Validating a comprehensive financial literacy questionnaire for Kuwaiti youth: a factor analysis study

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Abstract: This study aims to validate a questionnaire designed to measure financial literacy among youth in Kuwait. The instrument was developed using items sourced from various existing tools and tailored to the Kuwaiti context, with a focus on youth aged 18–25 years. The questionnaire was initially divided into seven domains, covering different aspects of financial literacy, including budgeting, savings, investments, debt management, financial planning, risk awareness and digital financial tools. A sample of 1064 participants completed the questionnaire. Exploratory factor analysis (PCA) and Confirmatory Factor Analysis (CFA) were employed to evaluate the structure, reliability and validity of the instrument. The results of the CFA confirmed that financial literacy can be grouped into four distinct domains: Consuming Behaviour (CB), Information Literacy (IL), Financial Practices (FP) and Investment Behaviour (IB). These four domains emerged as the most reliable and validated constructs for measuring financial literacy among youth in Kuwait. The study successfully developed and validated a comprehensive tool for assessing financial literacy among Kuwaiti youth. The confirmed domains provide a robust framework for future research and policy development aimed at enhancing financial literacy education and interventions in Kuwait.

Keywords: financial literacy; Kuwaiti youth; questionnaire validation; factor analysis; financial behaviour.

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1   Introduction

1.1   Background

Financial literacy, defined as the ability to understand and effectively use financial skills such as budgeting, investing and managing debt, is crucial for making informed economic decisions (AlNajem, 2018; Lusardi, 2015). In today's fast-evolving financial landscape, young individuals face increasing complexity in financial products and services (Silinskas et al., 2023; Al-Kofahi et al., 2025; Alsmadi et al., 2023). As a result, their financial decisions can significantly impact their long-term economic stability and well-being (Hastings et al., 2013). In Kuwait, where youth make up a large portion of the population, understanding their financial literacy is vital to ensure that they are equipped with the necessary knowledge and skills to manage their finances responsibly (Alsabah et al., 2025; Garg and Singh, 2018). For instance, studies have shown that financial education can significantly improve financial literacy and decision-making capabilities among youth, leading to more informed financial behaviours (Al-Kenane et al., 2025; Zhu et al., 2021; Ghayad and Shayya, 2022) and intention to adopt new financial technologies (Al Reshaid et al., 2024; Hasan et al., 2023).

To provide a strong theoretical foundation, the domains selected for the initial questionnaire were based on established financial literacy frameworks, particularly those proposed by Lusardi and Mitchell (2014). These frameworks view financial literacy as a multidimensional construct, typically encompassing financial knowledge, financial behaviours, attitudes and confidence. The o seven domains (budgeting, savings, investments, debt management, financial planning, risk awareness and digital financial tools) were chosen to reflect both international standards and the unique economic context of Kuwaiti youth, where rapid digitalisation and evolving social norms necessitate a broad assessment of financial competencies.

1.2   Importance of the study

Despite the growing awareness of the need for financial education globally, limited research has been conducted to assess the financial literacy of youth in Kuwait (Ahmad and Zabri, 2023; Zulfiqar et al., 2025). Recent Kuwaiti studies emphasise the role of digital transformation, organisational culture and government support in shaping financial behaviours and decision-making. Innovations in e-learning and digital tools have enhanced user engagement and adaptability (Alqallaf et al., 2025; Alkandari et al., 2024, 2023). Research also highlights how cybersecurity, AI and government initiatives influence digital readiness and trust (Alrabea et al., 2024; Al-Okaily et al., 2022; Al-Sharhan et al., 2024). Organisational response during crises further underscores the need for cultural readiness and behavioural adaptation (AlReshaid et al., 2025; Albulooshi and Algharaballi, 2014; Al-Shamali and Kashif, 2024; Alkharafi et al., 2024; Al-Dasht et al., 2022; Al-Fraihat et al., 2022). These insights support the importance of tailored financial literacy tools that reflect Kuwait's evolving digital and social context.

This study is important as it not only contributes to the limited body of knowledge in this area but also helps identify the key areas where financial literacy among Kuwaiti youth may be lacking (Mirzaei and Buer, 2022). By developing a reliable tool to measure financial literacy, this study provides insights that can inform policymakers, educators and financial institutions to tailor programs and resources that enhance financial education among young people in Kuwait (Keller, 2023).

1.3   The importance of measuring financial literacy

Measuring financial literacy is essential for assessing an individual's ability to make sound financial decisions, especially as the global economy becomes increasingly digital and interconnected (Alkharafi and Alsabah, 2025; El-Dabt et al., 2025; Huston, 2010). Understanding financial literacy levels helps identify knowledge gaps and behaviours that may lead to poor financial outcomes, such as debt accumulation, insufficient savings and inadequate financial planning (De Bassa Scheresberg, 2013; Moharrak et al., 2025). For youth, who are at the beginning of their financial journey, assessing and addressing financial literacy is critical to preparing them for future challenges, including managing personal finances, investments and financial risks (Garg and Singh, 2018).

Research indicates that understanding financial literacy levels helps identify knowledge gaps and behaviours that may lead to poor financial outcomes, such as debt accumulation, insufficient savings and inadequate financial planning (Huston, 2010; Dewi et al., 2020). For instance, Klapper et al. (2012) and Preston and Wright (2019)

shown that individuals with higher financial literacy are better equipped to manage their finances, make informed investment choices and avoid excessive debt.

Understanding financial literacy levels is crucial for identifying knowledge gaps and behaviours that can lead to adverse financial outcomes, such as debt accumulation and insufficient savings. Wang et al. (2022) and Xu et al. (2022) indicated that higher financial literacy correlates with improved financial behaviours, enabling individuals to engage more effectively in financial markets and make informed decisions regarding savings and investments. For instance, households with elevated financial literacy are more likely to participate in entrepreneurial activities, which contributes to long-term financial stability (Wang et al., 2022).

Additionally, financial literacy enhances budgeting practices, which are essential for managing expenses and achieving financial goals (De Bruijn et al., 2022). Moreover, gender disparities in financial literacy highlight the need for targeted educational interventions to bridge these gaps, particularly among vulnerable populations (Ali et al., 2021, Guo et al. 2022). Such initiatives can empower individuals to make better financial decisions, ultimately reducing the risk of debt and promoting sustainable financial practices (Alqatan et al., 2025; Seraj et al., 2022). Thus, fostering financial literacy is integral to improving overall financial well-being and mitigating the risks associated with poor financial management.

1.4   Aim and objective of the study

The primary aim of this study is to validate a comprehensive questionnaire designed to measure financial literacy among youth in Kuwait. By utilising exploratory factor analysis (PCA) and Confirmatory Factor Analysis (CFA), this study seeks to identify the most reliable domains that encompass financial literacy in the context of Kuwaiti youth. The objective is to provide a validated tool that can be used for future research and policy-making, contributing to the development of effective financial education programs.

The use of PCA and CFA is well-documented in the literature as effective methods for developing and validating measurement instruments in social sciences, including financial literacy (Kaiser and Menkhoff, 2017; Mutlu and Özer, 2022). These statistical techniques allow researchers to explore the underlying structure of financial literacy and confirm the validity of the identified factors, ensuring that the questionnaire is both reliable and applicable to the target population (Knoll and Houts, 2012).

The selection of the seven domains was informed by a review of both international best practices and local needs assessments. In the Kuwaiti context, rapid economic changes and increased exposure to digital financial products have created unique challenges for youth. Therefore, the domains were tailored to capture not only traditional financial skills but also emerging competencies relevant to the local environment.

2   Methods

2.1   Research setting

This study was conducted in Kuwait, focusing on youth aged 18-25 from diverse educational and socioeconomic backgrounds. The data collection occurred across various

educational institutions, social groups and community centres, ensuring a representative sample of Kuwaiti youth. The aim was to capture a broad spectrum of financial literacy levels among young people in Kuwait.

2.2   Developing the questionnaire:

The financial literacy questionnaire was developed using items sourced from existing, validated financial literacy tools. These items were modified to align with the cultural and economic context of Kuwait. The questionnaire initially covered seven domains of financial literacy: budgeting, savings, investments, debt management, financial planning, risk awareness and digital financial tools. Each domain consisted of multiple items measured on a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree'.

The initial questionnaire underwent content validation by the authorship team. Each author reviewed the items for cultural relevance, clarity and coverage of key financial literacy constructs. The feedback led to the refinement of several items and the removal of redundancies. The final set of items was deemed representative of the intended domains and suitable for the target population.

2.3   Pilot questionnaire:

Before the main study, a pilot questionnaire was administered to a small sample of 50 youth participants to test the clarity and relevance of the questions. The feedback obtained from the pilot study led to slight modifications, including rewording ambiguous questions and adjusting the response scales to ensure clarity and better alignment with the participants' understanding. This process helped refine the questionnaire for the final administration.

2.4   Translation and back translation:

To ensure that the questionnaire was accessible to all participants, the original English version was translated into Arabic, the official language of Kuwait. A team of bilingual experts conducted the translation. To ensure the accuracy and meaning of the items were retained, the Arabic version was then back-translated into English by a separate group of bilingual professionals. Both versions were compared, and discrepancies were resolved through discussions among the translators and the research team.

2.5   Population of the study:

The population targeted in this study consisted of youth aged 18–25 residing in Kuwait. Participants were recruited from various educational institutions, including universities, colleges and vocational schools, as well as community centres and online platforms. The study aimed to capture financial literacy levels across a wide range of education and socioeconomic statuses to provide a comprehensive understanding of the financial literacy landscape among Kuwaiti youth.

The sample size was determined using the Krejcie and Morgan (1970) method, which provides a statistical formula and table for estimating the minimum required sample size for a given population and confidence level. For the estimated population of youth aged 18–25 in Kuwait, the Morgan table indicated a minimum sample of 384 participants.

The final sample of 1064 participants thus ensures adequate statistical power and representativeness for factor analysis.

2.6   *Sample size*

A total of 1064 participants were recruited for the study using a combination of convenience and snowball sampling techniques. This sample size was determined based on recommendations for factor analysis, which suggest at least 10 participants per item for principle factor analysis (PCA) and confirmatory factor analysis (CFA). Given the complexity of the questionnaire and the need for robust statistical validation, a sample size exceeding 1000 was deemed sufficient to provide reliable and valid results.

The use of convenience and snowball sampling may have introduced bias, particularly an overrepresentation of educated youth and those with internet access. This limitation is discussed further in the Limitations section.

2.7   *Validating the results*

The CFA was conducted to confirm the factor structure identified by the PCA, ensuring that the model fit was acceptable and the constructs were reliable and valid. This two-step process was crucial for ensuring the robustness and accuracy of the final questionnaire. To validate the questionnaire, both construct reliability and discriminant validity were assessed using multiple statistical tests, including Cronbach's alpha, composite reliability (rho_c), average variance extracted (AVE), Heterotrait-Monotrait ratio (HTMT) and the Fornell-Larcker criterion.

2.8   *Construct reliability and validity*

Table 10 presents the construct reliability and validity results. The Cronbach's alpha values (both standardised and unstandardised) for all four factors exceeded the acceptable threshold of 0.70, indicating good internal consistency. Composite reliability (rho_c) values for the factors ranged from 0.761 to 0.861, suggesting that the constructs are reliable. The average variance extracted (AVE) for all factors was above 0.50, indicating that a substantial portion of the variance in each factor is explained by the items that compose it.

2.9   *Ethical considerations*

The study received approval from the Institutional Review Board (IRB) of American University of Kuwait (AUK). Participant confidentiality was maintained by anonymising responses and securely storing data on password-protected systems. Informed consent was obtained from all participants, and they were assured of their right to withdraw at any stage without consequences.

2.10 Statistical analysis

Data analysis was performed using SPSS and AMOS software. First, descriptive statistics were calculated to understand the distribution and characteristics of the data. Exploratory factor analysis (PCA) was conducted using a Varimax rotation to identify the underlying factor structure. Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure were used to assess the suitability of the data for factor analysis. Following PCA, confirmatory factor analysis (CFA) was performed using Structural Equation Modelling (SEM) in AMOS to validate the identified domains. Model fit was assessed using several fit indices, including the chi-square (χ^2) test, Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and Standardised Root Mean Square Residual (SRMR). Reliability analysis was also performed using Cronbach's alpha to assess the internal consistency of each factor.

3 Results

3.1 Principal component analysis

The Bartlett's Test of Sphericity was conducted to assess the suitability of the data for factor analysis. The results revealed a significant chi-square value, $\chi^2(528) = 11{,}415$, $p < .001$, indicating that the correlation matrix is not an identity matrix. This suggests that there are significant correlations among the variables, making the data appropriate for factor analysis (PCA). The test result confirms that factor extraction can proceed, as the data demonstrates sufficient interrelationships to justify the use of PCA.

The results of the component loadings from the Principal Component Analysis (PCA) with varimax rotation show that each item is strongly associated with one of six components. Items such as 'I know where to look for the necessary information I need to manage my finances' (loading = 0.781) and 'I know where to find the advice I need to make financial decisions' (loading = 0.763) load highly on Component 1, indicating a focus on information literacy. Component 2 has strong loadings for items related to financial knowledge, such as 'I have an emergency fund set aside' (loading = 0.755), while Component 3 captures behaviours like 'I rely on the recommendations of financial advisors for investment decisions' (loading = 0.659). Component 4 relates to financial budgeting and control, with items such as 'I carefully consider whether I can afford an item before purchasing it' (loading = 0.754). Component 5 reflects financial attitudes, and Component 6 focuses on risk tolerance, such as 'I am prepared to risk some of my money when saving or making financial investments' (loading = 0.776). The uniqueness values suggest that most items have a reasonable portion of variance explained by their corresponding components, with some unique variance remaining (see Table 1).

Table 1   Component loadings

	Component						Uniqueness
	1	*2*	*3*	*4*	*5*	*6*	
Il2: I know where to look for the necessary information I need to manage my finances.	0.781						0.249
Il1: I know where to find the advice I need to make financial decisions.	0.763						0.300
Il3: I can easily evaluate information to advance my financial knowledge.	0.730						0.315
Il4: I can interpret, synthesise and use information effectively in regard to managing my money.	0.637						0.404
Fa3: I know when to seek advice about my finances.	0.506						0.453
Fa2: I am currently satisfied with my overall financial situation.	0.491						0.522
Fk2: I have an emergency fund set aside.		0.755					0.357
FK1: I maintain a financial budget to manage my expenses.		0.629					0.418
Fp2: I am saving for significant future expenses such as retirement, education, or a home down payment.		0.612					0.452
Fp4: I set long-term financial goals and strive to achieve them.		0.573					0.371
Fp3: I can make good financial decisions even when they are new to me.		0.477					0.448
Fk5: I have sought professional financial advice before.			0.663				0.422
Ib5: I rely on the recommendations of financial advisors for investment decisions.			0.659				0.436
Bp2: I trust financial institutions and companies that provide investment services and use them for my investments and savings.			0.657				0.427
Fp1: I have participated in financial education courses or workshops.			0.609				0.460
Bp4: I take advantage of financial products and services available that are available.							0.580
Fk4: I am familiar with the concept of compound interest.							0.667

Table 1   Component loadings (continued)

|	Component						Uniqueness
	1	*2*	*3*	*4*	*5*	*6*	
Cb3: I carefully consider whether I can afford an item before purchasing it.				0.754			0.348
Cb1: I know how to avoid spending too much.				0.680			0.380
Cb2: I am aware of my monthly income and expenditure.				0.658			0.441
Bp1: I regularly view my bank statements and financial transactions.				0.577			0.519
Cb4: I adhere to a budget.				0.563			0.386
Fa5: I believe there is a correlation between financial education and financial success.					0.699		0.460
Fa6: I think money is a good indicator of a person's life achievement and success.					0.635		0.562
Fa4: I am willing to spend time educating myself on financial terms.					0.598		0.486
Il6: I recognise that credible sources may vary depending on the topic.					0.581		0.493
Fp5: I pay my bills on time to avoid interest and penalties.					0.556		0.505
Il5: I take the initiative to find credible sources.							0.470
Ib2: I am prepared to risk some of my money when saving or making financial investments.						0.776	0.324
Ib4: My risk tolerance aligns with my investment goals.						0.736	0.311
Ib3: I feel confident in making investment decisions.						0.659	0.347
Ib1: I am able to recognise a good financial investment.						0.513	0.502
Bp5: I ensure my investments are diversified.							0.456

Note: 'varimax' rotation was used.

Table 2 summarises the variance explained by each of the six components identified in the PCA. Component 1 accounts for 11.6% of the total variance, indicating it captures a significant portion of the variance in financial literacy-related behaviours and attitudes. Component 2 accounts for an additional 9.5%, while Component 3 explains 9.4%. Altogether, the first three components explain about 30.4% of the variance. By the time the 6th component is added, the cumulative variance explained reaches 56.8%, meaning that the 6 components together capture more than half of the total variance in the data. This indicates that the model provides a reasonably comprehensive explanation of the underlying structure of financial literacy among the respondents (see Table 2).

Table 2   Summary of the components

Component	SS Loadings	% of Variance	Cumulative %
1	3.81	11.56	11.6
2	3.12	9.45	21.0
3	3.10	9.39	30.4
4	3.02	9.16	39.6
5	2.86	8.67	48.2
6	2.82	8.53	56.8

3.2   Multivariate analysis

The SEM analysis results (see Figure 1) demonstrate the relationships between four latent constructs: Information Literacy (IL), Financial Practices (FP), Investment Behaviour (IB) and Consuming Behaviour (CB). Factor loadings for each observed variable range from 0.584 to 0.853, indicating strong associations with their respective latent constructs. Specifically, Information Literacy (IL) is well-represented by four items (IL1–IL4), with loadings from 0.679 to 0.853, while Financial Practices (FP) includes three items (FP2–FP4) with loadings from 0.584 to 0.763. Investment Behaviour (IB) has two items (IB3, IB4) with high loadings of 0.827 and 0.738, and Consuming Behaviour (CB) is represented by three items (CB1, CB3, CB4) with loadings from 0.714 to 0.779. The correlations between the latent factors are strong, ranging from 0.572 to 0.720, suggesting that the constructs are interrelated, with Information Literacy (IL), Financial Practices (FP), Investment Behaviour (IB) and Consuming Behaviour (CB) forming a cohesive structure of financial literacy. These results confirm that the model exhibits strong convergent and discriminant validity, with all factors contributing meaningfully to the overall financial literacy construct.

Figure 1   SEM analysis
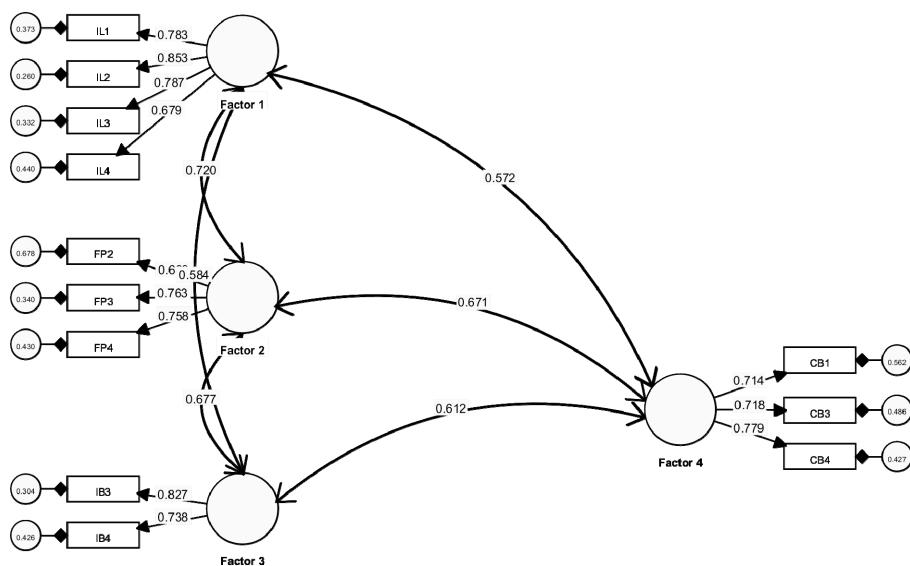
Note: All path coefficients are standardised.

3.3   Construct reliability and validity

Table 3 presents the reliability and validity of the four factors. Cronbach's alpha for all factors ranges from 0.758 to 0.855, indicating good internal consistency. Composite reliability (rho_c) values for the factors also show strong reliability, with all values exceeding the recommended threshold of 0.70, ranging from 0.761 to 0.861. The Average Variance Extracted (AVE) values range from 0.544 to 0.614, surpassing the minimum recommended value of 0.50, which indicates that more than 50% of the variance in the construct is explained by its observed variables. These results demonstrate that the factors are both reliable and valid for assessing financial literacy.

Table 3   Construct reliability and validity

	Cronbach's alpha (standardised)	Cronbach's alpha (unstandardised)	Composite reliability (rho_c)	Average variance extracted (AVE)
Factor 1	0.854	0.855	0.861	0.605
Factor 2	0.781	0.775	0.775	0.544
Factor 3	0.758	0.758	0.761	0.614
Factor 4	0.783	0.782	0.781	0.544

3.4   Discriminant validity – Heterotrait-Monotrait Ratio (HTMT)

Table 4 assesses discriminant validity using the HTMT criterion, which suggests that HTMT values should ideally be below 0.85. All HTMT ratios for the pairwise factor comparisons are below this threshold, with values ranging from 0.584 to 0.742. These results confirm that the four factors (Factor 1, Factor 2, Factor 3 and Factor 4) are sufficiently distinct from one another, thereby meeting the criteria for discriminant validity. *Discriminant Validity - Fornell-Larcker Criterion*

Table 4   Discriminant validity – Heterotrait-monotrait ratio (HTMT)

	Factor 1	*Factor 2*	*Factor 3*	*Factor 4*
Factor 1				
Factor 2	0.742			
Factor 3	0.606	0.678		
Factor 4	0.584	0.668	0.605	

Table 5 further evaluates discriminant validity using the Fornell-Larcker criterion. The diagonal values represent the square root of the Average Variance Extracted (AVE) for each factor, which should be greater than the correlations between factors for discriminant validity to be established. The diagonal values (ranging from 0.738 to 0.784) are higher than any off-diagonal correlations between the factors, indicating that each factor shares more variance with its own indicators than with other factors, confirming discriminant validity.

Table 5   Discriminant validity – Fornell-Larcker criterion

	Factor 1	*Factor 2*	*Factor 3*	*Factor 4*
Factor 1	0.778			
Factor 2	0.720	0.738		
Factor 3	0.584	0.677	0.784	
Factor 4	0.572	0.671	0.612	0.738

3.5   Model fit

Table 6 provides an overview of the model fit indices. The chi-square test is significant (χ^2 = 343.638, df = 48, p < .001), but the chi-square to degrees of freedom ratio (χ^2/df = 7.159) is within an acceptable range for complex models. The Root Mean Square Error of Approximation (RMSEA = 0.076) indicates a moderate fit, while other fit indices such as the goodness of fit index (GFI = 0.943), comparative fit index (CFI = 0.949) and Tucker-Lewis index (TLI = 0.930) all exceed the recommended threshold of 0.90, indicating a good overall fit. The standardised root mean square residual (SRMR = 0.040) is below 0.08, further supporting the adequacy of the model.

Table 6   Model fit

	Estimated model	*Null model*
Chi-square	343.638	5850.481
Number of model parameters	30.000	12.000
Number of observations	1063.000	n/a
Degrees of freedom	48.000	66.000
P value	0.000	0.000
ChiSqr/df	7.159	88.644
RMSEA	0.076	0.287
GFI	0.943	n/a
AGFI	0.907	n/a
SRMR	0.040	n/a
NFI	0.941	n/a
TLI	0.930	n/a
CFI	0.949	n/a
AIC	403.638	n/a
BIC	552.704	n/a

3.6   Factor loadings

Table 7 presents the factor loadings for each observed variable on its corresponding latent factor. All loadings are significant (p < .001), with T-values ranging from 21.483 to 39.168, indicating that the relationships between the observed variables and their respective factors are robust. The loadings are consistently strong, ranging from 0.679

(IL4) to 0.853 (IL2), showing that each observed variable is a good representation of its latent construct. This reinforces the reliability and validity of the measurement model, as the items load significantly and meaningfully onto their respective factors. In Table 7, items are grouped by their final domain membership, with dropped items indicated in italics and a footnote explaining the reason for exclusion.

Table 7   Factor loading

	Original sample (O)	Sample (M)	mean	Standard (STDEV)	deviation	T statistics (|O/STDEV|)	P-values
CB1 <- Factor 4	0.714	0.715		0.027		26.647	0.000
CB3 <- Factor 4	0.718	0.719		0.024		29.466	0.000
CB4 <- Factor 4	0.779	0.779		0.024		32.488	0.000
FP2 <- Factor 2	0.689	0.689		0.025		28.137	0.000
FP3 <- Factor 2	0.763	0.763		0.023		33.072	0.000
FP4 <- Factor 2	0.758	0.758		0.023		32.609	0.000
IB3 <- Factor 3	0.827	0.828		0.021		39.168	0.000
IB4 <- Factor 3	0.738	0.738		0.027		27.200	0.000
IL1 <- Factor 1	0.783	0.784		0.026		30.712	0.000
IL2 <- Factor 1	0.853	0.853		0.023		37.039	0.000
IL3 <- Factor 1	0.787	0.785		0.025		31.868	0.000
IL4 <- Factor 1	0.679	0.678		0.032		21.483	0.000

These findings affirm that the observed variables are strong indicators of their respective latent factors, contributing to the model's reliability and validity. Overall, the statistical analysis confirms that the financial literacy questionnaire is a valid and reliable tool for assessing financial literacy among youth in Kuwait.

4   Discussion

4.1   Findings

The findings of this study demonstrate that the financial literacy questionnaire developed for youth in Kuwait is both reliable and valid across four key domains: Information Literacy, Financial Practices, Investment Behaviour and Consuming Behaviour. Both Stella et al. (2020) and Baistaman et al. (2020) employed exploratory and confirmatory factor analyses to validate their instruments, demonstrating reliability and construct validity. The statistical analysis, including exploratory and confirmatory factor analysis, indicated strong internal consistency and reliability across all constructs, with Cronbach's alpha values ranging from 0.758 to 0.855. Furthermore, the model fit indices supported the structural equation model, with acceptable values for the RMSEA (0.076), CFI (0.949), GFI (0.943) and SRMR (0.040).

These results are consistent with established models of financial literacy, which emphasise that effective financial education must address a broad range of competencies (Lusardi and Mitchell, 2014). Recent studies in the region (AlHalaseh,

2024; Seraj et al., 2022) also highlighted the need to assess not only knowledge and behaviour but also attitudes, risk awareness and digital competencies – domains that are all represented in our instrument.

4.2 Confirmed domains

The four confirmed domains – Information Literacy, Financial Practices, Investment Behaviour and Consuming Behaviour – emerged as the most robust constructs in measuring financial literacy among youth, as was also indicated in the research of Warmath and Zimmerman (2019). Information Literacy, with strong factor loadings, reflects the ability of individuals to seek, evaluate and synthesise financial information, which is crucial for informed decision-making (Cekule et al., 2024; Elmelegy et al., 2017; Faraj et al., 2025). Financial Practices include essential habits such as budgeting and saving, while Investment Behaviour captures the ability to make informed investment decisions and assess risks (Paghasian, 2024).

Financial practices, including budgeting and saving, are significantly influenced by financial literacy, which enhances individuals' ability to make informed financial decisions. Sehrawat et al. (2021), Seraj et al. (2022) and Xu et al. (2022) indicated that higher financial literacy correlates positively with responsible financial behaviours, such as effective budgeting, saving and investment decisions. Specifically, individuals with robust financial knowledge are more likely to engage in prudent saving habits, which subsequently lead to better investment outcomes (Di Domenico et al., 2022; Seraj et al., 2022).

Investment behaviour, characterised by the capacity to assess risks and make informed choices, is also closely tied to financial literacy. Wangzhou et al. (2021), Guo et al. (2022) and Liao et al. (2022) shown that individuals with greater financial literacy are better equipped to navigate investment opportunities and manage risks effectively. Furthermore, behavioural biases, influenced by one's financial understanding, can significantly affect investment decisions, highlighting the importance of financial education in fostering sound investment practices (Wangzhou et al., 2021; Jan et al., 2022). In summary, financial literacy serves as a foundational element that enhances both financial practices and investment behaviours, enabling individuals to achieve better financial well-being.

Finally, Consuming Behaviour, which focuses on spending habits and adherence to a budget, demonstrates the practical application of financial knowledge in daily life. These domains provide a comprehensive assessment of financial literacy and align with existing research that highlights the importance of these dimensions in shaping financial well-being (Sugiantara et al., 2020; Sasmito et al. 2023).

By retaining all seven domains, this study provides a more granular and contextually relevant assessment of financial literacy among Kuwaiti youth. This approach enables the identification of specific strengths and weaknesses across different aspects of financial management, which is particularly valuable for policymakers and educators aiming to design targeted interventions. The inclusion of domains such as digital financial tools and risk awareness reflects the evolving financial landscape in Kuwait and addresses gaps identified in previous research.

4.3   Limitations

Despite the strengths of this study, there are several limitations that should be acknowledged. First, the sample, while large, was collected using convenience and snowball sampling, which may introduce selection bias and limit the generalisability of the findings (McGuffog et al., 2023). The focus on youth in Kuwait also means the results may not be directly applicable to other cultural or socioeconomic contexts (AlBuloushi et al., 2024). Additionally, while the confirmed domains provide valuable insights, the use of self-reported measures may lead to social desirability bias, where participants overestimate their financial knowledge or behaviours (Fisher and Katz, 2000).

The reliance on self-reported measures introduces the risk of social desirability bias, potentially inflating reported financial literacy levels. Future research should consider supplementing self-report data with objective measures, such as financial transaction records or performance-based financial tasks, to enhance validity.

4.4   Future study

Future research should aim to address these limitations by employing a more randomised sampling method to enhance generalisability. Expanding the study to include different age groups and populations from various cultural backgrounds would also provide a broader understanding of financial literacy. Additionally, longitudinal studies could explore how financial literacy evolves over time, particularly in response to financial education initiatives or real-life experiences. Incorporating objective measures of financial behaviour, such as credit scores or savings account data, could help validate the self-reported data and provide a more comprehensive view of participants' financial literacy.

4.5   Recommendations

Given the findings of this study, several recommendations can be made for improving financial literacy among youth in Kuwait. Educational institutions should prioritise integrating financial literacy programs into their curricula, focusing on the four confirmed domains to provide students with practical skills for managing their finances. Policymakers should consider launching national financial literacy campaigns aimed at young adults, emphasising the importance of budgeting, investing, and responsible consumption. Collaboration between financial institutions and schools could help bridge the gap between theoretical knowledge and practical application, offering students real-world financial experiences through workshops or internships.

5   Conclusion

In conclusion, this study successfully validated a financial literacy questionnaire for youth in Kuwait, confirming four key domains: Information Literacy, Financial Practices, Investment Behaviour and Consuming Behaviour. The findings indicate that the questionnaire is a reliable and valid tool for assessing financial literacy and provides a strong foundation for further research in this area. By addressing the limitations and

incorporating the recommendations, future studies can expand on these results and contribute to the development of effective financial education programs. Ultimately, enhancing financial literacy among youth will not only improve individual financial well-being but also contribute to the economic stability of Kuwait as a whole.

Declarations

All authors declare that they have no conflicts of interest.

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