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Financial Well-Being Profile: An Empirical Study on Graduated Students

Daniela Corrons Diaz ^{a,*}, Milka Elena Escalera Chavez ^b, Esmeralda Tejada Pena ^c, Violetta S. Molchanova ^{d,e}

^aUCC Business School at Cristóbal Colón University, Mexico

^bAutonomous University of San Luis Potosi, Mexico

^cTecnológico Nacional de México campus Tuxtepec, Mexico

^dCherkas Global University, Washington, USA

^eVolgograd State University, Volgograd, Russian Federation

Abstract

The general stability of a person is related to financial well-being, and is reflected in their physical, financial, mental health, including being happier, more confident and more productive at work. The general purpose of this work is to evaluate if the mean of the results of financial well-being in graduates from the Veracruz-Boca del Río conurbation differs from the value of the Consumer Financial Protection Bureau's average and to assess whether there are differences in the level of financial well-being through the characteristics of sex, career, institution and employment status. The research is quantitative and cross-sectional. The sample is made up of 50 graduates. For data collection, the Financial Well-Being Scale developed by the United States Consumer Financial Protection Bureau (CFPB) together with the participation of various experts and consumers, was used. The instrument consists of 10 items measured on a Likert scale. The first 6 items are designed to describe the financial situation of the individual, while the remaining 4 items measure the frequency with which individuals face certain situations. Since the results, we concluded that the graduates have a financial freedom reflecting a good financial education. This high percentage of subjects who have a medium to very high level generates that they have the ability to have good financial health that will allow them to deal with decisions in the financial area in their work environment. In addition, the results show that the level of financial well-being is not different among graduates according to age, marital status, employment status, career and institution.

Keywords: financial well-being, graduates, demographics variables.

* Corresponding author

E-mail addresses: d.corrons@hotmail.com (D. Corrons Diaz), milkaech@uaslp.mx (M. Elena Escalera Chavez), esmeralda.tp@tuxtepec.tecnm.mx (E. Tejada Peña), v.molchanova_1991@list.ru (V.S. Molchanova)

1. Introduction

The Covid 19 pandemic impacted economic activity, inflation and financial conditions. Economic challenges imply that there may be an undesirable effect in financial well-being ([Banco de Mexico, 2020](#)). Financial well – being is an indicator of the level of people’s financial education and is related to economic growth (Compromiso Empresarial, 2014, cited by [Vallejo Martinez, 2016](#)). Hence, the intention of political governments and researchers is to ensure that people enjoy financial well-being.

The Consumer Financial Protection Bureau ([CFPB, 2017](#)) defines financial well-being as “a state of being in which a person can fully meet their current and ongoing financial obligations, can feel secure in their financial future, and can make options that allow them to enjoy life” (p. 6). Other authors ([Sabri, Falahati, 2012](#)) conceptualize it as "a financially healthy, happy, and worry-free state of being" that is generally based on a subjective assessment of one's financial situation. Mahendru (2020) defines financial well-being as “an individual's ability to quickly meet their current financial obligations and present and future needs, and their temperament toward financial freedom, today and tomorrow”.

Kreutz, da Silva, Vieira and Dutra (2021) refer that financial well-being can be addressed under two approaches: Objective, one that uses as financial indicators: income, liquidity and financial information, and Subjective, approach that considers people's perceptions of their financial condition. According to the work carried out by Cardenas et al. (2020) report that Chile and Colombia are the countries with the highest rates of financial well-being in South America.

The differences in financial well-being are greater in the holders of formal savings products than in the owners of credit cards. In addition, they report that better financial education is associated with better rates of financial well-being. And some variables related to financial behavior have an important relationship with financial well-being, such as previous experience with the financial sector, the comparison of products between different financial institutions and the personal involvement in household financial decisions.

Higher levels of financial knowledge are associated with financial well-being and positive outcomes, such as participation in the stock market and planning for retirement; while low levels of financial literacy are related to financial stress and negative outcomes, such as debt accumulation ([OECD, 2016](#)). Today we live in a globalized world where technology and digital media have allowed greater access to financial services and products, which has made it easier for different savings, credit and investment operations to be carried out through applications and electronic banking ([Ordóñez, 2018](#)).

According to the Analytical and Assessment Framework for Financial Literacy 2021 of the Program for International Student Assessment ([PISA, 2021](#)), digital financial services offer great possibilities for the integration of the poor and economically excluded populations into the formal financial system by overcoming barriers of infrastructure, reducing costs, offering faster and more timely transactions, and potentially providing a seamless experience tailored to individual needs (p. 9). However, if they lack basic and sufficient financial knowledge to make proper use of digital finance, it could represent various types of risks and fraud, as well as an imbalance in the financial well-being of each individual.

It is extremely important that in Mexico special attention be paid to the quality of financial education and the relevance it has in the different stages of Mexicans life, since 67 % of the population has a low level of financial education, according to the study carried out in 2020 "Private Financial Education Initiatives in Mexico: Supply, Demand and Opportunities for Improvement", carried out by Nacional Monte de Piedad in alliance with the Center for Competitiveness Studies of the Autonomous Technological Institute of Mexico ([ITAM, 2020](#)). This percentage is classified as 12 % deficient, 22 % weak and 33 % basic, which is worrying because these sectors of the population are the ones that most lack capacities and resources, and in turn, face the greatest risks.

According to the National Survey of Financial Inclusion 2018 carried out by the National Institute of Statistics and Geography (INEGI), 25 % of Mexicans are bachelor's degree graduates, 17.8 % of which don't know the existence of basic bank accounts, 20.9 % ignores savings protection insurance and 28.5 % do not compare financial products before contracting them. As INCyTU (2018) points out, taking up the National Bank of Mexico and the National Autonomous University of Mexico ([Banamex and UNAM, 2014](#)), young people identify their family as the best example for

their financial training, in addition, 50 % recognize not having the necessary knowledge to make decisions related to their finances.

We should also mention that Sabri, Cook and Gudmunson (2012) demonstrated the relationship between demographic factors and financial well-being, and show evidence that gender, student residence and place of origin were associated with the students' perception of financial well-being. In relation to gender, women have higher levels of financial well-being, and students who live within the university campus have a better level of financial well-being, in the same way that students who come from a city have a higher level of financial well-being than that of the students who come from rural areas.

Regarding the aforementioned Kreutz et al (2021) in his publication of the state of the art on financial well-being, he refers that different authors (Delafrooz, Paim, 2011; Diniz et al., 2014; Fraga et al., 2016, Gutter, Copur 2011) observed that people with higher incomes have a much better financial well-being. In this idea, Fauzi Zainir and Wan Marhaini Wan Ahmad (2019) found that the level of subjective financial well-being (SFWB) in 1867 Malaysian households is 5.2 on average out of 10, however, there is a significant difference in income level, households where income is low, score 4.3, average income households 5.1, and high income households are 6.2.

Regarding marital status, Diniz, Vieira, Potrich and Campara (2014) identified that there are significant differences in the averages in relation to the financial well-being factor. Thus, married people (average 2.935) have a better perception of financial well-being compared to singles (average 2.623) and the widowed/separated group (average 2.756), people with a high educational level present an average of 3,008, On the other hand, at basic levels (primary and secondary) the average is 2.791. In relation to income, people with higher incomes have a high level of financial well-being.

Financial well-being has also been analyzed by Mahdzan, Zainudin, Abd, Zainir and Ahmad, (2020), they focused on determining the financial well-being (FWB) of Malaysian households and constructing a subjective FWB index. The results reveal that households, on average, have a FWBI score of 46.83. The authors not only determined the financial index, but also identified if there was a difference with respect to income and report that households with low income have low levels of well-being (37.37), likewise households with medium income have a level of financial well-being of 46.11 and finally households where income is high, also have a high financial level (58.67).

At the same time, they present evidence that there is a significant difference between age, level of education and marital status. Older people have higher rates of financial well-being, and people with higher formal education report higher rates; Regarding marital status, married people show higher averages (48.04) compared to single, divorced or widowed people. Likewise, there is an association between the type of employment and financial well-being, the results show that those who were self-employed present higher scores with 48.29. However, it was found that the level of financial well-being did not differ significantly among the respondents in terms of religion, ethnicity, and residential area. From these exposed arguments, now the following objectives and hypotheses are established

2. Study Objectives

1. Determine the level of financial well-being in graduates from the Veracruz-Boca del Río conurbation area, evaluate whether the mean of the results of financial well-being in graduates from the Veracruz-Boca del Río conurbation area differs from the value of Consumer Finance Protection Bureau's average

2. Assess whether there are differences in the level of financial well-being through the characteristics of sex, career, institution and employment status.

Hypothesis

H₁: The mean of the results of financial well-being in the graduates of the Veracruz-Boca del Río conurbation, differs from the value of the mean defined by Consumer Finance Protection Bureau.

H₂: There are differences in the level of financial well-being in graduates from the Veracruz-Boca del Río conurbation in relation to the characteristics of sex, career, institution and employment status.

Justification

Through the results of this research, it will be possible to identify the subjects and the areas that show a lower level of financial well-being, and therefore focus on this group of subjects in a timely manner. The research will also contribute to the federal institutions since it will provide the level of financial well-being of a group of the population that is entering the world of work and whose actions will have an impact on the economic development of the country.

Design and Method

The research approach is quantitative, since the work uses numerical variables that need to be quantified by means of statistical methods, to obtain results. It is transversal because contact was established with the study population only at a certain moment of the research.

Sample

It is a non-probabilistic sample, since the process to choose the population was not mechanical or based on probability formulas, it was carried out based on the convenience of this study, for reasons of time and resources. The sample is made up of 50 graduates from the Veracruz-Boca del Río metropolitan area.

Instrument

The instrument used to obtain the data for this research is digital, generated through Google Forms and applied through social networks. This is the Financial Well-Being Scale developed by the United States Consumer Financial Protection Bureau (CFPB) together with the participation of various experts and consumers, ensuring its quality and reliability. The scale is built to make it possible to directly compare the scores of different people or to see how an individual's financial well-being changes over time (CFPB, 2015).

The instrument consists of 10 items measured on a Likert scale. The first 6 are designed to describe the financial situation of the individual, while the remaining 4 serve to measure the frequency with which individuals face certain situations (Table 1).

Table 1. Likert scale of financial well-being

items	ordinal scale 4 to 0	items	ordinal scale 0 to 4	items	ordinal scale 4 to 0
1, 2, 3, 4, 5 6	4= Totally 3 = Very good 2= To some extent 1= Very little 0 = Does not describe me at all.	7, 9, 8 and 10	0 = Always 1= often 2= sometimes 3= almost never 4= Never	8	4= Always 3= often 2= sometimes 1= almost never 0 = Never

Note: Scale obtained from consumerfinance.gov/financial-well-being

Based on the score obtained, it is possible to determine the level of financial well-being of an individual. The scale established for this study is presented in the Table 2; the average score according to Consumer Finance Protection Bureau is 54.

Table 2. Scale of the level of financial well-being

Score Range	Level
0-29	very low
30-37	low
38-49	low medium
50-57	high medium
58-67	high
68-100	very high

Note: Consumer Information Finance Protection Bureau

For the present study, the statistical techniques applied were: Student's t-test and factor analysis to identify the factors that interfere in the level of financial well-being in the selected sample, which processed in SPSS v25 software.

3. Results

The description of the demographic data of the study sample is presented. The Table 3 shows the distribution by gender, with whom the individual lives, marital status, employment status, area of study from which he graduated, educational institution and grouped age.

Table 3. Descriptive data of the graduates

Sex (%)		It lives (%)		
Female	Male	Alone	Parents	Partner
78 %	22 %	18	62 %	20 %
Civil status (%)		Employment status (%)		
Single	Married	Other	Employee	Unemployed
86 %	12 %	two	78 %	22 %
Institution (%)		Age (%)		
public	private	18-25	26-33	> 34
58 %	42 %	64 %	22%	14 %
		Bachelor		
PM-I	BQ-H	H-A	EA	Other
16 %	6 %	14 %	60 %	4 %

Note: PM-I = Physics, Mathematics and Engineering; BQ-H = Biology, chemistry and health, H and A = Humanities and art; EA=Economic-administrative; other

The predominant percentages in the sample indicate that 78 % is represented by female; 62 % live with their parents; 86 % are single; 78 % maintain an active work status; the area of study from which they graduated is economic-administrative by 60 %; the educational institution where they graduated stands out at the public level in 58 %; and the age range from 18 to 25 years in 64 %.

Level of financial well-being

Table 4 shows the level of financial well-being of the graduates based on their score. According to the results, a high percentage (90 %) have levels of financial well-being between medium high and very high.

Table 4. Level of Financial Well -being of the graduates

Score Range	Level	%
0-29	very low	0
30-37	low	0
38-49	low medium	10
50-57	high medium	22
58-67	high	48
68-100	very high	20

Research hypothesis

To corroborate the hypothesis that the mean of the results of financial well-being in the graduates of the Veracruz-Boca del Río conurbation, differs from the value of the mean of Consumer Finance Protection Bureau.

The results of the *t*-test allow us to verify that the mean financial well-being accepted by Consumer Finance Protection Bureau ($M = 54$) differs significantly from the financial well-being of graduates from the Veracruz-Boca del Río conurbation, since the value of *t* obtained is greater than the value in tables, in addition, the value of *p* (0.00) is less than 0.05 and the power of the test is

large (.540). Therefore, it is concluded that graduates from the Veracruz-Boca del Río conurbation have financial freedom that reflects a good financial education.

Table 5. Graduates' financial well-being t-test

Welfare		
Mean		43.94
Standard deviation		9,377
<i>t boards (49 gl)</i>		1.67
<i>t sample(49 gl)</i>		4,545
<i>p-value</i>		0.00
<i>Confidence interval</i>	Lower	Superior
95 %	3.10	8.02
<i>r (Power)</i>	.544	

Likewise, to test the hypothesis if there are differences in the level of financial well-being in graduates from the Veracruz-Boca del Río conurbation in relation to the characteristics of sex, career, institution and employment status, the ANOVA test was applied, since the variables meet the assumptions of normality, independence and homoscedasticity required in this test (Table 6).

Table 6. ANOVA Assumptions

variables	r	Levene	Next.	Kolmogorov–Smirnov				Next.			
Wellness-G	-0.074	.317	.576	Female	Male	Female	Male				
				.987	.896	.931	.167				
Wellness-MS	0.087	.638	.428	Gender	career	Gender	career				
				.982	.922	.740	.517				
Wellness-ES	-0.266	1,232	.273	employed	unemployed	employed	unemployed				
				.974	.979	.509	.963				
Wellness-EI	-0.25	.845	.363	Public	Private	Public	Private				
				.967	.943	.473	.248				
Wellness-CC	0.069	2,126	.093	FM	QBS	HE	CE	FM	QBS	HE	CE
				.843	.999	.941	.983	.843	.999	.941	.983

G = gender; MS = marital status; ES = employment status; IE = Educational Institution; C = college career

F statistic is summarized in the table. As can be seen in the table, an *F* statistic is obtained at 49 degrees of freedom for each group. Since the *F* values of the variables are less than the *F* values in tables, so the hypothesis is not rejected, in addition, the *p* value is greater than the value of 0.05, hence it is concluded that the level of financial well-being is different among graduates according to age, marital status, employment status, career and institution.

Table 7. ANOVA

BF _ Sex, marital status, employment status, area of study and institution

variables	F (49 gl)	f boards	p -value	α value
Fw-b_ gender	.266	4,034	.609	0.05
Fw-b - MS	.704	3,183	.500	0.05
Fw-b - ES	3,652	4,085	.062	0.05
Fw-b -Career	.849	2,606	.502	0.05

Fw-b - EI	3,191	4,085	.080	0.05
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Fw-b = Financial well-being; G = gender; MS = marital status; ES = employment status; EI = Educational Institution; C = career

4. Conclusion

Due to the fact that the graduates are individuals who have entered the labor environment, this work focused on this sector of the population, to evaluate if the average of the results of financial well-being in the graduates of the metropolitan area Veracruz-Boca del Río, differs from the average value of Consumer Finance Protection Bureau. The level presented by this study population is between medium high to very high; it is important to highlight that a small percentage (10 %) presents medium low levels, but none presents very low levels. This means that the graduates have received a good financial education in their institutions that has made it easier for them to make intelligent financial decisions (Sebstad et al., 2006 cited by [Vallejo-Trujillo, Martinez-Rangel, 2016](#)).

This high percentage of subjects who have a medium to very high level generates that they have the ability to have good financial health and that will allow them to deal with decisions in the financial area in their work environment. The findings of this research are similar to the information provided by the OECD (2016) indicating that there is a relationship between well-being and financial knowledge.

In addition, this research provides elements that allow corroborating that the level of financial well-being of the graduates who have been the object of study is not different according to age, marital status, employment status, career and institution. Based on the results, it is convenient to promote research at a specific university to determine if this behavior occurs in students who are pursuing their degree. The average value of the level of financial well-being (43), which is within the low-medium range, indicates that higher education institutions still have room for improvement in terms of financial education.

The results of this research are not consistent with those reported by Sabri et al. (2012) who do not mention that women have higher levels, nor with those proposed by Kreutz et al. (2021) and Fauzi Zainir and Wan Marhaini Wan Ahmad (2019) who showed that people with high incomes have a high financial well-being. They were also inconsistent with those proposed by Diniz, Vieira, Potrich and Campara (2014) who published a difference between married and single, married people have a better level of financial well-being.

Final remarks

Based on the results, it is convenient to promote research at a specific university to determine if this behavior occurs in students who are pursuing their degree. The average value of the level of financial well-being (43), which is within the low-medium range, indicates that higher education institutions still have room for improvement in terms of financial education.

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