

The financial inclusion of women through Fintech. A case study.

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Abstract

Can Fintech companies create financial inclusion? What is their impact on women's businesses? In order to answer the two questions, the present research in the first part analyzes the literature that has been expressed on the diffusion of FinTech platforms and their approach to an inclusive financial system aimed at supporting and sustainable development of companies with greater difficulties in accessing credit and in particular the literature concerning women's businesses has been analyzed. The research is inspired by a study by the Bank of Italy on the analysis of FinTech platforms operating in the world and in Italy and then analyzes the specific data of a FinTech platform, through direct contact, as well as the survey conducted by the company on financial inclusion through fintech companies and the focus on gender equality in access to credit. The limit of the research is the absence of comparable official data, while the originality of the work lies precisely in wanting to draw scientific attention to a known topic, but still little explored in terms of data and literature.

Keywords: FinTech, woman entrepreneurship, female, sustainability, inclusion

1. Introduction

Can Fintech companies create financial inclusion? What is their impact on women's businesses? In the era of digital innovation, accelerated by the Covid-19 pandemic, innovative finance, better known as FinTech, is the protagonist of this new historical period. The pandemic has also encouraged and accelerated a process of change where technology and digitalization together with sustainability have been identified as key factors of this revolution in the various sectors and in particular in the financial sector, which can no longer be limited only to the study of risk and return.

Regardless of gender, alternative credit access channels play a crucial role in encouraging inclusion in the broadest sense of the term, resulting in true sustainable finance. We are talking, therefore, about sustainable and technologically advanced finance. Companies operating in the FinTech sector represent the frontier of development of corporate finance and the traditional one aimed at reducing the environmental cost and guaranteeing greater value in terms of sustainability of the financial sector. The FinTech industry is ideally placed to take a prominent role on the global stage and positively influence the choices of the economic and financial system, in order to ensure that sustainability becomes increasingly mainstream in finance and the real economy. FinTech companies' intrinsic use of big data, artificial intelligence and real-time business and stakeholder information makes the industry a perfect model for implementing environmentally friendly and socially sustainable practices.

The financial services sector is currently undergoing a major transformation, with digitalization and sustainability as the driving force behind a new and more complex but at the same time sustainable process. While both concepts, digitalization and sustainability, have been studied in recent years independently of each other, the intersection between FinTech and sustainability has so far attracted only limited research, although the sector is becoming increasingly relevant as the financial system is an important element to enable a maintenance and growth of the global economy. In recent years, technological finance aimed at ensuring greater inclusion and, more specifically, sustainable finance has gained greater importance at company, national and supranational level. The union of techno-sustainable finance can represent one of the main levers

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to alleviate the impact of different factors that nowadays affect the various socio-environmental changes. It is worth remembering that the financial system, in general, has an essential function within the economy, it represents the nexus of the real economy. Traditionally, the financial system provides a whole range of payment, investment and financing services. These essential functions of the financial system, in addition to sustainability, have been rethought and questioned in recent years, especially in the years marked by the pandemic, where digitalization has been one of the main drivers of the financial system, digitizing products and processes.

A new sector therefore that of FinTech that is characterized by the undisputed combination of technology and finance, areas in which the presence of women is still at rather low levels, but what leaves even more perplexing is the deep gap between female and male entrepreneurs when it comes to raising funds for their companies and especially in the establishment of new entrepreneurial activities. This gap has been further accentuated during the pandemic, which has seen women engaged in the sectors most affected by the crisis and who have sometimes been forced to make drastic choices that have led to the closure of many companies. A situation that paints a potential social tragedy that accentuates and confirms an economic and financial gender gap.

A reason, therefore, for FinTech to be defined as a revolution of financial inclusion achieved through sustainable technology.

The document is structured as follows:

after a literature review, aimed at providing an overview of the definition of FinTech, we then move on to a systematic review of the existing literature in the field of financial technology integrated with the concept of financial inclusion. The SCOPUS database was used for the literature analysis; the second part is dedicated to the research methodology introduces the case study of a specific platform operating in the FinTech sector and finally the third part summarizes the main results.

2. Literature review

The review of the literature has shown that the issue of women's financial inclusion through FinTech is still a little addressed issue. Using the search terms "FinTech" and "Female" or "woman entrepreneurship" the research produced only 24 papers. Extending the search to the terms "FinTech" and "Inclusion" and limiting it to the areas "Economics, Econometrics and Finance" and "Business, Management and Accounting" identified 219 articles. Using the search terms "FinTech and Sustainability" the research produced an additional 138 documents; this certainly means that although it is a fairly attentive issue from a general point of view, the specificity of how FinTech can contribute to reducing the financial gender gap does not yet appear to be studied significantly. In addition, in general on the topic of FinTech and financial inclusion, the analysis of the literature has also shown that the topic has received attention only recently since most of the articles are from the last five years. This is also an indication that the topic is becoming topical.

The prevailing literature concerns the Chinese market, historically identified as the main market, but it has been found that the activity of FinTech platforms of Chinese origin have recorded a strong contraction since 2018. The main cause behind the collapse of the Chinese market is to be found in the introduction, in that year, of a very strict regulatory regime, in particular in terms of capital requirements and registration requirements for FinTech operators, whose main purpose was to combat the high fraud rates that characterized the Chinese market itself (Ding et al, 2021; Cornelli et al, 2020).

To understand what this revolution of sustainable technology represents, it is good to start from the definition of FinTech.

The term "FinTech" is short for "Financial Technology". The literature has recently revised this definition in more detail, identifying mainly with this terminology start-ups that offer solutions characterized by the application of IT systems in the field of financial services: payments, investments and financing.

Specifically, we talk about FinTech-Fin startups and FinTech-Tech ones: the former are those who focus on one or more financial services and try to optimize them through the use of digital tools, the latter have a diametrically opposite process as they start from the development of a specific technology that is then applied to the financial sector.

According to *the Financial Stability Board's definition*, the term FinTech defines innovations in financial services made possible by technology, resulting in new business models, applications, processes or products with a decisive effect on financial markets, institutions or the provision of financial services (Financial Stability Board, 2017). In addition to lending operations, analyzed for the purpose of this research, and equity and debt crowdfunding transactions, the term FinTech applies to numerous other activities, including digital payments, insurance (Insurtech), supervision and regulation and open banking.

In recent years, the evolution of the FinTech world has had a substantial impact on the banking sector as modern technological innovations, ranging from robotics to Artificial Intelligence and Machine Learning, are revolutionizing the traditional banking channel. This undoubtedly implies for the banking system an increase in digital investments such as to be able to respond to the growing and diversified financial needs and above all to be able to cope with the competition of non-bank operators or even new banks specifically structured to make the most of technology (Liao et. Al, 2020). The literature (Stulz, 2019) in particular tends to highlight how FinTech companies tend to offer cheaper and tailor-made banking products for both individuals and businesses and this undoubtedly represents a threat to the activity of traditional banks or could, on the other hand, represent an opportunity for the banking system if technological finance is considered as complementary and not alternative to traditional channels. Suffice it to say that, although the FinTech sector is rapidly evolving in the field of payment services, it is still struggling to grow, in terms of economic margins, in the field of other traditional banking services.

Of course, the relationship between FinTech and the banking sector is still evolving and under scrutiny by regulators, academics and technicians. Some authors (Salampasis and Mention, 2018) argue that, many disadvantaged people in society are left out of the traditional financial market, thus creating inequality and information asymmetry. They also argue that the emergence of FinTech is closing the gap of those individuals and businesses that previously did not have access to the traditional banking channel, thereby creating greater equity and social and economic growth.

Online services and products offer a lot of information to customers that could not have access without the use of digital services (Gomber et al., 2017). Some authors (Sapovadia, 2018) believe that digital financial inclusion is different from traditional banking in that it allows access to customers without having to request historical documentation or detailed information as the use of artificial intelligence and big data allows to have an information set of data both known, as easily available from public sources, but also alternative data not common to the traditional banking system, such as purchase history, online behavior pattern, online transactions, etc. The use of artificial intelligence helps overcome the main problem of traditional financial inclusion (Gomber et al., 2027); Through machine learning and artificial intelligence it is possible to analyze and collect data from the web or current accounts to measure the solvency even of small companies and perhaps previously rejected by banks.

Let's not forget that the growth and development of an organization of any type and size strongly depends on financial inclusion, therefore digital financial inclusion is becoming increasingly central to the debate on how to ensure equal treatment even for those at the lowest levels of the pyramid so that they become financially active parties (Peric, 2015). Some authors believe (Salampasis and Mention, 2018; Bill & Melinda Gates Foundation, 2019), that financial inclusion is increasing thanks to the use of technological finance which, in addition to offering customers financial services at even more sustainable costs than traditional channels (Gomber et al., 2017), reaches users who are underserved or even excluded from traditional financial channels (Alameda, 2020).

It becomes easy to understand that the financial system becomes among the most important for pursuing social sustainability objectives. According to the latest Observatory of the Politecnico di Milano on FinTech and Insurtech, the financial sector ranks third (out of 11) after those of University and Education and Crops in terms of social sustainability, while otherwise consumers believe that the financial system cannot contribute to environmental sustainability. The theme is certainly to be paid attention at the level of literature, given that the eradication of poverty, which is achieved with financial inclusion and climate change are at the top of the agendas of the United States, the EU and are presented as among the most important of the 17 sustainable goals of the UN.

Entrepreneurial development is highly dependent on government support and financial resources (Ojiaku et al., 2018) and the financial inclusion of women entrepreneurs has attracted much attention, particularly for the significant impact it has on each country's economy in terms of job creation and subsequent economic growth (Nguse et al., 2022). Typically, female entrepreneurs start their businesses with their own funds or with the help of family members and are often required to provide collateral to obtain bank loans (Mulilli, 2020) and/or to pay different economic conditions than male entrepreneurs. Better access to financial services can improve people's employment outcomes, wealth accumulation and willingness to undertake new initiatives (Guiso et al. 2004; Brown et al. 2019; C'elierier and Matray, 2019), but despite this, women remain unbanked or underbanked compared to men (Demirgu, c-Kunt et al., 2017; Guiso and Zechariah, 2021; ke, 2021). Financial inclusion, therefore, promotes entrepreneurship and helps the female community (Fareed et al., 2017; Koloma, 2021) and new FinTech or FinTech can improve financial inclusion and close the gender gap in access to financial services (Demirgu, c-Kunt et al., 2018; Breza et al., 2020).

The literature analyzed highlights, therefore, that technological finance improves financial inclusion which in turn stimulates female entrepreneurship, moreover, the current state of research defines financial inclusion as a mediator in various relationships, some authors (Demehr et al., 2022) have argued that financial inclusion facilitates financial innovation and the link with economic growth and progress.

The use of new technologies and the use of non-traditional data allows FinTech companies to offer new products at lower costs and, at the same time, could stimulate incumbents to adapt to these new offers.

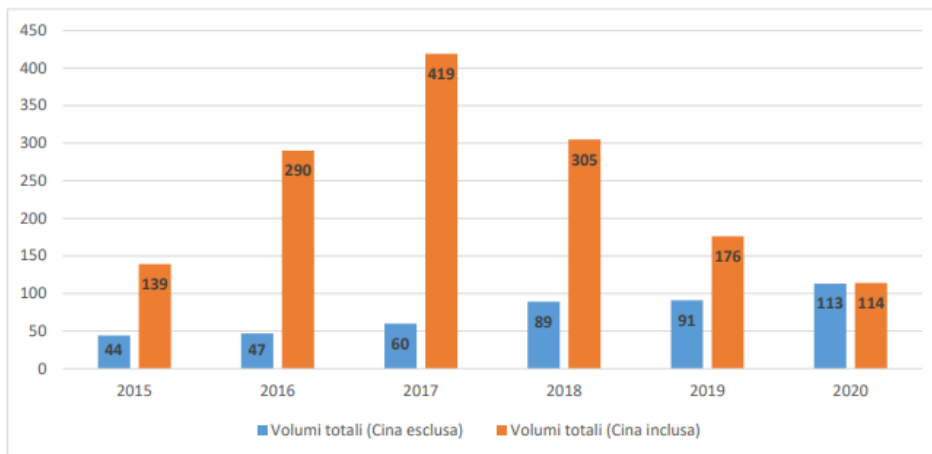
(Buchak et al., 2018; Philip, 2020; Thakor, 2020), thus ensuring financial inclusion and therefore sustainable finance. However, the growing rise of the FinTech industry places a focus on the sustainable use of this service, some people are skeptical about using FinTech due to the presence of risks. Some challenges relate to data availability and quality, accountability requirements to implement AI technology (Sundblad, 2018; Harkut and Kasat, 2019).

Some authors argue that although FinTech industries are developing rapidly, there is still a shortage of literacy in the sector (Shim & Shim, 2016).

3. Research Approach

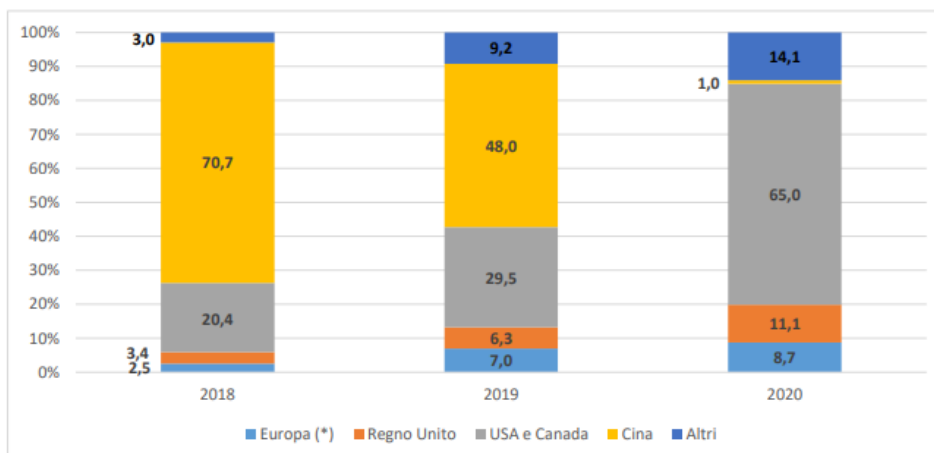
The Occasional Paper notes that transactions made through FinTech platforms have grown significantly in recent years, albeit with heterogeneous dynamics both at the level of jurisdiction and business models. Globally, in the second half of the last decade, platform activity increased until 2017, peaking at \$419 billion, and subsequently contracting to \$114 billion in 2020 (Figure 1). The trend mainly reflects what happened in China, historically the main market. By contrast, platform activity in other countries continued to grow; the outbreak of the Covid-19 pandemic does not seem to have had a significant impact (figure 2).

Fig. 1 – Size and growth of FinTech platforms: annual transactions (billion dollars)



Source: figure taken from the Bank of Italy's Occasional Paper, no. 712, June 2022 – FinTech lending and funding platforms in the world and in Italy – source used by CAAF

Fig. 2 – Market shares of FinTech platforms by geographical area (annual transactions, percentage values)

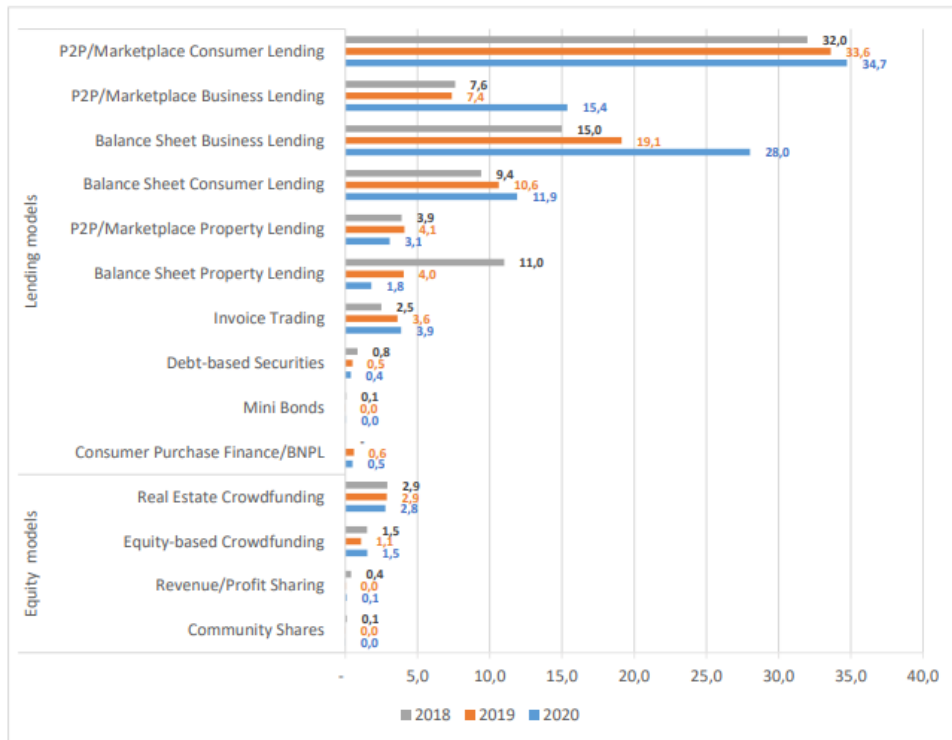


(*) Europe is considered in its geographical sense and countries that are not part of the European Union are also included. The United Kingdom is considered to be a stand-alone.

Source: figure taken from the Bank of Italy's Occasional Paper, no. 712, June 2022 – FinTech lending and funding platforms in the world and in Italy – source used by CAAF

Taking as a reference only the segment of loans, also the subject of this work, the Occasional paper highlights that it is precisely the segment of loans, in its broadest definition, that has recorded the greatest volume of growth (about 84 billion in 2019 and 100 in 2020) and also in terms of growth rates (figure 3).

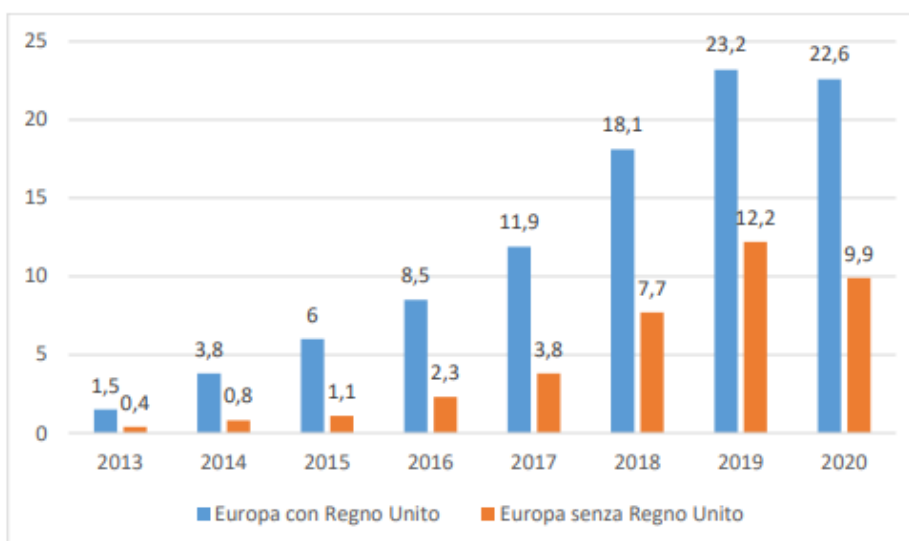
Fig. 3 – Transactions on FinTech platforms by activity and business model (excluding China, billions of dollars)



Source: figure taken from the Bank of Italy's Occasional Paper, no. 712, June 2022 – FinTech lending and funding platforms in the world and in Italy – source used by CAAF

The Occasional paper then analyzes the FinTech platform market in Europe which shows that the market has experienced a high increase in recent years: the value of annual transactions increased from 1.5 billion dollars in 2013 to 22.6 in 2020 (figure 4). The study highlights in particular how the United Kingdom is the largest player in terms of total transaction value.

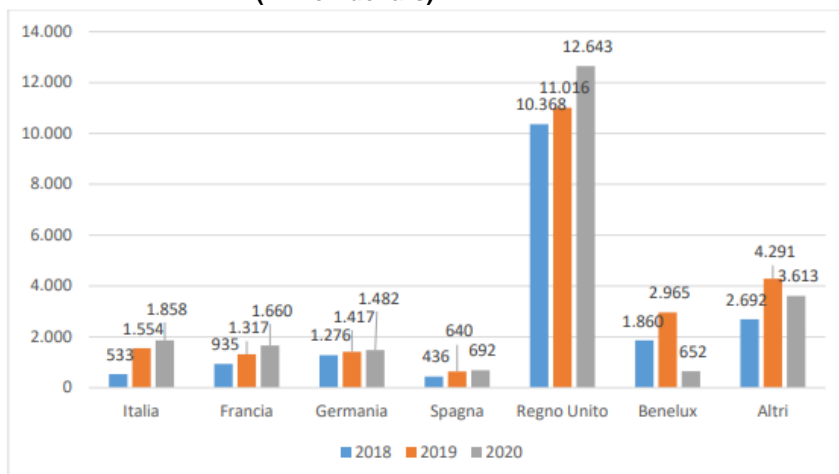
Fig. 4 – Transactions on FinTech platforms in Europe (billion dollars)



Source: figure taken from the Bank of Italy's Occasional Paper, no. 712, June 2022 – FinTech lending and funding platforms in the world and in Italy – source used by CAAF

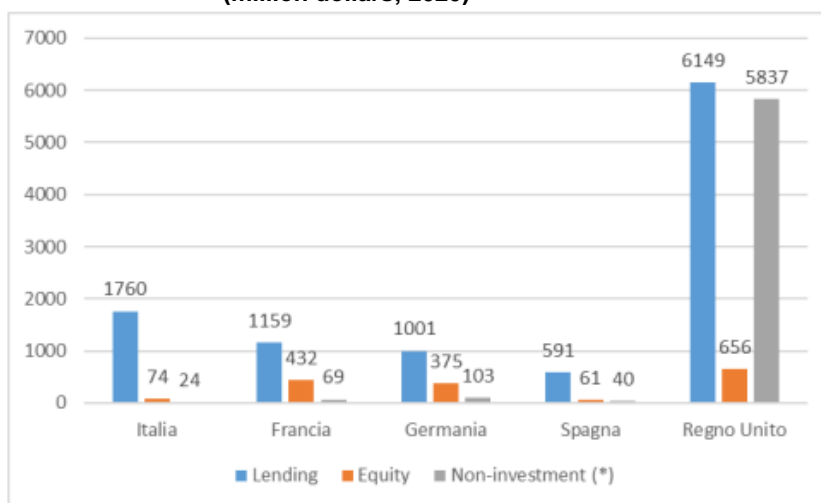
As for as Italy is concerned, the Occasional Paper highlights how the Italian market has also grown in recent years. Addition, the study confirms that in Italy, even more than in the main European countries, the activity of the platforms is mainly directed towards loans, while capital investments represent a smaller share (figure 5). In the case of Italy, the loans mainly concern companies and invoice trading (Figure 6).

Fig. 5 – Transactions on FinTech platforms in European countries (million dollars)



Source: figure taken from the Bank of Italy's Occasional Paper, no. 712, June 2022 – FinTech lending and funding platforms in the world and in Italy – source used by CAAF

Fig. 6 – Transactions by market segment in the main European countries (million dollars; 2020)



(*) The non-investment category collects donations, the financing of activities in exchange for products or non-monetary awards (reward-based crowdfunding) and other forms of subsidized financing to micro enterprises (crowd-led microfinance).

Source: figure taken from the Bank of Italy's Occasional Paper, no. 712, June 2022 – FinTech lending and funding platforms in the world and in Italy – source used by CAAF

The Occasional paper, to analyze the Italian FinTech market, used data taken from the publications on alternative finance of the Politecnico of Milan (Italian Report on CrowdInvesting and Alternative finance for SMEs in Italy 2017a-2021a e 2018b-2021b), information and data collected through direct contacts with platforms or from the internet. The reference period is not the calendar year, but the twelve months ending in June; The most up-to-date data refer to the period July 2020-June 2021. The study distinguishes that financing can take place through the granting of a loan (social lending and invoice trading) or through the subscription of capital or minibonds (equity and debt crowdfunding). In general, the study defines platforms as facilitators that connect individuals or companies seeking funding and investors who intend to grant it (marketplace platforms).

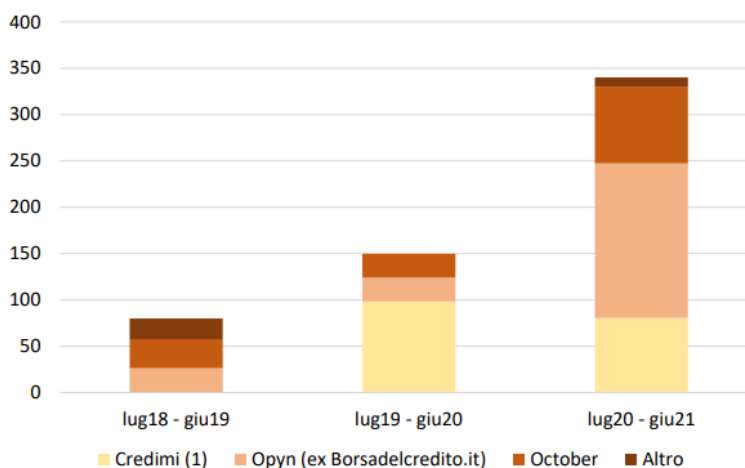
A fundamental aspect to consider is that for equity crowdfunding since 2012 a dedicated legislation has been introduced in Italy, merged into the Consolidated Law on Finance, the lending activity is not subject to a specific legal framework, therefore, the activity of the loan platforms is freely exercisable, but must be carried out in such a way as not to violate

the reserves of activities regarding the collection of savings, provision of credit to the public, provision of payment services and credit mediation. If the platform operator intends to participate in the provision of loans (balance sheet platforms) or independently manage the payment flows connected with the operation of the platform, it must be equipped with the necessary authorizations in accordance with the UPC (e.g. respectively as a financial intermediary pursuant to art. 106 TUB, as a payment institution or EMI). More often, platforms make use of the collaboration of authorized parties to carry out confidential activities and are limited to providing ancillary services and creating contacts with other companies in the credit chain, such as those assessing the creditworthiness of customers or securitizing loans; if among the lenders there are intermediaries authorized to grant loans, the activity of the platforms could, , be configured as credit mediation (art. 128-sexies TUB) and require registration in a list kept by the Body of Agents and Mediators (OAM), subject to possession of the requisites prescribed by law.

In Italy, many active platforms are authorized to operate as payment institutions (IP) or agents of Community payment institutions and EMIs; others have entered into cooperation agreements with Italian or EU payment service providers.

The Occasional paper found that as of June 2021, 28 digital platforms were active: 22 for business financing (of which 14 specialize in real estate) and 6 for household financing. Reporting only the data of interest for this paper, it is highlighted that the market for loans to non-real estate companies and households is highly concentrated. Loans to non-real estate companies are still contained, but rapidly expanding: they increased from 80 million disbursed between July 2018 and June 2019, to 150 in the following 12 months, reaching 340 in the last period ending in June 2021. Almost all of the funding is provided by three platforms: Credimi, which collects only from institutional investors, Opy, and October (figure 7).

Fig. 7 – Loans to non-real estate companies (annual flows, million euro)



Source: figure taken from the Bank of Italy's Occasional Paper, no. 712, June 2022 – FinTech lending and funding platforms in the world and in Italy – source used by CAAF

4. Case study

This paper, in order to answer research questions, aims to analyze a FinTech platform operating in Italy and growing in recent years with the aim of expanding the financial inclusion of SMEs. In particular, in addition to the analysis of the data provided, the survey conducted by the same company was also included, which aims to create a photograph of Italian companies that turn to Opy's Fintech lending.

The press review of "Il sole 24 ore" of March 16, 2023, reports as the winner in the Diversity & Inclusion category of the FintechAwards 2023, the FinTech platform Opy, one of the realities also cited by the Bank of Italy study and case study of this work.

The information described below was acquired through direct contact with the corporate structure of the platform. Opy defines itself as a human FinTech that through its technology offers digital and fast financial services, on the one hand to companies, in order to facilitate access to credit and on the other, simplifying the work of financial institutions. Opy is a reality with three souls: Fin + tech + human.

Founded in 2012, it is now one of the main marketplace lending for SMEs operating in Italy, having opened this channel of access to credit for companies for the first time in Italy. It is supervised and authorized by the Bank of Italy and Consob to play the role of mediator between supply and demand, between companies and lenders. Finally, in 2022 it expanded its offer with the launch of a new short-term installment loan dedicated to B2B both online and in physical stores.

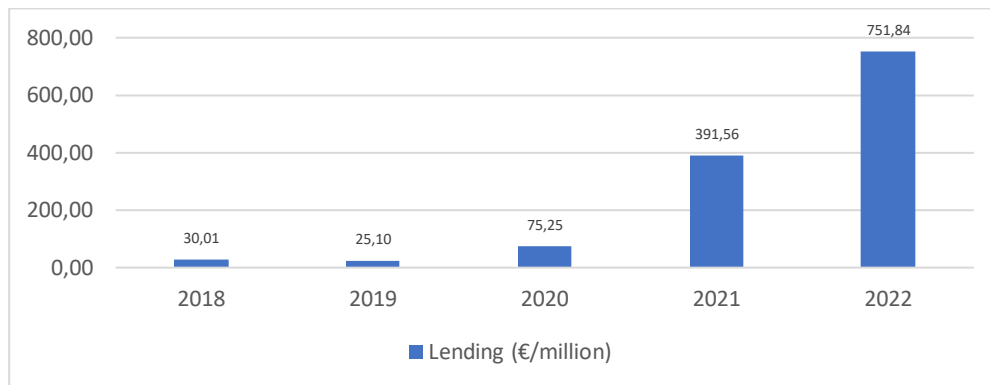
Opy is a brand managed by a corporate group, whose holding company is Business Innovation Lab Spa, which controls 100% of two other companies: Mo.Net Spa and ART SGR Spa. Mo.Net is the group company authorized to carry out payment services related to money loans. ART SGR is authorized to manage

alternative investment funds reserved for professional investors. These funds lend money through the Oryn platform.

Through its processes and technology, Oryn aims to be a sustainable reality and above all aimed at ensuring greater financial inclusion. The platform has developed a specific algorithm that allows you to look at new and more effective data with the aim of making those realities that were previously excluded access to credit.

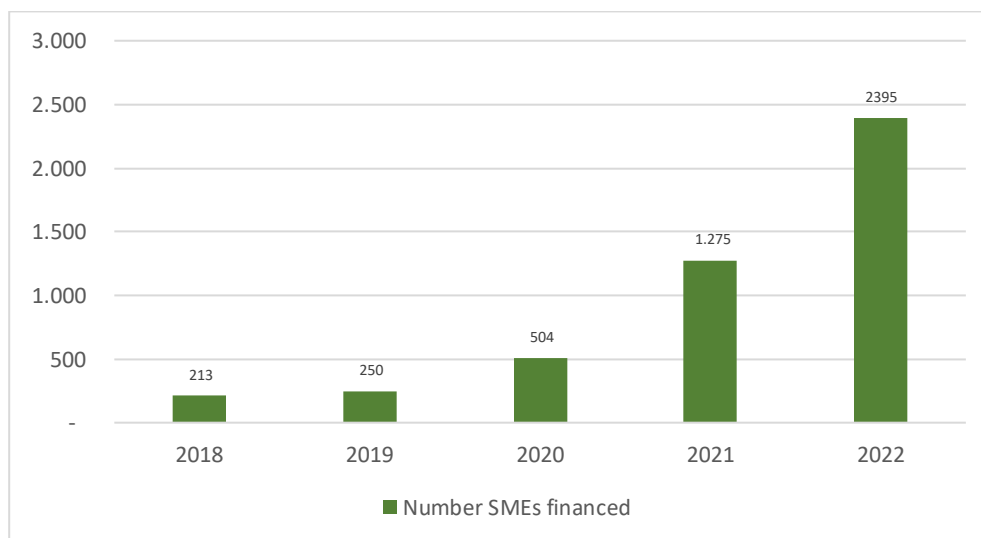
In particular, analyzing the data for the 2018-2022 period, it is clear how Oryn responds perfectly to that growth trend that has characterized the FinTech world. Growth trend confirmed also in the pandemic and post-pandemic period (Figure 8, Figure 9).

Fig. 8 – Lending (EUR/million)



Source: Data provided by Oryn. Graphical representation of our processing

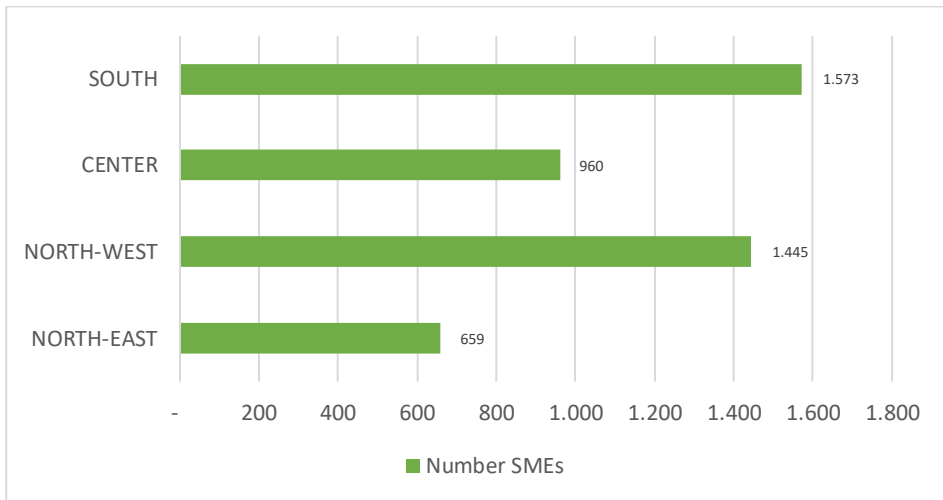
Fig. 9 – Number SMEs



Source: Data provided by Oryn. Graphical representation of our processing

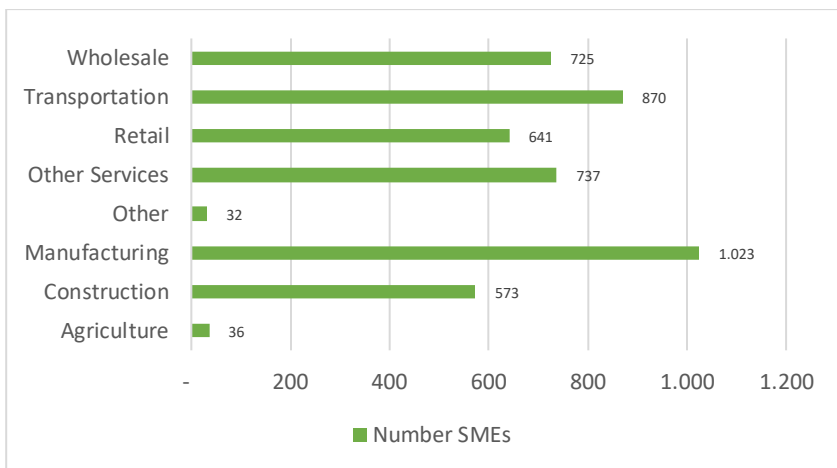
As can be seen from the data and documentation acquired, financial inclusion is a goal for Oryn, evaluating entrepreneurs for their bankability, without any bias related to geographical origin and sector (Figure 10, Figure 11).

Fig. 10 – Geographical distribution of the companies financed



Source: Data provided by Opyn. Graphical representation of our processing

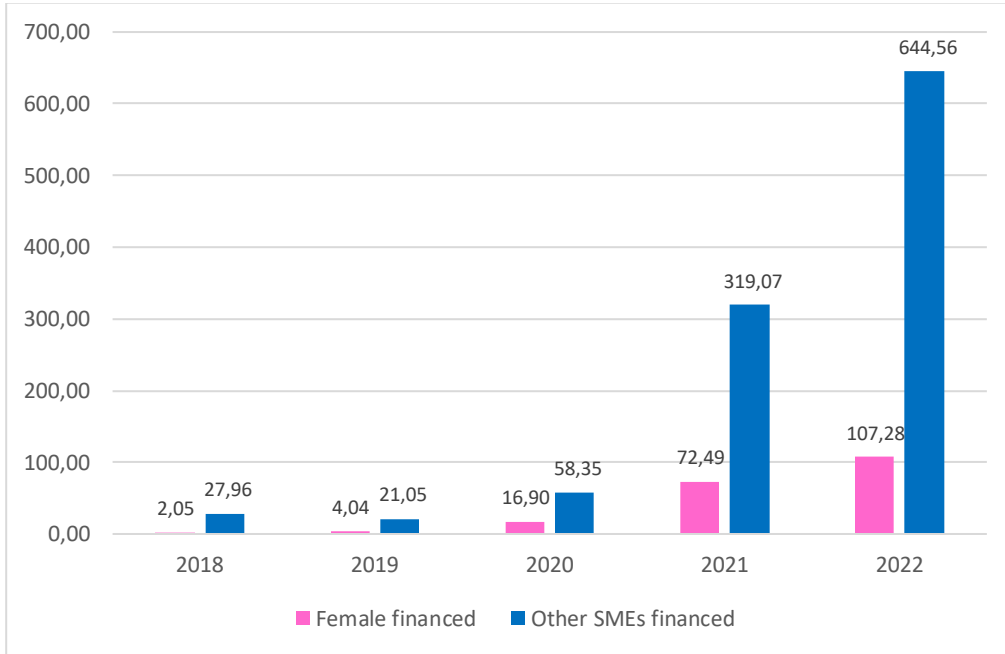
Fig. 11 – Sectoral distribution of the companies financed



Source: Data provided by Opyn. Graphical representation of our processing

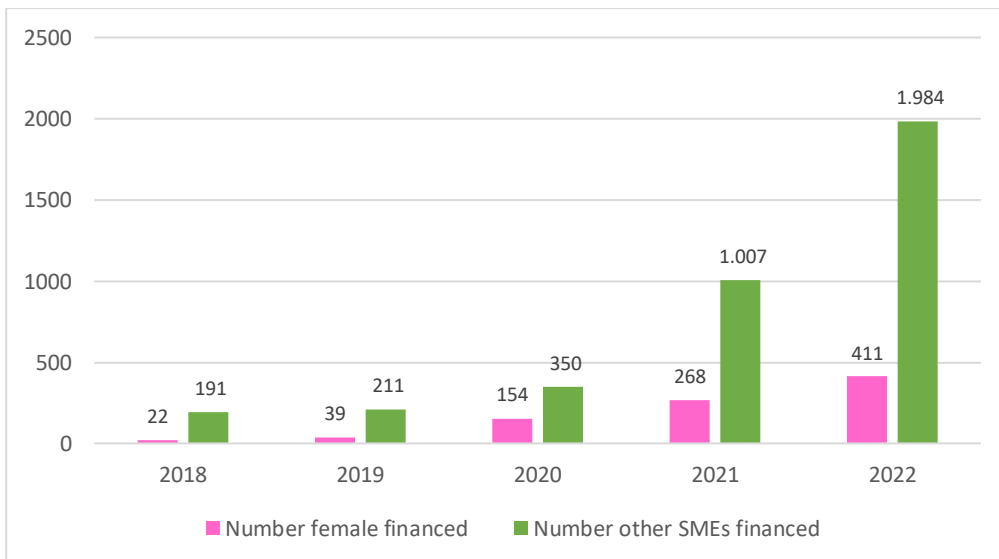
Going to analyze the information, it is possible to affirm that the growth trend is also confirmed with regard to women-owned companies, whose greatest increase in terms of numbers and values is also confirmed in the pandemic and post-pandemic period (figure 12, figure 13)

Fig. 12 – Women's businesses financed vs. the rest of the enterprises (EUR/million)



Source: Data provided by Oryn. Graphical representation of our processing

Fig. 13 – Number of female businesses financed vs. the rest of the companies



Source: Data provided by Oryn. Graphical representation of our processing

Below (Table 1) is the survey conducted by the Oryn study centre. In particular, the analysis was conducted on a sample of 107 small and medium-sized companies and from which the company highlights how SMEs are attentive to issues related to environmental and energy sustainability and the digital transition, but are still far from gender equality.

Table 1 – Survey conducted by Opyn. Source Opin Study Center.

<p>1. Size, core business and geographical distribution of the sample: some overall data</p> <p>The SMEs covered by the analysis are mostly companies employing between 10 and 50 employees (45.2%), followed by micro-enterprises with fewer than 10 employees (43.3%), while 11.5% employ between 51 and 100 employees. Also with regard to geographical distribution, companies are present in the majority of the North-West area (32.7%), but also in the South and Islands with 29.8%, while 19.2% are located in the Centre and 18.3% in the North-East. As for the respondents, they are mostly entrepreneurs (63.5%), followed by CEOs (18.7%) and executives (11.2%) of varying age but 60% between 46 and 65 years, men in 78.5% of cases.</p>
<p>2. Most SMEs invest in environmental sustainability</p> <p>Small and medium-sized Italian companies that turn to fintech lending are particularly attentive to the issue of sustainability: 34.7% of SMEs said they had embarked on a path while 54.5% are currently actively working to develop it. The vast majority of SMEs that have already embarked on a sustainability path declare that they focus above all on investments that have an impact in the environmental field (91%), while 31.4% of companies have activated social plans and 11.4% related to governance. On the other hand, however, only 38.1% have defined sustainability criteria to be applied when selecting their suppliers. Only 10.9%, on the other hand, say they are not interested in investing in sustainability paths. If in the field of environmental sustainability Italian SMEs run fast, there is still a lot of room for growth with regard to social sustainability, in particular corporate welfare initiatives such as, for example, the establishment of internal nurseries, health conventions or wellness and well-being. In fact, of the SMEs interviewed, only 38.1% said they had implemented them within their company.</p>
<p>3. Corporate actions against the energy crisis</p> <p>Italian companies are very attentive to the issue of the energy crisis: there are numerous and varied actions that SMEs have put in place to reduce consumption in the face of the global situation. Most of the companies surveyed said they had invested in the use of LED lights for lighting the premises (66%), in the introduction of tools and rules against the waste of electricity (46.4%), in new machinery with greater energy efficiency for production (44.3%) and in the adoption of renewable energy sources such as, for example, the installation of photovoltaic panels (33%). Furthermore, most companies have started regular maintenance and cleaning of production facilities (37.1%), reduced the use of air conditioning (30.9%) and optimized production processes through the adoption of IT tools such as the Internet of Things (14.4%).</p>
<p>4. The reference markets of Italian companies: especially offline and domestic</p> <p>It is interesting to note that the reference market is Italy for 60.6% of the SMEs interviewed, despite the fact that a third of the companies (33.7% to be exact) also operate on international markets. Only 5.8% say they sell mainly abroad, both in Europe and outside the EU. In addition, the majority of companies surveyed operate at both B2B and B2C level (47.1%) and a good percentage (i.e. 38.5%) work only in the B2B world. Instead, only 14.4% of companies operate exclusively in B2C. With regard to sales channels, the vast majority of companies that responded to the survey use only the offline channel (82.7%), while 14.4% use both online and offline channels equally and only 2.9% operate entirely online.</p>

5. Digital transition, between interest and obstacles

The survey shows that Italian SMEs are starting to be interested in investing in digital but are in an often too unknown terrain. In fact, if 59.2% of companies say they have not yet invested in innovative projects related to digital, 21.3% of these say that the reason is that "they do not know where to start". However, even today there is a slice of 14.8% of SMEs that declare that they are not interested in the digital transition.

However, the percentage of companies (40.8%) that have carried out innovative projects related to digital in the last 12 months (such as CRM, machinery automation, cloud adoption, embedded finance, machine learning, etc.) remains important. But how much did they invest? Of the total investments made during the year, 34.2% of these SMEs dedicated over 30% to digital, 26.8% a share ranging from 11 to 30% and 39% of companies used from 1 to 10% of resources.

6. The (long) road to gender equality

There is still a long way to go for the Italian entrepreneurial fabric in the field of gender equality.

On the one hand, women are present in companies: in 26.8% of cases the total staff of the company is composed of more than 50% women and in 18.6% of cases the female population is between 31% and 50%. However, analyzing the composition of the Board of Directors, top management and company ownership, a picture emerges in which there is ample room for improvement: only 14.6% of the companies that responded to the survey declare that they have a Board of Directors composed of women for over 50% and another 15.7% appears to have between 31% and 50% of the members of the board of directors female. 60.7% of companies, on the other hand, declare that they do not have any women on their Board of Directors and, moreover, in 47.4% of cases no woman owns shares in the company and in 35% of the companies respondents no woman holds managerial positions.

However, there is a 20.6% of companies in which women own more than 50% of company shares, to which is added a 14.4% in which the shares in the hands of women are between 31% and 50%. Finally, the percentage of companies in which more than half of management positions are female stands at 21.7% and 17.5% are those in which women hold between 30 and 50% of these positions.

5. Conclusions

Women in general still face significant hurdles when it comes to accessing the credit needed to build and expand their business.

Financial inclusion is one of the main tools to reduce gender inequality in the economic system and to achieve one of the Sustainable Development Goals. In fact, it is clear that gender equality also passes through economic independence and how for this it is essential a greater and more qualified participation of women in the economic system and therefore in the entrepreneurial fabric.

As regards access to finance, women's businesses being smaller and specialized in less productive sectors are less attractive to investors, moreover, companies run by women are perceived as riskier for a cultural issue. The result is that applications for funding from women entrepreneurs are often not accepted and when they are, compared to men, women find themselves paying higher interest and having to accept more stringent conditions and so most of the time women mainly use personal or family resources. This confirms what emerges from the analysis conducted by our study, namely that women's applications for funding are minor and therefore it is possible to affirm that: women do not ask or in any case ask in a limited way, credit to the financial system compared to the total of companies. As analyzed and demonstrated by the case study, the entry into the economic and financial system of technologically innovative financial platforms, FinTech, contributes to the financial inclusion of women's businesses. It is therefore possible to assume that, albeit in small numbers, women-owned businesses that access these new channels obtain positive responses in terms of access to credit. The case we analyzed, shows that the operation of this platform has increased by about 88% in terms of the number of companies financed between 2021 and 2022 and that the number of companies owned by women has also increased by about 53% between 2021 and 2022. So do platforms help close the gender gap in access to financial services? There is no doubt that FinTech companies are contributing, giving a crucial boost through digital financing and alternative channels, to access to credit for subjects not easily served by the traditional financial system, thus ensuring greater participation and inclusion in the financial market and ensuring the sustainability that is obtained only when the economic, environmental and social dimensions interact, But much remains to be done with regard to gender equality. In fact, according to the

survey conducted by the company subject to our case study, a fairly varied picture emerges: the small and medium-sized Italian companies covered by the survey have for the most part the issue of environmental sustainability at heart and are generally predisposed to invest their resources and to put in place initiatives and tools aimed at reducing the environmental impact on the territory both in the short and long term. In terms of technological innovation, despite being considered a useful lever to improve the efficiency of one's business with a view to growth and economic expansion, the resources in the field to structure an adequate technological transition are still scarce but the desire to increase investments in this field emerges. Finally, with regard to women's businesses that have had access to credit, it brings back the issue of gender equality and initiatives aimed at reducing the so-called "gender gap" within companies, whose challenges appear more difficult. Limit of the research, is that the data on SMEs that turn to FinTech platforms are still few and more generally there are no data available with which to carry out comparative analysis at national and international level and therefore one of the indications of this work is precisely to bring to attention the need to start collecting disaggregated data, by gender, with specification by activity, by size, by location, in the financial sector, agreeing at international level also on a common definition of female enterprise. Certainly, a greater availability of gender-disaggregated data is the first step to measure the gender gap in terms of financial inclusion that is actually recorded in the various countries and to understand how to address this gap more effectively also through the continuous comparison between traditional channels and innovative channels of access to credit. Another limitation of the analysis conducted on the surveys on FinTech platforms dedicated to lending is that the platforms are still few and even if the theme appears attentive it is certainly still contained in the results. Therefore, the originality of this work lies in drawing attention precisely to the lack of information and regulation on the subject of FinTech platforms, an information gap to be filled by drawing the attention of the authorities for greater regulation and the financial system to develop effective policies to attract and support companies with greater difficulties, as well as to start collecting and making public disaggregated data at the level of kind on their clientele.

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