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Alfabetización financiera de la generación Z, Facultad de Ciencias Empresariales, Universidad Técnica de Machala

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<https://orcid.org/0000-0003-3095-8765>**Resumen**

Esta investigación analiza el nivel de alfabetización financiera de los estudiantes de la Facultad de Ciencias Empresariales de la Universidad Técnica de Machala, evaluando las dimensiones de conocimiento, actitud y comportamiento financiero, así como su relación con variables sociodemográficas como género, edad y condición laboral. Bajo un enfoque cuantitativo, descriptivo-correlacional y diseño no experimental transversal, se aplicó un cuestionario de escala FLKD ("Financial Literacy on Key Financial Decisions") de alta fiabilidad (α de Cronbach = 95,60%) a una muestra de 353 estudiantes. Los resultados demuestran que el 45,3% de los participantes presentó niveles bajos o muy bajos de conocimiento financiero, mientras que la actitud financiera fue predominantemente positiva con un 56,4% de las respuestas entre los niveles alto y muy alto, mientras que, el 32,9% reportó niveles bajos y muy bajos de comportamiento financiero. El indicador global de alfabetización financiera se distribuyó entre los niveles bajo (30,88%) y alto (31,44%) y, el análisis de correlación de Spearman confirmó asociaciones significativas entre las tres dimensiones, siendo la relación actitud-comportamiento financiero ($\rho = 0,737$) la más fuerte de todas. Se detectaron diferencias significativas en género y condición laboral, sin relación significativa con la edad, concluyendo de esta manera que persisten brechas formativas relevantes que demandan intervenciones educativas contextualizadas en la facultad.

Palabras claves: Alfabetización financiera; Generación Z; conocimiento financiero; comportamiento financiero; actitud financiera.**Abstract**

This research analyzes the level of financial literacy among students in the Faculty of Business Sciences at the Technical University of Machala, evaluating the dimensions of financial knowledge, attitude, and behavior, as well as their relationship with sociodemographic variables such as gender, age, and employment status. Using a quantitative, descriptive-correlational approach and a non-experimental, cross-sectional design, a highly reliable FLKD ("Financial Literacy on Key Financial Decisions") scale questionnaire (Cronbach's $\alpha = 95.60\%$) was administered to a sample of 353 students. The results show that 45.3% of participants presented low or very low levels of financial knowledge, while financial attitude was predominantly positive, with 56.4% of responses indicating high or very high levels. Conversely, 32.9% reported low or very low levels of financial behavior. The overall financial literacy indicator was distributed between low (30.88%) and high (31.44%) levels, and Spearman's correlation analysis confirmed significant associations among the three dimensions, with the relationship between financial attitude and behavior ($\rho = 0.737$) being the strongest. Significant differences were detected according to gender and employment status, with no significant relationship with age, thus concluding that relevant educational gaps persist, requiring contextualized educational interventions within the faculty.

Keywords: Financial literacy; Generation Z; financial knowledge; financial behavior; financial attitude.**OPEN ACCESS**
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Introduction

Generation Z, comprised of individuals born approximately between 1995 and 2010, is distinguished by its deep integration with technological and digital environments in virtually all aspects of their daily lives. As a result, this generation enters the university and professional context with advanced digital skills (Zambrano & Trujillo, 2024); however, it exhibits persistent gaps in the management of complex financial decisions, such as systematic saving, access to credit, investment management, and risk management (Valencia & Narváez, 2021).

According to Fierro et al. (2023), these new dynamics of digital consumption have transformed the economic habits of this generation, considering that a large part of their financial decisions are made in contexts characterized by immediacy, massive access to electronic platforms, and high exposure to impulsive consumption strategies.

In this context, Merino (2024) argues that financial education is a priority for university students, who will soon enter the workforce and assume more complex financial responsibilities. In this regard, Polo et al. (2023) point out that mastery of financial products and services helps prevent problems associated with over-indebtedness, inadequate management of financial resources, and the lack of long-term financial planning.

From a theoretical perspective, the financial literacy theory proposed by Lusardi and Mitchell posits that the ability to understand and apply basic financial concepts is crucial for achieving long-term economic stability and well-being. This process is not limited to conceptual knowledge but also involves attitudes and behaviors geared toward making informed decisions in real-world financial scenarios (Lusardi and Mitchell, 2014).

In addition, the behavioral financial theory developed by Kahneman and Tversky (1979), along with subsequent contributions from Thaler (1980) and Shiller (2012), explains that people's economic decisions are often influenced by emotions, cognitive biases, and social pressures, frequently deviating from strictly rational criteria. From this perspective, financial literacy can be understood as a dynamic set of skills that constantly interact with behavioral and contextual factors inherent in today's digital environments (Vargas, 2021; Montoya et al., 2024). Integrating both theories allows us to analyze financial literacy not only as a body of knowledge but also as a dynamic set of competencies that interact with the behavioral constraints of the digital environment.

In Latin America, financial literacy continues to pose a significant challenge despite efforts by various governments and educational institutions. This situation limits the population's economic opportunities and reflects persistent weaknesses in the quality of financial education (Pacheco et al., 2024). Within the region, Chile has positioned itself as a leading example thanks to the implementation of its National Financial Education Strategy since 2014, the results of which have shown positive effects on the population's economic development (Plúas et al., 2025).

In the current Ecuadorian context, Méndez et al. (2022) and Andrade et al. (2025) point out that the availability of digital financial products and the proliferation of online investment and consumption platforms increase the need for financial skills that guarantee economic well-being, preventing vulnerabilities such as indebtedness, impulsive purchases, unnecessary adoption of Fintech services, and poor consumer practices. Despite these initial challenges, Viteri et al. (2025) suggest that the expansion of financial services has allowed for the strengthening of the Ecuadorian entrepreneurial system, as well as the reduction of inequalities.

A study conducted by Peñarreta et al. (2024) with a group of university students in Ecuador determined that they possess an average level of financial literacy, which translates into basic skills for applying financial concepts in everyday situations, although with some limitations in more complex environments. Given this problem, Grijalva and Zambrano (2025) point to the need to strengthen financial education programs in universities, seeking to improve students' financial stability.

Within this framework, the present research examines the following central question: What is the level of financial literacy among students in the Faculty of Business Sciences at the Technical University of Machala? To answer this question, the study aims to analyze this level by evaluating the dimensions of knowledge, attitude, and financial behavior, as well as their relationship with sociodemographic variables such as age, gender, and employment status.

This study proposes that there are statistically significant relationships between the dimensions of financial knowledge, attitude, and behavior, as well as significant differences in financial literacy levels according to gender and employment status of students.

Theoretical Foundations of Financial Literacy

According to Jay et al. (2021), financial literacy encompasses knowledge, attitudes, and behaviors related to key financial decisions, such as systematic saving, credit management, investment product selection, and responsible use of Fintech. Fong (2025) and Alcaraz et al. (2024) link financial literacy to the ability to process economic information for informed decision-making, considering the future impact of those decisions.

Continuing with the contextual understanding of its importance, Gonzales (2024) emphasizes that financial literacy empowers young people with greater autonomy in their economic decision-making, reducing their financial stress and benefiting their long-term planning. Research conducted by Ruiz (2025) and Martínez and Avemañay (2024) reflects that financial education has the advantage of improving knowledge and, consequently, influencing the improvement of behaviors. Sconti et al. (2024) point out that the simple transfer of information does not necessarily translate into sustained changes in financial habits without practical behavioral mechanisms.

Despite its undeniable relevance, Salas (2022) notes a low level of financial literacy among both young people and adults, leading to increased attention being paid to financial programs. They emphasize the importance of applying assessments such as those developed by the PISA program, which allow for the detection of financial deficiencies at an early age. The analysis conducted by Czech et al. (2024) highlighted the importance of reinforcing specific aspects such as budgeting, creating emergency funds, and balancing financial risk and reward.

International Evidence on Generation Z and Financial Literacy

Empirical studies on Generation Z, such as those by Moya et al. (2024) and Hong et al. (2023), reveal common patterns, including high exposure to financial technologies and applications, a greater tendency to inquire about digital investment products, and varying levels of knowledge of basic financial concepts (compound interest, risk-diversification, credit costs). Several studies in emerging markets and European institutions show that financial literacy is related to better savings strategies and less vulnerability to unforeseen events, although the link with complex investment decisions is subject to trust, self-assessment (calibration), and the presence of formal or family education.

Likewise, a study by Putri et al. (2025), regarding new research in Asia and Europe, highlights that mediating educational factors have begun to be examined, including financial self-efficacy, the influence of social networks, and exposure to online financial content, which explain why similar knowledge produces different behaviors among individuals of the same generation. This demonstrates the importance of university-based research collecting measures of knowledge, behavior, and self-efficacy, in addition to contextual variables such as Fintech use and prior education.

Financial Literacy

Understanding financial concepts is one of the most relevant components of financial literacy, as it allows for the interpretation of everyday economic phenomena related to saving, credit, investment, and budget planning. However, Arévalo et al. (2025) mention that acquiring theoretical knowledge does not necessarily guarantee its effective application in daily life, since a considerable number of young people, despite recognizing basic principles of financial education, continue to have difficulties managing their economic resources adequately. This is reflected in the absence of saving habits, the lack of budgeting, and impulsive purchases, demonstrating a disconnect between conceptual learning and practical financial decisions.

In this regard, Peláez et al. (2024) mention that as long as this gap persists, the likelihood increases that people will adopt harmful economic behaviors, such as over-indebtedness, taking out loans with unfavorable terms, exposure to financial fraud, or the inability to cope with unforeseen situations due to a lack of planning—circumstances that ultimately and progressively erode individual and family economic stability.

Although financial knowledge alone does not guarantee economic well-being, it does represent a necessary foundation for strengthening the capacity for analysis and responsible decision-making. From this perspective, financial education becomes relevant as a mechanism aimed at improving financial satisfaction and promoting sustainable economic practices in adulthood (Donayre, 2025).

Financial Attitude

The authors Firli and Hidayati (2021) indicate that financial attitude includes the perceptions, evaluations and predispositions that guide the way in which a person manages their economic resources. From this approach, it is possible to stipulate that although financial knowledge provides conceptual tools to understand the functioning

of the economic system, it is attitudes that determine the real willingness of individuals to apply criteria of responsibility and control over their personal finances.

Consequently, Mancone et al. (2024) emphasize that during adolescence and youth many of the financial behaviors are shaped that are subsequently maintained in adulthood, therefore, the promotion of favorable financial attitudes not only contributes to individual economic well-being, but also favors more conscious management of available resources and a greater capacity to face future economic uncertainties.

Based on the above, Nabila et al. (2023) argue that as long as these positive predispositions are strengthened through socialization and financial education processes, the chances of young people developing more responsible and satisfactory economic practices increase, considering that financial attitude maintains a significant influence on money management and, indirectly, on the financial satisfaction achieved by individuals.

Financial Behavior

Financial behavior represents the practical application of knowledge and attitudes related to money management. From this perspective, short-term financial behaviors aim to maintain immediate stability by controlling cash and financial obligations, while long-term decisions involve planning processes capable of reducing future financial risks and preventing situations of economic stress (Wagner & Walstad, 2019).

As noted by Xiao and Porto (2017), financial behavior is relevant to individual well-being, as it influences people's ability to save, invest, and achieve financial satisfaction, thus establishing itself as one of the main indicators of adequate financial literacy.

From the perspective of Groda and Kusbianto (2025), the relationship between financial behavior and economic well-being is even more complex in the case of Generation Z, considering that this population is highly familiar with digital technologies and Fintech tools that facilitate immediate access to financial services. While this technological adaptation offers advantages related to speed, convenience, and greater access to payment platforms and financial management, it also increases exposure to impulsive spending and deficiencies in personal financial management, especially when solid planning and self-control habits are lacking.

Given the conditions described above, responsible financial practices become even more important to

avoid economic imbalances resulting from the misuse of digital tools, considering that positive financial behavior is closely linked to greater levels of stability and individual financial well-being (Abdul Ghafoor and Akhtar, 2024).

Financial Education in Ecuador

Scientific production on financial education in Ecuador has increased significantly, with a particular emphasis on research aimed at young people and university students. Salas et al. (2023) and Bernal et al. (2026) report that students exhibit intermediate levels of financial knowledge: they demonstrate strengths in basic daily practices, such as using bank accounts, but show weaknesses in medium- and long-term financial planning, knowledge of credit instruments, and investment management.

In addition, Mena (2022) highlights that financial literacy is a multidimensional construct in the Ecuadorian context and that socioeconomic and educational variables (parents' level of education and training, income, and prior experiences) reveal differences between subgroups, emphasizing the need for locally validated measurement instruments and educational interventions linked to practice, such as simulators, financial labs, and guided digital components.

Financial literacy is an essential factor for the responsible management of personal finances, as it becomes a crucial mechanism for successful adult life (Ruiz, 2026). In this sense, it is imperative to identify the key elements that influence financial literacy and impact financial decision-making, positive investments, wealth accumulation, and overall financial well-being. Among these, five essential factors stand out: individual characteristics, socioeconomic factors, educational interventions, digital technologies, and cultural influences. These factors have a significant impact on financial decision-making, wealth accumulation, and overall financial well-being (Zorrilla, 2025).

It is essential to develop financial skills in Generation Z through knowledge, as Benítez et al. state. (2025), misinformation has a negative impact on an individual's social, personal, and economic development and progress, as a lack of financial stability tends to disproportionately affect young people who grow up in a media-driven environment where the temptation to make purchases and investments is constant. Financial literacy training promotes critical thinking and fosters a healthy economic culture.

Methodology

The research was conducted using a quantitative approach, with a descriptive typology and correlational scope, as it sought, on the one hand, to numerically characterize the level of financial literacy of Generation Z in the Faculty of Business Sciences at UTMACH and, on the other hand, to analyze its relationship with sociodemographic and academic variables.

Regarding the method, the analytical-synthetic approach was applied, beginning with a decomposition of financial literacy into different elements (knowledge, attitudes, behavior) for individual analysis and subsequently a joint understanding of their interdependence. The design was non-experimental and cross-sectional, because the variables were not manipulated and the data were collected at a single point in time.

The data collection technique used was a survey, employing a questionnaire with the FLKD scale (Financial Literacy on Key Financial Decisions) structured in four sections: general information, financial knowledge, financial attitudes, and financial behaviors. To measure the reliability of each dimension, Cronbach's alpha coefficient was applied, noting that a result greater than 80% indicates high reliability of the instrument.

In this case, the coefficient was 95.60%, thus indicating the high reliability of the instrument and the scale used in its dimensions. A more detailed explanation of the dimensions is that the financial knowledge dimension consisted of 10 multiple-choice questions with true, false, and don't know options. Correct answers were coded with a value of 1, and incorrect or unknown answers with a value of 0. Subsequently, the financial knowledge levels were calculated by summing the correct answers and converting them to a scale of 0 to 100, using the following formula:

$$ICF = \frac{DCF1 + DCF2 + \dots + DCF10}{10}$$

The results were classified on the following scale:

- 0 – 20: Very low
- 21 – 40: Low
- 41 – 60: Medium
- 61 – 80: High
- 81 – 100: Very High

The dimensions of financial attitude and financial behavior were measured using five-point Likert-type scales. In both cases, an individual average score was

obtained from the responses recorded for each item, and these averages were subsequently transformed to a homogeneous scale of 0 to 100 to facilitate comparability between dimensions.

Based on these results, each dimension was classified

$$\text{Homogenized Indicator} = \frac{(X_{\text{average}} - X_{\text{min}})}{(X_{\text{max}} - X_{\text{min}})} * 100$$

into levels of interpretation equivalent to the previous scale.

Once the individual indicators of financial knowledge, attitude, and behavior were obtained, the Global Financial Literacy Indicator was constructed using the simple arithmetic mean of the three dimensions, previously standardized on a scale of 0 to 100. This allowed for a comprehensive representation of the financial literacy level of the surveyed students.

The survey was administered via the Microsoft Forms online platform, for which a link was generated and sent to each participant. It should be noted that the anonymity of the respondents was guaranteed; therefore, they did not provide their names.

The study population consisted of all students enrolled in the Faculty of Business Sciences at the Technical University of Machala during the 2025-D2 academic cycle. According to official data provided by the UTMACH website, the population totaled $N = 4,089$ students. To determine the representative sample size of this population, the statistical formula for finite populations was applied, considering a 95% confidence level.

Where:

$$n = \frac{N * Z^2 * p * q}{e^2 * (N - 1) + Z^2 * p * q}$$

$N = 4.089$

$Z = 1,96$

$P = 0,5$

$q = 0,5$

$e = 0,05$

Substitution:

$$n = \frac{(4.089 * (1,96)^2 * 0,5 * 0,5)}{(0,05)^2 * (4.089 - 1) + (1,96)^2 * 0,5 * 0,5}$$

$$n = \frac{3.927,08}{11,18}$$

$$n = 351,24 \approx 351$$

The minimum required sample size was 351 students. In order to anticipate possible data loss or incomplete questionnaires, this value was increased by 10%, establishing a target of 386 participants. Finally, 353 students successfully completed the questionnaire, representing a response rate of 91.45%, as the remaining 33 participants did not respond within the established data collection period.

For statistical analysis, SPSS version 24 software was used. Descriptive procedures were performed on the obtained indicators, which were then supplemented with Spearman's rho coefficient to identify the relationship between the dimensions of financial knowledge, financial attitude, and financial behavior. This was appropriate because the analyzed variables were ordinal in nature

and did not require assumptions of normality. Similarly, Spearman's rho coefficient was used to examine the relationship between age and financial literacy. To determine whether there were statistically significant differences in financial literacy levels according to gender and employment status, the non-parametric Mann-Whitney U test was applied.

Results

The results show a heterogeneous distribution in students' levels of financial literacy, with no particular group predominating. The analysis identified the coexistence of segments with developed financial skills and groups with significant learning gaps. Additionally, statistically significant associations were confirmed among the three components of financial literacy assessed: knowledge, attitude, and behavior.

Table 1

Financial Knowledge, Attitude, and Behavior of Generation Z Students at the UTMACH Faculty of Business Sciences

Statistical Analysis of Financial Literacy				
Responses	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Very Low	81	22,9	22,9	22,9
Low	79	22,4	22,4	45,3
Medium	66	18,7	18,7	64
High	60	17	17	81
Very High	67	19	19	100
Total	353	100	100	
Financial Attitude				
Responses	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Very Low	7	2	2	2
Low	92	26,1	26,1	28
Medium	55	15,6	15,6	43,6
High	101	28,6	28,6	72,2
Very High	98	27,8	27,8	100
Total	353	100	100	
Financial Behavior				
Responses	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Very Low	13	3,7	3,7	3,7
Low	103	29,2	29,2	32,9
Medium	88	24,9	24,9	57,8
High	93	26,3	26,3	84,1
Very High	56	15,9	15,9	100
Total	353	100	100	

These results highlight a heterogeneous level of financial literacy, with 45.3% of students in the faculty demonstrating low to very low levels of financial knowledge, indicating limitations in their understanding of financial concepts. Conversely, 36% of respondents reported high to very high levels of understanding, thus revealing a limited group with sufficient competence to interpret economic concepts. Only 18.7% of participants

admitted to having an average level of understanding. Overall, the results paint a challenging picture for students, as 64% exhibited difficulties understanding financial concepts, which could hinder their short-term decision-making.

The trend associated with students' financial attitudes is generally positive, with 56.4% reporting high

levels of response, reflecting a majority's willingness to adopt saving habits, planning practices, and responsible money management. Despite this favorable aspect, 28.1% of respondents argued that they had an aversion to personal financial management, while 15.6% reached a medium level, from which it is possible to point out that, although there is a positive orientation towards financial management, there are still groups with less inclined attitudes towards handling money.

The results of the financial behavior assessment are primarily distributed between the low and medium

categories, indicating that 54.1% of students have limitations in practices related to saving, planning, and controlling their personal finances, while 42.2% reported no such limitations, placing them in the high and very high levels. Only 3.7% presented a very low level, which, combined with the low and medium categories, reveals a context where students exhibit deficiencies in managing their economic resources responsibly and efficiently.

Table 2

Spearman Correlation between the Components of Financial Literacy

		Financial Knowledge	Financial Attitude	Financial Behavior
Financial Knowledge	Correlation Coefficient	1	,469**	,471**
	Sig. (bilateral)	.	0,00	0,00
	N	353	353	353
Financial Attitude	Correlation Coefficient	,469**	1	,737**
	Sig. (bilateral)	0,00	.	0,00
	N	353	353	353
Financial Behavior	Correlation Coefficient	,471**	,737**	1
	Sig. (bilateral)	0,00	0,00	.
	N	353	353	353

** Correlation is significant at the 0,05 level (bilateral).

The results derived from the Spearman correlation expose significant and positive associations between the 3 analyzed dimensions of financial literacy, thus indicating that attitudes and behaviors are related to financial knowledge and vice versa, denoting that the

strongest association is between financial attitude and financial behavior (73.7%), from which it is inferred that the perceptions that arise around personal financial management work as an adjuvant for the adoption of responsible economic practices.

Table 3

Financial Literacy of generation Z of the Faculty of Business Sciences of the UTMACH

Financial Literacy				
Responses	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Very Low	1	0,28	0,28	0,28
Low	109	30,88	30,88	31,16
Medium	77	21,81	21,81	52,97
High	111	31,44	31,44	84,42
Very High	55	15,58	15,58	100,00
Total	353	100	100	

The overall results of financial literacy reveal a distribution primarily concentrated between low and high levels, with 30.88% and 31.44% of responses respectively. Additionally, a significant percentage (21.81%) demonstrated medium levels, followed by 15.58% of students with very high levels of literacy.

This indicates heterogeneity in the financial capabilities of Generation Z within the Faculty of Business Sciences. While a significant group possesses favorable skills for managing their finances, a considerable percentage still exhibits limitations in financial knowledge, attitudes, and behaviors.

Table 4
Comparison of Financial Literacy Among Participant Groups

Variable	Category	Mean	N	Standación estándar	Statistic	Value
Génder	Female	3,14	192	1,06	Mann-Whitney U	12.474
	Male	3,52	161	1,07	Wilcoxon W	31.002
	Total	3,31	353	1,08	Z	-3,25
						Asymptotic Sig. (2-tailed)
						0
Employment Status	Not currently employed	3,58	171	0,95	Mann-Whitney U	11.335
	Currently employed	3,06	182	1,13	W de Wilcoxon W	27.988
	Total	3,31	353	1,08	Z	-4,59
						Asymptotic Sig. (2-tailed)
						0

This comparison of whether financial literacy diverges significantly between gender and employment status reveals that higher levels of literacy exist among men and students who are not employed, given that the mean literacy scores in these groups are higher and significantly higher according to the Mann-Whitney U p-value. This contrasts with the initial perception that having a job might allow access to higher levels of financial knowledge, suggesting that this could be due to the fact that working students are in environments that do not encourage their financial skills, and also indicating a greater interest among men in continuing to improve their abilities.

Table 5
Spearman Correlation between Financial Literacy and Age

Rho Spearman's Rho			
Financial Literacy	Financial Literacy	Age	
	Correlation Coefficient	1	-0,018
	Sig. (2-tailed)	.	0,735
	N	353	353
Age	Financial Literacy	Age	
	Correlation Coefficient	-0,018	1
	Sig. (2-tailed)	0,735	.
	N	353	353

Through these results it is possible to assume that there is no relationship between age and the acquired levels of financial literacy, denoting that at least within this group of students, having greater or lesser financial capacity is not related so much to age, but rather to the predisposition to learn and put into practice the knowledge obtained in their daily lives in making financial decisions.

Discussion

The results obtained allow comparisons to be made with the reviewed scientific literature, evidencing both coincidences and important differences. Regarding financial knowledge, the data obtained highlight that 45.3% of the students presented low or very low levels, a panorama that agrees with what was identified by Peñarreta et al. (2024), who determined that young Ecuadorian university students have a medium level of financial education, with basic skills to apply concepts in everyday situations but with limitations in more complex contexts.

Similarly, the national studies reviewed by Mena (2022) confirm that Ecuadorian university students present strengths in simple daily practices, but weaknesses in medium and long-term financial planning, a pattern that is replicated in the population analyzed. Likewise, this finding aligns with what was stated by Arévalo et al. (2025), who warn that the acquisition of theoretical knowledge does not guarantee effective application in daily life, which would explain the gap observed between the declared knowledge and the financial behaviors of the sample.

Regarding financial attitudes, the results are more encouraging, as 56.4% of students scored at high and very high levels, indicating a positive disposition toward saving and responsible money management. However, the coexistence of positive attitudes with deficient knowledge reinforces the perspective of Firli and Hidayati (2021), who distinguish between knowledge as a conceptual tool and attitude as a determining factor in financial behavior, noting that both dimensions act cohesively but not necessarily synchronously.

Financial behavior demonstrated that 32.9% of students had limitations in saving, planning, and economic control practices, aligning with the proposal of Wagner and Walstad (2019), who maintain that long-term oriented financial behaviors involve planning processes capable of reducing future risks, and that their absence undermines individual economic stability. In the specific context of Generation Z, Groda and Kusbianto (2025) warn that high familiarity with digital technologies and Fintech platforms increases exposure to impulsive consumption behaviors when solid habits of economic self-control are lacking, a situation that is consistent with the profile of the students analyzed, immersed in a highly stimulating digital environment for consumption.

Regarding the correlation between dimensions, the strongest correlation was found between attitude and financial behavior, followed by moderate correlations between knowledge and each of the other two dimensions. This pattern validates the multidimensional approach proposed by Lusardi and Mitchell (2014), which conceives of financial literacy as a process that is not limited to conceptual knowledge but integrates attitudes and behaviors.

The aforementioned finding also reinforces the behavioral thesis of Kahneman and Tversky (1979) and the subsequent developments of Thaler (1980) and Shiller (2012), which posit that financial decisions are mediated by cognitive and emotional predispositions that interact with formal knowledge. Contrary to expectations, the link between knowledge and behavior was weaker than that between attitude and behavior, which aligns with the observations of Sconti et al. (2024), who point out that the simple transfer of information does not necessarily translate into sustained changes in financial habits.

Regarding gender differences, men showed significantly higher levels of financial literacy compared to women, a result that is consistent with the findings of Moya et al. (2024), who identified gender gaps in levels of financial competence. This difference could be associated with a greater male interest in investment and risk management, although qualitative studies are needed to delve deeper into its causes.

Regarding employment status, students who are not employed obtained higher levels of financial literacy, a result that contrasts with the expectation that work experience contributes to practical financial learning. This finding suggests that the work contexts in which these students operate may not be encouraging the

development of financial skills, coinciding with the warning by Méndez et al. (2022) about the need for environments that promote financial literacy. Finally, the absence of a significant relationship between age and financial literacy differs from the findings of Peñarreta et al. (2024), who identified age as a variable influencing financial education, suggesting that in the studied sample, individual predisposition toward financial learning carries more weight than age.

Conclusions

Students in the Faculty of Business Sciences at UTMACH exhibit a heterogeneous distribution in their levels of financial literacy, with similar proportions at the low (30.88%) and high (31.44%) levels. This demonstrates the coexistence of groups with developed financial skills and groups with significant educational gaps that require institutional attention. The general research hypothesis was confirmed, emphasizing that there are statistically significant relationships between the dimensions of financial knowledge, attitude, and behavior, with the strongest association being between attitude and behavior. This confirms that financial literacy is a multidimensional construct in which a favorable predisposition toward economic management acts as a driver of responsible financial practices.

Financial knowledge emerged as the most deficient dimension, given that 45.3% of students were at low and very low levels. This finding reflects a significant gap between the financial content taught in university education and its effective appropriation by students, highlighting the need to review and update the faculty's financial education curriculum. Significant gender differences were confirmed, with higher levels among men, as well as differences related to employment status, with higher levels among unemployed students. This suggests that the work environment students enter does not foster the development of financial skills. Conversely, age did not show a significant relationship with financial literacy, indicating that individual predisposition toward financial learning has a greater impact.

The main contribution of this research lies in providing a contextualized diagnosis of financial literacy among Generation Z in the province of El Oro, contributing quantitative evidence for the design of institutional educational policies in a province where studies of this type are still scarce.

Among the main limitations of this research is its cross-sectional design, which allows for the analysis of financial literacy at a specific point in time, but does not

allow for the evaluation of changes in its dimensions or the establishment of causal relationships. Furthermore, the research was conducted solely with students from the Faculty of Business Sciences at the Technical University of Machala, which limits the generalizability of the results to other academic programs, universities, or geographic contexts within the country. Given these limitations, potential avenues for further research could

include developing longitudinal studies to evaluate the impact of educational interventions on the dimensions of financial literacy, replicating the study in other Ecuadorian faculties and universities to compare the results, and designing and implementing financial education programs based on simulators, financial labs, and guided digital components.

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