

Are Generational Differences Shaping Financial Literacy? Evidence from Distance Education Graduate Students

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Abstract: Financial literacy has become a critical skill for individuals in the face of increasingly complex economic conditions. The aim of this study is to examine the financial literacy tendencies of students enrolled in non-thesis master's programmes conducted through distance education, based on different generational groups. Using a cross-sectional survey design, data were collected from 302 students through a personal information form and the Marmara Financial Literacy Attitude and Behaviour Scale. The data were analysed using descriptive statistics, t-tests, and one-way ANOVA. The findings revealed significant differences between generations. Female students in Generation X have a higher level of financial literacy than their male counterparts. Generation Z public sector employees demonstrated higher spending awareness than their unemployed peers. In Generation Y, financial responsibility, spending awareness, and financial tool usage increased with higher income levels. In Generation Z, high income is associated with stronger financial planning behaviours. Technological competence is also an important factor. Advanced technology users exhibited higher levels of planning and consumption behaviours. It has been found that members of Generation Y, who spend a significant amount of time using technological devices on a daily basis, exhibit higher levels of financial planning and consumption behaviour. The results highlight the necessity of generation-based and technology-supported financial literacy programmes.

Keywords: distance education, financial literacy, baby boomer, xyz generations, graduate students

Highlights

What is already known about this topic:

- Financial literacy is a critical skill that affects behaviours such as income management, conscious spending and use of financial instruments.
- Previous studies have shown that financial attitudes and behaviours differ between generations.
- It is known that gender, income level and technology use may be related to financial literacy.

What this paper contributes:

- It is one of the first studies to examine intergenerational financial literacy in a sample of graduate students in distance education.
- Findings revealed that female members of Generation X exhibit higher financial literacy levels compared to their male counterparts
- It has been shown that income and technological competence significantly affect financial awareness and behaviour in Generations Y and Z.

Implications for theory, practice and/or policy:

- The fact that income and technology usage have different effects across generations necessitates the generation-based design of financial education programmes.
- The higher spending awareness of Generation Z public sector employees demonstrates that employment is an important factor in developing financial behaviour.

Introduction

Significant events experienced by each generation during their respective periods shape the characteristic features of the individuals within that generation. Critical transitions such as wars, major financial crises, terrorist acts, global pandemics, and natural disasters resulting in death and material damage influence how people from that generation interpret life (Alptekin et al., 2021). It is observed that all these significant events that affect the characteristic features of generations fundamentally result in adverse economic consequences. The continuous negative impact on the economy caused by the ever-increasing world population, wars, financially erroneous policies, and sudden developments such as the COVID-19 pandemic has led to financial crises, prompting people to always save and spend consciously (Ordun, 2015). This trend has resulted in societies placing more importance on financial literacy and an increase in the number of financial literacy trainings (Bayrakdaroglu & Bilge, 2018).

Financial literacy is conceptualized as the skills of individuals to comprehend monetary concepts, evaluate social events and economic conditions, take short-term financial choices, devise long-term strategic financial plans, and manage their financial status (Remund, 2010). The Organization for Economic Co-operation and Development (OECD, 2014) describes financial literacy is to recognize financial concepts and risks, as well as the skills to evaluate and utilize this knowledge within a financial framework, to adapt to economic life and contribute to individual and societal economic development (OECD, 2014). Examining these two definitions of financial literacy, financial literacy has an individual aspect that improves people's knowledge and skills, and a societal aspect that affects people's attitudes and behaviors. Therefore, given the likelihood of encountering new crises in the future, the widespread promotion of financial literacy remains crucial both individually and societally.

In recent times, alongside global events, the shocks to energy prices in European countries following the Russia-Ukraine war, coupled with rising inflation, weakening economic growth and political uncertainty, have reduced household purchasing power and had a negative impact on financial stability, the budget deficit and public debt. During this period, many people have started to save, cut back on unnecessary spending and turned to investing in financial assets they regard as more reliable in the face of uncertainty. This situation has prompted many people who are trying to manage their income and expenditure and seeking additional sources of income to keep abreast of the latest developments and to seek training to improve their financial skills (Adolfson et al., 2022). This trend and increased focus are driving individuals to seek out financial information more frequently during times of crisis, thereby altering both their investment behaviour and investor psychology. From this perspective, it is well established that individuals seeking to manage their financial assets and secure an additional source of income are undertaking financial education across various platforms (Shefrin, 2007; Veldkamp, 2006). It is crucial for these individuals with high financial literacy levels to specialize in financial literacy to carefully balance the risk-return ratio of their financial assets and to make informed savings decisions (Cam & Cam, 2016). According to Gokmen (2012), enhancing individuals' financial literacy levels and equipping them with financial literacy skills is also important for preventing potential financial crises in the economic domain. In this context, it is necessary to determine whether the knowledge of financial literacy, which is effective in ensuring economic stability, income management, and active market participation before and after potential crises, is at a sufficient level among the individuals constituting different generations.

The literature review reveals that scientific research on financial literacy has become widespread not only in developed countries with strong economies but also in many emerging economies such as Turkey, Brazil, Indonesia, Malaysia, Thailand, and India (Amonhaemanon & Vora-Sitta, 2020; Atkinson & Messy, 2012; Bayrakdaroglu & Bilge, 2018; Brown et al., 2018; Cevik, 2018; Dewi et al., 2020; Gok & Coskun, 2020; Meyers, 2020; Seyhan, 2020; Swiecka et al., 2020; Usriyono & Wahyudi, 2023; Yilmaz & Aslan, 2020). According to these studies on financial literacy, it is evident that this new type of skill has not yet become sufficiently widespread or reached an adequate level within society (Arrondel et al., 2013; Atkinson & Messy, 2012; Lusardi & Mitchell, 2011; Sekita, 2011). Indeed, scientific research

conducted in Turkey yields similar results, indicating that the level of financial literacy is not yet sufficient (Acaravci & Bediroglu, 2019; Tetik, 2019; Yilmaz & Aslan, 2020). Conversely, the literature reveals that studies addressing open and distance learning alongside concepts such as financial literacy and financial awareness are limited. For example, Agasisti et al. (2023), in their experimental study conducted at Politecnico di Milano, aimed to understand whether a short-term financial education program was more effective when delivered online or face-to-face on campus. The study concluded that there was no statistically significant difference between distance and face-to-face financial education. Another study conducted at Fluminense University in Brazil examined the interest of students taking finance courses via distance learning, the personality traits of these students, and how future finance courses could be designed more effectively. The research found that student interest was high, participants were mostly adults and male, and the majority of participants were from the southeastern region (Sanfins et al., 2017).

When examining research conducted on financial literacy and spending awareness, it is observed that the target audiences of these studies are generally students. For instance, a research conducted by Swiecka et al. (2020) identified the financial literacy levels of Polish high school students and investigated whether these levels differed based on the variable of gender. This research, conducted on high school students, found that Polish high school students possessed a good or somewhat very high level of financial knowledge. Additionally, it was observed that male students had higher levels of financial literacy compared to female students. In another study by Brown et al. (2018), the researchers compared middle school students from the German-speaking and French-speaking regions of Switzerland to examine the impact of cultural factors on financial literacy. They found that students from the French-speaking region had lower financial literacy levels compared to those from the German-speaking region. Opletalova (2015), on the other hand, sought to determine the current state of financial education provided at the elementary and middle school levels in the Czech Republic and aimed to assess the financial education levels of high school students. In a scientific study conducted by Gok and Coskun (2020), the researchers attempted to identify the financial literacy tendencies of individuals belonging to Generation Z. In this study, conducted on members of Generation Z in Turkey, it was found that as the perception and knowledge levels of Generation Z regarding financial matters increased, they made fewer expenditures in daily life. Another study by Yilmaz and Arslan (2020) aimed to identify the financial literacy levels of university students and finalized that students' financial literacy tendencies were at a moderate level.

When we examined the financial literacy-oriented studies in different sources, it was observed that there is no study that addresses the financial knowledge levels of individuals receiving distance learning education on the basis of generations. Therefore, the results of this study are hoped to make a significant contribution to scientific literature.

Aim of the Research

This research aimed to examine the financial literacy tendencies of graduate students registered in non-thesis master's programs in distance education at Anadolu University's Institute of Social Sciences, who belong to different generational groups. The research questions analyzed in line with this purpose are given below:

- Do the financial literacy tendencies of different generational groups enrolled in non-thesis master's programs in distance education show significant differences based on gender, income level, technology usage proficiency, and average daily usage of technological devices variable?
- Do the financial planning and consumption levels of generational groups enrolled in Non-thesis Master's Programs in Distance Education show significant differences based on occupational status variable?
- Do the spending awareness levels of generational groups enrolled in non-thesis master's programs in distance education show significant differences based on monthly income level variable?

- Do the levels of financial instrument usage among generational groups enrolled in Non-thesis Master's Programs in Distance Education show significant differences based on technology usage proficiency variable?

Methodology

This study was designed using quantitative research methods and techniques. According to Creswell (2012), this type of research involves using measurable numerical data to examine the relationships and effects between variables, with the aim of either explaining a problem or testing hypotheses. Such research is usually based on research questions or hypotheses. Fraenkel et al. (2012) state that quantitative research involves collecting numerical data on variables, and that the findings are generalised to a broader population. This type of research can be classified as experimental, single-subject, correlational, causal-comparative or survey research. This study is a survey research.

Research Design

This research examined the financial literacy tendencies of students enrolled in distance learning programs, focusing on different generational groups through various variables. The research employed a survey model. In studies utilizing survey models, a cross-sectional survey model is preferred to gather data on existing attitudes, ideas, and opinions, while a longitudinal survey model is used to examine whether these attitudes, ideas, and opinions change over time (Creswell, 2012). In this research, a cross-sectional probe method was adopted. Cross-sectional probe is a research technique that enables collecting information by determining variables at a single moment in a given time interval (Fraenkel et al., 2012). In studies where the cross-sectional survey model is preferred, data are collected within a certain period of time and participants are divided into different groups for comparison (Creswell, 2012). In this study, a cross-sectional survey model was used to create the sample, and care was taken to ensure that the students were enrolled in distance education programs and were active learners. In this research, a cross-sectional survey method was used since it was aimed to determine the respondents' financial literacy tendencies at a specific moment.

Sample

The population of this research included of graduate students registered in Anadolu University Institute of Social Sciences Distance Education Non-Thesis Master's Programs in the spring semester. A total of 302 students enrolled in these programmes and attending their courses through virtual distance education were included in the sample of the study. A non-random sampling method, especially convenience sampling, was used to form the sample. Convenience sampling method has the principles of accessibility and convenience and enable researchers to collect data in a short time. In this sampling method, individuals who participate voluntarily are studied (Creswell, 2012). In the literature, generations are globally classified in five groups as the Silent Generation, Baby Boomers, Generation X, Generation Y, and Generation Z (Aka, 2018; Alptekin et al., 2021; Bayramov, 2019; Berkup, 2014; Crumpacker & Crumpacker, 2007; Deniz & Tutgun-Unal, 2019; Tas et al, 2017; Tutgun-Unal & Deniz, 2020). In this study, the classification of students according to generations was based on birth intervals. Information regarding the generational classification of the students comprising the sample of the study is provided in Table 1.

Table 1. Classification of the sample group by generation

Generation	Birth Interval	Frequency (N)	Percentage Value (%)
Baby Boomer	1946-1964	31	10.3
X	1965-1979	52	17.2
Y	1980-1999	138	45.7
Z	2000 and beyond	81	26.8

Table 1 provides the distribution percentages of the sample group according to generations. According to this table, 10.3% of the participants (n=31) belonged to the Baby Boomer generation, 17.2% (n=52) belonged to Generation X, 45.7% (n=138) belonged to Generation Y, and 26.8% (n=81) belonged to Generation Z. Additionally, there were no participants from the Silent Generation in the sample group. Information on other demographic characteristics of the graduate students is presented in Table 2.

Table 2. Demographic characteristics

Characteristics	Variable	Frequency (N)	Percentage Value (%)
Gender	Female	126	41.7
	Male	176	58.3
Occupational Status	Unemployed	42	13.9
	Public Employee	160	53.0
	Private Sector Employee	70	23.2
	Retired	14	4.6
	Self-employed	16	5.3
Monthly level of income	Hunger limit and below	32	10.6
	Between Poverty limit and below	62	20.5
	Above the poverty limit	208	68.9
Technology Usage Proficiency	Basic Level	24	7.9
	Moderate	150	49.7
	Advanced	128	42.4
Daily Average Usage Time of Technological Devices	Less than 1 hour	38	12.6
	1-3 hours	84	27.8
	4-6 hours	80	26.5
	7 hours or more	100	33.1

Data Collection Tools

The data of this research were gathered by personal information form and the “Marmara Financial Literacy Attitude and Behavior Scale” developed by Celikten and Dogan (2020). The data collection period was carried out via online survey form created with Google Forms. This questionnaire was administered to graduate students registered in Distance Education Non-Thesis Master's Degree Programs of Anadolu University Institute of Social Sciences between 17 April 2023 and 15 June 2023. Data was collected on a voluntary basis. The online survey form permitted participants to give only one response for each question to avoid biased sampling. Participants were instructed to provide complete and accurate answers to the survey questions and were authorized to check the information collected if necessary.

Personal Information Form

The personal information form was developed to identify the demographic properties of the graduate students. Through this form, it was aimed to obtain information such as gender, employment status, monthly earning levels, ability to use technology and average daily usage time of electronic devices.

Marmara Financial Literacy Attitude and Behavior Scale

This scale used in the research was developed by Celikten and Dogan (2020). The scale has 21 items grouped into five sub-factors using a 5-point Likert-type format. It measures different aspects of students' financial literacy tendencies. Items 1, 2, 3, 4, 5, and 6 of the scale measure students' financial responsibility; items 7, 8, 9, 10, and 11 measure students' financial planning and consumption; items 12, 13, and 14 measure students' awareness of needs; items 15, 16, and 17 measure students' awareness of spending; and items 18, 19, 20, and 21 measure students' ability to use financial instruments. The entire scale is used to measure students' financial literacy tendencies. The reliability coefficient of the scale (Cronbach Alpha value) was determined as $\alpha=0.83$, with the reliability coefficients for the subscales being greater than 0.70 (Celikten & Dogan, 2020). Since this study was conducted on

a new population, the fit indices of the scale were evaluated using Confirmatory Factor Analysis (CFA). The CFA conducted using AMOS 21.0 yielded a χ^2/df ratio of 1.987. According to Kline (2011), a ratio in the range of $1 \leq \chi^2/df \leq 2$ indicates excellent fit, suggesting that this result reflects excellent fit. The following fit indices were examined to assess the model's goodness of fit. Root Mean Square Error of Approximation (RMSEA) value was found to be 0.049, indicating an excellent fit (Browne & Cudeck, 1992). Comparative Fit Index (CFI) value was 0.96, which exceeds the threshold of 0.95, signifying a good fit (Kline, 2011; West et al., 2012). Therefore, the CFI value indicates a good fit. Tucker-Lewis Index (TLI) value was 0.95. To Hu and Bentler (1999), a TLI value above 0.95 indicates that the model fits the data reasonably well, confirming that this value reflects a good fit. Adjusted Goodness of Fit Index (AGFI) value was found to be 0.96. Schermelleh-Engel et al. (2003) suggest that an AGFI value between 0.90 and 1.00 represents a perfect fit, and therefore, this value also suggests a perfect fit. To assess the reliability of the scale used in the research, Cronbach's Alpha (α) values were examined. The overall Cronbach's Alpha for the total scale was found to be $\alpha = 0.82$. Additionally, the internal reliability coefficients for the subscales were all greater than $\alpha = 0.70$, indicating that the scale used in the study was reliable.

Data Analysis

In compliance with scientific publication ethics, the data collected for this study were first opened in Microsoft Office Excel and then prepared for analysis using IBM SPSS 26.0 software. The data, consisting of responses to the Personal Information Form and the Marmara Financial Literacy Attitude and Behavior Scale, were entered into the SPSS program. Before analysis, data entry errors were checked, and a normality test was conducted to determine appropriate analyses. To assess whether the collected data followed a normal distribution, skewness and kurtosis values, along with histogram graphs, were examined. The normality test results indicated that the skewness and kurtosis values were within the acceptable range of -1.5 to +1.5, and the histogram graphs demonstrated a normal distribution (Tabachnick & Fidell, 2013). Subsequently, a series of fundamental assumptions were examined in order to ascertain the analyses to be employed in the study. In this regard, it was established that the dependent variable was continuous, the observations were independent, the dependent variable followed a normal distribution in each group, the variances were homogeneous, and there were no outliers. As the dataset met these basic assumptions, frequency analysis, the independent samples t-test and one-way analysis of variance were used as measurement techniques in the study. Furthermore, during the analysis of variance, it was determined that the variances were homogeneous and the group sizes were similar. Consequently, it was decided to use the Tukey HSD post-hoc test. The calculation of skewness and kurtosis values, frequency analysis showing percentage distributions, the independent samples t-test, one-way analysis of variance, and other post hoc tests were carried out using the IBM SPSS Statistics 26 software package. Confirmatory factor analysis, conducted due to the different study population, was performed using the AMOS 21 software package. To determine the effect size of significant differences, Cohen's d (d) and eta squared (η^2) values as effect size values were computed, based on the criteria established by Cohen (1988).

Limitations of the Study

This study was carried out within the framework of certain limitations and it is important to consider these limitations in the interpretation of the results. This research is limited to non-thesis master's degree students enrolled in distance education. Therefore, the results cannot be generalised for different types of education or formal education students. The study was limited to 302 participants in total. The limited number of participants may limit the generalisability of the results to the entire relevant population. Since the study was conducted with a cross-sectional model, the change or development in financial literacy tendencies could not be analysed over time. Therefore, the findings only reflect the situation in a certain period of time. The data collection tool used is based on the personal opinions and statements of the participants. This may pose a risk of bias arising from the subjective evaluations of the participants. The

generation classification used in the research is a generally accepted approach. However, due to individual differences and social conditions, it cannot be expected that all individuals have similar generational characteristics. External factors such as personal experiences, family structure, cultural differences and social environment that may affect financial literacy could not be controlled within the scope of this study. This situation is among the factors that limit the internal validity of the study. In line with these limitations, it may be suggested that future research should be conducted with larger samples, longitudinal methods and covering different levels or types of education.

Findings

In this part of this research, various analyses were conducted to determine the financial literacy tendencies of 302 participants from the Baby Boomer, X, Y, and Z generations. The findings obtained from these analyses are presented and interpreted with the help of tables. The findings related to the research questions were examined under separate headings.

Determination of Financial Literacy Tendencies of Generations by Gender

An independent sample t-test was applied to determine whether the financial literacy tendencies of different generations differed by gender. The results revealed that there was no significant gender-based differences in the financial literacy orientations of students from the Baby Boomer, Y and Z generations. However, it was observed that only the financial literacy tendencies of students from the X generation differed by gender variable. The details of this difference in the Generation X are presented in Table 3.

Table 3. Variation of financial literacy tendencies of generation X by gender variable

Generation	Subscale/ Scale	Gender	N	\bar{X}	SD	t	df	p
X	Financial Responsibility	Female	21	4.563	.4517	1.617	50	.112
		Male	31	4.252	.7968			
	Financial Planning and Consumption	Female	21	3.895	.5004	2.001	50	.051
		Male	31	3.541	.6951			
	Needs Awareness	Female	21	4.095	.7313	1.781	50	.081
		Male	31	3.688	.8560			
	Spending Consciousness	Female	21	2.968	.8293	1.090	50	.281
		Male	31	2.731	.7273			
	Using Financial Instruments	Female	21	4.131	.5948	1.751	50	.086
		Male	31	3.725	.9384			
	Total	Female	21	4.027	.3840	2.270	50	.028*
		Male	31	3.685	.6127			

Table 3 examines whether the financial literacy tendencies of Generation X differ by gender variable. According to the findings in Table 3, it was identified that the financial literacy tendencies of Generation X students ($t(50) = 2.270$, $p < 0.05$) significantly differed by gender variable. Specifically, it was found that female students in Generation X had higher financial literacy tendencies compared to their male counterparts within the same generation. The effect size was calculated using Cohen's d values, which resulted in $d = 0.66$. This value indicates that the significant difference had a medium effect size. When examining the subscales, it was determined that financial responsibility ($t(50) = 1.617$, $p > 0.05$), financial planning and consumption ($t(50) = 2.001$, $p > 0.05$), needs awareness ($t(50) = 1.781$, $p > 0.05$), spending awareness ($t(50) = 1.090$, $p > 0.05$), and using financial instruments ($t(50) = 1.751$, $p > 0.05$) within Generation X did not show significant differences by gender variable.

Determination of Financial Literacy Tendencies According to the Occupational Status of Generations

A one-way ANOVA was conducted to identify if there was a significant difference in financial literacy tendencies between generations based on their occupational status variable. The analysis revealed that there was no significant difference in financial literacy tendencies based on the occupational status variable among students from the Baby Boomer, Generation X, Generation Y, and Generation Z cohorts. Nevertheless, it was revealed that the level of expenditure consciousness among students from Generation Z showed a significant difference based on the occupational status variable. The results of the one-way ANOVA for Generation Z are presented in Table 4.

Table 4. Differentiation in financial literacy tendencies of generation Z according to occupational status variable

Generation	Subscale/Scale	Variable	N	\bar{X}	SD	df	F	p	Difference					
Z	Financial Responsibility	Unemployed	33	4.000	.6782	80	.927	.400	-					
		Public Employee	39	4.200	.6284									
		Private Sector Employee	9	4.148	.3768									
		Unemployed	33	3.672	.4631									
		Public Employee	39	3.600	.7108									
		Private Sector Employee	9	3.711	.4136									
	Financial Planning and Consumption	Unemployed	33	3.484	.9504	80	2.830	.065	-					
		Public Employee	39	3.957	.7990									
		Private Sector Employee	9	3.888	.7264									
		Unemployed	33	2.525	.8166					80	4.075	.021*	Public E. > Unemployed	
		Public Employee	39	3.051	1.016									
		Private Sector Employee	9	2.296	.9345									
	Unemployed	33	3.515	.8658	80	.480	.621	-						
	Public Employee	39	3.705	.8229										
	Private Sector Employee	9	3.638	.6137										
	Using Financial Instruments	Unemployed	33	3.545					.4197	80	1.729	.184	-	
		Public Employee	39	3.764					.5920					
		Private Sector Employee	9	3.645					.2309					
		Total	Unemployed	33	3.545	.4197	80	1.729	.184					-
			Public Employee	39	3.764	.5920								
			Private Sector Employee	9	3.645	.2309								

*p<0.05

When examining the analysis results presented in Table 4, it was determined that the financial literacy tendencies of students belonging to Generation Z did not show a significant difference according to the occupational status variable ($F(2,80)=[1.729]$, $p>0.05$). When the subscales were examined, it was found that a significant difference was observed only in the spending consciousness subscale ($F(2,80)=[4.075]$, $p<0.05$). To identify which variables contributed to this remarkable difference, a Tukey HSD multiple comparison test was realized. The results of the multiple comparison test indicated that students from Generation Z who worked in the public sector ($\bar{X}= 3.051$, $SD= 1.016$) had a higher level of spending consciousness compared to those who were not employed in any job ($\bar{X}= 2.525$, $SD= .8166$) within the same generation. This remarkable difference was determined to have a moderate effect size ($\eta^2= 0.094$).

Determination of Financial Literacy Tendencies According to Monthly Income Levels Across Generations

A one-way ANOVA was conducted to identify if financial literacy tendencies differed according to the variable of monthly income levels of various generations. The results of the analysis revealed that the financial literacy tendencies of students in the Baby Boomer and Generation X groups did not show any significant differences based on their monthly income levels variable. However, significant differences were observed among students in Generation Y and Generation Z. Accordingly, an ANOVA test was carried out to analyse the variations in financial literacy tendencies among Generation Y students based on their monthly income levels. The findings are presented in Table 5.

Table 5. Variations in financial literacy tendencies of generation Y according to monthly income level variable

Generation	Subscale/Scale	Variable	N	\bar{X}	SD	df	F	p	Difference
Y	Financial Responsibility	Hunger limit and below	6	4.361	.3714				
		Poverty limit and below	26	3.980	.6554	137	4.412	.014*	Above the poverty limit > Poverty limit and below
		Above the poverty limit	106	4.371	.5986				
	Financial Planning and Consumption	Hunger limit and below	6	3.766	.5715				
		Poverty limit and below	26	3.546	.6028	137	1.347	.264	-
		Above the poverty limit	106	3.766	.6205				
	Needs Awareness	Hunger limit and below	6	3.944	.7722				
		Poverty limit and below	26	3.923	.8448	137	.228	.796	-
		Above the poverty limit	106	4.037	.8104				
	Spending Consciousness	Hunger limit and below	6	1.777	.5837				
		Poverty limit and below	26	2.307	.6727	137	3.834	.024*	Above the poverty limit > Poverty limit and below
		Above the poverty limit	106	2.650	.9555				
	Using Financial Instruments	Hunger limit and below	6	3.041	1.053				
		Poverty limit and below	26	3.586	.6962	137	3.734	.026*	Above the poverty limit > Hunger limit and below
		Above the poverty limit	106	3.849	.8022				
	Total	Hunger limit and below	6	3.539	.3980				
		Poverty limit and below	26	3.554	.4721	137	4.034	.020*	Above the poverty limit > Poverty limit and below
		Above the poverty limit	106	3.834	.5013				

*p<0.05

When examining Table 5, it was observed that there was a statistically significant difference ($F(2,137) = [4.034]$, $p<0.05$) between the financial literacy tendencies of students in Generation Y and their monthly income levels variable. To identify the specific variables between which this significant difference exists, a Tukey HSD multiple comparison test was conducted. According to the test results, students in Generation Y with a monthly income of above the poverty limit ($\bar{X}= 3.834$, $SD= .5013$) had higher financial literacy tendencies compared to those with a monthly income between Generation Z students with a monthly income between poverty limit and below ($\bar{X}= 3.554$, $SD= .4721$). The identified

significant difference had a small effect size ($\eta^2 = 0.056$). Upon examining the subscales that make up the scale, some significant differences were also identified. Specifically, students in Generation Y with a monthly income of above the poverty limit ($\bar{X} = 4.371$, $SD = .5986$) had higher financial responsibility levels compared to those with a monthly income between Generation Z students with a monthly income between poverty limit and below ($\bar{X} = 3.980$, $SD = .6554$). The identified significant difference had a medium effect size ($\eta^2 = 0.061$). Another significant difference was observed in the spending consciousness subscale. Specifically, students in Generation Y with a monthly income of above the poverty limit ($\bar{X} = 2.650$, $SD = .9555$) had higher spending consciousness levels compared to those with a monthly income between Generation Z students with a monthly income between poverty limit and below ($\bar{X} = 3.980$, $SD = .6554$). This significant difference had a small effect size ($\eta^2 = 0.053$). Another significant difference was found in the using financial instruments subscale. Accordingly, students in Generation Y with a monthly income of above the poverty limit ($\bar{X} = 3.849$, $SD = .8022$) had higher financial instruments usage skills compared to those with a monthly income of hunger limit and below ($\bar{X} = 3.041$, $SD = 1.053$). This significant difference also had a small effect size ($\eta^2 = 0.052$).

To examine whether the financial literacy tendencies of students in Generation Z differed based on their monthly income levels variable, an ANOVA test was conducted. The findings from the test are presented in Table 6.

Table 6. Variation in financial literacy tendencies of generation Z according to monthly income levels variable

Generation	Subscale/ Scale	Variable	N	\bar{X}	SD	df	F	p	Difference
Z	Financial Responsibility	Hunger limit and below	25	4.100	.6735	80	.188	.829	-
		Poverty limit and below	23	4.058	.5564				
		Above the poverty limit	33	4.161	.6554				
	Financial Planning and Consumption	Hunger limit and below	25	3.712	.4657	80	3.142	.048*	Above the poverty limit > Poverty limit and below
		Poverty limit and below	23	3.391	.5640				
		Above the poverty limit	33	3.763	.6450				
	Needs Awareness	Hunger limit and below	25	3.720	.7974	80	.402	.671	-
		Poverty limit and below	23	3.652	.9506				
		Above the poverty limit	33	3.858	.8976				
	Spending Consciousness	Hunger limit and below	25	2.640	.9225	80	.555	.576	-
		Poverty limit and below	23	2.681	.9922				
		Above the poverty limit	33	2.888	.9918				
	Using Financial Instruments	Hunger limit and below	25	3.500	.9736	80	.442	.644	-
		Poverty limit and below	23	3.630	.5929				
		Above the poverty limit	33	3.704	.8349				
	Total	Hunger limit and below	25	3.630	.4303	80	1.055	.353	-
		Poverty limit and below	23	3.563	.3998				
		Above the poverty limit	33	3.754	.6058				

* $p < 0.05$

The analysis results presented in Table 6 indicate that there was no statistically significant difference ($F(2,80)=1.055$, $p>0.05$) between the financial literacy tendencies of Generation Z students based on the variable of monthly income levels. However, when examining the subscales of the scale, it was found that only the financial planning and consumption subscale showed a significant difference based on the monthly income variable ($F(2,80)=3.142$, $p<0.05$). No significant differences were observed in the other subscales of the scale. A Tukey HSD multiple comparison test was conducted to determine between which variables the significant difference in the financial planning and consumption subscale was observed. According to the test results, Generation Z students with a monthly income of above the poverty limit ($\bar{X}= 3.763$, $SD= .6450$) were found to have higher levels of financial planning and consumption compared to Generation Z students with a monthly income between poverty limit and below ($\bar{X}= 3.391$, $SD= .5640$). This remarkable difference was found to have a moderate effect size ($\eta^2= 0.074$).

Determination of Financial Literacy Tendencies of Generations According to technology usage proficiency

A one-way ANOVA was conducted to determine whether there were differences in financial literacy tendencies among generations based on the technology usage proficiency variable. The analysis found no significant difference between the financial literacy tendencies of Baby Boomer and Generation X students and the technology usage proficiency variable. However, statistically significant differences were found only among Generation Y and Generation Z. The findings related to these significant differences are presented in Tables 7 and 8, respectively.

Table 7. The variation of generation Y's financial literacy tendencies according to the technology usage proficiency variable

Generation	Subscale/Scale	Variable	N	\bar{X}	SD	df	F	p	Difference
Y	Financial Responsibility	Basic Level	7	4.309	.6193				
		Moderate	67	4.226	.6314	137	.882	.416	-
		Advanced	64	4.369	.6038				
	Financial Planning and Consumption	Basic Level	7	3.257	.4859				
		Moderate	67	3.629	.6384	137	4.971	.008*	Advanced > Basic
		Advanced	64	3.875	.5673				
	Needs Awareness	Basic Level	7	3.619	.8482				
		Moderate	67	4.104	.7658	137	1.406	.249	-
		Advanced	64	3.958	.8472				
	Spending Consciousness	Basic Level	7	2.047	.4879				
		Moderate	67	2.587	.9285	137	1.114	.331	-
		Advanced	64	2.562	.9331				
	Using Financial Instruments	Basic Level	7	3.178	.1.037				
		Moderate	67	3.697	.7105	137	3.017	.052	-
		Advanced	64	3.898	.8576				
	Total	Basic Level	7	3.421	.3546				
		Moderate	67	3.732	.5019	137	2.641	.075	-
		Advanced	64	3.845	.5043				

* $p<0.05$

When examining the test results seen in Table 7, it was identified that the financial literacy tendencies of Generation Y students did not show a significant difference according to the technology usage variable ($F(2,137)=2.641$, $p>0.05$). However, when looking at the subscales of the scale, a significant difference was observed only in the financial planning and consumption subscale ($F(2,137)=4.971$,

$p < 0.05$). To identify between which variables this significant difference occurred, a Tukey HSD multiple comparison test was conducted. According to the test results, Generation Y students who used technology at an advanced level ($\bar{X} = 3.875$, $SD = .5673$) had higher financial planning and consumption levels compared to those who used technology at a basic level ($\bar{X} = 3.257$, $SD = .4859$) This significant difference was found to have a medium effect size ($\eta^2 = 0.068$).

An ANOVA test was conducted to determine whether the financial literacy tendencies of Generation Z students differed according to the technology usage proficiency variable. The findings related to the test results are presented in Table 8.

Table 8. The variation of generation Z's financial literacy tendencies according to the technology usage proficiency variable

Generation	Subscale/Scale	Variable	N	\bar{X}	SD	df	F	p	Difference
Z	Financial Responsibility	Basic Level	10	4.016	.2415	80	2.395	.098	-
		Moderate	37	3.977	.6703				
		Advanced	34	4.289	.6294				
	Financial Planning and Consumption	Basic Level	10	3.420	.4263	80	1.260	.289	-
		Moderate	37	3.610	.6288				
		Advanced	34	3.741	.5732				
	Needs Awareness	Basic Level	10	3.600	.5164	80	1.168	.316	-
		Moderate	37	3.639	.9505				
		Advanced	34	3.931	.8676				
	Spending Consciousness	Basic Level	10	2.866	.7235	80	3.239	.045*	Advanced > Moderate, Advanced > Basic
		Moderate	37	2.468	.9177				
		Advanced	34	3.029	1.012				
	Using Financial Instruments	Basic Level	10	3.425	.8901	80	.484	.618	-
		Moderate	37	3.594	.7825				
		Advanced	34	3.705	.8449				
	Total	Basic Level	10	3.538	.2428	80	2.901	.061	-
		Moderate	37	3.553	.5069				
		Advanced	34	3.816	.5238				

* $p < 0.05$

When examining the findings presented in Table 8, it is evident that the financial literacy tendencies of students belonging to Generation Z did not show a statistically significant difference according to the technology usage proficiency variable ($F(2,80) = [2.901]$, $p > 0.05$). However, when the subscales of the scale were analyzed, it was determined that there was a significant difference only in the "spending consciousness" subscale. To identify the source of this significant difference, the Tukey HSD multiple comparison test was conducted. According to the results, Generation Z students who were highly proficient in technology ($\bar{X} = 3.029$, $SD = .1012$) had higher spending consciousness levels compared to those who used technology at a moderate level ($\bar{X} = 2.468$, $SD = .9177$) or a basic level ($\bar{X} = 2.866$, $SD = .7235$). This result indicates that as technology usage proficiency increased among Generation Z individuals, their spending consciousness levels also rose. This finding is one of the prominent results of the study. Furthermore, the effect size of this significant difference was calculated using the eta squared value, which showed that the observed difference had a medium effect size ($\eta^2 = 0.076$). In addition, no similar differences were found in the other subscales of scale.

Determination of Financial Literacy Tendencies of Generations According to the Average Daily Usage Time of Technological Devices

At this stage of the study, an ANOVA test was conducted to determine whether the financial literacy tendencies of different generations differed according to the variable of daily average usage time of technological devices. The findings revealed that there was no significant difference between the financial literacy tendencies of students from the Baby Boomer, Generation X, Generation Y, and

Generation Z with respect to the variable of daily average usage time of technological devices. But, a significant difference was detected only in the financial planning and consumption levels among students of Generation Y. The findings related to this significant difference are presented in Table 9.

Table 9. The variation of generation Y's financial literacy tendencies according to the daily average usage time of technological devices

Generation	Subscale/Scale	Variable	N	\bar{X}	SD	df	F	p	Difference
Y	Financial Responsibility	Less than 1 hour	14	4.392	.5684	137	.493	.687	-
		1-3 hours	28	4.375	.7309				
		4-6 hours	39	4.213	.6223				
		7 hours or more	57	4.292	.5724				
	Financial Planning and Consumption	Less than 1 hour	14	3.842	.5330	137	3.143	.027*	7 hours and more > 4-6 hours
		1-3 hours	28	3.464	.6950				
		4-6 hours	39	3.512	.5559				
		7 hours or more	57	3.775	.5305				
	Needs Awareness	Less than 1 hour	14	3.809	.8135	137	.484	.694	-
		1-3 hours	28	3.952	.8593				
		4-6 hours	39	4.094	.8055				
		7 hours or more	57	4.035	.8010				
	Spending Consciousness	Less than 1 hour	14	2.476	.7703	137	.114	.952	-
		1-3 hours	28	2.547	.6741				
		4-6 hours	39	2.615	.9839				
		7 hours or more	57	2.520	1.017				
	Using Financial Instruments	Less than 1 hour	14	3.696	.9566	137	1.240	.298	-
		1-3 hours	28	3.625	.9918				
		4-6 hours	39	3.660	.6941				
		7 hours or more	57	3.921	.7412				
Total	Less than 1 hour	14	3.772	.4475	137	.460	.711	-	
	1-3 hours	28	3.724	.5713					
	4-6 hours	39	3.715	.5220					
	7 hours or more	57	3.826	.4741					

*p<0.05

In Table 9, there was no significant difference ($F(2, 137) = [0.460]$, $p > 0.05$) between the financial literacy tendencies of Generation Y students and the average daily use of technological devices. The only significant difference identified was in the financial planning and consumption subscale ($F(2, 137) = [3.143]$, $p < 0.05$). To determine between which variables this significant difference occurred, the Tukey HSD multiple comparison test was conducted. According to the results, students who used technological devices for more than 7 hours a day ($\bar{X} = 3.775$, $SD = .5305$) had higher levels of financial planning and consumption compared to those who used these devices for 4 to 6 hours a day ($\bar{X} = 3.512$, $SD = .5559$). When the effect size of this significant difference was calculated, it was found to have a medium effect ($\eta^2 = 0.065$). On the other hand, the absence of any significant differentiation up to 4 hours suggests that students' levels of financial planning and consumption did not change before the 4-hour mark.

Conclusion and Discussion

Recently, an increase has been observed in research focused on determining financial literacy levels and the factors affecting these levels (Acaravci & Bediroglu, 2019; Amonhaemanon & Vora-Sitta, 2020; Bayrakdaroglu & Bilge, 2018; Brown et al., 2018; Celikten & Dogan, 2020; Cevik, 2018; Dewi et al., 2020; Dogan, 2018; Gok & Coskun, 2020; Meyers, 2020; Rehman & Mia, 2024; Swiecka et al., 2020; Tuna & Ulu, 2016; Usriyono & Wahyudi, 2023; Yilmaz & Aslan, 2020). However, there has been no research examining the financial literacy tendencies of remote learners across Baby Boomers, Generation X, Generation Y, and Generation Z with respect to variables such as gender, occupational status, monthly income level, technology usage proficiency, and average daily use of technological devices. Therefore, the findings of this research, which compared financial literacy levels across different generations by collecting data, are expected to illuminate future studies and contribute to the literature.

The results obtained for each variable in this research, which analyzed the financial literacy tendencies of students from Baby Boomers, Generation X, Generation Y, and Generation Z based on variables such as gender, occupational status, monthly income level, technology usage proficiency, and average daily use of technological devices, are provided below.

In this study, independent samples t-test was applied to investigate whether there were considerable differences between the financial literacy tendencies of students from different generational groups and the gender variable. The test results indicate that female students from Generation X had higher financial literacy tendencies compared to their male counterparts within the same generation. This significant difference had a medium effect size. This higher financial literacy level among female students in Generation X might be attributed to their ability to operate independently and their willingness to contribute to the family economy to balance work and home life.

On the other hand, the findings for other generations indicated that there were no significant differences in financial literacy tendencies based on gender among Baby Boomers, Generation Y, and Generation Z students. These results suggest that students in these generational groups exhibited similar financial literacy tendencies regardless of gender. In existing publications, there were no studies that specifically investigate the level of financial knowledge of students belonging to different generation groups on the basis of gender. However, nine studies have investigated financial literacy levels in relation to gender, albeit not across different generations. Some studies have found that male students have higher financial literacy levels than female students (Acaravci & Bediroglu, 2019; Dilek, 2023; Dogan, 2018; Swiecka et al., 2020; Tuna & Ulu, 2016), whereas others have reported no significant differences in financial literacy levels between male and female students (Cevik, 2018; Ozkan Gultekin & Acar, 2024; Yalman & Kayahan, 2023; Yilmaz & Aslan, 2020).

Dilek (2023) conducted a study with high school students in Rize to assess their levels of financial literacy. The study found that male students had higher levels of financial literacy than female students. Swiecka et al. (2020) carried out a research with Polish high school students to examine whether financial literacy levels differed based on gender. The research revealed that male graduate students had higher financial literacy levels than female graduate students. Similarly Acaravci and Bediroglu (2019) conducted a study at Hatay Mustafa Kemal University to investigate whether there were significant differences in the financial literacy levels of undergraduate students based on gender, faculty, year of study, age groups, and grade point averages. Their findings revealed that male students had higher financial literacy levels than female students, while age did not significantly affect financial literacy levels due to the similarity in students' ages. Ozkan Gultekin and Acar (2024) found, as a result of their research conducted to examine the levels of financial literacy among high school students, that the gender variable did not result in a significant difference in the financial literacy levels of high school students. Yalman and Kayahan (2023) found that the gender variable did not result in any differences in the levels of financial literacy among students studying at undergraduate and postgraduate levels at Afyon Kocatepe University. Yilmaz and Aslan (2020) conducted a study with students from the Faculty of Economics and Administrative Sciences at Siirt University to determine financial literacy levels and assess whether there were significant differences based on students' demographic characteristics. The study found that as students' ages increased, their financial literacy levels also improved. However, there was no significant relationship between gender and financial literacy levels. Similarly, Cevik (2018) conducted a study with students at Kırklareli University enrolled in associate degree programs at different vocational schools to examine their financial literacy levels. The results showed that students had high levels of financial literacy, with no significant differences based on gender or age. Dogan (2018) conducted a study with 438 individuals in Sakarya, using a convenience sampling method, to assess the financial literacy levels of individuals from Generation X, Y, and Z. Although the study did not specifically analyze differences in financial literacy levels among generations based on gender, it examined each generation separately and found that Generation Y had higher financial literacy levels than Generation Z. Additionally, male participants had higher financial literacy levels than female participants. Tuna and Ulu (2016) conducted a study with students from the Department of Business

Administration at Sakarya University to identify factors influencing undergraduate students' financial literacy levels. The research revealed that male graduate students had higher levels of financial knowledge than female graduate students. Additionally, undergraduate students aged 23-25 exhibited statistically significant differences in financial knowledge compared to other age groups. Lastly, Bayrakdaroglu and Bilge (2018) conducted a study with 75 young and 75 elderly women in the province of Muğla to examine the diversity in financial literacy levels based on demographic characteristics. Their findings revealed that 54% of female participants had low financial literacy levels, 30% had moderate financial literacy levels, and 16% had high financial literacy levels.

When examining the results based on the occupational status variable, it was found that Generation Z graduate students who work in the public sector had a higher level of spending consciousness compared to Generation Z students who were not employed. It was found that the significant difference had a medium effect. Accordingly, the fact that members of Generation Z who worked in the public sector had a higher spending consciousness compared to those who were not employed may be attributed to their entry into the workforce and their increasing influence in shaping household consumption. No research in the literature has been found that analyzed the financial literacy levels of graduate students from different generation groups based on their occupational status variable. In this regard, the finding that employment and workforce participation positively influenced individuals' financial literacy levels is expected to provide significant contributions to the literature and to policymakers. In this context, improving university students' levels of financial literacy or developing their financial literacy skills is of strategic importance in enabling young people who enter the workforce at an early age to make informed financial decisions and participate actively in the national economy (Tetik & Isıldak, 2022).

In the study, the financial literacy tendencies of different generations were examined based on the variable of monthly income levels variable. To achieve this, an ANOVA test was conducted. The results indicated significant differences among students in Generation Y and Generation Z. The findings revealed that Generation Y students earning a monthly salary of above the poverty limit demonstrated higher financial literacy tendencies compared to those earning between poverty limit and below. However, this significant difference had a small effect size. This suggests that financial literacy tendencies tend to increase as monthly income rises. A similar pattern was observed in the financial responsibility subscale. Generation Y students with a monthly income of above the poverty limit exhibited greater financial responsibility than those earning between hunger limit and below. This difference had a medium effect size, indicating that students with higher incomes feel a stronger sense of financial responsibility. This may be due to the increased accountability that comes with managing larger sums of money. Another significant difference was found in the spending consciousness subscale. Generation Y students with a monthly income of above the poverty limit demonstrated greater spending awareness compared to those earning between poverty limit and below. This difference, which had a small effect size, suggests that higher-income individuals are more likely to budget their expenses and set savings goals as their income increases. In the financial instrument usage subscale, a notable difference was also identified. Generation Y students with higher monthly incomes showed greater proficiency in using financial instruments than those with lower incomes. While this difference was significant, it had a small effect size, suggesting that individuals with higher incomes are more inclined to engage with financial tools and services. Furthermore, a significant difference was observed among Generation Z students. Those earning a monthly income of above the poverty limit exhibited higher levels of financial planning and consumption awareness compared to their peers earning between poverty limit and below. This significant difference had a medium effect size, suggesting that as income increases, Generation Z students' consumption behaviors become more planned and strategic. In the literature, there are no studies examining financial literacy levels among different generational groups based on the monthly income level variable. This finding enhances the originality of the present study and its contribution to the literature. However, there are four studies that explored financial literacy levels based on income levels, though they do not differentiate by generation. Choung et al. (2023) conducted a study to examine the relationship between financial literacy levels and financial well-being among South Korean adults, and found a positive statistically significant correlation between these two factors.

Yalman and Kayahan (2023) found that students with higher income levels at Afyon Kocatepe University, both at undergraduate and postgraduate levels, had higher levels of financial literacy compared to students with lower income levels. Dogan (2018) found that individuals with higher income levels had higher financial literacy compared to those with lower income levels. Similarly, Tuna and Ulu (2016) discovered significant differences in financial literacy levels among students with varying income levels at Sakarya University. These findings can be explained by the fact that as students' income levels rise, so do their financial responsibilities; and as their financial responsibilities increase, they develop more conscious spending habits and financial planning approaches (Yilmaz & Kaymakci, 2021). However, their study did not identify which specific income groups had significant differences, attributing the variation to randomness. Additionally, there is research indicating an indirect effect of income level on financial literacy. Amonhaemanon and Vora-Sitta (2020) conducted a study with 342 informal sector workers in southern Thailand to examine the influence of financial attitudes on the relationship between financial literacy and financial capabilities. Their findings revealed that Generation Y had the highest debt levels compared to other generations. Additionally, Generation Y exhibited higher financial literacy and income levels than Generation X and the Baby Boomer generation. The study also explored whether technology usage proficiency affects the financial literacy tendencies of different generations. To analyze this, an ANOVA test was conducted. The results showed that technology proficiency did not have a significant impact on the financial literacy tendencies of Baby Boomers and Generation X students. However, significant differences were observed among Generation Y and Generation Z students. In particular, Generation Y students with advanced technology proficiency demonstrated higher levels of financial planning and consumption awareness compared to those with only basic technology skills. This difference had a medium effect size, suggesting that as individuals become more proficient in technology, they gain better access to financial information and make more informed decisions about budgeting and consumption. On the other hand, another significant difference observed in the ANOVA test was found among Generation Z students. It was seen that Generation Z students with advanced technology usage proficiency had a higher level of spending consciousness compared to those with moderate and basic proficiency. This significant difference was identified to have a medium effect size. The finding that Generation Z students with higher technology skills had greater spending consciousness suggests that these students use technology to enhance their knowledge about earning and spending. No studies were found in the literature examining financial literacy levels across different generational groups based on technology usage proficiency. Therefore, the result of this study, indicating that individuals' technology usage proficiency positively affects their financial literacy, is thought to provide important contributions to literature and policymakers.

Finally, the study investigated whether the financial literacy tendencies of different generations varied based on the average daily usage of technological devices. An one-way ANOVA test was carried out to identify whether there were important change between the variables. The results concluded that the average daily usage time of technological devices was not a variable that affected the financial literacy tendencies of generations. However, when examining the subscales, it was found that only Generation Y students showed significant differences in financial planning and consumption. Specifically, students who used technological devices for more than 7 hours a day had higher levels of financial planning and consumption compared to those who used these devices for 4 to 6 hours a day. The significant difference observed was found to have a medium effect size. Furthermore, the lack of significant differences up to the fourth hour suggests that students' levels of financial planning and consumption remain unchanged during the first four hours of technology usage. This finding suggests that the impact of technological device usage on financial behaviour is limited up to a certain threshold. However, exceeding this threshold may lead to increased financial planning and awareness of consumption among Generation Y (Okten, 2025). Currently, there are no studies in literature that investigate the financial literacy levels of graduate students from generation groups based on their average daily use of technological devices. However, a study by Bayrakdaroglu and Bilge (2018) found that financial literacy education improves students' financial literacy levels. Additionally, research suggests that increased technology usage enhances the effectiveness of financial education. For example, Civan and Cenger (2010) reported that technology use has a positive impact on financial education, with more

extensive technology use leading to greater effectiveness in financial training. Consequently, as students use technology more, they are likely to gain more from financial literacy education, which could indirectly lead to higher financial literacy levels. There are also two studies in the literature that indicate that using applications which increase technology usage positively affects students' financial literacy. Yilmaz and Aslan (2020) found that students who used Internet banking had higher financial literacy levels compared to those who did not. Similarly, Dogan (2018) found that the use of social media for financial purposes did not impact the financial literacy of Generation X and Z, but it did have a significant positive effect on Generation Y. Additionally, the use of mass media for financial purposes did not significantly impact the financial literacy levels of any of the three generations.

Recommendations

According to the research results, the recommendations are presented for future scientific studies:

- The finding that females in Generation X have higher financial literacy levels than males is an important consideration for policymakers. Therefore, it is recommended to provide more financial education specifically targeted at females to help them contribute to family finances and secure their financial independence.
- Since the research shows that graduate students with better monthly incomes tend to possess higher financial literacy levels, it is suggested that higher education institutions create opportunities to increase students' monthly income. This could include offering scholarships or providing part-time job opportunities.
- Given that Generation Y and Z students, who make more intensive use of technology, have higher levels of financial literacy, it is recommended that technology skills training be provided for these students. This training should enable students to make financial decisions whilst using a technological tool. In other words, students should not only be able to save and manage a budget, but also, through mobile simulations, set goals, distinguish between genuine and fake investment apps, and handle tasks such as reading financial data and verifying sources. To this end, a project-based training programme comprising 6–8-week modules could be developed. This will help to enhance students' proficiency in using technology and, consequently, improve their financial literacy.

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The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

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