/SU11247210

[13] Damian, L. E., Negru-Subtirica, O., Domocus, I. M., & Friedlmeier, M. (2020). Healthy Financial Behaviors and Financial Satisfaction in Emerging Adulthood: A Parental Socialization Perspective. *Emerging Adulthood*, *8*(6), 548–554. https://doi.org/10.1177/2167696819841952

[14] Davis, K., Maddock, R., & Foo, M. (2017). *Catching-Up with Indonesia's Fintech Industry Working Paper*.

[15] Delafrooz, N., & Paim, L. (2011). Determinants of financial wellness among Malaysia workers. *African Journal of Business Management*, *5*(24), 10092–10100. https://doi.org/10.5897/ajbm10.1267

[16] Drever, A. I., ODDERS-WHITE, E., KALISH, C. W., ELSE-QUEST, N. M., HOAGLAND, E. M., & NELMS, E. N. (2015). Foundations of Financial Well-Being: Insights into the Role of Executive Function, Financial Socialization, and Experience-Based Learning in Childhood and Youth. *Journal of Consumer Affairs*, *49*(1), 13–38. https://doi.org/10.1111/joca.12068

[17] Falahati, L., & Paim, L. (2011). Gender Differences In Financial Well-Being Among College Students. *Australian Journal of Basic and Applied Sciences*, *5*(9), 1765–1776.

[18] Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research.* Reading, MA: Addison-Wesley.

[19] Fünfgeld, B., & Wang, M. (2009). Attitudes and behaviour in everyday finance: Evidence from Switzerland. *International Journal of Bank Marketing*, *27*(2), 108–128. https://doi.org/10.1108/02652320910935607

[20] Furnham, A. (1999). The saving and spending habits of young people. In *Journal of Economic Psychology* (Vol. 20). www.elsevier.com/locate/joep

[21] Garman, E. T., & Forgue, R. (2006). *Personal Finance*.

[22] Gutter, M., & Copur, Z. (2011). Financial Behaviors and Financial Well-Being of College Students: Evidence from a National Survey. *Journal of Family and Economic Issues*, *32*(4), 699–714. https://doi.org/10.1007/s10834-011-9255-2

[23] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis Eighth Edition*. www.cengage.com/highered

[24] Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7

[25] Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

[26] Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. In *European Business Review* (Vol. 31, Issue 1, pp. 2–24). Emerald Group Publishing Ltd. https://doi.org/10.1108/EBR-11-2018-0203

[27] Hasibuan, B. K., Lubis, Y. M., & HR, W. A. (2018). Financial Literacy and Financial Behavior as a Measure of Financial Satisfaction. *Advances in Economics, Business and Management Research (AEBMR)*, *46*, 503–507.

[28] Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

[29] Houmanfar, R. A., Alavosius, M. P., Morford, Z. H., Herbst, S. A., & Reimer, D. (2015). Functions of Organizational Leaders in Cultural Change: Financial and Social Well-Being. *Journal of Organizational Behavior Management*, *35*(1–2), 4–27. https://doi.org/10.1080/01608061.2015.1035827

[30] Joo, S. H., Durband, D. B., & Grable, J. (2008). The academic impact of financial stress on college students. *Journal of College Student Retention: Research, Theory and Practice*, *10*(3), 287–305. https://doi.org/10.2190/CS.10.3.c

[31] Joo, S. H., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues*, *25*(1), 25–50. https://doi.org/10.1023/B:JEEI.0000016722.37994.9f

[32] Kumar, P., Pillai, R., Kumar, N., & Tabash, M. I. (2022). The interplay of skills, digital financial literacy, capability, and autonomy in financial decision making and well-being. *Borsa Istanbul Review*. https://doi.org/10.1016/j.bir.2022.09.012

[33] Likert, R. (1932). A technique for the measurement of attitudes. In *Archives of Psychology* (Vol. 22, pp. 5–55).

[34] Limbu, Y. B., & Sato, S. (2019). Credit card literacy and financial well-being of college students: A moderated mediation model of self-efficacy and credit card number. *International Journal of Bank Marketing*, *37*(4), 991–1003. https://doi.org/10.1108/IJBM-04-2018-0082

[35] 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

[36] Mahendru, M., Sharma, G. D., & Hawkins, M. (2020). Toward a new conceptualization of financial well-being. *Journal of Public Affairs*. https://doi.org/10.1002/pa.2505

[37] Mahendru, M., Sharma, G. D., Pereira, V., Gupta, M., & Mundi, H. S. (2022). Is it all about money honey? Analyzing and mapping financial well-being research and identifying future research agenda. *Journal of Business Research*, *150*, 417–436. https://doi.org/10.1016/j.jbusres.2022.06.034

[38] Morgan, P., Huang, B., & Trinh, L. (2019). *The Need to Promote Digital Financial Literacy for the Digital Age*. https://whatis.techtarget.com/definition/gig-economy

[39] Morgan, P. J., & Trinh, L. Q. (2019). Fintech and Financial Literacy in the Lao PDR. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3398235

[40] O'Connor, G. E., Newmeyer, C. E., Wong, N. Y. C., Bayuk, J. B., Cook, L. A., Komarova, Y., Loibl, C., Lin Ong, L., & Warmath, D. (2019). Conceptualizing the multiple dimensions of consumer financial vulnerability. *Journal of Business Research*, *100*, 421–430. https://doi.org/10.1016/j.jbusres.2018.12.033

[41] OECD. (2020). *Advancing the Digital Financial Inclusion of Youth Report prepared for the G20 Global Partnership for Financial Inclusion*.

[42] OJK. (2022). *Statistik Fintech OJK*. Https://Www.Ojk.Go.Id/Id/Kanal/Iknb/Data-Dan-Statistik/Fintech/Default.Aspx.

[43] Postmus, J. L., HETLING, A., & L. HOGE, G. (2015). Evaluating a Financial Education Curriculum as an Intervention to Improve Financial Behaviors and Financial Well-Being of Survivors of Domestic Violence: Results from a Longitudinal Randomized Controlled Study. *Journal of Consumer Affairs*, *49*(1), 250–266. https://doi.org/10.1111/joca.12057

[44] Prasad, H., Meghwal, D., & Dayama, V. (2018). Digital Financial Literacy: A Study of Households of Udaipur. *The Journal of Business and Management*, *23*.

[45] Rahayu, R., Ali, S., Aulia, A., & Hidayah, R. (2022). The Current Digital Financial Literacy and Financial Behavior in Indonesian Millennial Generation. *Journal of Accounting and Investment*, *23*(1), 78–94. https://doi.org/10.18196/jai.v23i1.13205

[46] Rickard, C. (2018). *Building the business case for employee financial wellbeing*.

[47] Riitsalu, L., & Murakas, R. (2019). Subjective financial knowledge, prudent behaviour and income: The predictors of financial well-being in Estonia. *International Journal of Bank Marketing*, *37*(4), 934–950. https://doi.org/10.1108/IJBM-03-2018-0071

[48] Sabri, M. F., & Falahati, L. (2012). Estimating a Model of Subjective Financial Well-Being among College Students. In *International Journal of Humanities and Social Science* (Vol. 2, Issue 18). www.ijhssnet.com

[49] Sabri, M. F., Masud, J., & Paim, L. (2008). Personal Financial Wellness among Malaysian Employees: Socio Demographic Comparison. *Consumer Interests Annual* , *54*, 189–192. https://www.researchgate.net/publication/341998524

[50] Sarstedt, M., Henseler, J., & Ringle, C. M. (2011). Multigroup analysis in partial least squares (PLS) path modeling: Alternative methods and empirical results. *Advances in International Marketing*, *22*, 195–218. https://doi.org/10.1108/S1474-7979(2011)0000022012

[51] Schmeiser, M. D., & Seligman, J. S. (2013). Using the Right Yardstick: Assessing Financial Literacy Measures by Way of Financial Well-Being. *Journal of Consumer Affairs*, *47*(2), 243–262. https://doi.org/10.1111/joca.12010

[52] Setiawan, M., Effendi, N., Santoso, T., Dewi, V. I., & Sapulette, M. S. (2022). Digital financial literacy, current behavior of saving and spending and its future foresight. *Economics of Innovation and New Technology*, *31*(4), 320–338. https://doi.org/10.1080/10438599.2020.1799142

[53] Setiyani, R., & Solichatun, I. (2019). Financial Well-being of College Students: An Empirical Study on Mediation Effect of Financial Behavior. *3rd ICEEBA (International Conference on Economics, Education, Business and Accounting)*, *3*(11), 451. https://doi.org/10.18502/kss.v3i11.4026

[54] Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*, *30*(6), 708–723. https://doi.org/10.1016/j.appdev.2009.02.003

[55] Shmueli, G., & Koppius, O. (2010). Predictive Analytics in Information Systems Research. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1606674

[56] Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance*, *14*, 30–38. https://doi.org/10.1016/j.jbef.2017.04.002

[57] Strömbäck, C., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2020). Subjective self-control but not objective measures of executive functions predicts financial behavior and well-being. *Journal of Behavioral and Experimental Finance*, *27*. https://doi.org/10.1016/j.jbef.2020.100339

[58] Thi, N., Mien, N., & Thao, T. P. (2015). Factors Affecting Personal Financial Management Behaviors: Evidence from Vietnam. *Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences (AP15Vietnam Conference)* , 10–12.

[59] Watson, J. J. (2003). The relationship of materialism to spending tendencies, saving, and debt. *Journal of Economic Psychology*, *24*(6), 723–739. https://doi.org/10.1016/j.joep.2003.06.001

[60] Williams, A. J., & Oumlil, B. (2015). College student financial capability. *International Journal of Bank Marketing*, *33*(5), 637–653. https://doi.org/10.1108/IJBM-06-2014-0081

[61] Younas, W., Javed, T., Kalimuthu, K. R., Farooq, M., Khalil-ur-Rehman, F., & Raju, V. (2019). Impact of Self-Control, Financial Literacy and Financial Behavior on Financial Well-Being. *The Journal of Social Sciences Research*, *51*, 211–218. https://doi.org/10.32861/jssr.51.211.218

[62] Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, *37*(2), 197–206. https://doi.org/10.1086/651257

[63] Zulfiqar, M., & Bilal, M. (2016). Financial Wellbeing is the Goal of Financial Literacy. *Research Journal of Finance and Accounting Www.Iiste.Org ISSN*, *7*(11). www.iiste.org

[64] Zyphur, M. J., Li, W. D., Zhang, Z., Arvey, R. D., & Barsky, A. P. (2015). Income, personality, and subjective financial well-being: the role of gender in their genetic and environmental relationships. *Frontiers in Psychology*, *6*. https://doi.org/10.3389/fpsyg.2015.01493