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## THREE-DIMENSIONAL MODEL OF FINANCIAL RESILIENCE IN WORKERS: STRUCTURAL EQUATION MODELING AND BAYESIAN ANALYSIS

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**ABSTRACT.** This work focused on evaluating financial health indicators, namely their perception, experiences lived during the pandemic, and actions carried out to face the financial crisis caused by the COVID-19. The eight financial health indicators proposed by BBVA bank and the Center for Financial Services Innovation were used for the study. These make up a 24-item scale and are often used to measure perception, experiences during the pandemic, and financial resilience. The sample included 357 workers from the Duxom Company, which has national coverage and operates in the private security sector. The validity test showed an acceptable Cronbach's alpha index for each construct ( $\alpha$ ; 0.848;  $\alpha$ ; 0.779;  $\alpha$ ; 0.818), denoting reliability and internal consistency. The values obtained from asymmetry ( $<2$ ) and kurtosis ( $<7$ ) justified the normality of the data. The research findings suggest that, while the perception of financial health indicators has a very low influence on financial resilience (.05), the experiences lived during the pandemic in relation to these indicators influenced (.74) the actions carried out to face the financial crisis caused by the COVID-19. The confirmatory model shows that the P-ISF construct is explained with 6 of the 8 variables; the Ev-ISF construct – with 3 of 8, and the financial resilience construct is explained with 7 of 8 variables (CMIN/DF:1.913; CFI:0.981; TLI: 0.973; RMSEA=0.05). The excluded variables show very low estimates; therefore, it is recommended to expand future studies to other populations and samples.

**Keywords:** methodology SEM, financial resilience, financial well health indicators

## Introduction

Undoubtedly, the COVID-19 pandemic has brought significant changes to the life of every individual. All activities carried out in different environments, whether commercial or services. Government, among others, was affected positively or negatively by this pandemic. This article focuses on the financial sector, which involves all the financial institutions that offer products and services to both investors and consumers.

The global effort to stop the spread of the virus led to a recession that had not been seen since the global financial crisis of 2008 (IMF, 2020). The research on financial resilience of households considers the path of recovery from such crises aimed at achieving a deeper understanding of the inability of households to deal with unexpected financial shocks and how this could result in financial instability (Erdem et al., 2022). Additionally, the understanding of the concept can help not only to get better reactions from families to financial shocks, but also to reduce political costs (Demertzis et al., 2020), improve emotional wellbeing and educational achievements, and foster family stability, among other factors (McKnight & Rucci, 2020).

Previous studies have found an increase in financial resilience when a higher level of financial literacy is achieved (Erdem et al., 2022). It has also been found that financial knowledge and investment skills make it less likely for an individual to be financially affected during a crisis like the COVID-19 pandemic (Nguyen et al., 2022). Research that compared the impact of COVID-19 on saving, investing, and spending intention in the United States, the United Kingdom, South Africa, and Mexico, by applying an online survey to household decision makers, found that in the United States, participants intended to save more, but to invest and spend less. In the United Kingdom, respondents reported an intention to save and invest more, but to spend less. While in South Africa, respondents mentioned that in general households were planning to save and invest less, and to maintain their expenses in the same level. Lastly, in Mexico, it was considered that the levels of savings, investment, and spending would be less. Such findings can lead us to infer that the effect of the pandemic on consumer vulnerability is superior in developing countries, regardless of the severity of the pandemic and even if it was worse in a developed country (Yazdanparast & Alhenawi, 2022).

One of the factors that make this study relevant is based on the impact that consumer financial behaviors can have, in this case on workers at a company. Garman et al. (1996) demonstrated in a study that there are significant costs for the employees; such costs are consequence of the stress that poor financial decisions can cause. They also found that this stress could affect worker productivity in a negative way.

The object of study that is discussed in this paper is centered on the indicators of financial health, which are typified by BBVA (2020) in agreement with the Center for Financial Services Innovation, as financial wellbeing in the personal, family, and business areas in individuals or economic entities. The metrics allow us to know if the financial health is satisfactory, or on the other hand, if the financial management has not been appropriate. Such management focuses on four fundamental aspects: management of income and expenses, liquidity to pay bills, a good level of sustainable debt, and planning for short and long terms.

Each latent variable about perception, lived experiences, and financial resilience, integrates eight indicators that are associated to the fundamental aspects, which are represented in the tridimensional model of Figure 1.

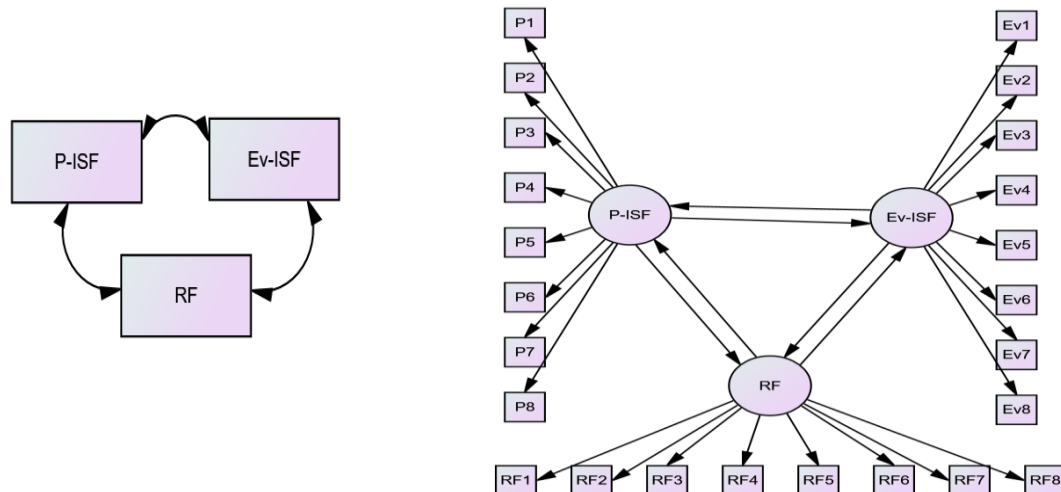


Figure 1. Financial Health Tridimensional Model

Source: *own compilation*

For the empirical study, we establish the following research questions, objectives, and hypotheses:

**Research Questions:**

How does the worker perceive the financial health indicators? Which financial health indicators were affected the most during COVID-19 lockdown? What were the actions taken to deal with the financial crisis that COVID-19 lockdown caused?

**Objectives:**

1. To evaluate the interrelation of the tridimensional model variables of financial health indicators.
2. To analyze the relation between worker’s perception to financial health indicators and financial resilience.
3. To verify the relation between the lived experiences of the COVID-19 lockdown that affected the financial health indicators and financial resilience.
4. To determine financial resilience of workers in relation to Financial Health Indicators.

**Hypotheses**

H1: There is a correlation between Perception of Indicators of Financial Health with the Evaluation of Indicators of Financial Health and Financial Resilience; H2: There is a direct relation  $>.5$  of perception of Financial Health Indicators with Financial Resilience and H3: There is a direct relation  $>.5$  of Evaluation of Financial Health Indicators with Financial Resilience.

**1. Literature review**

**1.1. Financial wellbeing**

The office for consumer financial protection defines financial wellbeing as an individual’s ability to fulfill their obligations in this area, as well as to feel comfortable with their future and be able to make decisions that allow them to enjoy life. The four main elements of this construct are: control over the daily finances, capability to absorb financial shocks,

financial freedom to make decisions that allow an individual to enjoy life, and the achievement of fulfilling financial objectives (Cárdenas et al., 2020).

Brüggen et al., (2017) define financial wellbeing as the perception of having the capacity to sustain life standards in the present and to be able to anticipate them, as well as having financial freedom. Their definition, by being based on individuals' perception, implies that they are the ones that are able to evaluate their state or wellbeing, regardless of their financial status from an objective perspective. For example, an income can be perceived differently by different people (Prawitz et al., 2006). This makes it important to have measures that capture these subjective experiences. A focus to measure these experiences can be to define a line of subjective poverty in an economical space (Ravallion, 2012). These can be achieved by asking participants to evaluate their financial situation in relation to others. Authors Ravallion and Lokshin (2002) did so by asking participants to position themselves in a step on an economic ladder, where the two bottom steps indicated subjective poverty.

Vlaen and Elliot (2013) conducted a study on financial wellbeing with two different populations; young workers and families in the United Kingdom. Through an online questionnaire, they were able to collect data and carry out a regression analysis, where they found significance for both groups of having control over their financial situation; this was more important than their available amount of money. Other factors that were identified as relevant for financial wellbeing were net income, in the case of young workers, as well as the proportion of unassured debt over net income for families. On the other hand, Chu et al., (2017) examined potential effects of financial education on household financial portfolio elections and return on investment, considering these two elements indicators of financial wellbeing. Part of their findings showed that households with better financial education tended to delegate at least part of their financial portfolio to experts, as well as to obtain better returns on investment, which allowed them to conclude that financial education can have a positive direct impact on wellbeing.

## ***1.2. Financial resilience***

The understanding of financial shocks can help strengthen financial resilience. Salignac et al. (2019) define the term as the capacity to deal with a financial shock and recover from it. Their research to conceptualize and operationalize the term showed it can be categorized in four dimensions: access to economic resources, i.e., income and savings; financial resources, which make reference to loans and credit; financial knowledge, through products and services; and social capital, represented by connections and support.

In the literature, four channels have been developed through which financial inclusion, through solutions of financial services, may build financial resilience (CGAP, 2019; Moore et al., 2019). The first channel refers to the way individuals are capable of using financial services to invest productively when facing risks. People that do not have access to financial tools such as saving accounts, loans, and insurance can only participate in low investment and low risk activities, with a minor potential for an increase in income and wealth. The second channel would be the investment activities that mitigate the risk and support resilience. Some researchers argue that savings constitute a tool for informal insurance that moves risk preferences and motivates production of investments that reduce risk (Carvalho, Prina, & Sydnor, 2013; Dupas & Robinson, 2013a).

The third strategy or channel for resilience is to use financial services to facilitate preparation for financial shocks. In addition to insurance, low-cost saving accounts allow individuals to self-insure by building a savings base that may soften consumption when a financial shock happens (Dupas and Robinson, 2013b; Prina, 2015; Dupas, Keats, & Robinson,

2017; ElZoghbi et al., 2017; Kast & Pomeranz, 2018). Finally, financial services can be used to respond to adverse events. Vulnerable populations that have been financially excluded from financial services are frequently forced to turn to suboptimal coping strategies.

### ***1.3. Effect of lockdown on personal finances***

González et al. (2022) studied the effect of COVID-19 on personal finances of college students in Mexico. They found a negative effect on income and a significant change in expenses. They also found no significant difference between the level of savings and debt as a consequence of the global pandemic. On the other hand, Alvarado and Alvarado (2020) analyzed the relation between personal finance management and financial anxiety during the development of the pandemic in a population of Peru. They concluded that not having adequate knowledge about personal finance management increased financial anxiety.

Leones et al. (2022) analyzed debt specifically as a consequence of the lockdown, understanding the concept as something intrinsic in a consumption society. The results of this research that took place in Ecuador were negative when it comes to the decrease in income and increase in expenses, which resulted in high levels of debt, causing a severe financial crisis. Carlos et al. (2022) likewise analyzed the way the rise of expenses incurred and the decreased income generated difficulty to cope with financial obligations. This highlights the importance of having savings in times of crisis, as well as having a high-quality financial education.

## **2. Method**

This is a non-experimental design study, which is approached from the hypothetical deductive paradigm. The purpose is to verify if the financial health indicators proposed by the Center for Education and Financial Capabilities of BBVA in accordance with the Center for Financial Services Innovation (CFSI) form a one-dimensional structure when their analysis is applied to workers of a company dedicated to industrial safety.

Three approaches are used to analyze the reference indicators: the perception of the financial health indicators, the experiences lived during the pandemic and the financial resilience actions carried out to face the financial crisis during the confinement derived from COVID-19 (appendix 1). In each question, the participants respond using a five-point scale from 1 (totally disagree) to 5 (totally agree) as a range option, and if this is not applicable, the value of zero is assigned.

The study was carried out with Corporate "DXM" workers, in Veracruz Mexico. The company's scope is national coverage, although the corporate headquarters are in Veracruz. The company belongs to the industrial security sector, which has offices in various regions of Mexico. The study had the support of the management personnel of the Corporate "DXM for the application of the test to the workers", who sent the indication to the Human Resources departments in the different offices located in the Mexican Republic. The total of participants was 357 active workers who provide their services in the company and who agreed to participate as long as their anonymity and confidentiality were respected.

For data analysis, the validity of the scale and normality tests were verified to justify the use of multivariate statistical procedures. After this, we used exploratory factor analysis to determine the factorial structure that explains the study phenomenon on financial health indicators. Subsequently, to confirm the measurement model, we used the SEM methodology, as well as Bayesian analysis to verify the maximum likelihood of the parameters of total variables under analysis. IBM software, SPSS AMOS v23, was used.

Table 1 shows the descriptive profile of the participant:

Table 1. Descriptives

variables	N	Media	Standard deviation	Skewness	Kurtosis
Genero	357	1.3445	0.48175	0.581	-1.465
Edad	357	3.93	2.8724	14.015	240.358
P1	357	3.5266	1.39521	0.673	0.644
P2	357	3.5938	1.3617	0.746	0.459
P3	357	3.1877	1.1148	0.486	0.007
P4	357	3.2913	1.16564	0.509	0.188
P5	357	3.2605	1.26177	0.433	0.663
P6	357	3.5714	1.35064	0.727	0.467
P7	357	3.3249	1.24331	0.548	0.386
P8	357	3.5882	1.34965	0.771	0.4
Ev1	357	2.9524	1.58486	0.42	0.878
Ev2	357	3.1877	1.5744	0.673	0.603
Ev3	357	2.4734	1.60319	0.209	1.08
Ev4	357	2.4902	1.58577	0.209	1.07
Ev5	357	2.8319	1.68763	0.436	1.079
Ev6	357	2.8852	1.62865	0.453	0.904
Ev7	357	2.3754	1.63675	0.005	1.134
Ev8	357	2.9076	1.62317	0.48	0.867
RF1	357	3.084	1.49106	0.533	0.717
RF2	357	2.7171	1.64933	0.436	1.053
RF3	357	2.5378	1.63248	0.27	1.087
RF4	357	2.5518	1.61479	0.307	1.031
RF5	357	2.7031	1.68647	-0.37	1.098
RF6	357	2.4202	1.70835	0.159	1.265
RF7	357	2.3641	1.68325	0.124	1.232
RF8	357	2.6303	1.67365	0.339	1.102
N valid (per list)	357				

Source: *own calculation*

### 3. Data analysis

Regarding the scale used, table 2 shows a very acceptable Cronbach's alpha index in the three constructs ( $\alpha$ ; .848;  $\alpha$ ; .779;  $\alpha$ ; .818), which is evidence of good internal consistency and reliability. In addition, the skewness and kurtosis values are within the acceptable parameters to validate the normality of the data (skewness < 2 and kurtosis < 7). The database is made up of 357 surveyed participants, with 100% valid cases, 65% (232) men and 35% women (124), whose age ranges are: from 18 to 20 years old (11 cases – 3.1%), from 21 to 25 (58 – 16.2%), from 26 to 30 (66 – 18.5%), from 30 to 40 (80 cases – 22.4%), over 40 (142 – 39.8%).

## INTERDISCIPLINARY APPROACH TO ECONOMICS AND SOCIOLOGY

Table 2. Validity and normality of the financial health indicators scale

	Perception	Experiencies	RF Actions.
Valid cases	357	357	3.57
excluded	0	0	0
Total %	100%	100%	100%
N elements	10	10	10
$\alpha$	.848	.779	.818
skewness	< 2	< 2	< 2
Standard error of skewness	.129	.129	.129
Kurtosis	< 7	< 7	< 7
Standard error of kurtosis	.257	.257	.257
KS-1 Sig. asymptotic	0.00	0.00	0.00

Source: *own calculation*

Table 3. Bartlett test of sphericity

	Perception	Experiencies	RF Actions.
Chi-square	2795.143	1364.276	1866.792
<i>df</i>	28	28	28
KMO	.933	.857	.908
Sig.	.000	.000	.000

Source: *own calculation*

Table 4. Correlation Matrix and Measure Sample Adequacy (PISF)\*

	P1	P2	P3	P4	P5	P6	P7	P8	MSA
P1	1.000	.829	.653	.620	.610	.743	.665	.749	.925 <sup>a</sup>
P2		1.000	.709	.662	.645	.792	.719	.812	.917 <sup>a</sup>
P3			1.000	.792	.702	.712	.710	.759	.919 <sup>a</sup>
P4				1.000	.685	.711	.698	.692	.922 <sup>a</sup>
95					1.000	.740	.682	.703	.960 <sup>a</sup>
96						1.000	.777	.843	.935 <sup>a</sup>
P7							1.000	.800	.960 <sup>a</sup>
P8								1.000	.929 <sup>a</sup>

<sup>a</sup>. Determinant = .000

Perception towards financial health indicators (PISF)

Source: *own calculation*

Table 4.b Correlation Matrix and Measure Sample Adequacy (EISF)\*

	E1	E2	E3	E4	E5	E6	E7	E8	MSA
E1	1.000	.610	.395	.385	.454	.319	.310	.485	.845 <sup>a</sup>
E2		1.000	.353	.368	.524	.500	.355	.595	.825 <sup>a</sup>
E3			1.000	.763	.424	.439	.538	.496	.802 <sup>a</sup>
E4				1.000	.450	.408	.520	.560	.801 <sup>a</sup>
E5					1.000	.544	.507	.553	.915 <sup>a</sup>
E6						1.000	.529	.494	.877 <sup>a</sup>
E7							1.000	.452	.908 <sup>a</sup>
E8								1.000	.908 <sup>a</sup>

<sup>a</sup>. Determinant = .021

Experiences toward financial health indicators (EISF)

Source: *own calculation*

## INTERDISCIPLINARY APPROACH TO ECONOMICS AND SOCIOLOGY

Table 4.c Correlation Matrix and Measure Sample Adequacy (AISF)\*

	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	MSA
RF1	1.000	.477	.467	.444	.543	.421	.346	.471	.863 <sup>a</sup>
RF2		1.000	.636	.553	.498	.631	.609	.658	.921 <sup>a</sup>
RF3			1.000	.631	.602	.680	.642	.581	.939 <sup>a</sup>
RF4				1.000	.586	.660	.705	.685	.932 <sup>a</sup>
RF5					1.000	.625	.601	.509	.915 <sup>a</sup>
RF6						1.000	.794	.635	.905 <sup>a</sup>
RF7							1.000	.696	.874 <sup>a</sup>
RF8								1.000	.904 <sup>a</sup>

<sup>a</sup>. Determinant = .005

Financial resilience actions toward financial health indicators (AISF)

Source: *own calculation*

Table 5. Factor loading matrix and communality

item	Factor P	$h_i^2$	Item	Factor EV	$h_i^2$	item	Factor RF	$h_i^2$
P8	.917	.841	E4	.804	.759	RF7	.861	.741
P6	.905	.820	E3	.792	.753	RF6	.858	.737
P2	.876	.768	E8	.742	.586	RF4	.803	.645
P7	.852	.726	E5	.668	.496	RF8	.791	.625
P3	.832	.692	E2	.667	.709	RF3	.785	.616
P1	.823	.678	E7	.648	.425	RF2	.746	.557
P4	.798	.637	E6	.628	.423	RF5	.718	.516
P5	.790	.623	E1	.599	.454	RF1	.542	.294
eigenvalue		5.784		3.888			4.73	
Variance explained		72.303			48.598			59.131

\*P= perception, \*EV= experiencias \*\*\*RF= Financial resilience

Source: *own calculation*

Table 6. Variables of the exploratory factorial model

<b>Perception toward financial health indicators</b>
P1.- Do you think that you should spend less than what you earn?
P2.- Do invoices have to be paid on time and in full?
P3.- Is it convenient to have enough savings in liquid financial products?
P4.- Do you have enough savings or long-term assets?
P5.- Do you have a sustainable level of debt?
P6.- Do you have a healthy credit history?
P7.- Do you have adequate insurance?
P8.- Do you plan expenses for the future?
<b>Lived experience towards financial health indicators</b>
Ev1.- Personally, have you experienced a situation where you spend less than you earn?
Ev 2.- If you had outstanding payments, did you pay the bills on time and in full?
Ev3.- Do you have enough savings in liquid financial products?
Ev4.- Do you have enough savings or long-term assets?
Ev5.- Currently, do you have a sustainable level of debt?
Ev6.- Today, do you have a healthy credit history?
Ev7.- Do you currently have adequate insurance in force?
Ev8.- In your personal life, do you plan the expenses that you will have in the immediate future and in the short term?
<b>During and after the confinement caused by the Covid-19</b>
Rf1.- Personally, did you take any actions to spend less than you earn?
Rf2.- In the event of having had pending payments, and not having paid on time: did you take any action to resolve the payment of your invoices on time and in full?



Rf3.- If so, did you implement any plan to increase your savings in liquid financial products?

Rf4.- Did you take any action to have enough savings or long-term assets?

Rf5.- Have you defined any strategy to maintain your debts in a sustainable manner and that you can pay when due?

Rf6.- If you did not have a healthy credit history, did you carry out any plan?

Rf7.- In case of not having adequate insurance, or having some, did you implement any plan to modify this scheme?

Rf8.- In case of not doing it in your personal life, did you implement a strategy to plan the expenses that you will have in the immediate future and in the short term?

Source: *own compilation*

### 3.1. SEM methodology for the analysis of the 3-factor model

To confirm the model resulting from the exploratory analysis (table 5), the SEM methodology is used, and the measurement error model is designed to measure the unobserved latent variables that are incorporated (Cea, 2002). A priori, it seeks to verify the multiple dependency relationships between the three factors (Batista & Coenders, 2000): the perception of workers in relation to financial health indicators (F1), the experiences they lived during the confinement derived from COVID-19, (F2) and financial resilience (F3), to verify the relationships of the items in each set and the measurement errors.

To test the hypotheses of the three-factor exploratory model (table 5), figure 1 shows the trajectory diagram, which presents the standardized estimators of each indicator described in table 6.

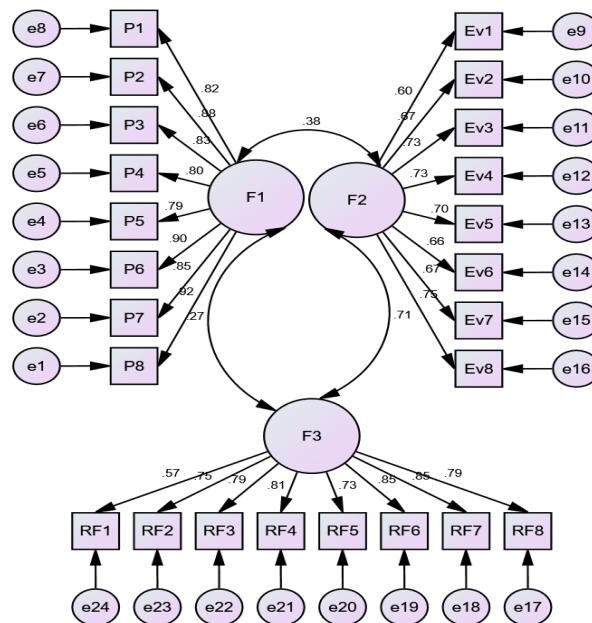


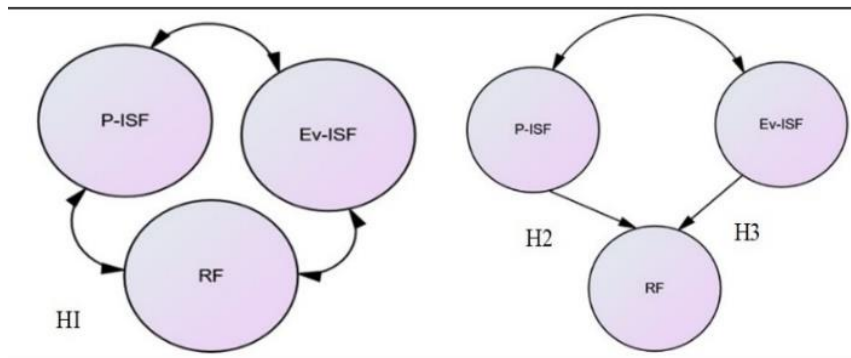
Figure 1. Initial measurement model for financial health indicators

The summary of the measurement model shows the Chi-square values (CMIN/DF) of 3.262, CFI (.922), RMSEA (0.08) of which only the first two are in the suggested theoretical range, although it is desirable that the RMSAE be less than 0.05 for a better fit of the model. Therefore, the initial measurement model of figure 1 is adjusted; the P8 indicator is eliminated because it shows a low value (.27). In this way, we seek to test the following hypotheses.

H1: There is a correlation between the P-ISF with Ev-ISF and the RF

H2: There is a direct relationship between P-ISF and RF.

H3: There is a direct relationship between Ev-ISD and RF.



Where:

- P-ISF: perception towards financial health indicators
- Ev-ISF: experiences lived in the pandemic on financial health indicators
- RF: Financial Resilience

In the adjusted model presented in Figure 2, acceptable correlations are observed between the indicators on perception of the financial health indicators, the experiences related to the financial health indicators that were lived during confinement and the actions carried out to cope with the financial crisis, derived from confinement.

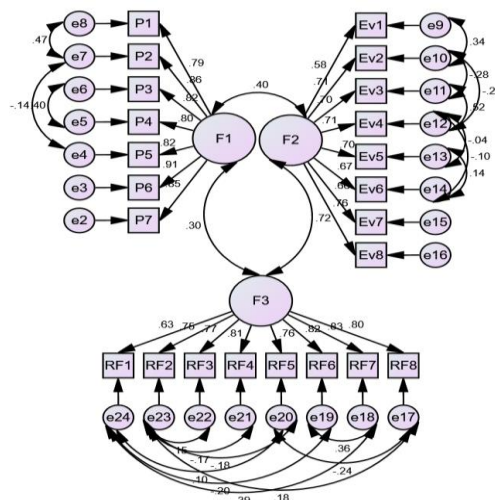


Figure 2. Adjusted measurement model <sup>b</sup>  
Source: own compilation

The adjusted model (figure 2) shows a Chi-square value (CMIN/DF) of 3.172, CFI (.933), RMSEA (0.08), the first two being in the suggested theoretical range, although it is desirable that the RMSAE be less than 0.05 for a better fit of the model. In the result that shows the fit of the model, the values of the measurement errors can be observed, which must be correlated. To test hypotheses H2: There is a direct relationship between P-ISF and RF and H3: There is a direct relationship between Ev-ISD and RF. The model is calculated again, and the paths are defined as shown in Figure 3.

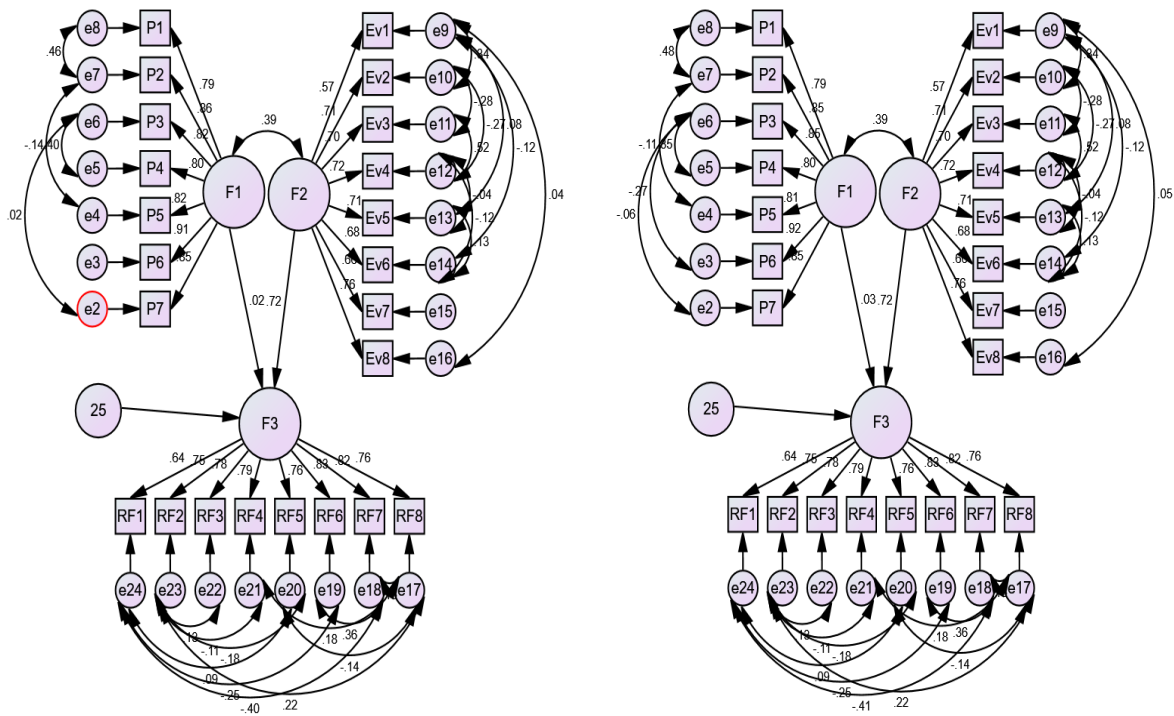


Figure 3. Adjusted measurement model <sup>c</sup>

Source: own compilation

The adjusted model in figure 3 show a Chi-square value (CMIN/DF) of 3.186, CFI (.927), RMSEA (0.078). Again, an adjustment is required, so the indicators Ev1, Ev2, Ev5, Ev6, Ev7 of the latent variable F2, the indicators P7 and P8 of F1 and Rf1 of F3 are excluded, because present values below  $< .7$

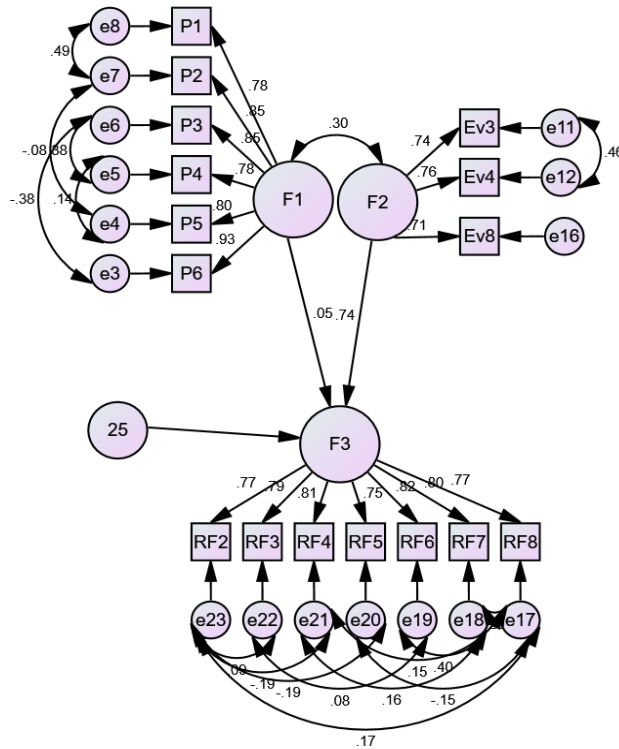


Figure 4. Model with the optimal adjusted <sup>d</sup>

Source: own compilation

### Summary of the goodness-of-fit statistics of the Model

The results of the goodness of fit of the model referred in Figure 4 show the best fit to the exploratory model resulting from Table 5. Table 7 shows the goodness of fit indices:

Table 7. Goodness of fit indices

<b>Chi-square maximum likelihood ratio</b>					
Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	67	164.102	85	.000	1.931
<b>Baseline Comparisons</b>					
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.962	.947	.981	.973	.981
<b>Parsimony-Adjusted Measures</b>					
Model	PRATIO		PNFI	PCFI	
Default model	.708		.682	.695	
<b>RMSEA</b>					
Model	RMSEA	LO 90	HI 90	PCLOSE	
Default model	.051	.039	.063	.421	

Source: *own compilation*

In theory, there are different indices to measure the fit of a model, and everything will depend on the size of the sample, or the type of data used (Mac-Callum et al., 1996; Hu and Bentler, 1999; Hair et al., 1999). If referring to unique models, Schreiber et al. (2006) suggest using the comparative fit index (CFI), the Tucker Lewis index (TLI), as well as the root mean square error of approximation RMSEA (Steiger, 1990). According to Kline (2005), to evaluate the absolute goodness of fit, the Chi-square likelihood ratio statistic determines the degree to which the model predicts the correlation matrix. In this regard, it is suggested that it be in the range of values 2.1 or 3.1 for an acceptable model (Carmines and McIver, 1981; Hair, Anderson, Tatham, and Black, 1999), although values less than 2 give evidence of a good fit of the model (Ullman, 2006).

Therefore, as shown in Table 7, the Chi-square value (CMIN/DF 1.931), CFI (.981), TLI (.973) and RMSEA (0.05) justify a good fit of the model. In addition, the parsimony measures are greater than the suggested criteria (>.5). Now the result of the Bayesian analysis is shown in tables 8 and 8.b.

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Table 8.a Bayesian parameters

<b>Regression weights</b>	Mean	S.E.	S.D.	C.S.	Skewness	Kurtosis	Min	Max
P6<--F1	1.156	0.000	0.062	1.000	0.264	0.185	0.917	1.467
P5<--F1	0.937	0.000	0.057	1.000	0.208	0.137	0.704	1.231
P4<--F1	0.836	0.000	0.054	1.000	0.194	0.110	0.635	1.089
P3<--F1	0.877	0.000	0.054	1.000	0.216	0.125	0.682	1.144
P2<--F1	1.058	0.000	0.043	1.000	0.179	0.066	0.895	1.276
Ev4<--F2	1.009	0.000	0.062	1.000	0.202	0.133	0.763	1.315
Ev8<--F2	0.971	0.001	0.102	1.000	0.314	0.267	0.602	1.576
RF8<--F3	1.031	0.000	0.071	1.000	0.225	0.147	0.758	1.420
RF7<--F3	1.077	0.000	0.081	1.000	0.278	0.169	0.794	1.503
RF6<--F3	1.117	0.000	0.081	1.000	0.299	0.221	0.785	1.561
RF5<--F3	1.013	0.000	0.082	1.000	0.297	0.224	0.714	1.434
RF4<--F3	1.050	0.000	0.079	1.000	0.287	0.232	0.775	1.542
RF3<--F3	1.027	0.000	0.072	1.000	0.261	0.185	0.770	1.393
F3<--F2	0.780	0.001	0.093	1.000	0.301	0.232	0.451	1.277
F3<--F1	0.057	0.000	0.061	1.000	-0.005	0.053	-0.218	0.329
<b>Intercepts</b>								
P6	3.571	0.000	0.072	1.000	0.005	0.027	3.245	3.906
P5	3.260	0.000	0.067	1.000	-0.002	-0.011	2.949	3.535
P4	3.291	0.000	0.062	1.000	-0.002	0.029	3.039	3.560
P3	3.187	0.000	0.060	1.000	0.003	0.016	2.937	3.432
P2	3.594	0.000	0.073	1.000	0.004	0.028	3.269	3.925
P1	3.527	0.000	0.074	1.000	0.006	0.009	3.187	3.875
Ev3	2.474	0.000	0.086	1.000	-0.003	0.053	2.073	2.846
Ev4	2.490	0.000	0.085	1.000	0.006	0.044	2.130	2.903
Ev8	2.907	0.000	0.087	1.000	0.007	0.057	2.508	3.284
RF8	2.630	0.000	0.090	1.000	-0.007	0.012	2.266	3.011
RF7	2.364	0.000	0.090	1.000	0.003	-0.014	1.935	2.758
RF6	2.420	0.000	0.091	1.000	-0.006	-0.020	2.025	2.809
RF5	2.703	0.000	0.090	1.000	-0.005	0.025	2.215	3.100
RF4	2.551	0.000	0.086	1.000	-0.002	0.037	2.191	2.912
RF3	2.537	0.000	0.087	1.000	0.010	0.013	2.134	2.912
RF2	2.717	0.000	0.088	1.000	-0.011	0.003	2.337	3.111

Source: *own calculation*

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Table 8.b Bayesian parameters, covariances and variances

<b>Covariances</b>								
e5<->e6	0.1640	0.0000	0.0350	1.0000	0.1740	0.1290	0.0250	0.3560
e22<->e23	0.1090	0.0010	0.0840	1.0000	0.0450	0.0770	-0.273	0.4700
e21<->e23	-0.184	0.0000	0.0820	1.0000	-0.038	0.0380	-0.553	0.1540
e20<->e23	-0.224	0.0010	0.0910	1.0000	-0.031	0.0890	-0.625	0.1650
e18<->e19	0.4110	0.0000	0.0740	1.0000	0.1890	0.0960	0.108	0.7680
e17<->e23	0.2110	0.0010	0.0900	1.0000	0.0870	0.0940	-0.181	0.6450
e17<->e20	-0.185	0.0000	0.0820	1.0000	-0.030	0.0940	-0.597	0.1980
e7<->e8	0.3210	0.0000	0.0530	1.0000	0.1990	0.1030	0.1180	0.6230
e4<->e7	-0.045	0.0000	0.0320	1.0000	-0.043	0.0730	-0.192	0.1060
e11<->e12	0.5320	0.0010	0.1350	1.0000	0.0170	0.1560	-0.082	1.1250
F2<->F1	0.3940	0.0010	0.0900	1.0000	0.2170	0.1380	0.0690	0.9150
e17<->e18	0.2270	0.0000	0.0710	1.0000	0.1080	0.0940	-0.061	0.6210
e17<->e21	0.1630	0.0010	0.0890	1.0000	0.1010	0.0610	-0.216	0.5620
e3<->e6	-0.115	0.0000	0.0320	1.0000	-0.082	0.0350	-0.256	0.0260
e4<->e5	0.0810	0.0000	0.0340	1.0000	0.1360	0.0990	-0.052	0.2470
e19<->e22	0.0860	0.0000	0.0630	1.0000	0.0840	0.0870	-0.207	0.3850
e18<->e21	0.1610	0.0000	0.0680	1.0000	0.1210	0.0720	-0.115	0.4630
<b>Variances</b>								
F1	1.1980	0.0010	0.1410	1.0000	0.2900	0.1410	0.6700	1.9360
F2	1.4320	0.0020	0.2180	1.0000	0.2860	0.1090	0.6380	2.4700
e25	0.6950	0.0010	0.1210	1.0000	0.3240	0.1760	0.2780	1.3670
e3	0.2650	0.0000	0.0470	1.0000	0.1040	0.1260	0.0310	0.4770
e4	0.5780	0.0000	0.0520	1.0000	0.2440	0.1000	0.3740	0.8720
e5	0.5500	0.0000	0.0490	1.0000	0.2940	0.2020	0.3650	0.8270
e6	0.3460	0.0000	0.0440	1.0000	0.1620	0.0970	0.1780	0.5530
e7	0.5430	0.0000	0.0570	1.0000	0.2250	0.1310	0.3070	0.8360
e8	0.7680	0.0000	0.0680	1.0000	0.2730	0.1200	0.5180	1.0920
e11	1.1830	0.0010	0.1560	1.0000	0.0860	0.1150	0.4780	1.8820
e12	1.1110	0.0010	0.1530	1.0000	0.0810	0.1410	0.4560	1.9710
e16	1.3450	0.0010	0.1490	1.0000	0.1900	0.1160	0.7350	2.2080
e17	1.1820	0.0010	0.1260	1.0000	0.2370	0.1320	0.7270	1.8040
e18	1.0560	0.0010	0.1040	1.0000	0.2190	0.0840	0.6620	1.5650
e19	1.0000	0.0010	0.0980	1.0000	0.2290	0.1080	0.6440	1.4960
e20	1.2860	0.0010	0.1190	1.0000	0.2940	0.1810	0.8580	1.9190
e21	0.9240	0.0010	0.0990	1.0000	0.2560	0.1360	0.4970	1.4920
e22	1.0450	0.0010	0.1040	1.0000	0.2600	0.1560	0.6810	1.5510
e23	1.1850	0.0010	0.1310	1.0000	0.2170	0.1120	0.6580	1.8150

The results of applying the Bayesian method show the Min and Max extremes at 95%, which means that with 95% probability the three-dimensional model of figure 4 is feasible, considering that the parameters between both limits are greater than zero. This data justifies that the three-dimensional model of financial health can be applied to Mexican workers.

## Conclusion

From the hypotheses of the study and with the results obtained from the analysis, we can say: for H1, which indicates the existence of a correlation between the latent variables P-ISF, EvISF and RF, it was verified that the three latent variables correlate with each other: F1 with F2 (.40); F1 with F3 (.30); F2 with F3 (.72). This can be interpreted as the perception of the worker in relation to the financial health indicators (F1), with the experiences lived during the confinement derived from COVID-19 (F2) and the actions carried out to face the financial crisis (F3).

For H2: There is a direct relationship between P-ISF and RF, according to the model in figure 4. It shows a relationship of .05; therefore, it is evident that the way in which the ISF is perceived by workers did not determine the RF actions carried out to deal with the crisis. However, in the case of H3: There is a direct relationship between Ev-ISD and RF, where the relationship is higher (.74), this means that the experiences lived during the confinement caused by the Covid-19, determined the actions they took to face the financial crisis that affected humanity.

In the model resulting from Figure 4, indicators P7 and P8 were excluded, which suggests that credit history and insurance issues are not important in their perception. However, the result shows that during the confinement, the experiences lived that were most significant, are related to savings, since they had enough savings, both in cash in bank accounts, as well as savings in long-term assets. In relation to the financial resilience of the workers, they stated that they had settled their debts on time, in addition to continuing to make savings in bank accounts, both for the short and long term. Additionally, they focused on taking care of the debts, so as not to have major problems or setbacks, since it was unknown how long the confinement would last.

This fact had an impact on their awareness, which motivated them to take care of their credit history; even when necessary, insurance to cover all kinds of unforeseen risks was purchased. All these actions were combined to implement a strategy to plan their expenses, in the short, medium, and long term, since, as previously stated, the time we would be in confinement was uncertain.

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Annex

