

The Gig Economy and Financial Inclusion of Women in Latin America

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THE **GIG ECONOMY** AND **FINANCIAL INCLUSION** OF **WOMEN** IN **LATIN** **AMERICA**

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Introduction

Financial inclusion¹ generates positive effects (Duvendack and Mader, 2020) and plays a fundamental role in addressing equality-related vulnerabilities, providing instruments that allow limiting consumption variability and managing adverse shocks more efficiently, as well as increasing investment in assets (de Olloqui, Andrade and Herrera, 2015). Families want to ensure income sustainability and reduce consumption variability, especially in times of crisis and adverse economic shocks.

Literature identifies women within the groups that have been excluded or underserved by the traditional financial system (Demirguc-Kunt, Klapper and Singer, 2013; CEPAL, 2004). Key factors in gender gaps in access to and use of financial products and services respond to both supply-side and demand-side factors, among which there are differences in preferences, labor participation, and gender biases (Croson and Gneezy, 2009; Ajide, 2021; Özşuca, 2019; Brock and De Haas, 2021). These generate verifiable access gaps that are found even in financial technology (Fintech) products (Chen, Doerr, Frost et al., 2021).

Improvements in the economy's digitalization processes continue to drive changes in labor, financial, and goods and services markets. The expansion of new information technologies and access to previously unavailable information sets facilitate the reduction of transaction costs and the improvement of portfolio selection and monitoring by financial institutions, which in turn contributes to the expansion of financial inclusion in traditional channels. Digitalization has also brought about changes in market structure. One such change is the growing importance of the gig economy. Different definitions of the gig economy can be found, depending on which characteristics of the economic relationships involved are emphasized. In this regard, it is worth highlighting three elements that characterize the gig economy:

- It is a segment that arises from the progress of digitalization and the integration of economic activities to networks, which simultaneously allows for a reduction in transaction costs (particularly with regards to search and matching) and the collection of information from the agents involved.
- It comprises labor relations that differ from the traditional employer-dependent model²; in particular, labor relations in this segment are characterized by the flexibility of workers to offer or not to offer their services.

1. Understood as access to and use of useful and affordable financial products and services that cover payment, transfer, savings, credit, and insurance needs.

2. This divergence from the traditional relationship is, in fact, the point on which much of the discussion of the costs and benefits associated with the growth of the gig economy is focused. However, this is not the focus of this paper.

- It channels payment flow mostly through digital payments (Wood, Graham, Lehdonvirta et al., 2019; Gandini, 2019; Kaine and Josserand, 2019; Stewart and Stanford, 2017; Koutsimpogiorgos, Slageren, Herrmann et al., 2020; Lehdonvirta, 2018; Quimba, Rosellon and Calizo Jr., 2020).

The development of the gig economy provides opportunities for increasing financial inclusion in Latin America, as it connects with three characteristic elements of the region. First, this new segment offers an alternative to stabilize income, a relevant aspect in the demand for financial services that is affected by high regional economic and financial volatility (Haughton and Iglesias, 2017; Hegerty, 2014; Damill, Frenkel and Rapetti, 2013). Second, it increases the availability of alternative information, helping to moderate the influence of asymmetric information on the supply of financial products, this despite the fact that the region enjoys a favorable position in terms of credit information generation (Gutiérrez, Karmali and Sourrouille, 2018; Pería, 2013). Third, the expansion of the gig economy has a high capacity to increase the registration formality of workers in a region that stands out for its high level of informality (Ronconi, Támara and Fernández Díez, 2022; Gasparini and Tornarolli, 2009).³

The purpose of this paper is to provide knowledge on the profile of women in the gig economy, with emphasis on aspects related to the use of financial services based on their participation in platforms that operate in the household services segment. It also introduces a novel analysis of the financial inclusion of women based on their participation in the gig economy, through income stabilization, the generation of alternative information and incentives for formal registration. The paper is structured as follows. Section 1 introduces a review of the literature on financial inclusion, with emphasis on the situation of women and Latin America. Section 2 introduces the most relevant results of the survey from the financial inclusion perspective. Finally, Section 3 discusses the conclusions, emphasizing the most relevant results in relation to inclusion and proposing policy recommendations.

3. The focus of this paper does not include the impact of the gig economy on labor formality as related to social security.

Platforms and the Financial and Digital Inclusion of Women in Latin America

Financial inclusion follows gender-differentiated processes, resulting in systematically different access rates between men and women (Figure 1). Despite the progress observed in recent years, financial inclusion in the region is still relatively low, particularly in comparison with regions of similar income. In turn, the region is characterized by high levels of informality, which particularly affect women. This section considers financial inclusion with an emphasis on the conditions observed for women in Latin America and how these conditions are related to the gig economy.

Financial Inclusion, Latin America, and the Situation of Women

The overall level of financial inclusion observed in a country⁴, as well as its distribution among different segments of the population and companies, depends on multiple social, demographic, economic and financial factors. It can also be classified by supply-side, demand-side and institutional conditions. What is relevant is that, since there is heterogeneity in the distribution of the underlying factors among regions and groups, a dispersion in financial inclusion rates is to be expected. A substantial part of the variations in inclusion indicators may be determined by low demand (Bebczuk, 2008).

Therefore, it is worth explaining the dispersion and heterogeneity in financial inclusion by country, which can help establish differentiated policy objectives. In addition, inclusion policy should focus primarily on designing strategies to reduce involuntary exclusion derived from the presence of market frictions (Barajas, Beck, Belhaj et al., 2020).

Considering that financial inclusion is an element of financial development, it is also possible to observe and classify the frictions that affect it according to access, depth and efficiency (Karpowicz, 2014) in financial markets. In this sense, the availability of infrastructure, documentary

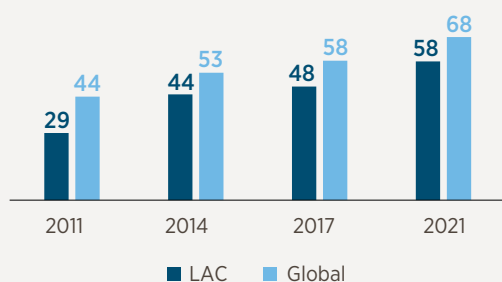
4. Financial inclusion rates in Latin America have risen, on average, in the context of a wide heterogeneity among countries as well as in terms of access to and use of financial products and services (Orazi, Martínez and Vigier, 2021; Carballo, 2017; Dabla-Norris et al., 2015). Bolivia, Brazil and Jamaica are among the countries with the largest positive gaps, with lower inclusion. Peru, Chile and Mexico, on the other hand, are in the group with the largest negative gaps (Dabla-Norris et al., 2015). These results are in line with those reported by Orazi, Martínez and Vigier (2021), who point out that Argentina, Colombia, Mexico and Peru are within a group of countries with low financial inclusion, while Brazil, Chile and Uruguay show better indicators.

requirements and bureaucratic processes can be associated with access frictions; on the other hand, collateral requirements, contract enforcement and information transparency are more related to depth effects, while excessive regulation in formal segments as well as lack of capacity and resources in informal segments are counted among the frictions affecting efficiency (Akudugu, 2013). Finally, it is necessary to consider the frictions in the technology market that limit user adoption and their level of digitalization.

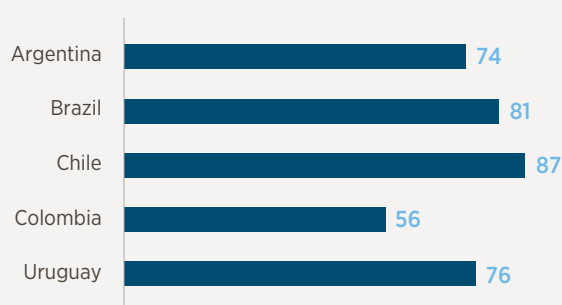
With regards to the empirical relevance of different factors and frictions, there is a relative consensus that demographic factors (age, gender), education level, income level, activity conditions, availability of infrastructure (physical and connectivity), availability of information, documentary requirements and institutional quality (enforceability of contracts, protection of property rights, regulatory quality, respect for the law, competition) are relevant elements in determining the observed distribution of financial inclusion rates (Sanderson, Mutandwa and Le Roux, 2018; Yangdol and Sarma, 2019; Sha'ban, Girardone and Sarkisyan, 2019; Eldomiaty, Hammam and El Bakry, 2020; Barajas et al., 2020; Muriu, 2021; Ozili, 2021).

FIGURE 1 ■ WOMEN AND ACCOUNT OWNERSHIP

Women who report having a bank account
(% of answers, Global Findex)



Women who report having a bank account
(% of answers, Global Findex 2021)



Source: Global Findex 2021.

Note: Global Findex 2021 does not report data for Mexico.

More specifically, Carballo (2017) reports important progress in account ownership, but with half of the region still suffering significant deficiencies; the use of means of payment is at good levels, although still low in the lower income segments. Finally, Carballo observes that the savings and credit situation in the region is still lagging behind and with a high presence of informal flows.

Another dimension of heterogeneity is reported by Dabla-Norris, Deng, Ivanova et al. (2015) who point out the differences in inclusion gaps when segmenting between households and companies, with variations also between countries (for example, when considering gaps with respect to the expected ratio according to fundamentals, Peru shows positive gaps in the business segment but negative gaps in households; the opposite happens in Costa Rica and Mexico, which show negative gaps in both segments).

With regards to the determining factors of the observed distribution of financial inclusion rates, the results focused on Latin America are, qualitatively, aligned with global results and those of other regions. Age, education, income and better legal frameworks are associated with higher levels of financial inclusion, while transaction costs, documentary demands and informality result in lower levels of inclusion⁵ (Martínez, Guercio, Orazi et al., 2022; Motta and González Farías, 2022; Dabla-Norris et al., 2015). Finally, when considering an analysis focused on individual countries (Argentina, Chile, Peru), the results identify the same factors (income, age, education and occupational status) (Tuesta, Sorensen and Haring, 2015; Cuevas, 2016; Cámara, Peña and Tuesta, 2013).

Financial Inclusion of Women in Latin America

The purpose of financial inclusion is to provide greater wellbeing to individuals and companies; however, as mentioned in the previous section, there are segments of the population that have traditionally been neglected or underserved by the traditional financial system. One of these groups has been women, who in turn are more exposed to economic and financial shocks. The above exposes a reality from the perspective of women's income, and how the fluctuation of that income causes them to have a relationship with financial products such as credit. However, this relationship is not only from the point of view of income from labor activities, but also from the role that women have as microentrepreneurs and entrepreneurs.

In this context, women (as individuals or as business owners and leaders), when accessing and using financial products and services, face barriers from both the supply and demand sides (Auguste and Galetto, 2020). There are two supply-side factors that have been identified as relevant by literature. First, discrimination, or bias, by gender on the part of financial institutions, which frequently has negative consequences for women when a credit application is granted in

5. Gender is another important factor in determining financial inclusion. This is discussed in further detail below.

a differentiated manner and which responds to conscious or unconscious biases (Montoya et al., 2020; de Andrés, Gimeno and Mateos de Cabo, 2019). Another aspect related to supply is that, since the characteristics of men's and women's businesses are different (Bruhn, 2009), the supply of financial products is not adapted to the profiles of women or women-owned or led businesses, which could explain their low access to credit. In other words, not having adequate financial products is one of the barriers to women's entry into the financial sector (Azar, Lara and Mejía, 2018).

On the demand side, literature emphasizes aspects related to: (i) A possible risk aversion that is higher in the case of women (Barber and Odean, 2001); (ii) Less time available to approach financial institutions because society has assigned the role of caring for the family and household to women (APEC, 2016); (iii) Less knowledge about financial topics (Hasler and Lusardi, 2017), which is possibly related to the fact that they are more relegated to other activities; and (iv) The type of businesses that women tend to create, which are concentrated in sectors that require less capital or that do not provide them with the traditional collateral that financial institutions usually require (Parker, 2010; Bardasi, Sabarwal and Terrel, 2011), among others.

This context results in a gender gap in the financial sector, which is evidenced by World Bank figures (Global Findex, 2017) that estimate that only 49 percent of women have access to a bank account, 11 percent save money and only 10 percent report having access to credit. On the other hand, from a business perspective, figures show that one third of MSMEs (Micro, Small and Medium-sized Enterprises) are owned or led by women; even so, the financing gap associated with these companies is estimated at USD 98 billion, and it is known that less than 5 percent of women apply for credit to start or expand a business (Global Findex, 2017).

Given the situation of financial inclusion in the region and the determining factors previously mentioned, the gender gap is analyzed below. In terms of gender-differentiated financial inclusion, the lower inclusion rates observed for women in all dimensions is one of the most robust and systematic results in empirical literature. According to data provided by the Global Findex 2021 report, the percentage of men who report having an account is 73.6 percent, while that of women is 67.6 percent (a gap of 6 points). In Latin America, these figures are 65.1 percent and 58 percent respectively (a gap of 7.4 points).

As indicated by Delechat, Newiak, Xu et al. (2018), financial inclusion is not gender neutral. This can be seen in Figure 1, which shows the relative gap in three specific dimensions of financial inclusion (account ownership, formal savings and formal credit). The largest negative relative gaps at the regional level are observed in account ownership in other regions, such as the Middle East, where the ownership rate for women is 53 percent lower than for men, followed by formal savings (44 percent lower in South Asia) and formal credit (43 percent lower in the Middle East). It should be noted here that the Latin American and Caribbean (LAC) region shows values that place it exactly at the median of these regions, although, as indicated above, there is marked

heterogeneity among LAC countries and in the different indicators under consideration. With regards to specific ownership of a savings account, the Global Findex 2021 data show that men report 4.3 percent, compared to 2.3 percent for women, and that 22.37 percent of men responded that they have credit in a formal financial institution, compared to 17.22 percent of women (this is equivalent to a rate that is 23 percent lower for women).

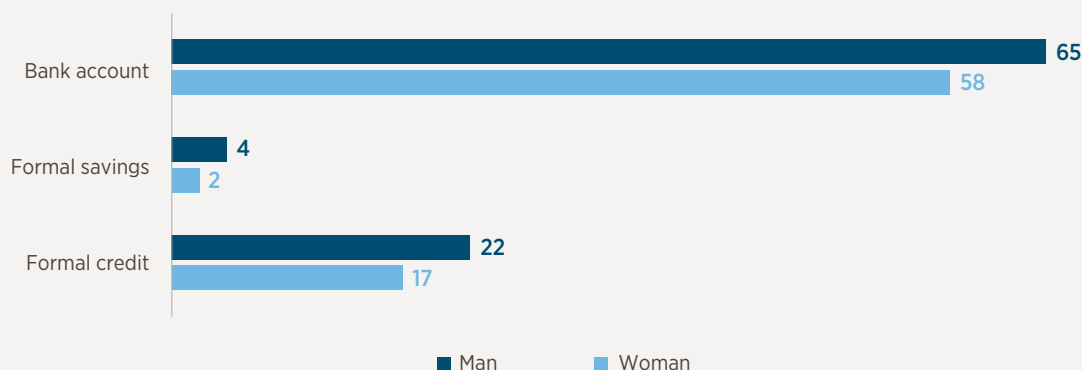
TABLE 1 ■ RELATIVE PARTICIPATION RATES

	Account ownership	Formal savings	Formal Credit
East Asia and Pacific	-6	-3	-17
Europe and Central Asia	-16	-40	-21
OECD	0	-6	-24
Latin America and the Caribbean	-9	-31	-23
Oriente Medio	-53	-40	-43
South Asia	-33	-44	-38
Sub-saharan Africa	3	-28	-14
Median	-9	-31	-23
Minimum	-53	-44	-43
Maximum	3	-3	-14

Source: Author's elaboration based on Azar, Lara, and Mejía (2018).

Note: These are relative rates defined as rates observed in the women's group relative to the men's group, in percentage.

FIGURE 2 ■ DISPARITY IN LATIN AMERICA

(% of answers, Global Findex 2021)

Source: Global Findex 2021.

Having observed these disparities, it is worth asking about the factors that explain them in order to identify, as suggested by Barajas et al. (2020) and Dabla-Norris et al. (2015), the frictions and the fundamental conditions that lead to this result. One of the most relevant explanatory elements can be traced to the different rates of labor participation and formality, elements that have already been identified as relevant when determining inclusion rates, since women have lower labor participation rates than men. This determining factor introduces significant gaps and variations in Latin America and is a relevant explanatory factor. In particular, Gasparini and Marchioni (2015) document that, in Latin America, women's labor participation increased from 53 percent in 1992 to 65 percent in 2012, marking a decrease of around 28 percent in labor participation gaps with respect to the 95 percent average for men.

Another factor of potential relevance to explain the observed gaps is holding real assets, including land ownership (Azar, Lara and Mejía, 2018). Other factors can be added, which are also explored in literature, such as social and gender standards (Roa, M.J. 2021), supply factors such as legal discriminations (Delechat et al., 2018) and gender biases on the part of financial institutions when considering credit applications (Montoya et al., 2020; de Andrés, Gimeno and Mateos de Cabo, 2019). In particular, based on a specific survey for household women workers (Fernández Díez et al., 2022), the following section explores the relevance of some of these determining factors for women operating in the gig economy.

Gig Economy, Digital Platforms, and Financial Inclusion Channels

The expansion of new information technologies and access to previously unavailable information sets facilitate the reduction of transaction costs and the improvement of selection and monitoring which in turn contributes to the expansion of financial inclusion in traditional channels (Chatterjee, 2020).⁶ Thus, digital financial services can minimize the constraints that affect women (mobility and time constraints) by allowing them to manage their bank accounts from home⁷. The use of cell phones has contributed to the economic empowerment of women, through increased access to information, access to new markets and improved savings (OECD, 2018)⁸. They have also provided women with better access to knowledge about government programs, child support, pension entitlement, medical treatment and maternal health care.

On the other hand, despite the development and expansion of the Fintech and Bigtech segments, gender gaps persist. Chen et al. (2021) report that women show a frequency of use of Fintech services and products that is 28 percent lower than that of men (21 percent and 29 percent, respectively). About 30 percent of this gap can be explained by factors such as age, income, education, marital status, etc. With regards to the unexplained component of the gap, Chen et al. suggest that it may be associated with differences in risk aversion, differences in costs and benefits, social standards, laws and gender discrimination.

Along similar lines, Ghosh (2022) states that an unexpected effect of mobile-based financial inclusion is an expansion of gaps due to the fact that women have a lower probability of opening or using an account via cell phone. This does not imply that the expansion of Fintech and Bigtech segments is negative for women, as the overall effects on all financial segments and, in addition, changes in other related markets must be taken into consideration. Thus, for example, Loko and Yang (2022) state that Fintech expansion has significant effects on women's labor participation.⁹

Labor participation is an important element in the evolution of global financial inclusion dynamics and gender distinction. In this context, the new ways of contracting associated with the evolution of information technologies and their growing influence on the labor market offer new opportunities for the financial inclusion of women, and not only because of the change in their employment status. The influence of the gig economy on the labor dimension of women is explored in Bustelo, Suaya and Viollaz (2019), who observe that although the expansion of the gig economy may provide opportunities for women in reducing barriers to entry and accessing wider

6. Of course, these are not the only factors. Regulatory changes and the implementation of targeted policies are also particularly relevant (Jungo, Madaleno and Botelho, 2022; Ahamed et al., 2021; Aggarwal and Klapper, 2013).

7. Sahay et al. (2020) examine gender gaps in financial inclusion. The results indicate that gender gaps are lower on average in digital financial inclusion than in traditional financial inclusion.

8. <https://www.oecd.org/social/empowering-women-in-the-digital-age-brochure.pdf>

9. As the results of literature show, labor participation is an important determining factor of financial inclusion gaps by gender.

(international) markets, it also introduces risks that need to be weighed in and that may increase participation gaps (with the potential negative impact on financial inclusion gaps). For example, the authors introduce evidence of continuing low rates of female participation as in the traditional labor market (except in the United States, Italy and the United Kingdom), while women continue to lag behind in terms of access to technology and the skills to use it; in particular, they observe that women make more limited use of digital devices and the Internet, including participation in the gig economy, and that this lag in digital skills limits their ability to obtain the benefits they offer.

The potential for growth in women's financial inclusion from the expansion of the gig economy is deemed to begin with changes in formal labor participation rates. Women not only have, on average, lower activity rates but also higher levels of informality than men (Winkler, 2022), with Latin America being one of the regions with the highest informality. The use of digital platforms can result in higher female employment rates. This effect is observed in the Uber platform in the United States, where the rate of female drivers is higher (14 percent) than for traditional cabs (8 percent) (Hall and Krueger, 2018). It has even been observed that gender wage gaps tend to be lower in industries where more flexible working conditions exist (Goldin, 2014).

In a context of high volatility and informality, an extremely high portion of transitory entries to the labor force will be verified in the informal sector. With the advent of gig economy platforms, an important segment of workers, among which women stand out, face a higher probability that these entries will be formally registered.¹⁰ Even under the assumption that income flows are identical for a period of time that includes entries and exits from the labor force, formal registration allows verified income to increase the possibility of using formal financial products.

Closely related to this effect, the increase in flexible labor options also allows for a greater stabilization and expansion of income flows, either because people who would have been unemployed or inactive go to work or because people who suffer from labor instability (formal or informal) can complement their participation, which results in a greater probability of financial inclusion. On the other hand, in addition to registration formalization, expansion and income stabilization, platforms offer another potential way to increase financial inclusion through the generation of information on the risk profiles of the workers who join them; this new set of information generated by platforms allows the possibility of granting loans to workers from the platform, which might not have been verified in the traditional formal financial sector. This credit relationship not only contributes in itself to financial inclusion, but also allows building a credit history that can then be used in the traditional financial sector¹¹. In addition to the above, platforms contribute to financial inclusion in a much more direct way by requiring the use of formal (typically digital) means of payment for payment transfers.

¹⁰. Social security, which is associated with traditional formal dependent jobs, is not included, but rather the formality of registration, regardless of the presence or absence of such coverage.

¹¹. Through credit bureau information, through public records or records shared by platforms.

BOX 1**THE GIG ECONOMY**

The gig economy comprises a set of digital platforms that connect freelancers with customers, in order to provide short-term services or share the use of a good ([WEF, 2021](#)). Typically, service providers are not tied to platforms through a contract, but they receive compensation according to the number of services provided through the platform. Workers also generally do not have health or pension benefits. It is estimated that by 2018, the gig economy generated USD 204 billion in gross sales worldwide, and is projected to generate USD 455 billion by the end of 2023 (Mastercard and Kaiser Associates, 2019). The gig economy can be classified into four major categories (Mastercard, 2019): i) Exchange in the use of goods (asset sharing), e.g. Airbnb; ii) Transportation services; iii) Professional services (design, coding, translation); and iv) Miscellaneous and household services (cleaning, child/senior care, tutoring, dog walking).

Survey Results

Given the characteristics of financial inclusion and the gender gaps observed, a question arises in relation to the context of the gig economy: To what extent and in what way platforms may be favoring financial inclusion and therefore impacting women's wellbeing and the objective of generating opportunities to ease their consumption, keep their savings and meet unexpected expenses. This section introduces and discusses the most relevant results from the point of view of financial inclusion derived from the survey of women workers associated with platforms operating in the gig economy in the household services segment.

Main Results from a Financial Inclusion Perspective¹²

Reference Framework

An online survey targeting gig women workers in household services was conducted between January 13 and February 22, 2022, with the objective of assessing the attitudes, opinions and demand for financial services of this segment (Fernández Díez et al., 2022). Respondents were active women workers on platforms. The distribution of responses by gender corresponded to 924 women.¹³ The highest percentage of responses corresponds to the Zolvers platform (56 percent), followed by Hogaru and Aliada (21 percent and 20 percent, respectively). With regard to the distribution by country, only in Mexico were responses obtained from more than one platform (33 percent of the total responses), so the responses from Argentina (38 percent) and Chile (8 percent) correspond only to Zolvers, while in the case of Colombia (21 percent of the total responses), correspond only to Hogaru.

¹². This section introduces the most relevant results of the survey from a financial inclusion perspective. A more comprehensive set of results is introduced in an attachment with answers.

¹³. The sample included 13 men. Since the interest of the paper is limited to the situation of women and due to the small number of male respondents, the analysis only focuses on the female respondents.

BOX 2

PROFILE OF PARTICIPATING PLATFORMS

The survey was conducted with workers from the **Zolvers, Aliada, Homely and Hogaru** platforms.

Zolvers operates in household jobs, care for the elderly and trades (nurses, plumbers, electricians, etc.). It was created in 2014 and it operates in Argentina, Chile, Colombia and Mexico. Zolvers supports 180,000 household women workers with recruitment, financial education and labor formalization. Workers register through the web platform and services are requested in a similar way (web or application).

Aliada was created in 2015 and it focuses on general cleaning, laundry and ironing services. It covers Mexico City and the metropolitan area. The platform allows workers to choose their working hours and location according to their availability. In addition, they have medical insurance and define rates, days and hours of work.

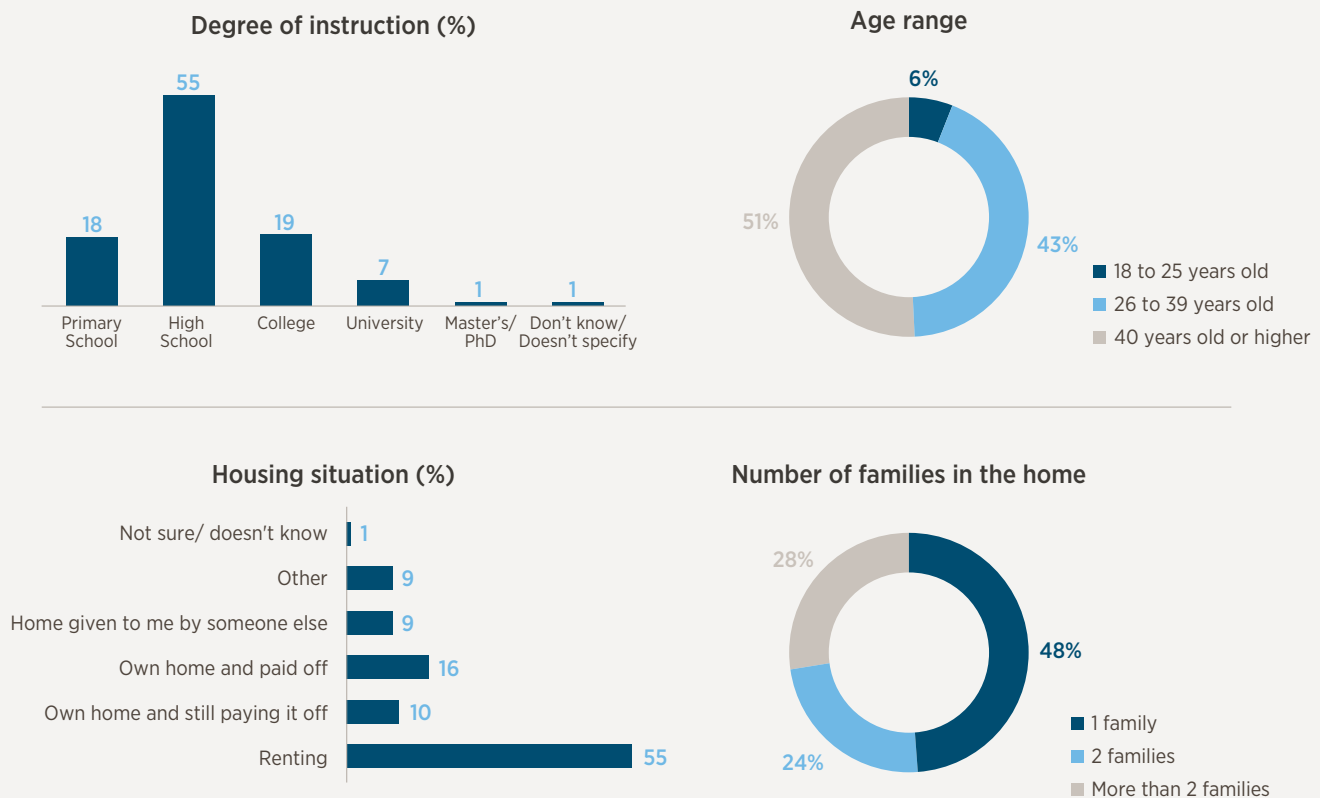
Homely was created in 2015, it covers more than 20 cities in Mexico, and it focuses on cleaning and disinfection of the home or office (as well as care for the elderly). Workers have health insurance, and they can choose location, hours and days of work. In 2022, it was acquired by Aliada. Worker registration is online or by telephone.

Hogaru was created in 2015 and it operates in five cities in Colombia (including Bogotá, Medellín and Cali). It focuses on home cleaning, laundry, ironing, childcare and office cleaning services (including services during meetings and disinfection). Workers have formal contracts, social security and social benefits in accordance with Colombian regulations. There are approximately 1,000 participants. Registration is online and service requests by application (as well as payment).

Main Demographic Characteristics

Literature consistently points to certain demographic characteristics that are relevant for determining financial inclusion rates: Age, degree of education or schooling, and home ownership and use. Figure 3 shows the distributions of the main demographic characteristics of women in the sample. The average age is 40 years old, with 94 percent over 25 years old. About 80.8 percent have primary to higher education. In terms of housing, 26.2 percent own their homes and 54.9 percent rent their homes. 51.5 percent share their home with two or more families. Average age and educational level would favor higher inclusion rates, so we would expect greater inclusion. On the contrary, a high rate of homes with multiple families would be associated with less formal financial inclusion.

FIGURE 3 ■ DEMOGRAPHIC CHARACTERISTICS



Source: Authors' elaboration based on the survey.

Labor Activity Results

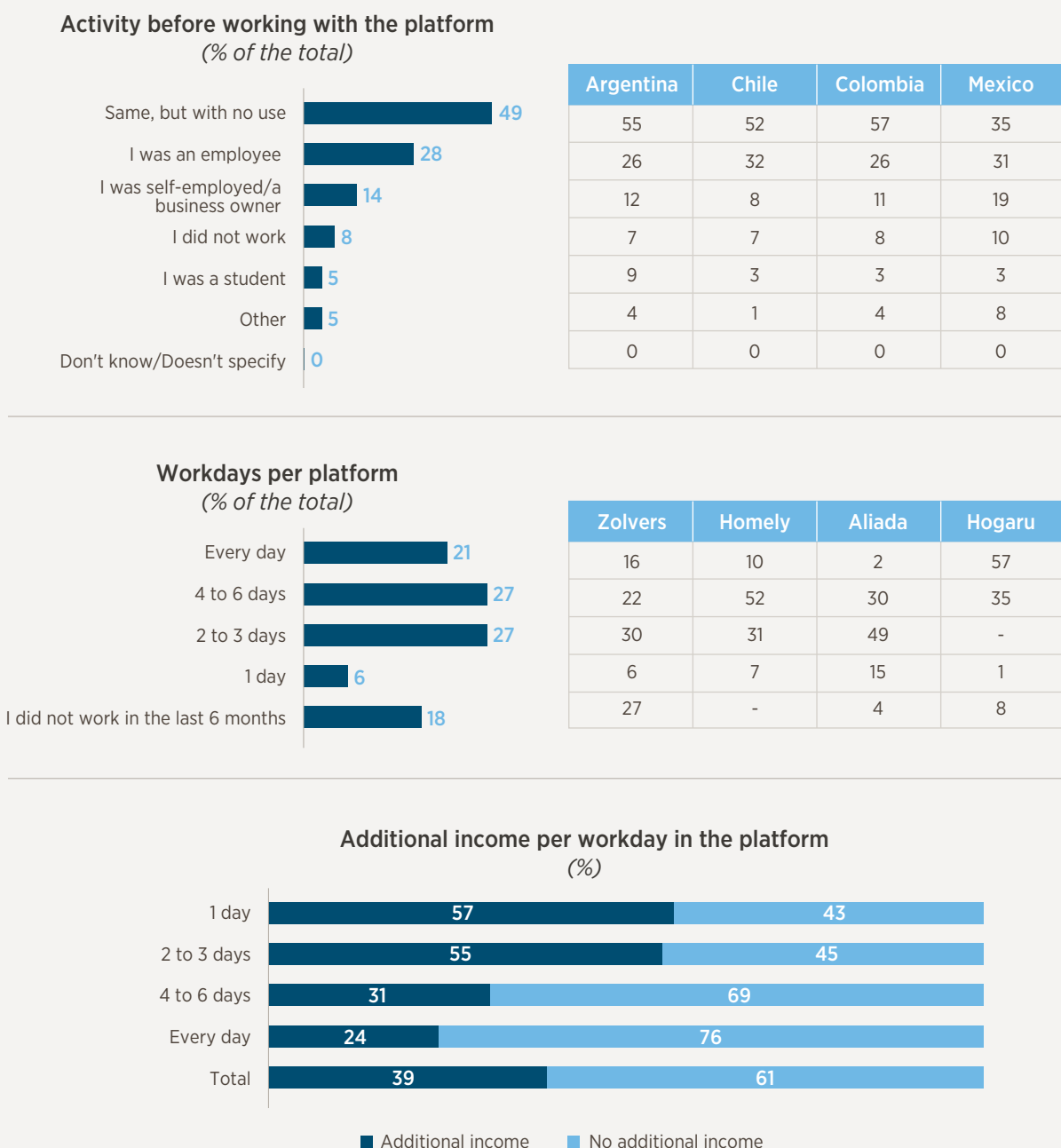
Formal Registration Favors Access to Formal Financial Services and Products

As indicated, changes in the conditions and quality of employment are potentially relevant aspects to mediate the effect of the expansion of platforms and the gig economy on the evolution of women's financial inclusion rates. Based on this hypothesis, the following section compares the situation of women workers before joining the platform and identifies some of these options along with the situation of informality. Figure 4 shows the distribution of activity before working with platforms. It shows that 91 percent of women workers were active before joining the platform.

To infer a possible qualitative change represented by this percentage, it is important to consider the total informality rates of the sector prevailing in the countries under study. Ronconi, Támara and Fernández-Díez (2022) show that informality rates in these countries are high for the economy in general (Argentina, 44.6 percent; Chile, 28.6 percent; Colombia, 57.8 percent; Mexico, 63.1 percent) and that informality rates for household services are higher (75.1 percent, 50.4 percent, 79.6 percent and 98.6 percent, respectively). Based on these relationships, it can be initially inferred that 58.6 percent of women workers who did the same job outside the platform were in a situation of informality and moving toward the platform represents a particularly important step for registration formality, which is important to access formal financial services and products.



FIGURE 4 ■ WORK CHARACTERISTICS BEFORE JOINING PLATFORMS



Source: Authors' elaboration based on the survey.

In the case of women workers who were employed and for those who had their own business, a similar inference can be made (using the average informality rate in the economy) which results in a 22.5 percent informality. In total, 51 percent of those who were previously employed could be improving their formality status. If we add the 18.5 percent who did not work to this, it follows that 69.5 percent of women workers on the platform have experienced an improvement in terms of registration formality. This substantial change from informal registration to formality is considered one of the most relevant determining factors to improve financial inclusion. Thus, the role of platforms was fundamental in this qualitative change.

Formal Registration Enables the Stabilization, Recomposition and Expansion of Income

Another positive aspect of financial inclusion is income stability. When considering the cases of women workers who were previously employed, it is possible to suggest that a significant fraction of those who were employees or had an independent business migrated to the platform in order to recompose or expand their income. Although platforms are not the only outside option, they offer the possibility of keeping a formal record of income in case of other conditions such as a period of unemployment, moving toward informality or reducing income.

On the other hand, the probability of having a period of unemployment or entering the informal sector are higher for those women who were unemployed or who were students. If all these cases are considered, platforms allow stabilization, recomposition and expansion of income under formal registration conditions, which are important in determining access to and use of formal financial services. This behavior can also be inferred from Figure 4, which shows that 59.1 percent of the women who were active on the platform worked four or more days (40.9 percent worked three days or less), while 17.5 percent did not register any activity in the last six months. Therefore, the conclusion is that another aspect that supports the notion that platforms offer a flexible solution for income stabilization measured by the time dedicated to the workday arises from the relationship between the days spent working on the platform and the availability of other income.

Income Results

Platforms Generate a Higher Income due to Higher Frequency of Multiple Income Sources

In order to compare the behavior of income and the stability in different countries, an average was calculated using monetary measures adjusted to purchasing power parity. Figure 5 shows information on daily income per typical workday, considering platform income and other income,

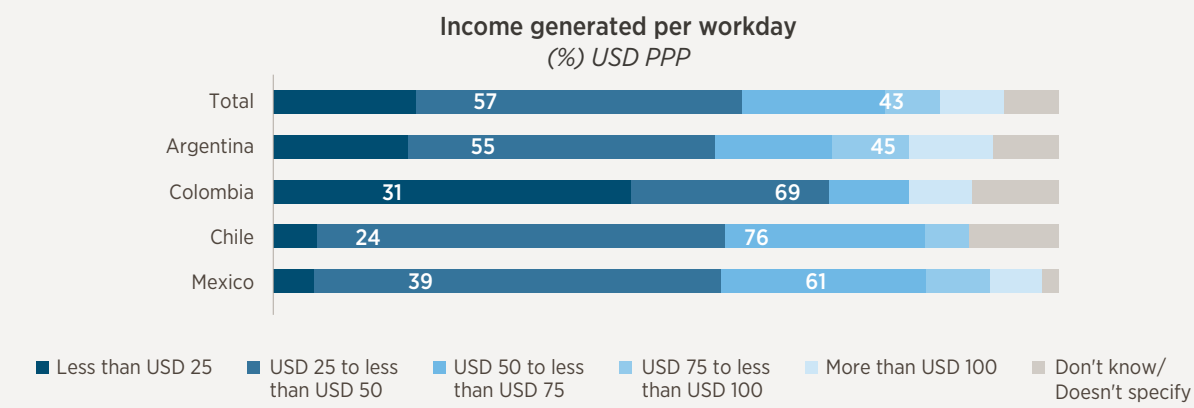
in US dollars adjusted to purchasing power parity.¹⁴ As shown, there is relative homogeneity in daily income across countries and platforms. The average daily income is USD PPP¹⁵ 47, with the highest value being 9 percent higher and the lowest value 4 percent lower across countries (2 percent and -9 percent across platforms). Colombia is the country with the highest rate of women workers with income below USD PPP 25 (46 percent), in contrast to Chile and Mexico, where only 6 percent and 5 percent, respectively, have income below that level. Mexico and Argentina are also the countries with the highest rate of women workers with income above USD PPP 50 (41 percent and 35 percent). Reporting higher income is related to the frequency of multiple sources of income (Figure 5). In contrast, having savings accounts is not clearly related to income.



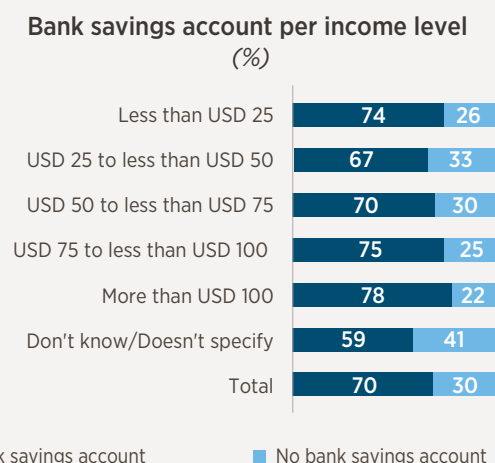
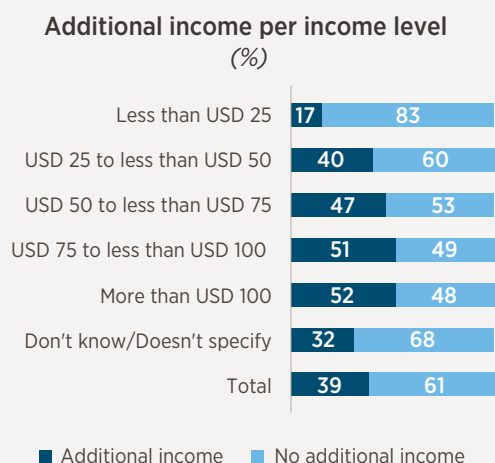
¹⁴. In order to make a comparison of international income that is justified in the comparison of possible associated levels of well-being, it is appropriate to use values adjusted to purchasing parity and not nominal values without such an adjustment. Calculations are based on official exchange rate parities.

¹⁵. USD PPP: Purchasing power parity adjusted dollars.

FIGURE 5 ■ **INCOME CHARACTERISTICS**



Average	USD PPP (n)		USD PPP (n)
Argentina	50	Zolvers	48
Chile	51	Homely	43
Colombia	45	Aliada	47
Mexico	45	Hogaru	45
Total	47	Total	47



Source: Authors' elaboration based on the survey.

Note: Range in USD PPP calculated based on an average conversion factor of 2.5 (nominal exchange rate/PPP exchange rate) with OECD data for 2021 from participants' responses (in local currency).

Financial Inclusion Results

Incentives Generated by the Platform through Formalization Induce Financial Inclusion Almost Seven Times Higher than that Resulting from Increased Activity

An additional step in the formalization of women workers is to identify the use of financial instruments and the degree of financial inclusion. The survey explored the ownership and use of different financial products and services. Among them, it is of particular interest to analyze the behavior of women workers with respect to having and using savings accounts and digital wallets. The two options can complement each other or replace each other. The first responds to a traditional use of financial services, while the second responds to the digitalization of transfers and payments. Figure 5 shows that 70 percent of women workers have or have had a bank savings account in the last six months, a figure similar to that seen in the Global Findex 2021 report (67.6 percent inform having a bank account). The highest share is observed in Colombia (81 percent), followed by Argentina (74 percent), Chile (62 percent) and Mexico (61 percent).

In terms of digital wallet ownership, the highest presence is observed in Argentina (49 percent), followed by Colombia (23 percent), Chile (17 percent) and Mexico (12 percent). In addition, 40 percent of women workers already had a savings account before starting to operate with platforms, and 30 percent opened an account because the platform required it. This means that, within the group of women workers under study, operating with platforms induced a 75 percent growth in having savings accounts. In addition, it is important to emphasize that, among the 30 percent of women workers without savings accounts, 21 percent have a digital wallet. Thus, 76 percent of women workers have a formal system for payments and transfers.

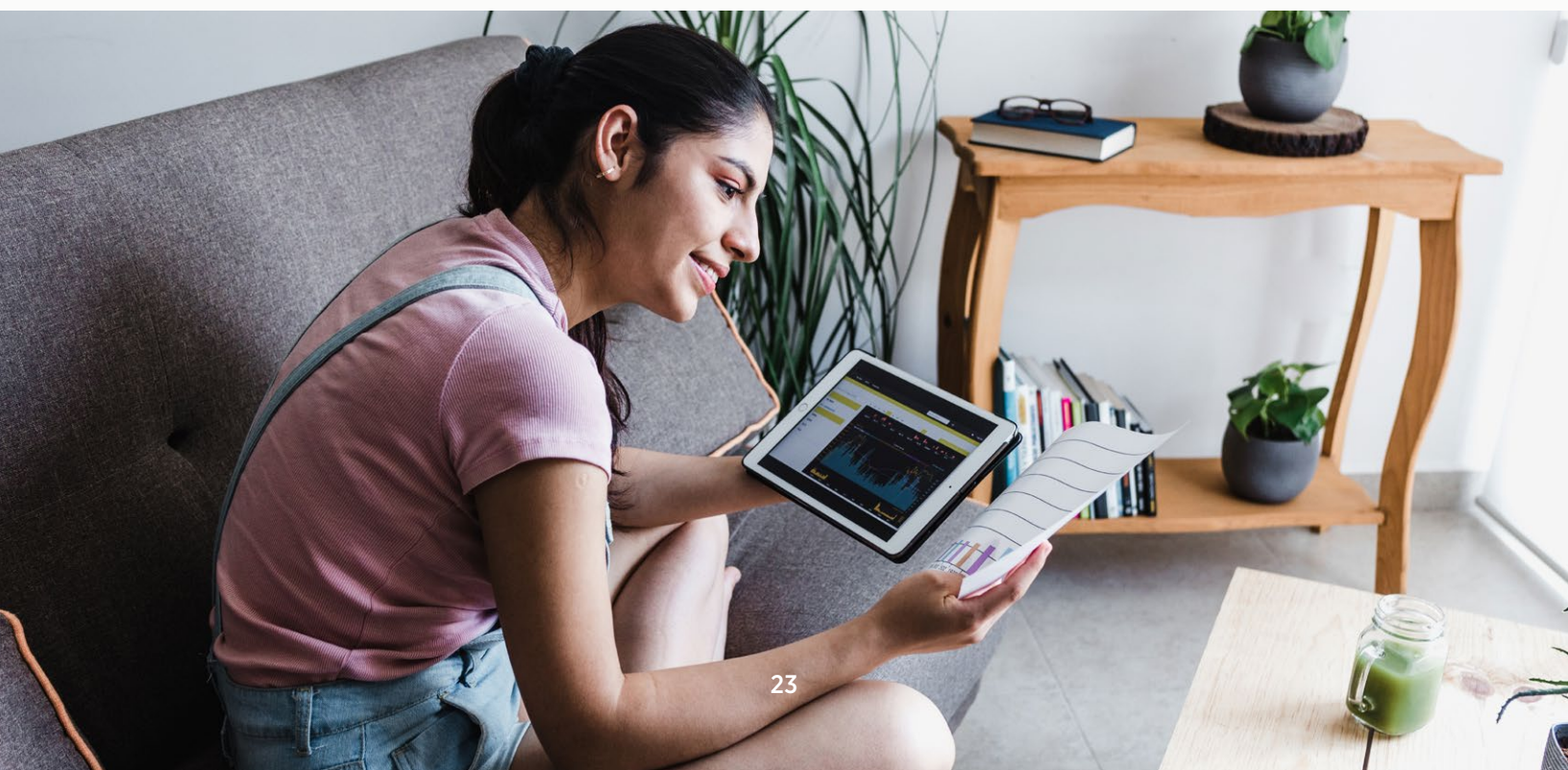
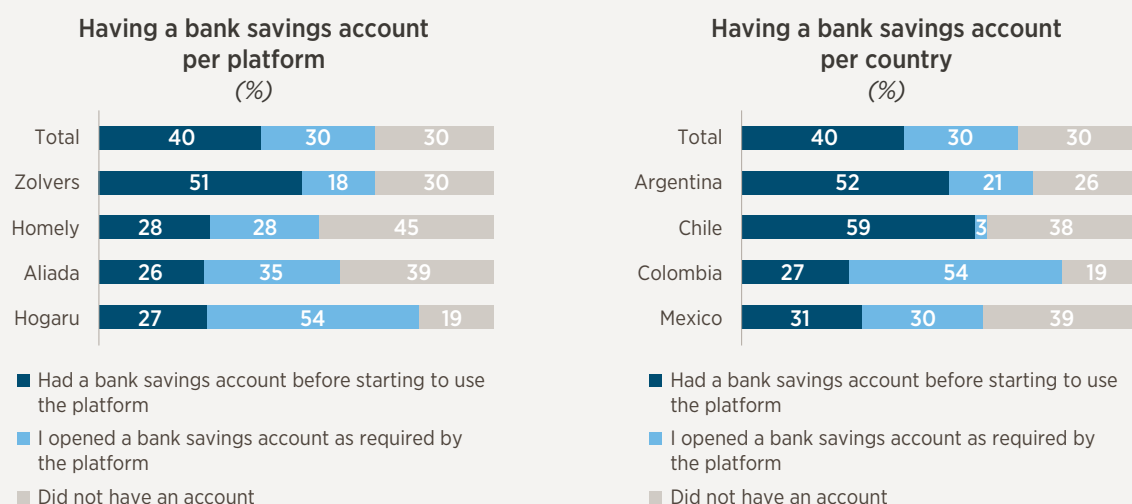


FIGURE 6 ■ HOLDING FINANCIAL PRODUCTS, AS A PERCENTAGE

	Total		Argentina		Chile		Colombia		Mexico	
	Sí	No	Sí	No	Sí	No	Sí	No	Sí	No
Bank savings account	70	30	74	26	62	38	81	19	61	39
Digital wallet	29	71	49	51	17	83	23	77	12	88
Personal loan	23	77	27	73	10	90	22	78	24	76
Credit card	24	76	24	76	25	75	23	77	24	76
Remittances to foreign countries	2	98	3	97	4	96	2	98	2	98
Home loan	2	98	1	99	3	97	5	95	3	97
Vehicle loan	1	99	0	100	0	100	2	98	1	99



Source: Authors' elaboration based on the survey.

The 75 percent increase in savings account ownership after joining platforms can be broken down into a “formalization effect” (those who were working and did not have a savings account) and an “activity-formalization effect” (those who were not working and did not have a savings account). 41 percent of previously employed women workers had a savings account, a rate that increases to 71 percent if platforms require. In this case, the “formalization effect” is 73 percent. In the case of women workers who were not previously employed, having a savings account went from 35 percent to 64 percent, bringing the “activity-formalization effect” to 83 percent. This suggests that the “activity effect” is 10 percent, indicating that the incentives generated by the platform through formalization induce financial inclusion almost seven times higher than that derived from increased activity.

An element of interest to consider is that the modification of these associations is conditioned by the presence of digital wallets, as these can act as a replacement for savings accounts. When considering the rate of increase in savings accounts as a result of switching to a platform for those who do not have a digital wallet, accounts increase by around 91 percent, both for those who worked and those who did not. The same rate of increase in the group with a digital wallet is 67 percent for those who did not work and 46 percent for those who did work. This is consistent with the possibility that digital wallets may reduce the demand for savings accounts among gig women workers.

Access to credit is another dimension of financial inclusion. Figure 6 shows that 2.5 percent of women workers have a home or vehicle loan, and that the frequency is almost three times higher among those women who have a savings account compared to those who do not (3.1 percent versus 1.1 percent). Looking at the work history, among those who were previously working, 2.8 percent reported having home or vehicle loans, compared to 1.1 percent of those who were not working, which marks a considerable difference of 147 percent depending on the work history. Meanwhile, 39 percent have personal loans or credit cards, and those who have a savings account have these loans at a relative frequency that is 40 percent higher than those who do not (42.5 percent versus 30.3 percent). In contrast, the frequency of personal credit or credit card use is similar among those who previously worked and those who did not.

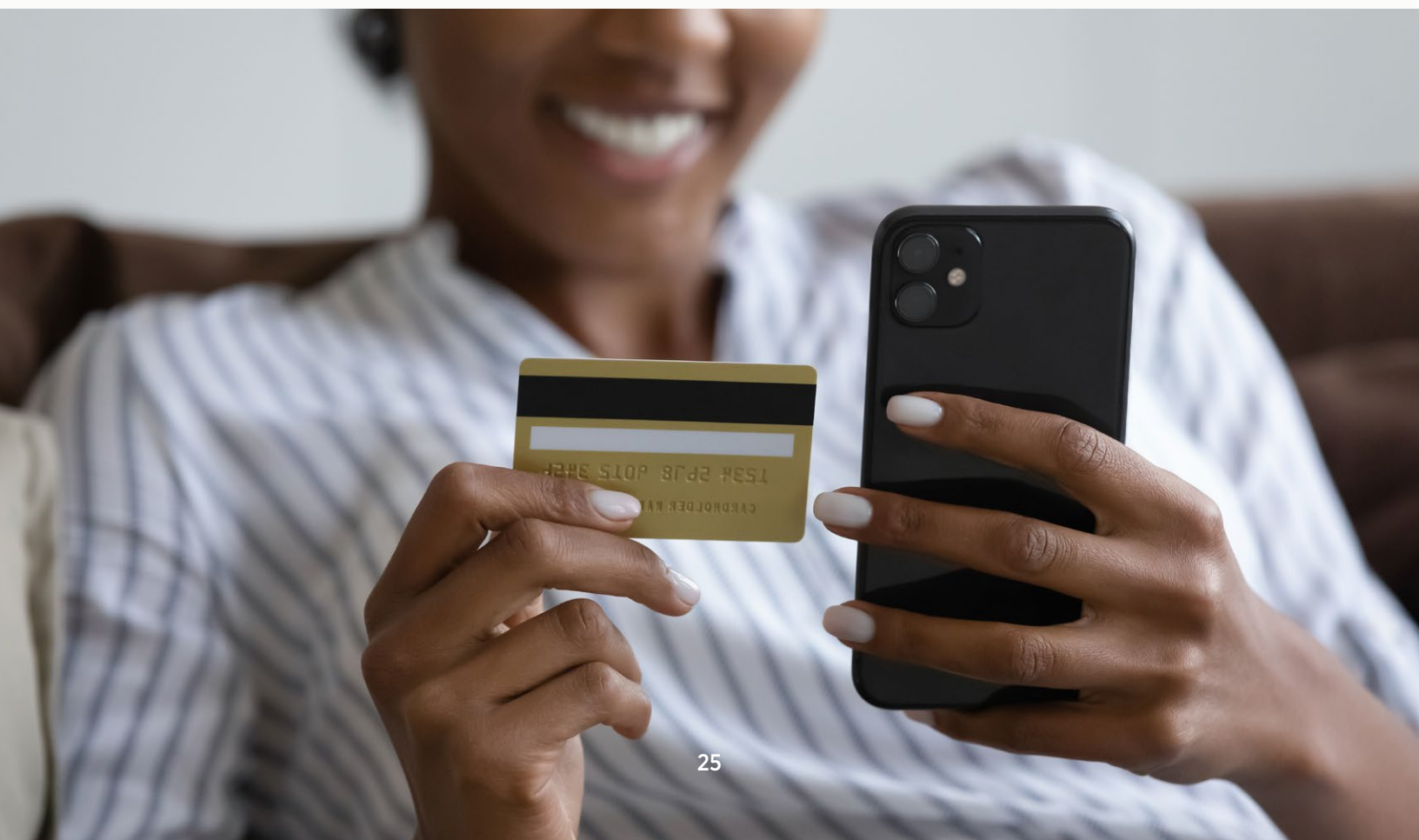
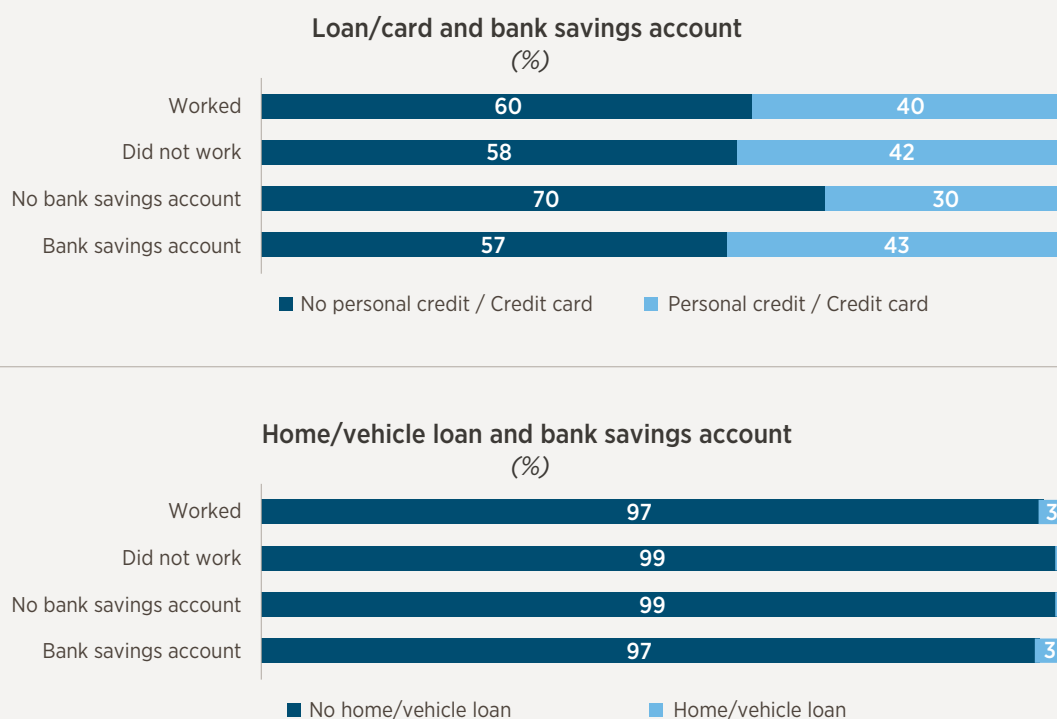


FIGURE 7 ■ ACCESS TO FINANCING



Source: Authors' elaboration based on the survey.

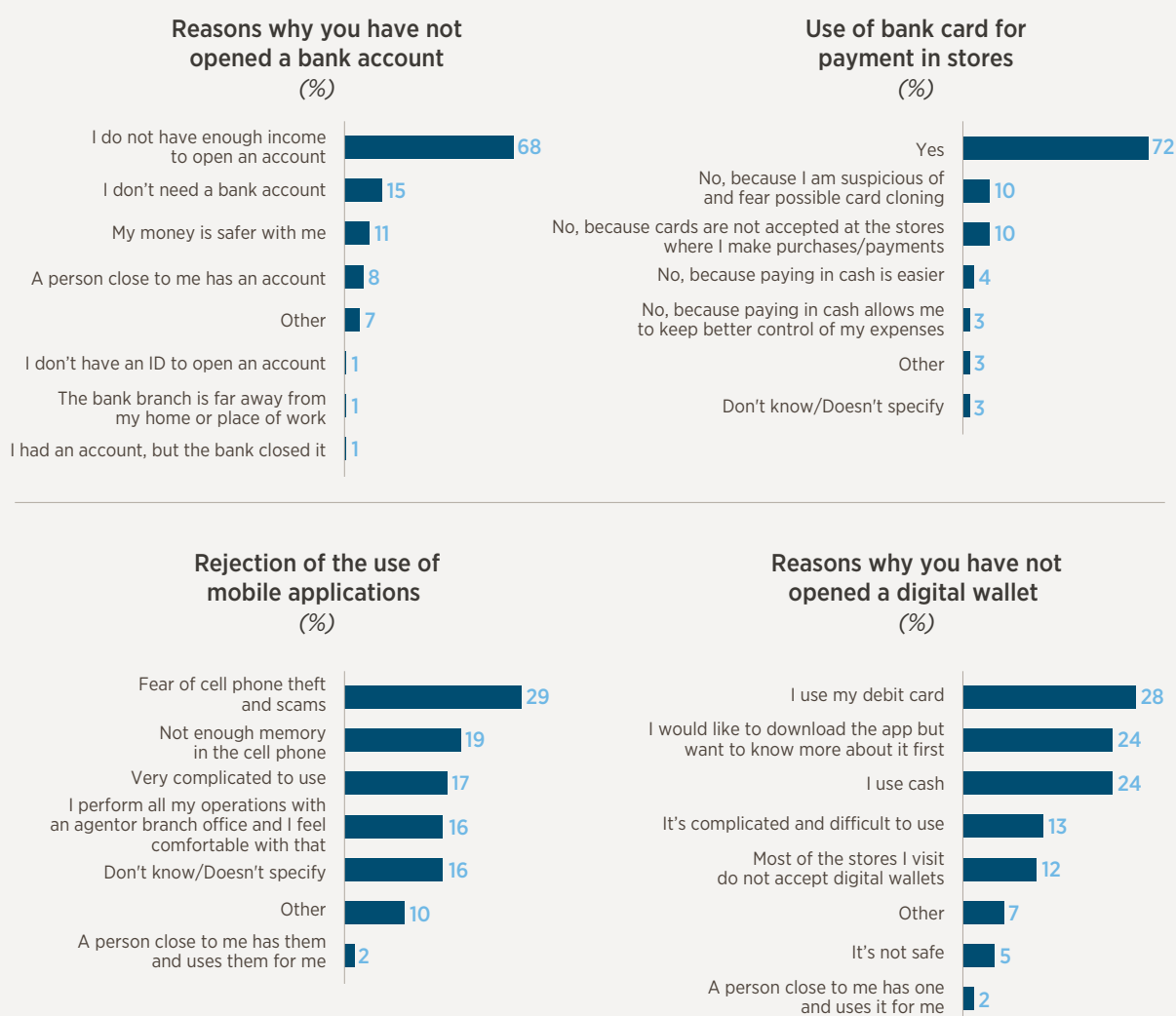
Among those who have not opened a bank account, a high percentage is explained by rational and fundamental economic variables. For example, the lack of bank accounts is explained by lack of income and lack of need, making that 75 percent of the responses offered (Figure 7).

With regards to the obstacles that can indeed be considered frictions in the sense described by Dabla-Norris et al. (2015) and Barajas et al. (2020), lack of documentation and distance to an entity represent 3 percent of the responses and, much more relevantly, lack of trust, 9.6 percent.¹⁶ In cases where a bank card is held but not used for in-store payments, 15 percent of the respondents indicated a lack of confidence and 9 percent a lack of acceptance. About 66 percent indicated that using cash is simpler and allows greater control. The problem of distrust is aggravated when it comes to the use of mobile applications, where respondents show more severity, with 26 percent

16. The values showed in Figure 7 involve frequency of multiple responses. For the calculation of the percentages indicated in the paragraph, the total number of responses (base 100) was considered.

indicating that they do not use them for fear of cell phone theft and fraud. If we consider the difficulties of use, frictions represent 42 percent of the responses. The problem of distrust, difficulty of use and lack of acceptance is further aggravated in the case of digital wallets, accounting for 47 percent of the responses associated with these frictions.

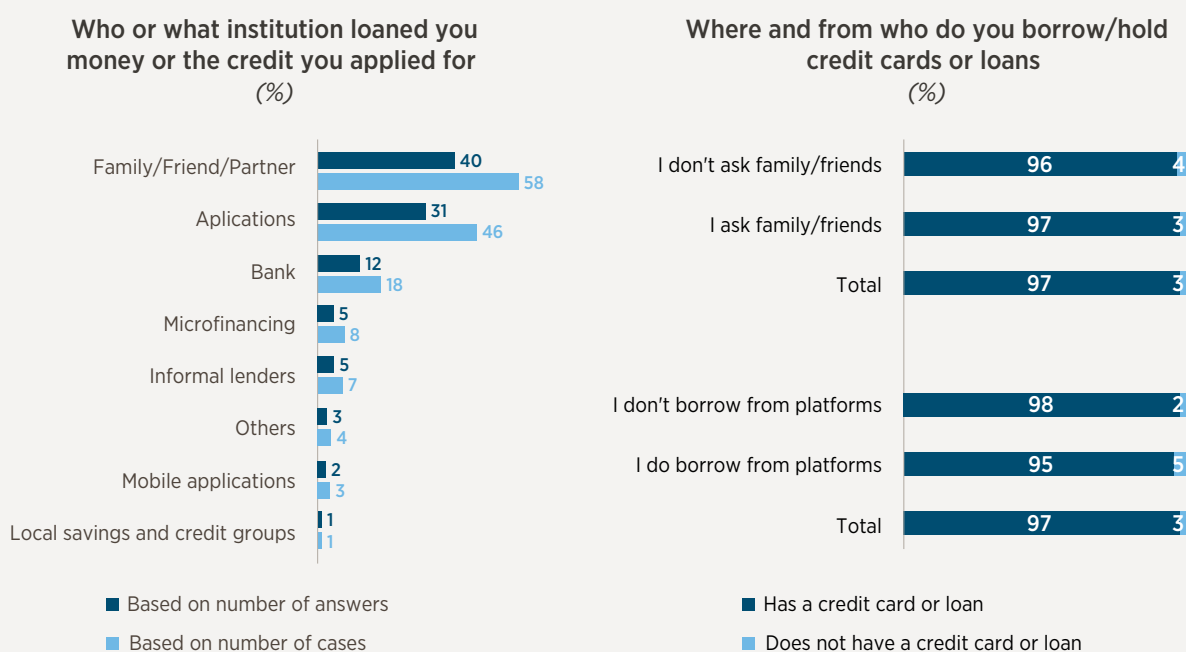
FIGURE 8 ■ **BARRIERS**



Source: Authors' elaboration based on the survey.

When considering the sources of financing used by women workers, we observe that when they need to borrow money to cover expenses, the most frequently used source is financing from family, friends, neighbors or partners (58 percent), followed by financing from platforms (46 percent) and, lastly, from banks (18 percent) (Figure 8). More distant in the frequency of obtaining funds are microfinance institutions, savings and credit groups (8.7 percent) and informal lenders (6.9 percent). In line with the previous results related to difficulty of use and distrust, obtaining money through applications is the least frequent (3.5 percent).

FIGURE 9 ■ SOURCES FOR UNEXPECTED HOUSEHOLD EXPENSES



Source: elaboración propia con base en la encuesta.

The above result does not indicate that those who request money from family or friends cannot obtain financing from the financial sector. In fact, within the group that obtained money from family and friends to cover household expenses, 97 percent had personal loans or credit cards (95 percent among those who borrowed from platforms). This would seem to indicate that, to cover household needs, people turn to family members and then to platforms, due to financial conditions, and not because they are excluded from the financial system; in any case, preferences should be analyzed for factors such as entities, loyalty and others that may be inducing the selection.

Conclusions and Policy Recommendations

This paper follows a novel path in exploring the topic of women's financial inclusion by focusing on the conditions associated with gig economy women workers through a survey that is specifically tailored to the segment of household women workers in four Latin American countries (Argentina, Chile, Colombia and Mexico).

Financial inclusion goes hand-in-hand with financial development and, as such, the dynamics are influenced by the evolution of fundamental, institutional, regulatory, and market conditions. Differences between groups and differences by gender are of particular interest because of their importance in the dynamics of inclusive growth. As literature review has shown, there are substantial and systematic differences in observed financial inclusion rates between men and women. The determining factors of these gaps have also been explored, defining how much of the gaps are explained by different distributions of easily observable economic conditions (e.g., labor market participation and income levels), but also by elements associated with social, legal and discriminatory standards.

The factors that explain the gender gaps in financial inclusion are attributed to market conditions and the presence of frictions. Barajas et al. (2020) and Dabla-Norris et al. (2015) point out the importance of identifying these frictions and their spillover effects. Operating on these frictions is important if efficient and sustainable progress in financial inclusion rates is to be achieved.

The first result in line with the general results of literature is that activity status is associated with financial inclusion. In other words, active labor participation would have a positive effect on the inclusion rate through greater access to and use of financial products and services. When considering access to bank accounts, the size of the “formalization effect” (derived from the greater registration formality associated with working on platforms) is almost 7 times greater than the “activity effect” (effect of working). The result of the above is that 76 percent of women workers on platforms report having access to a formal means of payment and transfer (savings account or digital wallet). Finally, in this sense, the work that platforms themselves can have in terms of formalization and financial inclusion of women workers is fundamental. From this perspective, public policies that encourage financial education and concrete actions, such as the adoption of low-value payment systems, would amplify the effects of platforms on women.

Another result of interest points to the determining factors of the lack of access or use among women workers. When considering holding savings accounts, 75 percent of those who report not having an account say that they do not have one due to lack of income or need. Those who report not having an account due to friction are 12.6 percent (3 percent due to lack of documentation and distance, and 9.6 percent due to lack of trust). The importance of frictions increases when considering the use of cards for payment in stores: 24 percent of women workers who do not use cards for payment cite lack of trust and acceptance (while the major reason derives from the advantages of using cash, such as simplicity and control). Frictions increase their relevance considerably when it comes to the use of mobile applications, where they represent 42 percent of the reason for not using them. From this perspective, more global initiatives such as the implementation and adoption of low-value payment systems may represent a solution that reduces frictions to the use of technology in the women's segment, those related to transactions.

Sources of financing vary when it comes to covering unexpected expenses, with 54.6 percent of women workers preferring to turn to family members (including partners), friends, and neighbors. Particularly remarkable is the frequency with which resources are obtained from platforms (45.9 percent), emphasizing the role of platforms as providers of alternative financing. These high percentages contrast with the use of banks as resource providers (18 percent) and microfinance institutions and savings groups (8.7 percent). Consistent with the difficulty of use and distrust, obtaining funds through the use of applications was at 3.5 percent only. However, this does not indicate that they cannot obtain financing from the financial sector, as 96.8 percent of those who borrowed from family and friends had personal loans and credit cards (95 percent in the case of those who borrowed from platforms). This would seem to indicate that the ordering followed could be due to price and transaction cost reasons, so further analysis is required to determine whether women in the gig economy are excluded from the financial system and why. Platforms that fund their women workers by granting credit to women, and in general to their workers, should try to establish clear repayment rules and mechanisms for managing the credit risks derived from the activities. This may be an issue of interest to policy makers in the region.

The results of the survey, in general, are consistent with an invigorating effect of platforms in the gig economy, in a context of evolving financial inclusion of women, namely:

- **Activity, formalization, and registration of labor activities.** Literature points to labor participation as a determining factor of financial inclusion. Survey results are consistent with this view. However, data suggest that the effect of platforms, which can be considered a registration formalization effect, is more important than the “activity effect”. This effect is particularly relevant in the Latin American region, where there are high levels of labor informality and, especially, in the segment of women workers associated with the platforms under study (with a high component of household services).

- **Stabilization of formal/registered labor income.** Platforms expand labor options, introducing a more flexible option between formal and traditional labor relations, informality and other statuses related to work (unemployment, inactivity). This option introduces the possibility of achieving income stabilization, compensation and expansion with a higher probability of registration formality, thus increasing the expansion of financial inclusion.
- **Generation of new alternative information outside traditional entities.** In a way similar to other platforms that generate alternative sets of information that are relevant for credit assessment, recording income flows and work behavior allows platforms to define income and risk profile and enable granting of financing that, as we have seen, is widely used by women workers (which in turn contributes to the expansion of financial inclusion). This also generates the benefit of establishing a credit history that can then contribute to inclusion in the formal and traditional financial circuit. Literature proves how the use of alternative data sources for credit risk analysis can be a complement that improves the estimation of default in individuals.
- **Financial inclusion benefits.** An interesting result of the survey is that platforms are the second option in terms of financing sources (after family members and before banks) to cover unexpected household expenses. Considering that most of those who resort to this source of financing also have, mostly, personal loans, and credit cards, platforms seem to offer advantages in terms of prices and transaction costs over banks, which may be associated with the generation of new valid information for credit assessment. More information is needed on platforms versus the banking system credit conditions to analyze the advantages identified by women workers.

Policy Recommendations

Policymakers are concerned with promoting financial inclusion as part of comprehensive financial development, with a gender focus to advance equal opportunities. Survey results stress the importance of market innovations leveraged by the expansion of new technologies as a key driver of inclusive financial development. Based on the results of the survey of gig economy workers in Argentina, Chile, Colombia, and Mexico, the following four policy recommendations emerge:

- 1) To focus public interventions on reducing the frictions that limit proper market operation.** Public policies focused on improving access to financing are based on the need to correct existing market failures, such as lack of information and asymmetric information, which are intensified in the case of women. Policies and reforms are required to eliminate market failures and to promote the exchange and production of information and improving access to financing. In order to develop the financial market and improve the inclusion of women, actions that generate economic improvements in activity and income stand out. According to the survey conducted, lack of trust is the main friction that limits financial inclusion. In comparison, documentary frictions or transaction costs are minor. Therefore, there is a need to increase women's confidence in the use of financial instruments. Financial education programs and regulations that ensure improvements in financial transparency, levels of competition and consumer protection in financial markets are oriented toward eliminating these frictions. Specific policies that allow the use of alternative data for credit granting in the internal credit risk models of financial institutions and the offer of simple financial products adapted to the women's segment may also be essential.
- 2) To make public policies and regulations more flexible to allow for adjustments in contracting rules.** It is important to consider the effects of new contracting modalities through platforms. The results of the survey suggest that this type of contracting would be boosting financial inclusion by increasing registration formalization. Platforms operating in the gig economy induce a strong registration formalization effect among women workers, which is relevant for high informality economies such as those in Latin America. This "formalization effect" has a more powerful result in inducing an increase in financial inclusion than changes in women's activity status. Other general solutions such as the implementation and adoption of low-value payment systems can have a "formalization effect" that is critical for the population as a whole.
- 3) To promote technological transformation, favoring digitalization conditions, as well as improving the efficiency of financial intermediaries.** According to survey results, variations in the use of financial services, whether offered by platforms or by the formal financial system, correspond to behaviors on the part of women workers looking for comparative advantages.

Gig economy platforms, and Fintech in general, have the potential to contribute to improved competition in financial services. In this area, the public sector plays a fundamental role in promoting reforms, facilitating the development of the financial technology ecosystem to achieve inclusion objectives, and developing regulations that minimize consumer risks and promote competition and financial stability.

4) To contribute to the measurement of the digital gap by gender, on a regular and sustained basis. In this sense, the analysis and collection of information, such as the survey conducted for this study, allows revealing the demand for financing and providing the formal financial system and gig economy platforms with information about the demand for the subsequent development of ad hoc financial products and services.



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