Journal of Applied Economic Sciences
Volume XVIII, Spring, Issue 1(79)

Financial Literacy, Financial Behaviors, and Financial Crises: The Case of Lebanon

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Article's history:

Received 23th of January 2023; *Received in revised form* 1st of March, 2023; *Accepted* 19th of March 2023; *Published* 30th of March, 2023.

Suggested citation:

DerMesrobian, R. M. (2023). Financial Literacy, Financial Behaviors, and Financial Crises: The Case of Lebanon. *Journal of Applied Economic Sciences*, Volume XVIII, Spring, 1(79): 39 – 49. https://doi.org/10.57017/jaes.v18.1(79).05

Abstract:

The years-long academic discussion on financial literacy confirms that it promotes sound financial behaviors and increases financial inclusion. In this research work, I check if the latter still holds true during times of financial crises. I take the case of Lebanon, a country going through multiscale crises. By running two sets of surveys and using previous research data to answer my three research questions by using different statistical techniques, I find that regardless of people's claims, only males acquire financial knowledge from the crises. I also find that people's behaviors change throughout the financial crises in which previously advocated behaviors become redundant. I conclude my research by providing scholars and researchers with some opportunities for future research as on-topic discussion is scarce and vital to be done during such times.

Keywords: financial literacy; financial behaviors; financial crises; Lebanese financial crisis.

JEL Classification: D14; G01; G4; G51; G53

Introduction

Regardless of their regularity, people face shortfalls in behaving correctly during financial crises. The global financial crisis (GFC) of 2007 reaffirmed these claims as thousands were left in economic, social, and financial despair (Garling *et al.*, 2009; Gallery and Gallery, 2010; Huck *et al.*, 2020). Behavioral researchers from pertaining fields have intensively delved into understanding this issue. Their results showed that the two sides of financial markets' stakeholders, suppliers and buyers, are responsible for financial crises. While financial institutions tend to adopt predatory and complicated arrangements in their provision of financial services in the market to capture the highest profits (Huck *et al*., 2020), people lack any good understanding of key financial principles making them incapable of understanding the latter complex products (Garling *et al*., 2009, Lusardi and Mitchell, 2014). This bundle, argues (Mudzingiri *et al.,* 2018), amplifies and proliferates the financial crises all around the world.

Consumer protection laws have been enacted by monetary and financial authorities in most countries with the aim of having better control over the financial product's hidden costs (Lusardi and Mitchell, 2014; Stolper and Walter, 2017). Yet, regulations alone cannot make a big difference if people are still unknowing of how things work in the financial markets. Therefore, researchers and policymakers alike called for the initiation of financial literacy education programs all around the world (Kuzina, 2011; Klapper *et al.,* 2013; Guiso and Viviano, 2015; Mudzingiri *et al*., 2018). Since then, there's been a growing body of research works aligning people's sound financial behaviors with their financial literacy (Stolper and Walter, 2017).

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Financial literacy is explained by people's ability to use their knowledge of financial principles to confidently make informed financial decisions (Lusardi and Mitchell, 2014). Research shows that financial literacy rates all around the world are low, giving it a global characteristic (Kuzina, 2011, Klapper *et al.,* 2013, Lusardi and Mitchell, 2014; Guiso and Viviano, 2015). Yet, the well-established arguments state that the more financially literate a person is, the higher the propensity to save (Klapper *et al.,* 2013), and the better the preparedness for retirement (van Rooij *et al.,* 2012; Lusardi and Mitchell, 2014), and the higher the participation in the financial markets (van Rooij *et al.,* 2011; Bucher-Koenen and Ziegelmeyer, 2014). The need for people in making informed financial decisions to reach healthy personal finance is impartial (Klapper *et al*., 2013, Bucher-Koenen and Ziegelmeyer, 2014; Stolper and Walter, 2017) as their financial behaviors play a vital role in determining not only individual financial welfare, but also national and international financial stability (Mudzingiri *et al.,* 2018).

Understanding the factors influencing people's financial behavior specifically during times of financial crisis is one which is rarely discussed (Bucher-Koenen and Ziegelmeyer, 2014; Mudzingiri *et al.,* 2018) because much of the research is done during times of economic stability. Similarly, the effects of financial literacy on people's financial behaviors are still unclear in different economic situations (Chung and Kim, 2022) which provides us with a blurred idea of how people deploy their financial literacy during unstable times (Lusardi and Mitchell, 2014). As the existing research body is primarily based on well-developed countries, how about financial literacy's role in people's behaviors during times of financial crises in developing countries?

Timely enough, Lebanon, a country in the Eastern Mediterranean basin with slightly more than 5 million citizens, has been going through a multi-scale drastic crisis since the fourth quarter of 2019. A huge decrease in people's disposable income due to hyperinflation, a lack of liquidity in the banking sector, and a huge parallel market deciding anonymously the unofficial exchange rate are some of the facets of the crises (BlomInvest Bank, 2022, Mawad *et al*., 2022; World Bank, 2022). What made things even worse along with the country's political fragility are the COVID-19 pandemic and the massive Port of Beirut explosion in August 2020 (World Bank, 2022). According to the World Bank's (2022) most recent reports, the current Lebanese crisis is among the worst any nation has ever seen since the end of the second world war. Even though no objective governmental report has been issued describing the current Lebanese financial market's state, reports of international organizations tend to describe it as a Ponzi scheme (Al-Saeed and EL Khalil, 2022).

Conferring to new economic reports, people's lack of understanding of financial principles is the main reason why the scheme orchestrated in the country was successful (Al-Saeed and EL Khalil, 2022). Nonetheless, this might be contested with S&P's 2014 research on international financial literacy in which Lebanese banking consumers are regarded to be doing much better than their neighbors by ranking the second highest in the region (Klapper *et al.*, 2014). It's also noteworthy to say that Lebanon's financial sector was regarded as one the best in the region prior to the crises. It had a very wealthy banking sector which was well-known for its high liquidity, mostly due to its maintenance of a good banking client secrecy law (Salloum *et al.*, 2015). In addition, the Lebanese banking sector was topping the list for bank branch penetration in the Middle East and North Africa (MENA) region (Lyons and Kass-Hanna, 2018). Moreover, Lyons and Kass-Hanna (2018) have taken Lebanon as their reference group for their cross-country research as it had a well-developed and highly liquid banking sector. Furthermore, its central bank, Banque du Liban (or Central Bank of Lebanon), secured strong trust in the Lebanese financial sector (Salloum *et al.*, 2015) which led to its governor winning several prominent awards over the years (Banque du Liban, 2011). Currently, the Lebanese banking sector is paralyzed with the banks embracing informal and strict capital control (World Bank, 2022).

This study isn't the first one to check people's financial behaviors in Lebanon. Even though the number isn't big, some of the works worth mentioning are (Lyons and Kass-Hanna, 2018; DerMesrobian, 2019; Mawad *et al*., 2022). It's also not the first research conducted on people's behaviors during or after a financial crisis. Nonetheless, to the best of my knowledge, this is the first work that considers the changes in people's financial literacy and financial behaviors before and after the Lebanese financial crisis. This was possible, mostly by chance, as another research, (DerMesrobian, 2019) (it will be called the old research throughout this research), had been conducted on people's financial literacy and financial behaviors less than a year before the collapse of the Lebanese financial sector in 2019. This research answers three key questions:

- Do financial crises render people more financially literate?
- How do people in developing countries behave financially during financial crises?
- Are the financial behaviors of Lebanese bank consumers sensible?

To answer these questions, I used the data I gathered from DerMesrobian (2019) (N = 187) and conducted two new sets of surveys. One targeted the public through which I captured the necessary behavioral aspects of Lebanese bank consumers (N = 144), while the second targeted economics and finance academics to whom I ask the opinions concerning people's current behaviors (N = 16). Through this, I avoid two academic hardships: the insufficiency of a good amount of on-topic academic discussion and the infrequency of country-based academic discussion tackling this issue which takes into consideration non-globalized culture-specific aspects.

I start this research by summing up the discussions and findings of previous research works on which I base the remaining parts of this research. That's because I go in-depth through checking what the previous literature talks about in the way people behaved during past financial crises in other countries. Then, I continue working on the methodology in which I explain the methods, tools, and instruments used to gather the necessary data. After that, I present the results of the two surveys briefly and then discuss them in a more detailed manner in the discussion part. I conclude this research by summarizing the main points of the literature review considering this research's findings, mentioning its limitations, and advancing suggestions for future research.

1. Research Methodology

The necessary data were obtained by running an online survey using Microsoft Forms from May 1, 2022, to the morning of May 31, 2022, using convenient sampling methods in Lebanon. I have also used the data gathered by DerMesrobian (2019) to be able to compare my results to the pre-crisis era. Hence, this dataset provides the opportunity to explore and understand the financial conduct of individuals going through possible drastic financial difficulties. Like other research works, such as O'Neill and Xiao (2012), Kuzina (2011), this work takes into consideration not only people's behaviors during or after the crises but also asks about their behaviors before the crises.

The preparation of the survey took into consideration the time needed to complete it. That's why the number of questions was kept as minimal as possible with an estimated completion time of 5 minutes. However, the results showed that it took respondents 7 minutes on average, taking out the timings of the four outlier respondents who have taken more than an hour to complete it. The online survey was also divided into four parts. Prior to the start of the survey, I introduced the reader to the research and ran a filtration by asking about the ownership of a bank account prior to the current crisis. Once the respondent clicked on "Yes", the questions of the following parts were shown. If the respondent answered "No", the survey would go to the end page. The first part asked the respondents socio-demographic questions, such as their age, living area, social class, and educational attainment. These were asked for exploratory reasons to check if the general socio-demographic agreements on financial literacy still hold in turbulent times.

The first set of questions was on assessing the respondents' financial literacy through the use of the "Big Three" questions prepared by Annamaria Lusardi and Olivia Mitchell for the 2004 Health and Retirement Study (Klapper *et al.*, 2013; Bucher-Koenen and Ziegelmeyer, 2014; Lusardi and Mitchell, 2014; Kuzina, 2011). These questions are widely used in academia and check people's understanding of basic financial principles (Klapper *et al.,* 2013; Bucher-Koenen and Ziegelmeyer, 2014; Lusardi and Mitchell, 2014; Kuzina, 2011). A person is regarded to be financially literate if the answers to the three questions are correct. After completing this section, 5-point Likert-type questions were asked, 9 about the respondents' financial behaviors, and 1 about the general subjective assessment of his or her happiness state before the crises. Consequently, the fourth section asked similar questions yet for current troubled times along with two questions on present biases. The choices of financial behaviors' questions were selected and derived from three previous research works which delve into the same situation: understanding financial literacy during financial crises (Kuzina, 2011; O'Neill and Xiao, 2012; Dew and Xiao, 2010) Overall, the respondents were asked questions on comparison shopping, paying bills on time, keeping records of expenses, general savings, retirement planning, and banking experiences.

2. Research Findings and Results

Using the statistical results provided by Microsoft Forms and the tests available on IBM SPSS's 23rd edition, I was able to receive the results presented below. A total of 177 people opened the link of the survey which was shared with them via my personal social media accounts (WhatsApp, Instagram, and Facebook Messenger). It was also set as a status/story on the same platforms. Yet, 33 were unbanked before the crises started in Lebanon forming 18.6% of the respondents, either due to not being of legal age back then or to personal preferences. No further details were asked of them as this research's focus is on the banked individuals. The remaining 144 respondents (81.4%) have filled out the survey completely. On the other hand, the old survey (DerMesrobian, 2019) has a total number of respondents equal to 187.

The demographics of the new research show that 96.5% of the respondents were Lebanese nationals which makes it clear that these results can be used as an outlook for Lebanese banking consumers. This result is like one of the old research projects. It also shows that 62.5% of the respondents were female compared to 37.5% were male.

In addition, 47.2% and 49.3% of the respondents were single and married, respectively, with the remaining either being widowed or divorced. The results are also in conformance with the Lebanese situation in which many of the people live in urban areas (86.1%). The educational attainment of the people shows that 83.3% of my respondents hold graduate degrees. This could be quite skewed and unrealistic; therefore, I will disregard this factor. Coming to the age variable, the range is between 19 to 70 with the mean being 38. More than 60% of the respondents are younger than 40 years old.

Table 1. Number of respondents

Number of Respondents	Old	New
	187	144

Table 2. Respondents by age brackets

Age Bracket	Old					New				
	18-24	25-29	30-39	40-49	50+	18-24	25-29	30-39	40-49	50+
	17	86	54	15	15	10	36	46	19	33
	9.09	45.99	28.88	8.02	8.02	6.95	25	31.95	13.19	22.91

Table 3. Respondents by gender

Gender	Old		New	
	Male	Female	Male	Female
	80	107	54	90
	42.78%	57.22%	37.5%	62.5%

In addition, 47.2% and 49.3% of the respondents were single and married, respectively, with the remaining either being widowed or divorced. The results are also in conformance with the Lebanese situation in which many of the people live in urban areas (86.1%). The educational attainment of the people shows that 83.3% of my respondents hold graduate degrees. This could be quite skewed and unrealistic; therefore, I will disregard this factor. Coming to the age variable, the range is between 19 to 70 with the mean being 38. More than 60% of the respondents are younger than 40 years old.

When it comes to social class, I preferred asking a subjective non-numerical question for different reasons. First, there exists a strong parallel market in the country making the value of the currency hard to be comparable. Supposing a person earns 3,000,000 LBP per month, based on the official rate, this person is earning 2000 USD- the same as what he or she was making before the crises. Yet, with the parallel market, this amounts to nearly 100 USD only. Second, the idea of assessing a person's financial standing just by checking the income isn't fair, especially during such times. Many have quit their jobs or were laid off noting that they still possess a reasonable number of financial abilities. Taking these two important factors into consideration, I asked the respondents on how they evaluate their social class belongingness from the lower, lower middle, middle, upper middle, and upper classes. A good 61% of the respondents said they belonged to the middle class, 16.7% to the lower middle, 19.4% to the upper middle, and only 1.4% (2 individuals) to the lower and upper each. This reflects a clear image of Lebanese society's stance.

RQ1: Do financial crises render people more financially literate?

Prior to answering the first research question, I checked the state of financial literacy in Lebanon. As shown in Table 4, people's general financial literacy rate is low. Only 33.3% of the respondents managed to answer the three questions correctly. This is in accordance with the global financial literacy research works which show that at least half of the population of the majority of countries is unknowledgeable of basic financial principles (Kuzina, 2011; Klapper *et al.*, 2013; Guiso and Viviano, 2015; Klapper *et al.,* 2014; Lusardi and Mitchell, 2014). Nonetheless, the Lebanese case shows that even less than one-third of its population is under deep threat of financial illiteracy (correct answers < 1). A total of 32% of the respondents couldn't correctly respond to more than one question.

Table 4. Answers to financial literacy questions

Number of correct answers	0	1	2	3
Old	11.2%	26.2%	38%	24.6%
New	9.1%	22.9%	34.7%	33.3%

This led me to check in-depth the results I got on financial literacy. As per what it is shown in Table 5, the scores on interest compounding and inflation are high whereas the score on risk diversification is quite low. These results are consistent with the previous research works which argued for an increased understanding of these two in countries facing financial crises (Klapper *et al.*, 2013; Lusardi and Mitchell, 2014). That's why, through checking the percentage of people who have answered interest compounding and inflation questions correctly, I found out that 63.2% of the people had achieved that.

Table 5. Answers to financial literacy questions by topic

	Correct		Wrong		Do Not Know	
	Old	New	Old	New	Old	New
Interest compounding	65.8%	81.3%	17.6%	8.3%	16.6%	10.4%
Inflation	72.2%	71.5%	8.6%	10.4%	19.2%	18.1%
Risk diversification	38.0%	39.6%	10.2%	13.2%	51.8%	47.2%

Another consistency with previous research is the high percentage of people answering "Do Not Know" on the least known question of risk diversification (Lusardi and Mitchell, 2014). According to (Lusardi and Mitchell, 2014), financial risk diversification is the most threatening part of financial literacy as many do not have any investing interest or experience to understand the terms. Talking a bit more about Table 5, what can be seen is the higher rate of "do not know" answers to all three questions than the wrong answers. For interest compounding, the difference is the smallest with 2.1%, followed by the difference in the inflation question by 7.7% and in the risk diversification question by 34%.

When it comes to sociodemographic factors, I have used independent t-tests to check if there's any difference in the level of financial literacy among the genders. The results of the new research show females scoring 1.70 on average whereas males scoring 2.3 with a statistically significant difference between the means. Once again, this conforms with previous research works and renders this research comparable on the gender basis to another research works (Lusardi and Mitchell, 2014). Using the same test, I also find a significant difference (at 5%) between two groups of ages, those younger than 40 and those older than 40. The younger generation has a higher average financial literacy score with 2.02 out of 3 whereas the older generation scored 1.75. Unfortunately, I fail to find any statistically significant difference in people's financial literacy based on their living area (rural or urban), social class, or marital status of a person. I also fail to find a statistically significant difference between the crises' effect based on a person's financial literacy.

Last but not least, I have run an ANOVA test to check if the financial literacy score means are different between the two periods. The results show that even though a difference exists, 1.76 for the old research and 1.92 for the new research, the difference remains statistically insignificant (sig.= 0.122). A gender-based approach, nonetheless, shows that a significant difference exists only for males at the 5% significance level where the old average of 1.8 has increased to 2.3. This means that only men acquired knowledge from the financial crises, which raises future research questions.

RQ2: How do people in developing countries behave financially during financial crises?

The aim of the second research question is to provide the academic body with an outlook on people's financial behaviors while living in a developing country during a certain financial crisis. Prior to discussing the role financial literacy plays in it, a descriptive representation of people's financial behaviors is represented in the below tables.

Table 6. Comparison of the financial behaviors reported by the old and new research respondents

Financial Behavior	Mean		ANOVA Sig.
	Old	New	
I saved money from every salary	3.19	3.45	0.110
I saved money for retirement	2.19	2.85	0.000***
I paid all my bills on time	4.66	4.51	0.087*
I used to keep track of my expenses	2.94	3.97	0.000***
I comparison shopped when purchasing a product	3.71	3.71	0.974
Financial behavior average	3.34	3.70	0.000***

Note: (* sig. at 10%, ** sig. at 5%, *** sig. at 1%)

First, I check if the respondents of the old and the new research have similar financial behaviors. By taking into consideration only five behaviors, I form a new variable by calculating the average of the results. The ANOVA test shows that a difference exists between the two groups with the new research respondents claiming to have significantly better financial behaviors. I also test each behavior separately to have a more in-depth view of the results. Two behaviors, saving for retirement and keeping track of one's expenses, are highly significant, and paying for retirement is significant at a 10% significance level. No difference exists for saving money from every salary and for comparison shopping. I also check the new respondents' other financial behaviors not included in the previous research. The results are shown in Table 7.

Table 7. Financial behaviors before the crisis

Financial Behavior	1	2	3	4	5
I frequently used the services of my bank	8.3	15.3	13.9	43.8	18.8
I was happy with the services provided by my bank	10.4	15.3	19.4	43.8	11.1
I used to check my banks financial reports periodically	12.5	15.3	8.30	42.4	21.5
I preferred saving money at home than depositing it in a bank	24.3	25.0	11.1	11.1	28.5

Note: Results in %; scales: 1= totally disagree; 2 = somewhat disagree; 3 = neither agree nor disagree; 4 = somewhat agree; 5 = totally agree)

The results of Table 8 can be divided into two categories, bank satisfaction, and bank safety outlook. Nearly 2/3 of the respondents answered that they've frequently used their banks' services and that more than half of the total respondents were satisfied with the services provided by their banks. This shows that a typical Lebanese banking consumer was positively engaged with his/her bank. The questions regarding the bank safety outlook show that most people trusted their banks to be safe places to deposit money. Around 49.3% of the respondents preferred saving money at a bank and 63.9% regularly checked their banks' financial reports. Apart from the pre-crisis period, I also check the financial behaviors of people during the crises. The results are shown in Table 8.

Table 8 Financial behaviors after the crisis

Financial Behavior	1	2	3	4	5
I still frequently use the services of my bank	52.8	17.4	16.0	11.8	2.1
I closed or want to close my bank account	7.6	8.3	16.0	21.5	46.5
I feel my bank robbed or betrayed me	2.8	0.7	12.5	25.0	59.0
I am now more interested in financial matters	13.2	4.9	17.4	34.7	29.9
I feel I have acquired knowledge from the crises	1.4	4.9	17.4	40.3	36.1
I am thinking of making a financial investment	30.6	13.2	24.3	20.8	11.1
I prefer spending the money I am earning than saving it	15.3	25.0	22.2	22.2	15.3
I am still paying my bills on time	4.2	2.1	14.6	30.6	48.6
I keep track of my expenses more often	3.5	2.8	12.5	31.9	49.3
I comparison shop more when I purchase a product	6.9	6.9	7.6	24.3	54.2

Note: Results in %; scales: 1= totally disagree; 2 = somewhat disagree; 3 = neither agree nor disagree; 4 = somewhat agree; 5 = totally agree)

The results show some interesting behaviors worthy to be discussed briefly. I divide the discussion of this part into three: bank inclusion, experiential financial education, and financial behaviors. Starting with the bank inclusion part, the data shows that more than half of the respondents are no longer using the services of their banks and only 2.1% have responded to actively dealing with their banks. Also, around two-thirds of the respondents either closed or want to close their bank accounts. Noting that certain regulations and BDL decisions forbid people from closing their accounts (*e.g.*, limited cash withdrawal ability, non-opening of new bank accounts, salary domiciliation), the desire to close them is regarded as the same as if they're closed. Moreover, only 3.5% of the respondents (around 5 people out of 144) have shown to be taking personal blame for the consequences of the financial crises. Only one out of these people can be regarded as financially literate. The vast majority have accused the banking sector of either robbing or betraying them. Such results signify that the financial inclusion rates and more specifically the bank inclusion rates of Lebanon will be low. The second point of this discussion is about the stimulating characteristics financial crises have in ameliorating people's financial understandings. Many agreed on acquiring knowledge due to the crises and their increased interest in financial matters. The third point, which is about people's financial behaviors shows that people are engaging in more savvy financial behaviors in general. Nearly 80% of the respondents claimed to still be paying their bills on time, checking their budget more, and comparison shopping more. The results also show, that regardless of the economic situation in the country, one-third of the Lebanese are thinking of making financial investments. In addition, the preference for spending the earned money or saving it for future use represents a very good example of a normal distribution. The result is somewhat inconclusive with a slight inclination towards saving.

Table 9 summarizes the correlation between financial literacy and different financial behaviors. I found that two behaviors are correlated at 5%, "higher interest in financial matters" and "thinking of making a financial investment", and additional three behaviors become correlated at 10%, "frequent use of bank services", "acquiring knowledge from the crisis", and "feeling of bank betrayal".

Table 9. Correlations of the financial behaviors after the crises with financial literacy

Financial Behaviors	p-value
I still frequently use the services of my bank ®	0.082*
I am now more interested in financial matters	0.04**
I feel I have acquired knowledge from the crisis	0.1*
I feel my bank robbed or betrayed me ®	0.091*
I closed or want to close my bank account	0.104
I am thinking of making a financial investment	0.021**
I am still paying my bills on time ®	0.756
I keep track of my expenses more often	0.374
I comparison shop more when I purchase a product	0.36

Note: * sig. at 10%, ** sig. at 5%, *** sig. at 1%.

Moreover, the results show that while 73.7% of the people were happy with their lives before the crisis with an average happiness score of 3.94/5, only 47.2% reported that they are still happy with their lives with an average of 3.28/5. This might explain the relatively high percentage of people with the intention of spending their money instead of keeping it as savings (37.5%). Consequently, it's not a surprise for 78.5% of people to report that they're trying to enjoy life more than they used to before. This downfall might also be the reason why a majority of 60.4% believe they have become more present-oriented.

Table 10. General happiness and being present oriented

Happiness & Behaviors	1	2	3	4	5
I was happy with my life	2.1	4.9	19.4	43.8	29.9
I am happy with my life	11.8	15.3	25.7	27.8	19.4
I have become more present oriented than future oriented	9.0	11.8	14.6	31.9	32.6
I am trying to enjoy life more than I did before	7.6	9.7	22.2	33.3	27.1

Note: Results in %; scales: 1 = totally disagree; 2 = somewhat disagree; 3 = neither agree nor disagree; 4 = somewhat agree; 5 = totally agree

RQ3: Are the financial behaviors of Lebanese bank consumers sensible?

The survey sent to the business and economic academics residing in Lebanon showed most of it a consensus of opinions. Table 11 shows there is surely an observable change in people's behaviors in the country. All 16 scholars agree on it. Similarly, only one disagrees that people shouldn't save any money in LBP and that people aren't more interested in financial matters. There's also a majority calling for savings in hard currencies and the need of making long-term investments.

Table 11. Experts' answers to behavioral questions after the crisis

Question	Yes	No
Have you observed a change in people's financial behaviors after the crises?	100%	0%
Do you believe people should save money in LBP?	6%	94%
Do you believe people should save money in a foreign currency (USD, EUR, GBP)?	81%	19%
Do you believe people are capable of saving money?	31%	69%
Do you believe people should make long-term investments?	88%	12%
Do you believe people are better off spending their money nowadays than saving it?	38%	62%
Do you believe people should still be working with banks and other financial institutions?	50%	50%
Do you believe people are now more interested in financial matters than what they used to be?	94%	6%

Things get a bit trickier when it comes to people's ability to save. Only 31% of the scholars believe that people can save under current circumstances whereas a bigger majority (69%) believe the opposite. Similarly, 38% of scholars believe people are better off spending their money than keeping it. This might be a bit argumentative as the currency a worker is getting paid and at which rate (official or parallel market rates) plays an important role in these decisions. There's a tie in the opinions only about the continuation of the usage of banking services.

3. Discussions

The results of this research show some thought-provoking outcomes. To start with the first major variable, financial literacy, even though one-third of the respondents answered correctly to the three questions, this doesn't necessarily reflect the true Lebanese financial literacy rate. It's unfair to discuss financial risk diversification in countries where the financial markets aren't much-developed (Kuzina, 2011; Klapper *et al.,* 2013). Removing the latter's effect, the rate nearly doubles to reach 63.2%. This might be closer to the true rate of Lebanese financial literacy. Supporting evidence for the likelihood of the rate being higher than what this research and other research works show based on the three correct answers principle is the percentage of people honestly answering "Do Not Know" in all three questions being much higher than answering incorrectly to any of the questions. This shows healthy behavior and amplifies their standing in financial literacy by possibly investing some effort to get to good information leading to a better decision, than committing wrongful deeds. In addition, previous research conducted in the 4th quarter of 2018 on the same population, which is a year before the crises had started in Lebanon, showed that only 24.6% of the people were able to answer all three questions correctly (DerMesrobian, 2019). This is up by 8.7% which can be attributed to (Lusardi and Mitchell's, 2014) claim of the bad experiences serving as teachers. Even though people's subjective answers show that they've become more interested in financial matters and that they've acquired knowledge from it, the statistics included in this research disprove it.

Usually, the difference in financial literacy levels by age is an inverted U. Yet, we witness in countries where financial turbulences occurred in the not-so-distant past, this is not valid (Beckman, 2013). This research finds that those below the age of 40 and those above it have different financial literacy rates. This could be explained by the unwillingness of the older generations to engage in financial matters as they distrust the Lebanese financial system due to the monetary crises which occurred after the end of the civil war in the early 1990s.

The literature also states that keeping a budget is important for long-term goals, but not necessarily during times of crises (Kuzina, 2011). My results show similar outcomes as I fail to find any correlation between people's post-crises financial literacy rates and their record-keeping behaviors. Nonetheless, I do find a positive correlation between the latter and long-term planning.

Furthermore, financial inclusion cannot be purely attributed to financial literacy. Especially not when it comes to the discussion of its reverse causality. It's true to say that people who engage in the financial markets may gain knowledge from their transactions, hence their higher financial literacy rates (Bucher-Koenen and Ziegelmeyer, 2011; Though Guiso and Viviano, 2015) argue that the relationship is statistically significant at the same time its effect is negligible. In this research, I fail to support any claim that better financial literacy leads necessarily to higher financial inclusion. That's because even though people claim to have acquired knowledge from the crises and to be of more interest in financials, their participation rates in the financial markets have sharply decreased. The results have shown that the financial crises have pushed people to get away from their banks. Thus, refuting Klapper *et al. (*2013)'s claims on financial literacy's role in increasing the adoption of banking services. It should be mentioned, that only in times of financial stability, the latter relation holds true. In addition, similar to Gallery and Gallery (2010)'s results, people hardly take any responsibility for the losses they incur during financial crises. Previous research works having been conducted in other parts of the world than the research in hand showing the same results promote this behavior to become generalized on a global level.

Additionally, the significant difference in people's behaviors prior to the financial crises in Lebanon can be explained from two perspectives. The first one is about the possibility that the questions are asked about behaviors they used to do nearly 2 years before which could cause a higher subjective self-assessment. The second one lies in the factual yet random difference between the two groups. Apart from the difference, the results show that the Lebanese bank consumer was a financially included and conscious consumer. A typical Lebanese would frequently use the services of a Lebanese bank and trust it with his/her money by regularly checking the financial standing of the bank. In this matter, the changes in people's behaviors during financial crises cannot be counter-argued. Both surveys support it (people and experts). Nonetheless, there's no clear understanding of how these behaviors change. According to the data, most people either got out of the market or are willing to, though the opinion of the experts is mixed. This might explain the inconsistency of the results of the previous works notably (Guiso and Viviano, 2015; Bucher-Koenen and Ziegelmeyer, 2014). What the difference could be is the timing of leaving the market. While Guiso and Viviano (2015) argued that the most financially literate left the market at the very start of the crises, (Bucher-Koenen and Ziegelmeyer, 2014) argued that the most financially literate stayed in the market trying to benefit from the positivity of the recovery stage. Noting that the financial markets in Lebanon are mainly based on banks, leaving the market, or staying in it doesn't have similar effects to one of the previous research works. According to O'Neill and Xiao (2012), people change either because they want to or because they must. In this case, people were forced to change behaviors as they have become mostly present-oriented. This doesn't necessarily mean their biased behavior is eternal or drastic (Gathergood and Weber, 2017). The concept of the "New Normal" mentioned by O'Neill and Xiao (2012) has surely migrated to Lebanon as people no longer care only about saving.

In addition, it's worth mentioning that like the Russian example, the young generation in Lebanon didn't get the chance to be financially educated at home as their parents mostly lived during the 1975-1990 civil war period which forbade them from a good involvement in the financial markets (Klapper *et al.,* 2013). In addition to that, there's also a lack of formal financial literacy education at schools, and it might be the first financial crisis that most Lebanese have experienced (the last one having occurred in the early 1990s). What made the situation worse is that emerging markets, just like Lebanon, have a reasonable amount of their bank loans in foreign currencies which increases people's vulnerability in case of a sharp exchange rate depreciation, something which frequently happens after crises (Beckman, 2013). Just like the simple substitution of the Euro and its regard as a monetary haven in Southeastern European countries (Beckman, 2013), the USD is widespread in Lebanon and used interchangeably. Similarly, the same story applies to saving deposits in foreign currencies. So, all these might be good antecedents to why most of the financial behaviors of Lebanese bank consumers post-crisis aren't strongly correlated with their financial literacy levels.

Conflict of Interest Statement

The author declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Conclusions

Any national or international financial downturn provides big challenges to all households, whether rich or poor (Bucher-Koenen and Ziegelmeyer, 2011). Everyone complains about it and its consequences on demographic, social, economic, and financial scales. Yet, the academic body's discussion mostly focuses on the losses people incur in wealth or employment during such times (Bucher-Koenen and Ziegelmeyer, 2014). The results of people's financial behavior during the GFC made it clear that financial literacy plays a positive role in shielding investors against big losses (Guiso and Viviano, 2015). Not only that, but the academic body found that financial literacy boosts people's preparedness against unforeseen financial hardships of personal or non-personal roots

(Klapper *et al.*, 2013). Yet, this research with a focus on a developing country's current financial troubles, Lebanon, finds dissimilar results.

The results show that Lebanese bank consumers believe they have gained a reasonable amount of understanding of financial principles due to their bad experiences during the crises. Especially when it comes to the concepts of interest compounding and inflation, they are quite financially literate. The idea of risk diversification isn't so clear to them as they hadn't had the chance to delve deeply into well-developed financial markets. Statistically, only males have significantly higher financial literacy rates. These results are close to the one of (Kuzina, 2011) who has conducted similar research on the Russian market. What the results also show is that financial literacy isn't always aiming for better financial inclusion. For instance, financial literacy is related to the use of formal banking (Klapper *et al.,* 2013), yet during the current Lebanese crisis people were eager to get out of the market and blamed their banks for their own losses. These are similar to the results of (Gallery and Gallery, 2010) who found that consumers hardly take any blame for the losses they incur during financial crises.

This research surely has many limitations. First, there is a need for a bigger sample of respondents to capture better results that could be generalized not only to Lebanon but to the world. Unfortunately, time and financial constraints didn't allow me to do further work. Also, checking other financial literacy and behavior scales might come in handy to run regressions and other statistical tests. In addition, this research uses convenient sampling which could mean a similar group of people. It would surely be much better if the respondents come from different regions of Lebanon. Further research should therefore take into consideration working on a comparative work between Lebanon and other countries facing similar problems. An example could be Sri Lanka or Turkey. It might even be worth checking other countries, such as Argentina, Cyprus, and Hungary, who have faced similar financial and economic downturns, not more than a decade ago.

In conclusion, although the Lebanese aren't as financially illiterate as one may think, their behavior shows no sign of the latter. It's argued that if people do not follow their financial knowledge and if they do not put it under their service, they can't be regarded as financially literate (Kuzina, 2011). However, this concept treats people as programmable creatures away from psychological effects. Also, it forgets the tough measures the Central Bank of Lebanon and the banking sector enacted on the Lebanese bank clients limiting and sometimes even forbidding them from withdrawing their savings during such difficult times. Consequently, savings become unnecessary during times of hardship, especially during times of hyperinflation. In such times, cash becomes king and people are no longer interested in accumulating wealth. They want to 'live' their lives more and use their unwillingly lost money for their own pleasure rather than losing it to inflation.

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