Analysing Financial Literacy Differences Among Algerian Young StudentsUsing Financial Knowledge, Behaviour and Attitude

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Abstract:
Financial literacy is important for university young students who are financially dependent and are at an essential phase of knowledge,behaviour, attitude and skill formation. The purpose of this study is to compare students' financial literacy in the economics and business management field of study with that of students from other fields of study and between male and female students at *DjillaliLiabes University*.
The study uses quantitative methods; questionnaires were drafted based on the OECD (2012) multidimensional financial literacy survey and distributed to 371 students at*DjillaliLiabes University*. Results show that (43.9%) of students are financially literate and that there is no difference in financial literacybetween students in economics and business management field of study and other fields of study and between males and females. It shows also that the highest proportions of financially literate students (45.8%) are students from other fields of study and that females are the most vulnerable students in terms of financial literacy. The study suggests the introduction of personal finance and Islamic-based knowledge and practices in the university curriculums and provides evidence that importance should be given to enhancingfemale financial literacy.
Key Words: Financial literacy, Algerian YoungStudents, Financial Knowledge; Financial Behaviour, Financial Attitude.
JEL Classification:C91, D14, I22

1. INTRODUCTION

In the last decade, there was a recent and growing interest in financial literacy both from the academic community, as well as from international organizations (notably the OECD), national and regional governments because financial literacy is relevant to people's financial decisions and considered as crucial to improving their future well-being.Financial knowledge levels in developed countries are different from that in most developing countries; economic indicators such as savings, debt, financial management and payment discipline result partially from financial literacy and it translates into prosperity or bankruptcy; the higher the level of financial literacy, especially of young people, the more favourable level of these economic indicators and sustainable development. Socio-demographic factors like age, education, and income have a positive correlation with financial knowledge (Klapper *et al.*, 2013, p. 3908). Educational gaps formed by financial literacy and conventional schooling are the main factor contributing to income and wealth inequality because education increases an individual's ability to earn an income (Fulk and White, 2018, p. 10).

In most countries, many conducted surveys and empirical studies were undertaken in the United States, Canada, Britain, and Australia have shown poor levels of financial literacy and a consistent association between poor financial literacy and illiterate financial behaviours (Lalime and Michaud, 2012, p. 7). Given this observed relationship, the urgency to act has resulted in recognizing financial literacy as a national issue by governments. The growing interest in identifying and implementing adapted "educational" strategies, to various audiences, in particular, young adults to provide each citizen with the knowledge, skills and confidence necessary to achieve autonomy in financial management (budget, investment, credit, etc.) and to encourage them planning their future and be more responsible for their investments.

In the matter of facts, for university young students, financial literacy is of high importance and even more apparent science they are financially dependent and are at an essential phase of skill formation and knowledge cumulation (Binti and Wan Ahmad, 2020, p. 1**).**Interest in the subject is also underpinned by the crucial nature of this stage of life. This period (first year and last year of an undergraduate university program; 5 years; between 17 and 22 years old) generally includes the first financial experiences (salary received, monthly budget, credit card). This relatively short period can therefore be described as critical and decisive in terms of its impact on adult financial life.

Financial literacy is an interesting subject among university young students because those with lower levels of financial literacy haveweak and vulnerable financial behaviour; namely their inability to manage their expenses effectively, that why many of them experience chronic financial problems. Financial literacy would enhance young adults' optimal financial decision-making: identifying basic needs, wants and desires

(Binti and Wan Ahmad, 2020, p 3), enabling better planning and management of life events such as education, illness, housing purchase, or retirement (Mahdzan, 2013, p. 9)When it comes to financial literacy, college students are a particularly interesting group to study; they have begun to live independently face new responsibilities to manage their finances, such as budgeting, managing income and expenses, and paying invoices(Johan, *et al.,* 2020, p. 3).Understanding financial circumstances will enable them to make financial plans for the future, and choose the most appropriate financial instrument that will help them achieve financial goals.

In terms of financial literacy, the present guarantees the future; those early acquired behaviours are more likely to be transposed into adulthood and throughout it. In addition, the gains made in the years of young adulthood in terms of financial literacy and the associated behaviours can only have a long-term impact on the adequacy of behaviour in the area of finance. The core influences of financial literacy are financial knowledge, skills, attitude and behaviour which will assist young adults in having a more stable financial future (Binti and Wan Ahmad, 2020, p. 12).

This study has two main purposes,first, to compare the financial literacy of students in economics and business management field of study with that of students from other fields of study at *DjillaliLiabes University (DLU)*; to see whether the former differ from the latter in terms of knowledge, behaviour and attitude, thus reflecting the association between formal education and financial literacy. Sinceit is posited that exposing young adults to education programs in finance, management and accounting is associated with higher levels of financial literacy. Financial education allows them a better understanding of financial issues, circumstances, plans and financial decision-making. Second, to compare the financial literacy of male students with that of female students in *(DLU)*; to assess the differences inbehaviours and attitudes between them in the matter of financial literacy.

To the best of our knowledge, the literature review covering socio-economic and demographic factors affecting financial literacy is extensive, but few studies analysing financial literacy among young adults were conducted in the North Africa region. Since there is no much known research investigating the relationship between formal education and financial literacy in the context of a developing country like Algeria, this study can be regarded as an exploratory study in the Algerian context.

We emphasize that, although financial knowledge questions related to inflation, time value of money, risk diversification, etc. are universal, other questions (behaviour and attitude) differ from one country to another according to its socio-economic aspects, making financial literacy a construct that differs from one country to anothereven if in the same region. In our study, Islamic teachings that govern Muslim financial decision-making and how personal finance should be managed are taken into consideration.

2. Literature review

The President's Advisory Council on Financial Literacy in 2008 (PACFL, 2008, p. 1) considers that financial literacy is "the ability to use knowledge and skills to manage financial resources to have a lifetime of financial well-being" (Hung *et al.*, 2009, p. 2). After the financial crisis of 2008, the U.S. President's Advisory Council on Financial Literacy (PACFL, 2008, p. 1) noted that:

"Far too many Americans do not have the basic financial skills necessary to develop and maintain a budget, to understand credit, to understand investment vehicles, or to take advantage of our banking system. It is essential to provide basic financial education that allows people to better navigate an economic crisis such as this one."

The Financial Literacy and Education Commission (created by the US government after enacting the Financial Literacy and Education Act in 2003) defines financial literacy as "*the ability and awareness to use knowledge and skills to manage financial resources to achieve maximum financial well-being*" (U.S Financial Literacy and Education Commission, 2006, p. 15).

2.1 Financial Literacy: a combination of Knowledge, Attitude and Behaviour

In a comprehensive analysis presented by Hung *et al.* (2009) on financial literacy early studies, methods used in financial literacy measurement and items covered in each study, they found out that these early studies used only financial knowledge questions to measure financial literacy; covering topics such as inflation, interest rate, savings and borrowings, risk diversification, insurance and investments, etc. (Volpe *et al.*, 1996;Mandell, 2004;Lusardi and Mitchell, 2006; Lusardi and Mitchell, 2008). So, hung*et al.* (2009) developed a financial literacy model using financial knowledge, financial skills, perceived knowledge and financial behaviour; the linkages between these variables arefinancial literacy.

A pilot study was developed by The Organization for Economic Cooperation and Development (OECD) to measure financial literacy by Atkinson & Messy, (2012)in 12 countries of the OECD International Network on Financial Education (INFE) so the results could be comparable internationally. Based on study results The OECD defines financial literacyas "the knowledge and understanding of financial concepts and risks, and the skills, motivation, and confidence to apply this knowledge and understanding to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life" (OECD, 2017, p. 11). By analysing this definition, we conclude that it is based on three dimensions: Knowledge, Attitude and Behaviour(Atkinson & Messy, 2012).

By crossing the definitions of Hung *et al.* (2009) and Atkinson *et al*. (2015), we obtain the following definition of financial literacy: a process by which an individual develops the skill (s) to apply the basic financial knowledge that he or she masters, to make choices financial informed about their financial resources and this to improve their financial well-being.This is in line with Huston (2010, p. 299)who stated that financial knowledge is an integral dimension of, but not equivalent to, financial literacy,and Amagir,*et al.*(2018, p. 393) who argued that financial knowledge, attitudes towards money, and financial behaviour are part of financial literacy.

When it comes to financial attitude toward money, Barry (2016, p. 456)identifies five factors that affect young adults' attitudes towards money: power (prestige) means considering money as a symbol of success and power;financial planningis related to the importance of budgeting and spending money wisely; quality because of money means buying the best products available, even if needing to pay more; the importance of money element is related to the idea that money is important and valuable and holding to money involves people's attitude towards the cost or price of the goods they buy.Financial behaviouris an important aspectof financial literacy; it is related to good or bad habits behind students' financial transactions. Individuals with financial literacy are cautious about spending money within their own means and only spend it if they have no choice but to lease, rent, borrow, or do something on their own(Binti & Wan Ahmad, 2020, p. 6).

In summary, financial literacy is defined as a combination of financial knowledge, attitudes and financial behaviour that supports the transformation of financial literacy into everyday financial decisions. For students, this means understanding simple but confusing economic facts such as interest on student loans, savings from rebates and splits, and the rewards of future savings. Financial literacy refers to the ability to apply knowledge to a particular financial scenario, as financial literacy is the understanding of financial concepts. These skills include compound interest and how to plan, negotiate, and select optimal financial transactions (Lusardi & Mitchell, 2014, p. 34).

2.2 Determents of financial literacy among university young students

We conducted an extensive literature review focused on identifying the determinants of financial literacy.There is an inverted U-shaped relationship between age and financial literacy, with financial literacy being the lowest for young and old(Lusardi & Mitchell, 2014, p. 15).According to previous studies, financial literacy is associated with several demographic and socioeconomic factors such as education, employment and income (Hogarth, 2002;Potrich*et al.*, 2015). In another study, Van Rooijetal(2011) Experience has demonstrated that income, age, and education have independent impacts on general risk-taking and cognitive performance. Several studies have examined the determinants of financial literacy for young students.

Studies identify several variables that can affect students' financial literacy (Cameron, *et al.*, 2014):student demographics (age, gender, immigrant background, language spoken at home);student abilities (English and math aptitude, cognitive/educational level, and formal financial literacy); socioeconomic factors/ status (family income, parental wealth, and parental education); financial socialization(when parents take time to talk about money) is positively correlated with high school financial literacy (Mandell, 2008a; and Lusardi *et al.,* 2011); financial experience (having a bank account or a credit card)(Mandell, 2008b).

2.2.1 Formal financial education

As mentioned above, several factors affect financial literacy, family and school are two basic environments that play an important role in the educational process that involves gaining knowledge in various fields, including the expansion of financial knowledge(Beata, *et al.*, 2020, p. 4).

Concerning students' ability, literature provides evidence that financial literacy correlates with students' ability. Lusardi *et al.* (2010) and Mandell (2008b) have found that students with higher cognitive ability are more likely todisplay higher financial knowledge. Cameron *et al.* (2014) provide evidence that financial literacy correlates with mathematical ability. Financial literacy increases due to education that enhances cognitive ability (Gill and Prowse, 2015, p. 1635). Urban *et al*. (2018) argued that, at school level, financial education requirements are associated with better credit outcomes.

Moreover, financial education is a possible driver of financial literacy, a review of financial literacy education and findings from evaluation studies on school-based financial education are mixed. Most evaluations found that financial education programs in school are effective in improving students' financial knowledge, Behaviours and self-efficacy (Danes and Haberman, 2007).Lusardi and Mitchell (2011) andLusardi and Mitchell (2014) provide empirical evidence of the positive relationship between education and financial literacy. Borden *et al*. (2008) administered a financial education program to a group of 93 university students to assess their pre-seminar and post-seminar knowledge and attitudes; they found that financial literacy increased and financial attitudes regarding debit and credit card use changed favourably among these young people. Lantara and Kartini (2015) found that exposing students to business, finance, economics or accounting studies sets them apart from others and makes them achieve better financial literacy scores. Amagir*et al.* (2018) reveal that students who receive financial education in school score higher on financial knowledge tests and show more positive money-related attitudes than students who do not receive financial education. Fatoki and Oni (2014) argue that business studies students,since, they were exposed to relevant topics more frequently, have better financial knowledge, planning and decision making than those from non-business studies. According to Walstad *et al*. (2010)giving high school students a dedicated financial education program could make them financially literate. Abou-Haidar and Feghali (2020) compared financial literacy results of young graduates in the option of Finance and Financial Institutions of the Faculty of Economics and Management in Lebanese University with young Lebanese graduates of various specializations, they found that their behaviours and attitudes are similar, being slightly better in some areas and less good in others.

However, there is an ongoing debateabout the extent to which financial education impacts financial behaviour;the existing evidence is scarce and inconclusive (Amagir*et al.,* 2018). Explained the low share of schools in raising financial literacywith the fact that schools only rarely include financial issues in the curricula of subjects they teach(Beata, *et al.,*2020, p. 4).

2.2.2 Gender

The relevant literature is not exhaustive when it comes to gender differences (Amagir, *et al.,* 2018, p. 402). Gender can result in noticed variation in financial literacy between boys and girls. In household studies, men have a higher level of financial literacy than women (Potrich, *et al.,* 2015). In student studies, when examining financial literacy determinants among young students,Mandell (2008a)finds that boys are more financially literate than girls. Lusardi *et al.*(2011)reported that gender is a strong predictor of student financial literacy in favour of boys.Kempson *et al.* (2013)explained that men showed higher performance in choosing products and wealth accumulation, when women were better at managing money in the short term.

With regard to students'financial behaviour, among high school students, boys report achieving their financial goals more often than girls do, whereas girls report using budgeting and comparing prices (Danes and Haberman, 2007). According to Mottola (2013)'s study, women tend to have lower financial literacy levels and income and they are less confident about their math skills and as a consequence are more susceptible to engaging in more costly credit card behaviours. To solve this problem of financial literacy, gender equity must be considered as social justice (Beata, *et al.,* 2020, p. 7).

Nevertheless, several studies' results contrast with the above studies results. For example, contrary to its first study, Mandell (2008b)'s study shows that girls over-perform boys in terms of financial literacy, compared to his first study this result means that financial literacy can change over time. Swiecka *et al.* (2020) demonstrated in their study that young people in Poland have good levels of financial knowledge. However, gender makes no difference in financial knowledge levels. Moreover, males' financial literacy levels are higher than females. The same for Ramasawmy *et al.* (2013)and Shaari *et al.*(2013)that find no difference between men and women in terms financial literacy levels. In explaining the results of several limited studies that found that female students have ahigher level of financial literacy than male students,Beata, *et al.*(2020, p. 4)noted that this may be possiblesince women have equal education opportunities and engage in financial topics.

2.2.3Islamic teaching and financial literacy

Financial attitude is related to judgment, predispositionor the tendency to react positively or negatively to financial problems. Muslim students need to notify that any form of savings or investment that provides interest or "Riba" (in Arabic) is considered "haram" and is unacceptable. So, the expected trend for Muslims is to subscribe only to Shariah-compliant financial services. Because their religion requires the avoidance of interest-based loans (Binti & Wan Ahmad, 2020, p. 8).

The above studies tended to examine financial literacy but with no focus on Muslim students, thus measurements that embed their Islamic teachings and their beliefs are missing. Recently, some studies Ben Douissa (2019) and Binti and Wan Ahmad (2020) take into consideration Islamic teachings by approaching the students for their opinions regarding their financial decision-making and their personal finance practices.

In our study, we will compare the financial literacy of students in the economics and business management field of study with that of students from other fields of study at *DjillaliLiabes University(DLU)*. This comparison will allow us to assess the behaviours and attitudes of respondents in suggested situations, thus reflecting the level of their mastery of skills enabling them to make financial choices. Plus, allow us to have an exploratory vision of the effects of formal financial education and financial literacy.

We will also compare the financial literacy of male students with that of female students in *(DLU)*; to assess the differences of behaviours and attitudes between them in the matter of financial literacy. It is important to mention that in our study Islamic teachings that govern Muslim personal finance practices and their financial decision-making are taken into consideration. So, our hypotheses are as follows:

H1: There is a statistically significant difference in financial literacy between students in the economics and business management field of study and that of young students from other fields of study at (DLU).

H2: There is a statistically significant difference in financial literacy between female young students and male students at (DLU).

3. Research design and Methodology

3.1Data

This study uses data from an online survey that was conducted throughout *(DLU)*, Algeria, between February 2021 and March 2021. The full sample consists of 1,000 students, chosen based on the proportion of the universitydemographic features.Survey data were compiled from 500 studentspursuing different undergraduate and master disciplines at *(DLU)*, Algeria. After removing outliers and missing values, 371 questionnaires were found functional for analysis. To compare the effect of formal education (field of study), the students were segmented into two groups: those that received a formal education, i.e., their field of study is finance and business management and those that did not. Questions were a combination of qualitative statements, and multiple-choice questions and were designed following the OECD Financial Literacy Study (Atkinson and Messy, 2012; OECD, 2017).

3.2 Variables Measurement

To understand various aspects of financial literacy, we adopt the OECD methodology (Atkinson and Messy, 2012; OECD, 2017) in measuring financial literacy from a broader perspective using financial knowledge, financial behaviour, and financial attitude. This method of measurement is more accurate, it reflects that the respondents are not only financially knowledgeable but they can also translate this knowledge into financial decision-making (Kadoya and Rahim Khan, 2020, p. 8).

The questionnaire is composed of the three dimensions of financial literacy: ***Financial knowledge*** measures the ability to understand financial calculations, specifically the implications of interest rates, inflation, and the risk and return on investment; it consists of nine questions mainly multiple-choice and true/false questions. The questions were also downsized to take into consideration students that are not from business or finance field of study. Thus, simple personal finance aspects were used rather than corporate finance and the capital markets sophisticated financial concepts. ***Financial behaviour*** measures how students act in financial transactions. In other words, it measures if they use their financial knowledge skilfully way to make better financial decisions. It consists of five Likert scale questions with a five-point agreement scale.***Financial* attitude** measures students' perspectives toward financial issues. Financial attitude is about whether students place enough emphasis on their financial issues to secure future benefits. It consists of five Likert scale questions with a five-point agreement scale. we assigned a value of (1) for a correct answer and a value of (0) otherwise for all financial knowledge, behaviour and attitude questions.

Table 1. Financial literacy dimensions

	Number of questions/Items	Score points for each question	Total points	Total score points
Personal info	10	/	/	/
Financial Knowledge	9	0 or 1	**9**	Range between 0 and 1
Financial Behaviour	7	0 or 1	**7**	Range between 0 and 1
Financial Attitude	5	0 or 1	**5**	Range between 0 and 1
Financial Literacy	**21**	0 or 1	**21**	Range between 0 and 1

Source: created by the author.

Questions were centredaround understanding Algerian Muslim students' socio-cultural background and economic aspects that affected their financial literacy and their financial decision-making. We introduced five new questions in the three dimensions to reflect these aspects and the teachings of Islam, for example, we introduced two new questions in the financial knowledge dimension, the first one related to the concept of Murabaha, since it is the most common and used Islamic finance tool in Algeria, the second one is about Zakat. One of Zakat categories are amounts granted to knowledge seekers, as a special allowance regardless of their financial status, whereasmost people think that zakat is entitled only to poor students. Being aware of this piece of information as a Muslim student is very impactful in easing financial concerns in pursuing knowledge seeking.

A new question was added to the financial attitude dimension related to the avoidance of Riba, and two other questions in the financial behaviour customized to the lifestyle of young students. The first one about not being excessive and wasteful since young students have high spending habits without thinking about savings for the future. The second question is about sharing with others or with those who are in need as a form of gratitude. The newly introduced questions in the survey to fit with the Algerian context are mentioned in the table below.

Table 2. Additional constructs of Islamic teaching related to financial literacy and their respective dimensions

Construct	Dimension
1. The bank financed one of your projects with an amount of 50,000 AD, and the total value you paid the bank for the Murabaha period is 52,500 AD. How much profit did the bank get from the Murabaha transaction?	Knowledge
2. Rich students can benefit of zakat.	Knowledge
3. I will not take conventional loans because of the interest rates.	Attitude
4. I like to share my belongings with my family and friends as form of gratitude.	Behaviour
5. I avoid a wasteful and lifestyle.	Behaviour

Source: created by the author.

By including all the three components, we were able to construct a full measure of financial literacy by averaging the values of financial knowledge, behaviour, and attitude. In line with existing literature, we used (Volpe e*t al.*, 1996; Ben Douissa, 2019)method to determine two categories: (1) low financial literacy: less than 60% score and (2) high financial literacy: more than 60% score. The, a binary variable of financial literacy is used in the study which takes (0) for students classified as low financially literates and (1) for students classified as high financial literates.

4. RESULTS AND DISCUSSION

According to Table 3, only 43.9% of the surveyed students are considered financially literate. This result is consistent with previous studies demonstrating that more than two-thirds of university students are not financially literate (Ben Douissa, 2019). It also shows Pearson's chi-square association measures and their *p* values (in brackets).Table 3 shows that financial literacy is statistically not associated (at the 5 % level) with any variable. Financially literate males' proportion (48,5%) for example is higher than the proportion of financially literate females (41,4%). It shows also that students from other fields of study represent the highest proportion of financially literate students (45,8%) compering to students ineconomics and Business management field of study (40,6%).

Table 3. Financial Literacy

			Financial Literacy			**Chi-square**
			High	**low**	**Total**	[*p*]
Field of Study	**economics and Business management**	Number	54	79	133	,935 [,333*]
		% Field of study	40,6%	59,4%	100,0%	
	other fields	Number	109	129	238	
		% Field of study	45,8%	54,2%	100,0%	
Total		**Number**	**163**	**208**	**371**	
		% Field of study	**43,9%**	**56,1%**	**100,0%**	
Gender	**female**	Number	98	139	237	1,780 [,182*]
		% Gender	41,4%	58,6%	100,0%	
	Male	Number	65	69	134	
		% Gender	48,5%	51,5%	100,0%	
Total		**Number**	**163**	**208**	**371**	
		% Gender	**43,9%**	**56,1%**	**100,0%**	

*Statistically significant at 0.05 level

Table 4 resumes different questions used to measure financial knowledge in our study. Table 5 shows that only 42,3%of the surveyed students are considered financially Knowledgeable. It shows also Pearson's chi-square association measures and their *p* values (in brackets).Table 5 shows that financial knowledge is statistically not associated (at the 5 % level) with any variable except for gender, the proportion of financially knowledgeable males (49,3%) is higher than the proportion of financially literate females (38,4%). It shows students from economics and Business managementfield of study are the most financially knowledge (45,1%) compering with students from other fields of study (40,8%).

Table 4. Financial KnowledgeQuestions (*AD: Algerian Dinar*)

	Question	Answers
Financial Knowledge	**1. Division:** five brothers are given a gift of 12.000 AD. If they have to share the money equally, how much does each one gets?	a) 2.000 AD b) 2.500 AD c) 2.400 AD
	2. Time-value of Money: If the brothers have to wait for one year to get their share of the gift. Considering that prices overall are rising, in one year time will they be able to buy:	a) More goods, b) Same number of goods c) Less than they could buy today. d) I don't know
	3.Murabaha amount paid on a loan: The bank financed one of your projects with an amount of 50,000 AD, and the total value you paid the bank for the Murabaha period is 52,500 AD. How much profit did the bank get from the Murabaha transaction?	a) 52.500 AD b) 2.500 AD c) I don't know
	4. Calculation of interest plus principle: Suppose you put 10.000 AD into a saving account with a guaranteed interest rate of 2 % per year. You do not make any further payments into this account and you do not withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made?	a) 10.002 AD b) 10.020 AD c) 10.200 AD
	5. Compound Interest: (Continuity with question 4): How much would be in the account at the end of five years? Would it be:	a) More than 11.000 AD b) Exactly 11.000 AD c) Less than 11.000 AD d) it is impossible to tell from the information given
	6. Risk and return: An investment with a high expected return is likely to be ______ risk.	a) High b) Low
	7. Definition of Inflation: High inflation means that the cost of living is ______.	a) Increasing slowly b) Increasing rapidly c) Decreasing slowly d) Decreasing rapidly
	8. Risk Diversification: Suppose you have some money. Is it safer to put your money into one business or investment, or to put your money onto multiple businesses or investments?	a) One business or investment b) Multiple businesses or investments
	9. Islamic financial knowledge: Rich students can benefit of zakat.	a) Yes b) No

Source: created by the author.

Table 5. Financial Knowledge Scores

			Financial Knowledge			Chi-square
			High	**Low**	**Total**	[*p*]
Field of study	**economics and Business management**	Number	60	73	133	,663 [,415*]
		% Field of study	45,1%	54,9%	100,0%	
	other fields	Number	97	141	238	
		% Field of study	40,8%	59,2%	100,0%	
Total		**Number**	**157**	**214**	**371**	
		% Field of study	**42,3%**	**57,7%**	**100,0%**	

Gender	female	Number	91	146	237	4,134 [,042]
		% Gender	38,4%	61,6%	100,0%	
	Male	Number	66	68	134	
		% Gender	49,3%	50,7%	100,0%	
Total		**Number**	**157**	**214**	**371**	
		% Gender	**42,3%**	**57,7%**	**100,0%**	

*Statistically significant at 0.05 level

Table 6 resumes different items used to measure financial behaviour in our study. According to Table 7, (80,3%) of surveyed students are considered as having positive financial behaviour. It shows also Pearson's chi-square association measures and their *p* values (in brackets).Table 7 shows that financial behaviour is statistically not associated (at the 5 % level) with any variable, the proportion of positive financial behaviour in females (81,9%) is higher than the proportion of males (77,6%). It shows also that the positive behaviour is not of big difference between students ineconomics and Business management (80,5%) field of study and other fields of study (80,3%).

Table 6. Financial Behaviour Items

	Items	Never	Rarely	Sometimes	Most of the time	Always
Financial Behaviour	1. Before I buy something I carefully consider whether I can afford it. 2. I pay my bills and debts on time. 3. I keep a close personal watch on my financial affairs. 4. I set long-term financial goals and strive to achieve them. 5. When I have several options to buy a product, I tend to buy the recommended one as the most sold product rather than the one I find good. 6. I like to share my belongings with my family and friends as a form of gratitude. 7. I avoid a wasteful lifestyle.					

Source: created by the author

Table 7. Financial Behaviour Scores

			Financial Behaviour		Total	Chi-square
			High	Low		[*p*]
Field of study	economics and Business management	Number	107	26	133	,002 [,963*]
		% Field of study	80,5%	19,5%	100,0%	
	other fields	Number	191	47	238	
		% Field of study	80,3%	19,7%	100,0%	
Total		**Number**	**298**	**73**	**371**	
		% Field of study	**80,3%**	**19,7%**	**100,0%**	
Gender	female	Number	194	43	237	,976
		% Gender	81,9%	18,1%	100,0%	

	male	Number	104	30	134	[,323*]
		% Gender	77,6%	22,4%	100,0%	
Total		**Number**	**298**	**73**	**371**	
		% Gender	**80,3%**	**19,7%**	**100,0%**	

*Statistically significant at 0.05 level

Table 8 resumes different items used to measure financial attitude in our study. According to Table 9, (83,6%) of surveyed students have a negative financial attitude and only (16,4%) with a positive financial attitude. It displays Pearson's chi-square association measures and their p values (in brackets).Table 6 shows that financial attitude is statistically associated (at the 5 % level) field of study variable, thus the highest proportion of students with positive financial attitude (19,3%) from other fields of study for (11,3%) from business economics and Business management field of studyrather than there is no association between financial attitude and gender; the highest proportion of positive financial attitude students are males (17,2%) and the highest proportion of negative financial attitude students are females (84,0%).

Table 8. Financial Attitude Items

	Items	Never	Rarely	Sometimes	Most of the time	Always
Financial Attitude	1. I find it more satisfying to spendmoney to live comfortably than to saveit for the long term. 2. I tend toenjoy the pleasures ofthemoment without concern for the future. 3. Money is there to be spent. 4. I am willing to risk some of my money to invest. 5. I will not take conventional loans because of the interest rates.					

Source: created by the author.

Table 9. Financial Attitude Scores

			Financial Attitude		Total	Chi-square
			High	Low		[*p*]
Field of study	economics and Business management	Number	15	118	133	4,024 [,045]
		% Field of study	11,3%	88,7%	100,0%	
	other fields	Number	46	192	238	
		% Field of study	19,3%	80,7%	100,0%	
Total		**Number**	**61**	**310**	**371**	
		% Field of study	**16,4%**	**83,6%**	**100,0%**	
Gender	female	Number	38	199	237	,080 [,778*]
		% Gender	16,0%	84,0%	100,0%	
	Male	Number	23	111	134	
		% Gender	17,2%	82,8%	100,0%	
Total		**Number**	**61**	**310**	**371**	
		% Gender	**16,4%**	**83,6%**	**100,0%**	

*Statistically significant at 0.05 level

The study revealed that 43.9% of students are considered financially literate. The results indicate also that the most vulnerable students in terms of multidimensional financial literacy are females and students from other fields of study. The chi-square test indicates a statistically non-significant association (at the 5 % level) between the levels of multidimensional financial literacy and Gender and field of study. Therefore, hypotheses H1 and H2 are rejected.

Financial knowledge is statistically associated (at the 5 % level) with gender; the proportion of financially knowledgeably males (49,3%) is higher than the proportion of financially literate females (38,4%) there are significant differences in financial knowledge; males are more knowledgeable than females, this is consistent with the findings of Kempson *et al.* (2013) and Swiecka *et al.* (2020).

The "field of study" variable, contrary to expectations, is not significantly associated with financial literacy levels. Furthermore, economics and Business management students, unexpectedly, are not more likely to be classified as financially literate than their counterparts from other fields of study. This result indicates that studying business at the *(DLU)* has no significant impact on the students' multidimensional financial literacy. This came in contradiction with the existing literature, which finds that being exposed to economic or financial subjects is positively related to higher levels of financial literacy among young students (Volpe *et al.*, 1996), indicating that studying business at the *(DLU)* has a significant impact on financial knowledge among students.

Financial behaviour is statistically not associated (at the 5 % level) with any variable neither gender nor field of study, that is a serious problem since behaviour is considered as a spine bone in financial literacy dimensions, and there are no big differences in proportion between students from business economics and Business management field of study and other fields.

Financial attitude is statistically associated (at the 5 % level) with the "field of study" variable, thus the highest proportion of students with positive financial attitude (19,3%) from other fields of study for (11,3%) from economics and Business management field of study. But still, what is surprisingly remarked is that young university students are of poor financial attitude (83,6%), this can affect their future financial security. It is to notice that financial attitude is about placing enough importance on future financial security i.e., people's positive financial attitude desire to secure their future. A positivefinancial attitude is, thus, related to a sustainable financial decision (Kadoya and Rahim Khan, 2020, p. 13).

5. CONCLUSION

Being exposed to financial or economic subjects affects positively financial literacy levels of young university students (Chen and Volpe, 1998, p. 15); by enhancing their financial knowledge, their ability to use financial instruments correctly and their attitude. Thus,this study aimed to compare the financial literacy of students in the economics and business management field of study with that of students from other fields of study and the financial literacy of male students with that of female students at (*DLU)*.The main contribution of this study is explaining financial literacy in terms of each of its dimensions. Its main conclusion is that 43.9% of students are considered financially literate and that females and students from other fields of study are the most vulnerable students in multidimensional financial literacy.

The finding of this study can be valuable in developing university curriculums in the field of economics and business management; analysing financial literacy in each of its dimensions revealed that economics and Business management students are not financially knowledgeable and that they do not show higher levels of financial behaviour or financial attitude than other students. This indicates that Business programs at (*DLU)* cannot equip students with the required skills to ensure appropriate financial behaviour and attitude.

The study provides evidence that importance should be given to enhancingfemale financial literacy by introducing special programs; because girls in Algeria show better quality motivation to pursue their studies and higher studies, so once they graduate, they will enter the job market and will ensure their financial independence. But with such poor levels of financial literacy,women's financial independence might not be associated with good levels of well-being in the future. Financial literacy must be a goal in designing an education curriculum by adding behavioural economics or personnel finance courses as elective courses, and a criterion in evaluating education programs'effectiveness.

Despite its findings, the present study has some limitations. We only used the chi-square test to access differences in financial literacy between students. It would be appropriate to include other variables such as socio-economic factors, cultural factors and factors related to personality traits that could explain financial literacy behavioural and attitudinal dimensions.

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