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Financial Education: An Econometric Analysis of the Need for Training at Ecuadorian Universities

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Abstract

Financial education is a fundamental competency for responsible economic decision-making and individual financial well-being. In this context, this study aimed to conduct an econometric analysis of the influence of financial education on the perceived need to incorporate personal finance courses into Ecuadorian universities. The study adopted a quantitative, non-experimental, cross-sectional approach. Data were collected through a survey administered via Google Forms to 437 students from different degree programs at public and private universities in Quito, Ecuador. A financial literacy index was constructed based on knowledge of compound interest, inflation, risk, diversification, credit cards, and budgeting. The analysis included descriptive statistics, Cronbach's alpha, and OLS, Ordered Logit/Ordered Probit, and Binary Logit econometric models. The results revealed an upper-intermediate level of financial literacy among students, although gaps persisted in topics related to financial risk and inflation. A positive and statistically significant effect of the financial literacy index on support for including personal finance courses in higher education was also found. Furthermore, prior financial training and family financial education were associated with better financial habits and higher levels of economic knowledge. It is concluded that Ecuadorian universities should incorporate formal personal finance programs to strengthen financial competencies, promote responsible economic habits, and contribute to young people's financial well-being.

Keywords: Financial education, financial literacy, universities, econometric models, personal finance.

Introduction

Financial education has become a fundamental component of individual and social economic well-being because of its influence on people's ability to manage resources, make rational economic decisions, and navigate increasingly complex financial environments. In a context characterized by expanding access to credit, the digitalization of financial services, and the growing range of investment and financing instruments, financial literacy has become an essential competency for everyday life. Numerous studies have shown that insufficient levels of financial education are associated with over-indebtedness, limited saving capacity, inadequate financial planning, and economic vulnerability (Hastings et al., 2013; Lusardi & Mitchell, 2014). Consequently, international organizations such as the Organisation for Economic Co-operation and Development (OECD, 2020) have emphasized the need to strengthen financial education across the different levels of education.

In higher education, financial training is particularly relevant because university students are transitioning toward economic independence and beginning to face decisions related to saving, credit, debt, consumption, and investment. In addition to providing professional competencies, universities play a strategic role in strengthening life skills, including personal financial management. International empirical evidence suggests that financial education programs integrated into university curricula significantly improve financial knowledge, attitudes toward saving, and responsible economic habits. Likewise, from a human capital theory perspective, financial education can be understood as an investment in cognitive capabilities that enhances individuals' ability to make efficient economic decisions and improve their future well-being (Becker, 1993).

Nevertheless, despite growing academic interest in financial literacy, empirical evidence in Latin America, and particularly in Ecuador, remains limited. Most research on financial education has been conducted in advanced economies, whereas studies focused on Latin American contexts are still scarce (Kaiser & Menkhoff, 2017). In Ecuador, research on university students' financial knowledge, economic habits, and the need for personal finance courses presents significant empirical gaps, especially in econometric approaches applied to higher education students.

This situation is relevant because many university students face budget constraints, low levels of family income, and limited formal financial training. From a theoretical perspective, financial literacy encompasses knowledge, skills, attitudes, and behaviors related to the efficient management of money (OECD, 2020). Lusardi and Mitchell (2014) argue that understanding concepts such as inflation, compound interest, financial risk, and diversification is an essential condition for rational economic decision-making.

In addition, behavioral finance provides an important conceptual framework for understanding why people, even when they recognize the importance of financial planning, do not always develop appropriate saving or spending-control habits. This approach maintains that cognitive biases, self-control limitations, and emotional factors influence individual financial decisions. Consistent with this perspective, the results of this study show that although students place a high value on learning about personal finance, they report relatively low averages for practices such as systematically recording expenses and preparing budgets.

Based on these considerations, this study aims to conduct an econometric analysis of the relationship between financial education and the perceived need to incorporate personal finance courses into Ecuadorian universities. To this end, a survey was administered via Google Forms to students from different degree programs at public and private universities in Quito, Ecuador. The study adopts a quantitative, cross-sectional approach and uses OLS, Ordered Logit/Probit, and Binary Logit econometric models to assess the effects of financial literacy and prior financial training on students' perceptions of the need for university-level financial education.

In this regard, the study contributes to the literature on financial education in Latin America by providing empirical evidence from the Ecuadorian university context. It also offers relevant implications for higher education institutions and educational policymakers by demonstrating the need to incorporate personal finance content into university curricula as a strategy to strengthen financial competencies, promote responsible economic habits, and improve young people's financial well-being.

Methodology

Research Approach and Type

This study was conducted using a quantitative approach because statistical and econometric techniques were employed to analyze the relationship between financial education and the perceived need to incorporate personal finance courses into Ecuadorian universities. The quantitative approach makes it possible to measure observable variables and establish statistical relationships among them through objective and replicable procedures (Hernández-Sampieri & Mendoza, 2018).

The study had a descriptive, correlational, and explanatory scope. It was descriptive because it characterized university students' level of financial literacy, financial habits, and sociodemographic characteristics. It was also correlational and explanatory because it sought to identify the relationship and effect of financial education on the perceived need for university personal finance courses through econometric models.

In terms of methodological design, the study was non-experimental and cross-sectional. It was non-experimental because the variables were not deliberately manipulated but were observed in their natural context, and it was cross-sectional because the data were collected at a single point in time.

Population and Sample

The study population consisted of university students from public and private higher education institutions in Quito, Ecuador, enrolled in different academic programs. Data were collected through a structured questionnaire administered via Google Forms. The survey was distributed digitally among university students from different programs and academic levels. The final sample comprised 437 university students who participated voluntarily and anonymously in the study. The main characteristics of the sample included:

- A predominance of students between 21 and 23 years of age;
- Greater female participation (63.16 %);
- High representation of public universities (92.91 %);

- Students from different academic levels and fields of study;
- The presence of students both with and without concurrent work experience.

These characteristics provide a heterogeneous and appropriate sample for analyzing the relationship between financial education and the perceived need for training in higher education.

Data Collection Instrument

The instrument used was a structured questionnaire comprising closed-ended questions and five-point Likert scales. The questionnaire was designed on the basis of international financial literacy frameworks proposed by the OECD/INFE and previous studies by Lusardi and Mitchell (2014). The instrument was divided into five main sections:

- a) Sociodemographic characteristics. This section included variables related to age, gender, type of university, academic level, family income, and employment status.
- b) Prior financial training. This section assessed aspects related to family financial education, financial education in secondary school, participation in workshops, and university personal finance courses.
- c) Objective financial knowledge. Questions related to compound interest, inflation, financial risk, diversification, credit card use, and personal budgeting were included. These questions were used to construct the Financial Literacy Index.
- d) Financial habits. Practices related to saving, budgeting, expense control, debt, and comparison of financial products were assessed. Responses were measured using Likert scales from 1 to 5.
- e) Perceptions of university financial education. Questions were included to measure the importance attributed to personal finance, the need to incorporate financial courses into universities, and perceptions of financial planning and economic well-being.

Construction of the Financial Literacy Index

The Financial Literacy Index (IAF) was constructed from six objective questions related to the fundamental financial concepts of compound interest, inflation, financial risk, diversification, credit cards, and personal budgeting.

For each student, 1 point was assigned to each correct answer and 0 points to incorrect or "Do not know" answers. The total index was calculated using the following expression:

$$IAF_i = IC_i + INF_i + RIESGO_i + DIV_i + TC_i + PRES_i$$

Where:

IAFi = financial literacy index for student (i)

ICi = knowledge of compound interest

INFi = knowledge of inflation

RIESGOi = knowledge of financial risk

DIVi = knowledge of diversification

TCi = knowledge of credit cards

PRESi = knowledge of personal budgeting.

The index ranged from 0 to 6 points, with higher values representing higher levels of financial literacy.

Instrument Reliability

The internal consistency of the items related to financial habits was assessed using Cronbach's alpha for the saving, budgeting, expense control, debt, and financial comparison variables. Cronbach's alpha is a widely used measure for assessing the reliability of Likert-type scales in social and educational research. The interpretation criteria used were:

$\alpha \geq 0.70$ = acceptable internal consistency;

$\alpha \geq 0.80$ = good internal consistency;

$\alpha \geq 0.90$ = excellent internal consistency.

The results showed an acceptable level of internal consistency, supporting the reliability of the instrument used.

Data Processing and Analysis

The collected data were cleaned, coded, and processed using statistical and econometric techniques. An initial descriptive analysis was conducted using frequencies, percentages, means, and standard deviations. Correlational and econometric analyses were subsequently performed to test the research hypotheses.

Econometric Models Applied

Model 1: Ordinary Least Squares Regression (OLS)

A multiple linear regression model was estimated to analyze the effect of financial literacy on support for including personal finance courses. The econometric specification was:

$$Y_i = \beta_0 + \beta_1 IAF_i + \beta_2 CURSO_i + \beta_3 EDUC_i + \beta_4 TRAB_i + \beta_5 AHORRO_i + \varepsilon_i$$

Where:

Yi = perceived need for financial courses;

IAFi = financial literacy index;

CURSOi = prior university course;

EDUCi = prior financial education;

TRABi = works while studying;

AHORROi = saving habit.

Model 2: Ordered Logit / Ordered Probit

Because the dependent variable was measured on an ordinal scale from 1 to 5, Ordered Logit and Ordered Probit models were also estimated. These models made it possible to analyze ordinal probabilities and provided greater econometric rigor for Likert-type variables.

Model 3: Binary Logit

The dependent variable was transformed into a dichotomous variable:

1 = "agree" or "strongly agree";

0 = all other categories.

A Binary Logit model was then estimated:

$$P(Y = 1) = F(\beta X)$$

This model made it possible to interpret probabilities and marginal effects associated with support for personal finance courses.

Research Hypotheses

General Hypothesis

Financial education positively influences the perceived need for personal finance courses at Ecuadorian universities.

Specific Hypotheses

H1: Students with higher financial literacy show greater support for the inclusion of financial courses.

H2: Students who received prior financial training exhibit better financial habits.

H3: Family financial education improves university students' financial knowledge.

Results

This section presents the results obtained from the survey administered to 437 students at public and private universities in Quito, Ecuador. The analysis is organized into five sections: sample characteristics, prior financial training, objective financial literacy, financial habits and scale reliability, and econometric estimates. The purpose is to present, in an integrated manner, whether the data support the need to incorporate personal finance courses into Ecuadorian higher education and whether that need is related to the level of financial literacy, prior training, and money-management habits.

Analytically, the results combine descriptive and econometric evidence. The former provides context for the students' profiles and financial circumstances; the latter estimates the statistical relationship between financial literacy and the perceived need for university personal finance courses. This approach is consistent with the financial education literature, which understands financial literacy as a combination of knowledge, attitudes, and behaviors related to saving, consumption, debt, and investment decisions.

Sociodemographic Profile of the Sample

The results show a predominantly young sample, with a high concentration in typical university-age groups. Of the respondents, 46.22 % were between 21 and 23 years old, and 36.38 % were between 18 and 20. Overall, 82.60 % of the participants were between 18 and 23 years old, confirming that the study focuses on a population transitioning toward greater economic autonomy. This characteristic is relevant because university students begin to face decisions about spending, saving, credit, employment, and financial planning, often without having received systematic training in these areas.

Regarding gender, female participation was higher, at 63.16 %, compared with 36.61 % for men. In terms of institution type, 92.91 % of the students attended public universities and 7.09 % attended private universities. This result should not be interpreted as a proportional representation of the Ecuadorian university system, but rather as the observed composition of the sample. Nevertheless, it reveals substantial demand for financial education among students who largely belong to the public higher education system.

Approximate monthly household income is a central factor in interpreting the relevance of personal finance courses. Of the students, 52.17 % reported household incomes below USD 500,

while 32.49 % fell between USD 500 and USD 1000. In other words, 84.66 % of the sample belonged to households with incomes below USD 1000. From a personal finance perspective, households facing budget constraints require greater capacity for planning, spending control, responsible use of credit, and prioritization of saving. Therefore, the observed socioeconomic profile reinforces the relevance of studying financial education as a cross-cutting competency at university.

Table 1 Relevant Sociodemographic Characteristics of the Sample

Variable	Category	Frequency	%
Age	18–20	159	36.38
Age	21–23	202	46.22
Age	24–26	45	10.30
Age	27 or older	31	7.09
Gender	Female	276	63.16
Gender	Male	160	36.61
Type of university	Public	406	92.91
Type of university	Private	31	7.09
Household income	Less than \$500	228	52.17
Household income	\$500–\$1000	142	32.49
Works while studying	Yes	193	44.16
Works while studying	No	244	55.84

Note. n = 437. The categories most relevant to the interpretation of the study are presented.

Prior Financial Training and Perceived Educational Need

Prior financial training reveals an important gap between informal learning and structured academic education. Of the students, 70.02 % stated that their parents or relatives had taught them about money management, whereas only 22.65 % reported having taken a personal finance course during their university studies. Moreover, 77.35 % had not received this type of university course. This difference suggests that the family plays an important initial role in financial socialization, but the university has yet to emerge as a systematic setting for personal finance education.

It was also found that 59.04 % of the students had not received financial education in school or secondary education and that 69.57 % had not participated in financial education workshops, seminars, or training programs. These results have direct implications for the article's objective: if most students received neither prior financial training in secondary school nor university courses or supplementary training, then the university represents an institutional opportunity to close financial knowledge gaps before full entry into the labor market.

Regarding the subjective perception of their own level of financial education, 67.28 % rated themselves as moderate, while 21.97 % placed themselves in the low or very low categories. Only 10.76 % rated themselves as high or very high. This self-perception shows that even when a substantial proportion of students possess adequate objective financial knowledge, they recognize limitations and a need for stronger training.

Table 2 Prior Financial Training and Financial Self-Perception

Variable	Category	Frequency	%
Family instruction on money management	Yes	306	70.02
Family instruction on money management	No	131	29.98
University personal finance course	Yes	99	22.65
University personal finance course	No	338	77.35
Financial education in school/secondary education	Yes	179	40.96
Financial education in school/secondary education	No	258	59.04
Workshops or training programs	Yes	133	30.43
Workshops or training programs	No	304	69.57
Self-perceived level of financial education	Moderate	294	67.28
Self-perceived level of financial education	Low	77	17.62
Self-perceived level of financial education	Very low	19	4.35
Self-perceived level of financial education	High or very high	47	10.76

Note. The results show a predominance of informal family education and a limited presence of university personal finance courses.

Objective Financial Literacy

The financial literacy index was constructed using six objective questions related to compound interest, inflation, risk, diversification, credit cards, and budgeting. Each correct answer received one point, and each incorrect or unknown answer received zero points. The final index ranged from 0 to 6, with higher values representing greater objective financial knowledge.

The results show an overall upper-intermediate performance level. The mean index score was 4.74 out of 6, with a median of 5 and a standard deviation of 1.53. In addition, 42.79 % answered all six questions correctly, and 24.49 % obtained five correct answers. Overall, 67.28 % of the students scored five or six points, indicating that most possess relatively solid basic financial knowledge. However, students with low scores should not be overlooked: 9.38 % scored between zero and two points, revealing a group with significant weaknesses in essential financial concepts.

When each dimension was analyzed, the highest correct-response rates corresponded to personal budgeting (91.76 %), diversification (86.96 %), and credit cards (86.04 %). This indicates that students understand more clearly the concepts associated with controlling income and expenses, spreading risk, and the cost of not paying a

credit card balance in full. In contrast, the lowest percentage of correct responses was observed for financial risk (64.07 %), followed by compound interest (70.94 %) and inflation (74.60 %). These gaps are relevant because risk, inflation, and interest are central concepts for evaluating investments, credit, and purchasing power.

Table 3 Correct Responses by Financial Literacy Dimension

Dimension	Correct answer	Correct	% correct
Compound interest	Exactly \$105	310	70.94
Inflation	It will decrease	326	74.60
Financial risk	Stocks	280	64.07
Diversification	Distribute money across different assets	380	86.96
Credit card	Interest is charged on the remaining balance	376	86.04
Budgeting	Control income and expenses	401	91.76

Note. The financial literacy index was calculated as the sum of correct responses across six dimensions, with a range from 0 to 6.

Table 4 Distribution of the Financial Literacy Index

Score	Frequency	%
0	11	2.52
1	15	3.43
2	15	3.43
3	37	8.47
4	65	14.87
5	107	24.49
6	187	42.79

Note. Mean = 4.74; median = 5.00; standard deviation = 1.53; minimum = 0; maximum = 6.

Financial Habits and Scale Reliability

Financial habits were assessed using Likert-type items ranging from 1 to 5. The means show a clear difference between attitudinal valuation and everyday practice. Students reported high means for variables associated with the importance attributed to financial education: learning about personal finance had a mean of 4.42, including university courses had a mean of 4.41, and financial planning as a mechanism for reducing economic stress had a mean of 4.33. These results reveal a favorable and widely shared perception of the usefulness of financial education.

In contrast, everyday financial practices showed more moderate means. Monthly expense tracking had a mean of 2.89, and personal budgeting had a mean of 2.86. These values were lower than those observed for regular saving (3.23), comparison of financial products (3.40), and avoidance of unnecessary debt (3.87). From a behavioral finance perspective, this pattern indicates that students

recognize the importance of planning but do not always translate that recognition into systematic financial-control habits. This gap between attitude and behavior justifies the inclusion of applied courses with practical components on budgeting, saving, credit, and decision-making.

Table 5 Means and Standard Deviations of Financial Habits and Perceptions

Variable	N	Mean	SD
Monthly expense tracking	437	2.89	1.21
Personal budgeting	437	2.86	1.21
Regular saving	437	3.23	1.17
Comparison of financial products	437	3.40	1.25
Avoids unnecessary debt	437	3.87	1.20
Importance of learning about personal finance	437	4.42	0.98
Support for university personal finance courses	437	4.41	0.98
Financial planning reduces economic stress	437	4.33	0.99
Confidence in managing personal finances	437	3.95	1.10

Note. Likert scale from 1 to 5. Higher values indicate stronger agreement or a higher frequency of the behavior.

The reliability of the financial habits scale was assessed using Cronbach's alpha, considering the items on expense tracking, budgeting, saving, comparison of financial products, and debt. The coefficient obtained was $\alpha = .77$, which exceeded the minimum criterion of .70. Therefore, the scale exhibits acceptable internal consistency. This result indicates that the items share a common structure associated with personal financial management practices, although they are not redundant. Corrected item-total correlations ranged from .39 to .62, suggesting that all items contribute information to the construct.

Table 6 Reliability of the Financial Habits Scale

Indicator	Value
Number of items	5
Cronbach's alpha	.77
Acceptance criterion	$\alpha > .70$
Interpretation	Acceptable internal consistency

Note. Included items: expenses, budgeting, saving, financial comparison, and debt.

Econometric Results

To assess the relationship between financial literacy and support for including personal finance courses, three complementary models were estimated. The first was an OLS regression, which approximates the marginal effect on the 1-to-5 Likert scale. The second consisted of Ordered Logit and Ordered Probit models, which are appropriate for an ordinal dependent variable. The third was a Binary Logit model, in which the dependent variable took

the value of 1 when the student responded "agree" or "strongly agree" and 0 for all other categories. The consistency of the results across these models strengthens the empirical robustness of the findings.

OLS Model

The OLS model shows that the financial literacy index has a positive and statistically significant effect on support for including personal finance courses. The estimated coefficient was $\beta = 0.2668$, with $p < .001$. This means that, holding the model's other variables constant, a one-point increase in the financial index is associated with an approximate 0.27-point increase on the scale of support for university courses. Substantively, the result indicates that students with greater financial knowledge more clearly recognize the importance of formal financial education.

Regular saving also had a positive and significant effect ($\beta = 0.0936$; $p = .0136$), suggesting that those who engage in intertemporal planning place a higher value on university financial education. The variable works while studying showed a positive coefficient ($\beta = 0.1464$), although with marginal significance ($p = .0949$); therefore, its effect should be interpreted cautiously. In contrast, a prior university course was not significant ($p = .2261$), which may be explained by the limited availability of financial courses in the sample and by the fact that support for these courses is high even among those who have not taken one.

Table 7 OLS Model Results

Variable	β	SE	t	p
Constant	3.0840	0.1817	16.9770	.0000
Financial literacy index	0.2668	0.0353	7.5603	.0000
Prior university course	-0.1270	0.1048	-1.2122	.2261
Financial education at school	-0.3064	0.0892	-3.4364	.0006
Works while studying	0.1464	0.0874	1.6739	.0949
Regular saving	0.0936	0.0378	2.4780	.0136

Note. Dependent variable: support for personal finance courses on a Likert scale from 1 to 5. $N = 437$; $R^2 = .1616$; adjusted $R^2 = .1518$; $F = 16.6102$; $p < .001$.

Ordered Logit and Ordered Probit Models

Because the dependent variable is ordinal, the Ordered Logit and Ordered Probit models provide a more appropriate estimate for analyzing students' degree of agreement. In the Ordered Logit model, the financial index had a positive and significant coefficient ($\beta = 0.4446$; $p < .001$), with an odds ratio of 1.5599. This implies that each additional point in financial literacy increases the odds of being in a higher support category by approximately 56.0 %, holding the other variables constant. The Ordered Probit model confirmed the same result with a positive coefficient ($\beta = 0.2569$; $p < .001$).

These models also show positive effects for working while studying and regular saving. In the Ordered Logit model, working while studying had $\beta = 0.5305$ ($p = .0172$), and regular saving had $\beta = 0.2983$ ($p = .0057$). This indicates that exposure to real economic decisions and the practice of saving are associated with

stronger support for personal finance courses. The goodness-of-fit comparison indicates that the Ordered Probit model had a slightly lower AIC (809.8937) than the Ordered Logit model (811.4015), although both models yield substantively consistent conclusions.

Table 8 Comparison of Ordered Logit and Ordered Probit Results

Variable	β Logit	P Logit	OR	β Probit	P Probit
Financial index	0.4446	.0000	1.5599	0.2569	.0000
University course	-0.2541	.3506	0.7757	-0.0998	.5285
School education	-0.7744	.0006	0.4610	-0.4264	.0009
Workshops	0.0713	.7837	1.0739	0.0076	.9598
Family instruction	-0.2640	.2846	0.7680	-0.1642	.2439
Works	0.5305	.0172	1.6998	0.2774	.0288
Regular saving	0.2983	.0057	1.3476	0.1876	.0031
Personal budgeting	-0.2160	.0399	0.8058	-0.1228	.0467

Note. Dependent variable: ordinal support for personal finance courses, on a scale from 1 to 5. AIC Logit = 811.4015; AIC Probit = 809.8937.

Binary Logit Model

To complement the analysis, the dependent variable was transformed into a binary variable: 1 for students who responded "agree" or "strongly agree" and 0 for all others. Under this classification, 80.32 % of the sample showed high support for including personal finance courses. This result alone provides strong empirical evidence of student demand for university financial education.

The Binary Logit model confirmed the positive effect of financial literacy. The index coefficient was $\beta = 0.4934$ ($p < .001$), with an odds ratio of 1.6379. This means that each additional point on the index increases the odds of supporting the inclusion of financial courses by approximately 63.8 %. The marginal-effects interpretation is even more direct: each additional point on the financial index increases the probability of supporting the courses by 6.65 percentage points. Likewise, regular saving increases the probability of support by 3.38 percentage points ($p = .0293$).

The overall performance of the Binary Logit model was also adequate for a cross-sectional educational study. McFadden's pseudo- R^2 was .1359, the LR test was statistically significant ($p <$

.001), and classification accuracy reached 82.15 %. In addition, the estimated probabilities show a clear gradient: with a financial index of 0, the estimated probability of support was 33.33 %, whereas with an index of 6 it rose to 90.61 %. This progression confirms that financial knowledge is strongly associated with the probability of supporting university personal finance courses.

Table 9 Binary Logit Model Results and Marginal Effects

Variable	B	p	OR	dy/dx	P dy/dx
Financial literacy index	0.4934	.0000	1.6379	0.0665	.0000
Prior university course	-0.3203	.3131	0.7259	-0.0431	.3116
Financial education at school	-0.7477	.0063	0.4734	-0.1007	.0054
Works while studying	0.5316	.0521	1.7016	0.0716	.0501
Regular saving	0.2509	.0312	1.2852	0.0338	.0293

Note. Dependent variable: 1 = agree or strongly agree; 0 = all other categories. N = 437; McFadden's pseudo- $R^2 = .1359$; accuracy = 82.15 %.

Table 10 Estimated Probability of Support by Financial Literacy Level

Financial index	Estimated probability of support
0	33.33 %
1	45.02 %
2	57.29 %
3	68.72 %
4	78.25 %
5	85.49 %
6	90.61 %

Note. Probabilities estimated from the Binary Logit Model.

Hypothesis Testing

Finally, the study's general hypothesis and three specific hypotheses were tested. The evidence was interpreted on the basis of descriptive results, statistical tests, and econometric models. Overall, the results support the conclusion that financial education positively influences the perceived need for personal finance courses at Ecuadorian universities.

Table 11 Quantitative Testing of the Hypotheses

Hypothesis	Statement	Empirical evidence	Decision
General hypothesis	Financial education positively influences the perceived need for personal finance courses.	OLS: $\beta = 0.2668$, $p < .001$; Ordered Logit: $\beta = 0.4446$, $p < .001$; Logit: OR = 1.6379, $p < .001$.	Accepted

Hypothesis	Statement	Empirical evidence	Decision
H1	Students with higher financial literacy show greater support for including financial courses.	Logit marginal effect: $dy/dx = 0.0665$, $p < .001$; the probability of support increases from 33.33 % with an index of 0 to 90.61 % with an index of 6.	Accepted
H2	Students who received prior financial training exhibit better financial habits.	Mean habits score with prior training = 3.36; without training = 3.17; $t = 2.2748$; $p = .0234$.	Accepted
H3	Family financial education improves university students' financial knowledge.	Mean index with family instruction = 4.86; without family instruction = 4.47; $t = 2.4999$; $p = .0128$.	Accepted

Note. Acceptance is determined at the 5 % significance level.

The general hypothesis is accepted because all three econometric approaches show a positive and statistically significant effect of financial literacy on support for university courses. This result is consistent with human capital theory: financial knowledge acts as a capability that enables individuals to better understand the benefits of personal finance education. Consequently, those with greater knowledge not only make better decisions but also place a higher value on institutionalizing this learning in the university curriculum.

H1 is also accepted. The strongest evidence comes from the marginal effect of the Binary Logit model: each additional point on the financial index raises the probability of supporting personal finance courses by 6.65 percentage points. Furthermore, the estimated probability of support increases from 33.33 % for students with an index of 0 to 90.61 % for students with an index of 6. This result empirically demonstrates an increasing relationship between objective financial literacy and the value placed on formal financial education.

H2 is accepted because students who received prior financial training had a higher mean for financial habits. The difference in means was statistically significant ($p = .0234$). This finding is consistent with behavioral finance, as financial education can help transform knowledge into saving, budgeting, comparison of alternatives, and debt-control practices. Although the magnitude of the difference is moderate, its statistical significance shows that prior training is associated with better financial behaviors.

H3 is accepted because students who received family financial instruction obtained a higher financial literacy index than those who did not receive such instruction. The difference was statistically significant ($p = .0128$). This result confirms the importance of family financial socialization as the first setting for economic learning. Nevertheless, the relevance of family education does not reduce the university's responsibility; on the contrary, it shows that students without this family support require institutional mechanisms to reduce knowledge gaps.

In summary, the results demonstrate clear demand for university financial education and a positive relationship among financial knowledge, responsible habits, and support for personal finance courses. Although the sample exhibits an upper-intermediate level of financial literacy, gaps persist in everyday practices such as budgeting and expense tracking, as well as in technical concepts related to risk and inflation. Therefore, the evidence supports incorporating personal finance courses into Ecuadorian universities as an educational strategy aimed at financial well-being, informed decision-making, and the reduction of economic vulnerabilities among university students.

Conclusions

This study made it possible to conduct an econometric analysis of the relationship between financial education and the perceived need to incorporate personal finance courses into Ecuadorian universities. The results show that financial literacy is a determining factor in the development of economic competencies, responsible financial habits, and the value placed on financial education within higher education.

First, the study found that university students exhibit an upper-intermediate level of financial literacy. The index constructed from knowledge of compound interest, inflation, risk, diversification, credit cards, and budgeting reached a mean close to five points out of a possible six. The greatest strengths were observed in concepts related to personal budgeting, debt, and diversification, while the main weaknesses were identified in topics associated with financial risk and inflation. These results indicate that although students possess acceptable basic financial knowledge, important gaps remain in more complex financial competencies associated with long-term economic decision-making.

Second, the descriptive and financial-behavior analyses revealed a significant difference between the theoretical value attributed to personal finance and the everyday practice of responsible financial habits. Students expressed high levels of agreement regarding the importance of learning about personal finance and the need to incorporate financial courses into all university programs. However, practices such as systematically recording expenses and preparing budgets showed moderate or low levels. This situation confirms the propositions of behavioral finance, according to which recognizing the importance of financial planning does not necessarily guarantee disciplined financial behavior.

Third, the econometric results obtained through the OLS, Ordered Logit/Ordered Probit, and Binary Logit models empirically confirmed the study's central hypothesis. The financial literacy index had a positive and statistically significant effect on the perceived need for personal finance courses. This shows that students with greater financial knowledge more clearly recognize the importance of strengthening formal financial education within universities. Likewise, variables such as regular saving and the economic experience associated with employment also had positive effects on students' support for university financial education.

In addition, the study confirmed that students who received prior financial training exhibit better financial habits, particularly practices related to saving, planning, and spending control. Similarly, family financial education had a positive influence on

university students' financial literacy levels, showing that the family is one of the primary agents of economic socialization and early financial education.

From a theoretical perspective, the findings support the propositions of Human Capital Theory by demonstrating that financial education functions as an investment in cognitive capabilities that strengthens rational economic decision-making. The results are also consistent with the behavioral finance approach and with the multidimensional financial literacy framework proposed by the OECD, which integrates financial knowledge, attitudes, and behaviors.

In practical and educational policy terms, the study demonstrates the need to incorporate mandatory courses or cross-curricular personal finance programs into Ecuadorian higher education. The high level of student acceptance of this type of training, together with the identified gaps in financial knowledge and habits, shows that universities should educate not only specialized professionals but also citizens capable of properly managing their economic resources and navigating increasingly complex financial environments.

Finally, this study contributes to the literature on financial education in Latin America by providing empirical evidence from the Ecuadorian university context through robust econometric models. Nevertheless, the study has several limitations related to its cross-sectional nature and its geographic scope, which was concentrated in Quito. Future research could therefore extend the sample to other regions of the country, incorporate longitudinal analyses, and experimentally assess the impact of specific financial education programs on university students' economic behavior.

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