

Knowledge and acceptance of the Crowdfunding Platform

Conocimiento y aceptación de la Plataforma de Financiamiento Colectivo Fintech

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Abstract

Bringing together the efforts of large amounts of individuals to collect funds and transfer them to their claimants is an activation key of the Fintech Crowdfunding Platforms (FCP). Consequently, the business model presence inside the potential investment mind is essential for its growth and consolidation. In this way, the concern to investigate the level of knowledge on the subject in Potential Retail Investors (PRI), is born. In addition to detecting whether this knowledge is related to the perception of the model as an investment option, as well as, intending to invest in the future. Thus, a quantitative investigation is carried out through the application of a self-perception response instrument, this in a sample of 384 PRI. The results showed that the participants recognized themselves with a low level of knowledge about: the existence of the model, the difference between authorized and unauthorized platforms, and its operation, among others. These results are accentuated in Biological and Health Sciences professionals, women, and people with no investment background. A positive but weak correlation is also detected between knowledge about PFCF and perception, as well as, the intention to invest. In contrast, a medium correlation was obtained between perception and the investment intent in the modality.

Potential Retail Investor, Crowdfunding Fintech Platforms, Knowledge, Perception

Resumen

Reunir esfuerzos de un gran número de individuos para recolectar fondos y trasladarlos a sus demandantes, es una actividad clave de las Plataformas de Financiamiento Colectivo Fintech (PFCF). Consecuentemente, la presencia de la modalidad en la mente del inversionista potencial es indispensable para su crecimiento y consolidación. De esta forma, nace la inquietud por investigar el nivel de conocimiento sobre el tema entre los sujetos identificados como Inversionistas Potenciales al Menudeo (IPM). Además de detectar si este conocimiento tiene relación con la percepción del modelo como opción de inversión, así también, con la intención de invertir en el futuro. Por lo que, se realiza una investigación cuantitativa a través de la aplicación de un instrumento de respuesta de autopercepción, esto en una muestra de 384 IPM. Los resultados mostraron que los participantes se reconocieron con bajo conocimiento sobre la existencia del modelo, la diferencia entre las plataformas autorizadas y no autorizadas, su funcionamiento, ente otros. Esto se acentúa en profesionistas del área de Ciencias Biológicas y de la Salud, mujeres y personas sin antecedentes de inversión. También se detecta una correlación positiva, pero débil entre el conocimiento sobre PFCF y la percepción, asimismo con la intención de invertir. En contraste se obtuvo una correlación media entre la percepción y la intención de invertir en la modalidad.

Inversionista Potencial al menudeo, Plataformas de Financiamiento Colectivo Fintech, Conocimiento, Percepción

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Introduction

One of the sectors that has been transformed by the intensive use of digital technologies is financial services, whose value proposition integrates the democratisation of financial products (Buchak, Matvos, Piskorski, & Seru, 2018; Jagtiani & Kose, 2018; Jagtiani & Lemieux, 2017), speed of processing and response, automation of processes, elimination of financial intermediaries and savings in the operational structure of the model itself (Aarón & Ramos-Mendina, 2017; CONAIF, 2018; EY, 2017), giving way to what we now call the Fintech sector (for the first letters of the English words: Financial and Technology).

The Fintech sector is broad in its taxonomy, however, one of the models with the greatest momentum, among pioneering entrepreneurs, are the business models that address the needs of financing and placement of resources among the population and small businesses. The peer-to-peer financing market, often referred to as person-to-person lending, peer-to-peer lending, P2P, collective financing or crowdfunding, which we will henceforth refer to as Fintech Financing (FF). It should be clarified that, in the case of Mexico, the most familiar concept and typified by the Law to Regulate Financial Technology Institutions (LRITF) is Crowdfunding or Collective Financing.

The penetration of the Fintech sector has been evident in countries such as China, the United States and the United Kingdom (Cornelli *et al.*, 2020; Lee & Shin, 2018; Ziegler *et al.*, 2021); and although Mexico stands out as one of the leaders in Latin America in the number of startups of this nature (FINNOVISTA, 24 March 2020), the magnitude of its operations is far from the United States. In this sense, the concern arises to identify how well known the PFCF model is among potential retail investors and whether this level of knowledge is related to a good perception and intention to participate.

In summary, the objective of this article is to identify the level of knowledge of the Potential Retail Investor (PRI) about Fintech Crowdfunding Platforms (FCPs) and its relationship with the perception of the model as an investment option, as well as with the intention to invest in it.

It should be noted that the role of the investor is essential for the development, penetration and consolidation of CFTPs, as it is the investor who participates as the provider of the monetary resource, assuming the credit risk. Having described the above, the following research questions are sought to be answered:

RQ1. What level of knowledge does the MPI have about PFCFs?

RQ2. How is the level of knowledge about FCPs distributed by socio-demographic groups and by MPI investment history?

RQ3. Is there a correlation between the level of knowledge of the MPI and the intention to participate in CBPPs?

RQ4. Is there a correlation between MPI intention and perception of FFPPs as an investment option?

The paper is hereafter divided into five sections. The first establishes the theoretical and contextual framework that takes up concepts, studies, as well as data on the Mexican context, in order to situate the issue related to CFPPs, the investor and the background. Then, the method used to collect and analyse the information is explained. This is followed by the results section, which describes the statistical data obtained, to give way to the discussion of the results, which contrasts with what has already been studied. Finally, the conclusions explain the scope and limitations of this work.

Fintech Crowdfunding Platforms

Fintech Crowdfunding (FF), also identified as Alternative Finance (AF), includes, depending on the jurisdiction, P2P (peer to peer), crowdfunding or marketplace lenders (investors in multiple loans) (Claessens, Frost, Turner, & Zhu, 2018; Ziegler *et al.*, 2021); it is a sub-segment of the Fintech sector that deals with distributing monetary resources between offerer and demanders, but without the intervention of a conventional financial intermediary, whose meeting point is through technological-digital tools such as platforms and/or apps. "Crowdfunding companies pool funds from various individual investors who invest or lend these funds to projects developed by independent entrepreneurs by independent entrepreneurs.

Individual investors put in a small amount of money and can earn high returns, while entrepreneurs can raise significant amounts of money" (Miranda Global Research, 2022, p. 39). Cordova, Dolci and Gianfrate (2015) draw on other authors to point out that crowdfunding has crowdsourcing as its antecedent, whose sum of effort is centred on monetary resources, through an open call and via an online platform.

In addition, it is an agency model, since the PFCF obtains commission profits by being the originator of the credit, but without providing resources; in other words, the PFCF is only an intermediary of information (Balyuk & Davydenko, 2019; Claessens *et al.*, 2018).

Given its nature, one of the key activities of the PFCF is the generation of reliable information that allows investors to make more accurate decisions, thanks to the use of tools that rely on machine learning (Vallee & Zeng, 2018). Thus, the business model will work, in part, because the PFCF offers information with certain precision - through a prior assessment using technology - on the probability of the borrower's level of default, translated into a rating and an interest rate.

In this direction, research has highlighted that methods using these platforms correctly predict the level of borrower default, with some even outperforming traditional methods and metrics (Berg, Burg, Gombovi, & Manju, 2018; Jagtiani & Lemieux, 2018; Li, Zhang, & Zhang, 2017; Lu, Wang, Wang, & Zhao, 2020; Zhand, Li, Hai, Li, & Li, 2017).

In addition to ensuring quality information, the investor must obtain from the PFCF, trust that buffers fears arising from fraudulent campaigns, such as: increased defaults, negligent collapse, cyber security breaches, among others (Ziegler *et al.*, 2018; Tania Ziegler *et al.*, 2021).

In line with the above, governments in various countries have been concerned with providing a regulatory framework, especially to protect the interest of the participating investor, as he or she assumes the credit risk in this model.

The investor

One of the main differences between bank depository investors and investors in the PFCF market is that the former do not know the funded destination of their deposits, while the latter identify and decide who to fund (Vallee & Zeng, 2018), in other words, the PFCF investor has access to information, can evaluate and make decisions. Consequently, there are different levels of evaluation and decision quality, so that authors such as Vallee and Zeng (2018) and Lin, Sias and Wei (2021) make a distinction between sophisticated and unsophisticated investors.

Sophisticated investors are able to obtain better returns by discriminating information more efficiently (if available). For Valle and Zeng (2018) sophisticated investors can be both institutional (banks, insurance companies, investment companies, investment companies, pension funds and hedge funds) and retail, retail or individual, an assertion also supported in the work of Balyuk and Davydenko (2019), who also refer that 80% of investors in general evaluate lightly or do not evaluate the alternatives to finance, i.e. they have a passive stance towards the activity.

As a result of the advantage of sophisticated investors, especially institutional investors, over other investors, platforms have reduced the type of information available, especially soft information. Valle and Zeng (2018) present the antecedent of the Lending Club platform, which eliminated 100 variables that characterised borrowers, this in 2014, justifying a greater equity of opportunity among investors.

However, the contribution of each type of investor is relevant to the PFCF business model. While institutional investors contribute large portfolios to the FF market (Balyuk & Davydenko, 2019; Lin *et al.*, 2021), minority investors, in aggregate, have a significant share. For evidence, in the study conducted on the Proper platform it is detected that \$89 million is contributed by minority investors (20,000 investors approximately), while \$49 million is contributed by institutional investors (112 investors) (Lin *et al.*, 2021).

Investment and CFTPs in Mexico

Fintech or better known by its legal name in Mexico as Financial Technology Institution (ITF) is regulated in the Law to Regulate Financial Technology Institutions (LRITF), which was published on 8 March 2018. This law regulates Collective Financing Institutions, Electronic Payment Fund Institutions and transactions with Virtual Assets. The purpose of the LRITF is to provide greater security and certainty on the functioning of technology-based financial models; and although it is considered that any business ecosystem is strengthened by balanced regulation (EY, 2017; Lee & Shin, 2018), there are also authors who mention that over-regulation inhibits the development of disruptive models (Claessens *et al.*, 2018).

The LPRITF delimits rights and obligations, so that the PFCFs must generate clear advertising, comply with the conditions of the constitution and organisation of the platform, discourage unfair and illegal practices and encourage security mechanisms (Diehl Moreno *et al.*, 2020; González *et al.*, 2020; Rodríguez-Suárez & Morales-Rodríguez, 2018), especially to provide certainty to investors, on whose participation the success of the model depends.

With the law in force, the evolution of the number of authorised platforms has been observed over time, since, based on the Catalogue of the Mexican Financial System, until 15 April 2021 there were only three authorised PFCFs, then ten authorised PFCFs and six in operation as of 29 July 2021, and finally, in 2022, there are fourteen authorised PFCFs and nine in operation (SHCP, 25 May 2022).

Returning to the issue of the investor, for the RITF, the investor can be a natural or legal person that contributes resources. As far as institutional investors are concerned, according to the law, they can be credit institutions, brokerage firms, credit unions, regulated multiple purpose financial companies, popular financial companies, community financial companies and savings and loan cooperatives with operating levels from I to IV.

Thus, this model offers two main attractions for the resource provider (institutional or retail).

The first is to be an alternative that adds to the offer of investment options and broadens diversification possibilities. In Mexico, it has been identified that investment portfolios are less diversified compared to more developed countries, and this is more accentuated among individuals (Horenstein & Snir, 2017). Second, the issue of performance. For example, platforms such as Fundary (Fundary, 15 April 2021) reported an average yield of 18.1%, higher than that offered by bank products and even higher than investments in Cetesdirecto, whose yield was around 4% (Banco de México, 15 April 2021).

Although the presence of institutional investors in Mexico is evident in the various Mexican financial markets, retail investors are beginning to gain ground, as evidenced by the number of mutual fund accounts. Banco de México reports that mutual fund accounts increased from 1.7 million to 2.5 million from 2009 to 2019 (Guzmán-Calafell, 2020). The growth is positive, although also limited, since if a ratio between the number of accounts and the Economically Active Population (EAP) is determined, it is identified that in 2019 only 4.78% of the EAP participates as an investor in an investment company.

However, in Mexico, as a forerunner of investment options using digital-technological media, there is the Cetesdirecto programme, launched by the Federal Government in 2010 and aimed at small savers, with the aim of making them participants with affordability in the money market, through the acquisition of CETES.

The level of acceptance has increased considerably, since the first year of opening closed with 1830 contracts, and by 2022 an increase of 466.33% is estimated, reaching 855,223 contracts, although again the level of penetration among the EAP is limited, at 1.47%. The age and gender of participants are important data provided by the Cetesdirecto platform to get a reference of the profile of investors.

The platform highlights that the bulk of participants are between 26 and 45 years of age, totalling 62.38% in 2022. Men have a higher participation (78% participation in 2011), however, women have started to gain ground and by 2022 men have decreased their proportion to 64% (Cetesdirecto, 2022).

Methodology

In order to answer the questions, a descriptive-correlational research will be carried out, whose subject of analysis is the natural person with income from business activity, fees, salaries or commissions; of legal age; with a minimum educational level of bachelor's degree and residing in the State of Mexico.

Variable	Specifications
Age	$\bar{x}=36.9$ $s=11.54$ / Max=80, Min=18
Gender	Men 160 (41.7%)/ Women 224 (58.3%)
Area of residence	Metropolitan area 51 (86.7%) / Urban area 333(13.3%)
Area of knowledge	Economic and administrative sciences 122(40.4%) Biological and Health Sciences 67(17.4%) Physical, Mathematical and Engineering Sciences 48 (12.5%) Humanities and Arts Sciences 46(12.0%) Social Sciences (excluding economics-administrative) 68(17.7%)
Source of income	Salary 284 (74%), Commissions 11 (2.9%), Fees 27(7.0%), Business income 58 (15.1%), Other 4(1.0%)
Generation	Baby boomer and post-war 46 (12%), Generation X 194 (50.5%), Millennials 121 (31.5%), Generation Z 23 (6.0%)

Table 1 Characteristics of the simple
Own Elaboration

With the aforementioned characteristics, the Mexican MPI is defined as an individual with capabilities and economic independence, who starts or goes through the accumulation stage (based on the financial life cycle) (Allgood & Walstad, 2013; Garay Anaya, 2015; Zacari, 2008). The probability sample was calculated with a confidence level of 95% and an error of .5 resulting in 384 participants.

Out of 512 questionnaires administered, 384 participants responded in full with closed-ended Likert-scale questions, with a Cronbach's alpha of .944. The instrument was self-administered via the Surveyplanet platform in the period from December 2021 to January 2022. The sample description is identified in table 1.

It should be noted that the knowledge-related questions were designed under the Mexican context.

Data Analysis

At the end of the data collection process, the Statistical Package for the Social Sciences (SPSS) software was used for statistical processing, using measures of centre, dispersion, correlation and differences between groups. Chi-Square, Mann-Whitney U and Kruskal-Wallis H tests were used to perform the analysis of significance between variables. Once the significances were identified, they were interpreted on the basis of the average ranges, especially because the scale variable: knowledge about CBFP, shows a non-normal distribution, however, the means are also shown for illustrative purposes.

For the frequency analysis, five levels of knowledge were assigned: No knowledge (8 to 11 points), low level of knowledge (12 to 18 points), medium level of knowledge (19 to 25 points), good level of knowledge (26 to 32 points) and expert level (33 to 40 points).

Spearman's Rho was applied for the correlation analysis, due to the non-normal distribution of the variables knowledge, perception and intention.

Variables

Knowledge about CBFP. According to Lind *et al.* (2020), financial knowledge is the individual's stock of financial concepts and products. It is acquired through education and specific experiences (Huston, 2010). According to scholars, knowledge is divided into objective knowledge and subjective knowledge, with the former referring to competence and the latter to confidence (Lind *et al.*, 2020; Tang & Baker, 2016).

Consequently, research shows that factors or constructs measured through self-perceived (subjective) response items better relate to or predict financial behaviour and/or well-being (Allgood & Walstad, 2013; Anderson, Baker, & Robinsonc, 2017; Ghazali, Alwi, Othman, Sabri, & Aziz, 2022; Lind *et al.*, 2020; Strömbäck, Skagerlund, Västfjäll, & Tinghög, 2020). For example, Strömbäck *et al.* (2020) found that reported (subjective) self-control has a stronger relationship with financial behaviour and well-being than assessed (objective) self-control.

Another paper notes that, although objective and subjective knowledge have a predictive relationship with healthy and consistent financial practices, the relationship of subjective knowledge is stronger (Lind *et al.*, 2020). Additionally, Ghazali, Alwi, Othman, Sabri, & Aziz (2022) add that high subjective financial knowledge enhances financial well-being.

Having mentioned the above, it was decided to measure subjective knowledge about CBPPs, defined as the individual's self-perceived knowledge of the existence, functioning, requirements, advantages and disadvantages, and legal and fiscal implications of CBPPs. Knowledge about CBPPs is thus measured through eight self-perceived response items.

Perception of CBPPs. In the field of psychology, perception is understood as a process that begins with the input of information from the environment, through the senses, to form abstractions (judgments, categories, concepts, impressions, inferences, etc.) (Froiland & Davison, 2020; Oviedo, 2004). In this process, the brain has feelings and sensations to interpret, based on its own and other people's previous experiences (Gracián-Ortiz, 2018).

But in addition to being a process, perception is also a result. In the words of Avendaño, Rueda and Velasco (2021), perception as a result is the interpretation of phenomena, reality and the world, which regulate and determine attitudes, postures, behaviour and conduct of individuals. It is the personal opinion that can be favourable or unfavourable towards the interpreted object (Ki & Hon, 2012).

Thus, throughout this paper, the perception of CBPPs will be understood as the individual's favourable or unfavourable opinion about the option of investing in this modality. To assess this perception, a Likert scale question (5 answers) ranging from totally unfavourable to totally favourable was established.

Intention to invest in CBFP. Intention is a term for mental acts and corporate actions, in its three applications: a) prediction to carry out an act, b) as an adjective to do or not to do consciously or unconsciously and, c) the purpose to carry out an action (Rafaela, 1984).

Based on the review of various authors, Ki & Hon (2012) define intention as an immediate determinant of behaviour, a plan to carry out a behaviour. Consequently, the intention of PFCF investment is the individual's plan to carry out a PFCF investment in the future (note that it is considered the first application mentioned by Rafaela (1984)). As with perception, a Likert-scale response question is assigned.

Results

Once the information was collected from the 384 participants, 44.5% had made some kind of active or passive investment. In the future, 57.6% contemplate making an investment. 42.4% agree or strongly agree to consider PFCFs as an investment option, and 34.9% perceive the option of investing in this modality favourably or very favourably.

On the other hand, with regard to the variable of knowledge about the PFCF, table 2 shows the mean (on a scale of 1 to 5) and the measure of dispersion for each item that makes up this variable. Note that the highest item is related to knowledge about the existence of CBFP, however, none of them reaches the value of two.

Of the 384 MPIs, 265 (69%) are recognised in the no knowledge group, while 60 (15.6%) are in the low level of knowledge; as for the medium level, 44 (11.5%) are detected in this group; 15 people are identified in the good level of knowledge category (3.9%); finally, there are no participants with scores that place them in the expert level.

Item	Min	Max	\bar{x}	SD
Existence of the model	1	4	1.57	.843
Difference between types: authorised and non-authorised	1	4	1.45	.806
Functioning	1	4	1.49	.814
Minimum requirements to be an investor	1	5	1.45	.796
Risks assumed by the investor	1	4	1.51	.821
Levels of return that can be achieved	1	5	1.48	.843
Tax obligations acquired by users, for investment purposes	1	4	1.49	.814
Scope and limits of the law to protect the interests of investors	1	4	1.47	.798
Knowledge Total	8	32	11.9	6.11

Table 2 Level of knowledge by item on CBPP
Own Elaboration

On the other hand, Chi-Square, Mann-Whitney U and Kruskal-Wallis H tests are applied to determine the significance between the groups as shown in table 3. It is worth noting that there is no association between demographic variables or the investment history variable, with respect to perception, nor the intention to invest in CBFP ($p > .05$).

Although there is a relationship between the perception variables, as well as the intention to invest in CBFP, with respect to knowledge about CBFP ($p = .000$, in both cases), there is no association between the demographic variables and the investment history variable with respect to perception and intention to invest in CBFP ($p > .05$).

V	A	G	F	AC	GN	II	IIP	PP
II	.000*	.002*	.048*	.271*	.000*		.000*	.000*
CP	.000**	.015**	.960***	.003**	.050**	.000**	.000**	.000**
IIP	.319*	.231*	.576*	.153*	.061*	.000*		.000*
PP	.970*	.500*	.970*	.058*	.737*	.001*	.000*	

V. Variable / A. Background / G. Gender / F. Source of income / AC. Area of Knowledge / GN. Generation / II. Intention to Invest / IIP. Intention to Invest in CBFP / PP. Perception of CBFP / CP. Knowledge about CBFP

*Chi-Square Test
 ** Mann-Whitney U Test
 *** Kruskal-Wallis H-test

Table 3 Significance levels
Own Elaboration

Based on the results in table 3, significance is identified between the intention to invest (in general) and the investment background. With investment background, the group obtains a higher mean investment intention than the group without investment background (with background $\bar{x} = 2.57$; without background $\bar{x} = 2.13$ (maximum value of investment intention is 3)).

From the significances shown in table 3, table 4 shows the differences in Knowledge about CBFP, between the independent groups, for the variables: investment background, gender, knowledge area, generation, investment intention. The difference in knowledge by intention to invest in CBFP and perception of CBFP is presented below.

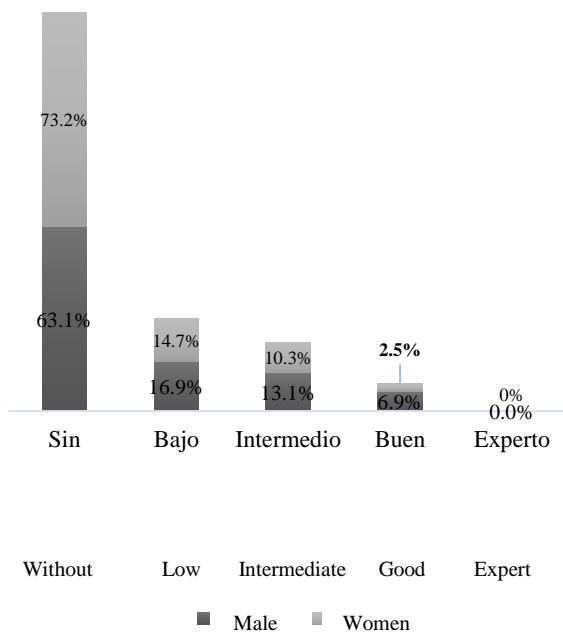
Groups	N	Prom. range	\bar{x}	DS
With investment background	171	221.07	13.08	7.26
No investment history	213	169.57	10.37	10.37
Male	160	207.32	12.92	6.90
Woman	224	181.92	11.16	5.39
C. Ec.-Ad.	155	213.21	13.23	6.747
C. Biological and Health	67	162.94	10.44	5.76
C. Physics, Mathematics and Engineering	48	205.11	12.20	6.09
C. of the Humanities and the Arts	68	170.52	10.52	4.67
C. Social (excludes Ec.-Ad.)	155	180.38	11.00	5.23
Baby boomers and post-war	46	228.00	13.69	6.42
Generation x	194	192.89	11.68	5.72
Millenials	121	179.13	11.44	6.25
Generation z	23	188.52	12.56	7.62

Table 4 Measures of groups, by variables with significance to knowledge
Own Elaboration

Table 4 shows that the average rank and the mean are higher for those participants who have a history of investment. Observing the results in detail by means of the frequencies, once the score obtained in one of the levels of knowledge was classified, it is detected that of 171 people who have made some type of investment (representing 44.5%), 57.3% are evaluated as having no knowledge, 14.1% as having low knowledge, 13.6% as having intermediate knowledge and 6.6% as having a good level of knowledge. In contrast, the 55.5% who have no investment background, 78.4% rate themselves with no knowledge, 14.4% with low knowledge, 7.0% with intermediate knowledge and only .5% with good knowledge. There are no participants who have assessed themselves as experts.

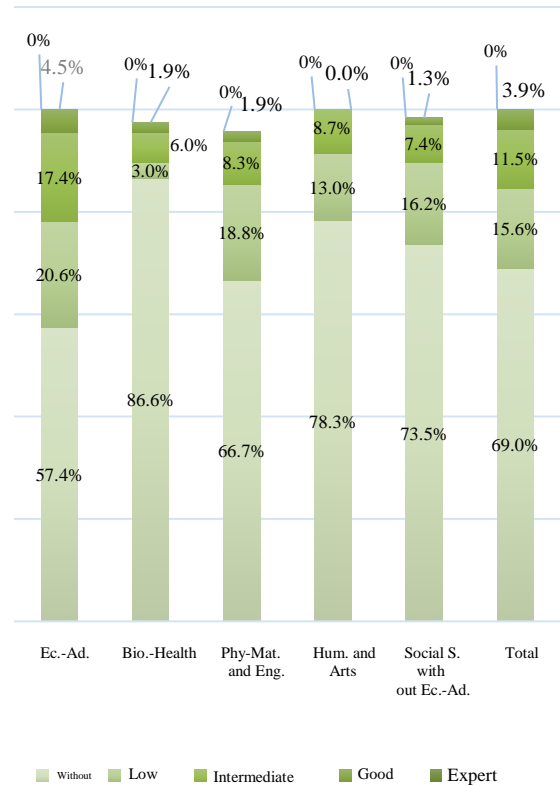
Also, with the data in table 4, the mean and median rank on knowledge is higher for males (mean rank = 207.32; $\bar{x} = 12.9250$) than for females (mean rank = 181.92; $\bar{x} = 11.1696$). Furthermore, with a frequency analysis, of the 224 women, 73.2% assess themselves as having no knowledge, compared to the 160 male participants who in a smaller proportion are at the lowest level of knowledge (63.1%). In addition, men have a higher presence of intermediate and good level of knowledge with percentages of 13.1% and 6.9% respectively, than women (see Graphic 1).

Although the results of the sample are low in terms of knowledge, these results are accentuated in the participants with professions related to Biology and Health Sciences (prom.rank =162.94; \bar{x} = 10.4478), Humanities and Arts (prom.rank = 170.52; \bar{x} = 10.5217), as well as Social Sciences, which excludes the economic-administrative area (prom.rank =180.38; \bar{x} = 11.0000). On the other hand, the subjects belonging to the Economic-Administrative Sciences (prom. rank =213.21; \bar{x} = 13.2387) and the Physical-Mathematical and Engineering Sciences (prom. rank =205.11; \bar{x} =12.2083), obtain higher results.



Graphic 1 Level of knowledge by gender
Own Elaboration

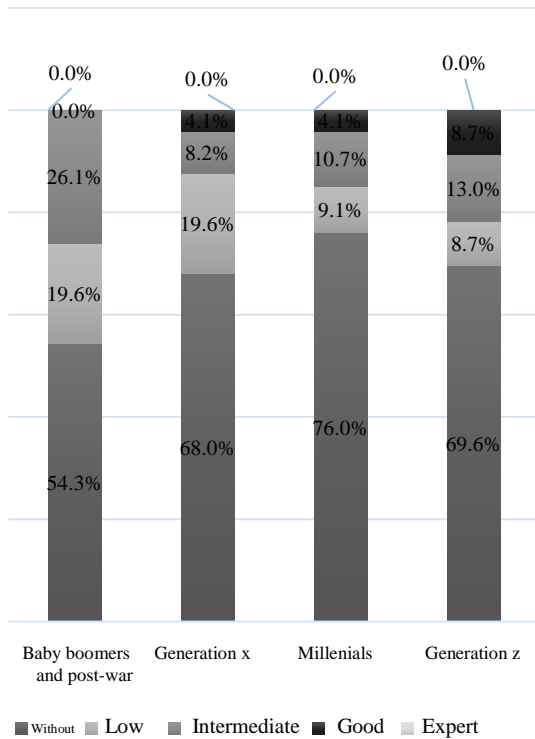
The frequency analysis confirms that the subjects belonging to the Biological and Health Sciences, Humanities and Arts, as well as the Social Sciences, excluding Economic and Administrative Sciences, have the highest number of subjects (proportionally to their groups) at the lowest level of knowledge (86.5%, 78.3% and 73.5% respectively), as shown in Graphic 2.



Graphic 2 Level of knowledge by academic training group
Own Elaboration

Between the level of knowledge and the generation to which the subjects in the sample belong, it is identified that by average ranks, Baby boomers and post-war obtain the highest value, followed by Generation X, Generation Z and Millenials (228.00, 192.89, 188.52, 179.13; respectively); however, by averages the order changes to Baby boomers and post-war, Generation Z, Generation X and Millenials (13.6957, 12.5652, 11.6804, 11.4463; respectively).

Looking again at the frequencies by knowledge level classification; of the 46 Baby boomers and post-war, 54.3% are observed in the no knowledge category; of the 194 Generation X subjects, 68.0% are in the same category; 69.6% of the 23 Generation Z participants and 76% of the 126 Millenials are also placed in the lowest knowledge rung, as can be seen in Graphic 3.



Graphic 3 Level of knowledge by generation
Own Elaboration

However, there is a difference in knowledge about CBPPs between the different groups of perception of CBPPs, and also with the groups of intention to invest in CBPPs. In this sense, in the subject of perception of CBFP, the highest score obtained in knowledge, translated into the highest level of average rank and mean, is from the group of subjects who perceive CBFP favourably (prom. rank = 248.22; \bar{x} =15.3516), followed by the group with an unfavourable opinion (prom. rank = 234.13; \bar{x} =14.1250), followed by the group with an unfavourable opinion (prom. rank = 234.13; \bar{x} =14.1250), followed by very unfavourable (prom.rank = 209.97; \bar{x} =11.9474), then very favourable (prom.rank = 193.75; \bar{x} = 11.3333) and finally the indifferent opinion group (prom.rank = 157.50; \bar{x} = 9.8520), note the number of participants in each group in table 5.

The level of knowledge about CBFP by group of intention to invest in the modality shows that the strongly agree group has the highest score (prom.rank = 258.30; \bar{x} =16.9500), followed by the disagree group (prom.rank = 237.80; \bar{x} =14.0667), then the agree group (prom.rank = 217.17 ; \bar{x} = 13.6154), followed by those who strongly disagreed to invest (prom.rank = 167.92 ; \bar{x} = 10.5000) and finally, those with indifferent opinion (prom.rank = 165.48 ; \bar{x} =10.0213).

Groups	N	Average range	\bar{x}	DS
Perception				
Very unfavourable	19	209.97	11.94	5.60
Unfavourable	8	234.13	14.12	6.81
Indifferent	223	157.50	9.85	4.21
Favourable	128	248.22	15.35	7.30
Very favourable	6	193.75	11.33	6.74
Intention				
Strongly disagree	18	167.92	10.50	4.34
Disagree	15	237.80	14.06	7.30
Indifferent	188	165.48	10.02	3.96
Agree	143	217.17	13.61	7.05
Strongly agree	20	258.30	16.95	9.06

Table 5 Level of knowledge by perception and intention to invest in CBFP
Own Elaboration

With regard to the assessment of correlations, we proceeded to calculate the correlation coefficient between knowledge about PFCF and the perception of this model, for which we obtained an $r=.31$ ($p<.05$). Likewise, the correlation coefficient between knowledge of CBFP and the intention to invest in this type of platform was calculated, giving an $r=.22$ ($p<.05$).

Finally, the correlation between perception and intention to invest, the result: $r=.504$ ($p<.05$). In table 6 it can be identified that people with better perception (in the majority) have more favourable responses to invest in CBFP.

Variables	Intention					Total	
	Tot. Des.	En des.	Ind.	De ac.	Tot. of ac.		
Perception	Muy des.	4	1	6	7	1	19
	Des.	1	3	2	1	1	8
	Ind.	13	7	156	46	1	223
	Fav.	0	4	24	87	13	128
	Muy fav.	0	0	0	2	4	6
Total	18	15	188	143	20	384	

Table 6 Cross table between Perception and Intention
Own Elaboration

Discussion

Self-reported or perceived financial knowledge is associated with people's confidence about handling a topic, (Ghazali *et al.*, 2022; Lind *et al.*, 2020; Strömbäck *et al.*, 2020), in this sense, about 70% of the participants (MPI) recognise themselves as having limited knowledge about CFPPs for investment purposes, information that is ratified by the averages obtained for each item, i.e. there is a low level of knowledge about the existence of the model, the difference between authorised and unauthorised platforms.

Their operation, the minimum requirements to be an investor, the investor's risks, the possible levels of return, the tax obligations acquired and the scope and limits granted by law to the investor. This data is related to the Fintech Adoption Indicator, prepared by Ernst & Young, which indicates that the main barrier to the use of Fintech services is the lack of awareness of their existence (EY, 2017).

Thus, there is a lack of confidence in the handling of the issue, even though the PFCF model appeared in Mexico since 2011, with the presence of Prestadero (Miranda Global Research, 2022; Prestadero, 2021) and the existence of a specific law on the subject, published in 2018. In the Miranda's Guide to Mex Fin Tech Report, it is mentioned that the crowdfunding model in Mexico has not met expectations, being one of the pioneering models in the sector (Miranda Global Research, 2022). The delimitation of the sample makes the participants in this study potential subjects to carry out investment activities, given that they have resources (belonging to the EAP) and skills (with a minimum of a bachelor's degree).

Regarding the latter quality, a relationship was identified between the level of knowledge about CBFP and the participant's area of professional knowledge. However, Mexican reports, which include the topic of financial knowledge (general), highlight the existence of a positive relationship between the score obtained in financial knowledge and the level of education (CONAIF, 2017, 2018). In this study, with this specific topic, differences in knowledge levels by professional area are identified.

Thus, the results showed that the lack of knowledge is greater among people in the areas of Biological and Health Sciences, Humanities and Arts, and Social Sciences (excluding the Economic-Administrative area). On the other hand, there is a lower knowledge deficiency in subjects with professions in the Economic-Administrative sciences and Physical-Mathematical and Engineering sciences. This lower disadvantage is possibly associated with the fact that the two areas of knowledge that gave life to Fintech are located in both economic-administrative sciences and digital technology engineering.

Other variables with which significance is identified, with respect to knowledge of the subject, are investment background and gender. Thus, knowledge of CBFP is lower in subjects with no investment background and in the female gender. In terms of gender and based on national and international studies, women scored lower in (general) financial knowledge than men (CONAIF, 2017; OECD/INFE, 2020), and it has also been noted that although women are more committed to sound financial behaviours, they experience greater anxiety regarding financial issues (Lind *et al.*, 2020).

Finally, of the demographic variables related to knowledge: generational group. It is worth noting that the significance calculated indicates that there is a difference in knowledge between the generational groups, although this is exactly 0.05, i.e. it is within the limit of 0.05.

The results show the average ranges and means, the latter being illustrative as the knowledge variable has a non-normal distribution. Thus, based on the average traits, participants from the Baby Boomers and post-war generation have greater knowledge, followed by Generation X, then Generation Z, and finally, Millennials (the latter, with the averages, is still on the bottom rung). In the National Financial Inclusion Report 9, it is identified that financial knowledge (in general) grows as age increases, reaching a maximum in the 51-60 age range, thus forming an inverted "U" (CONAIF, 2018).

A parenthesis should be made to mention the limitations of the results of knowledge by generation, since the significance between the variables is at the limit, in addition to the small number of participants in certain generational groups. To date, the model and its operation is little known, which coincides with the assertions made in the National Report on Financial Inclusion regarding the low presence of the crowdfunding model among Mexicans and the need for it to be more widely disseminated (CONAIF, 2018). Other significant differences found are between the intention to invest in general with: investment background, gender, source of income, and generational group. However, when delimiting the question towards investing in CBFP, no significance was found to support the association with the aforementioned variables. In this sense, it is necessary to identify other types of variables that show an association with the intention to invest in this specific model.

However, there is a relationship between the intention to invest in general and the intention to invest in CFPPs, in this respect people who tend to consider the investment exercise are more open to explore other options such as the platforms in question.

In this order of ideas, there is also significance between knowledge about CFPPs and the perception of platforms as an investment alternative, as well as the intention to carry it out. This identifies that people who are indifferent to the subject as an investment medium, as well as people who are indifferent to investing in CFPPs, have the lowest level of knowledge.

In the last test, the application of the correlation coefficient shows that knowledge is not strongly correlated with the perception of FFCPPs as an investment option, nor with the intention to participate in this market as an investor. Although the correlation between these variables is weak, knowledge remains an essential element because it is strongly related to sound financial behaviour and financial well-being, let alone perceived or self-reported financial knowledge (Ghazali *et al.*, 2022; Lind *et al.*, 2020; Strömbäck *et al.*, 2020).

Finally, a medium and positive correlation is found between perception and intention to invest, i.e. people with more favourable views on CFPPs as an investment option are more likely to be willing to invest in them in the future. In this regard, based on a compilation of research,

Conclusions

Despite the fact that the PFCF model has been present in Mexico for 11 years, the MPI has little knowledge of its existence, operation and implications of a specific law on the subject. Although current investors, including institutional investors, have managed to offer significant amounts and maintain the operation of the market, it is necessary to increase the number of participants in order to achieve a better positioning of the model in Mexico and meet the expected expectations. In the end, PFCFs, with clear rules, offer benefits in both senses, on the one hand, one more possibility of financing for groups excluded by conventional financial institutions, and, on the other hand, one more affordable option for small savers and investors in Mexico.

This lack of knowledge was observed, even more so in groups that have not had any investment background, people with careers in life and health sciences, women and individuals belonging to the Millennial generation. This raises new questions that will give life to other lines of research, although it should be noted that the result of the generational variable shows a limitation, as mentioned in the discussion, so it would be worthwhile to submit it to a new measurement in future work.

At the beginning of this work, the Potential Retail Investor was defined as a person with resources and capabilities (individual with current economic activity and professional training). However, with the results obtained, we envisage, in future studies, a greater delimitation of the MPI, incorporating as a filter variable the minimum integration of knowledge of the subject in order to respond to other research questions, with other scopes and designs.

The relationship between demographic variables and investment history with respect to the perception of FCPs as an investment option is not justified, nor with the intention to invest in this type of investment in the future. Consequently, future studies are contemplated that relate other variables of financial literacy (other than knowledge), with other states of financial profiles such as financial inclusion, degree of liquidity, resilience or achievement of financial goals, with financial well-being translated into financial stress, with psychological or environmental characteristics, among others.

However, significance was identified between knowledge and the perception and intention to invest in FFPPs, although the correlation was weak. To a greater extent, a medium and positive correlation was found between perception and intention to invest in this modality, raising the question of what factors are related to and influence the favourable perception of platforms as an investment option. In this way, the descriptive contribution of this project is a starting point for other projects in a line of research that has been little studied in our country.

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