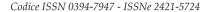


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### EQUITY CROWDFUNDING PLATFORMS: A DEMOGRAPHIC AND OPERATIONAL PERFORMANCE ANALYSIS OF THE ITALIAN SCENARIO

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#### Abstract

**Purpose.** The paper aims to investigate Italian equity crowdfunding platforms and their role in supporting innovative SMEs. Nowadays, platforms represent one of the many facets of innovative and digital entrepreneurial phenomena that support the development of SMEs through innovative financial tools.

Design/methodology/approach. The exploratory descriptive qualitative (EDQ) research method supports the paper, analysing the 51 Italian equity crowdfunding platforms authorized by CONSOB (Italian acronym of "Commissione Nazionale per le Società e la Borsa"). Dataset analysis has been built through ordinary records contained within CONSOB register and with financial and non-financial data from AIDA database.

Findings. The research highlights an irregular platforms' distribution with a concentration in northern Italy (RQ1). Focusing on performance (RQ2), only a residual part of the platforms show positive results (35% of the sample). Only a few players run the equity crowdfunding market and SMEs seem to prefer only certain platforms for promoting their campaigns.

Practical and Social implications. The present research can be useful in twofold. On one hand, it can help public authorities, such as CONSOB. with monitoring the equity crowdfunding phenomenon. On the other hand, it can guide practitioners in supporting innovative small businesses toward platforms that perform better and therefore, help them to stand a better chance of success in raising capital.

Originality of the study. The present paper enriches the literature on innovative small-medium enterprises and innovative financial tools. Several aspects of the workings of the innovative equity financial market for SMEs have been treated, and several topics theorized by scholars on equity crowdfunding platforms have been checked within this empirical study.

#### 1. Introduction

In recent time the world economies undergone a process of transformation oriented to innovation. The innovation process involved different aspects of organizations such as the preferences, behaviors and products (Gomber et al., 2018, Balata et al., 2018; Baldissera, 2019; Pencarelli et al., 2020). This transformation has not affected only individuals but also enterprises have been involved in the process of change. Particularly, the area in which this process is being applied is entrepreneurial innovation observed from the perspective of financial innovation (Dessy, 1995; Cesaroni and Sentuti, 2016; Blakstad and Allen, 2018).

Starting from 2012, the Italian regulator introduces two different kinds of innovative financial tools: the equity-side instruments (as stock exchange listing in AIM segment of Borsa Italiana and equity crowdfunding tool) and the debt-side instruments (as private debt, minibonds, and lending crowdfunding). Particularly, using these tools, the Fintech phenomenon takes root in Italy, where corporate finance and innovation technology merge into a unique solution, supporting the ventures in their growth paths (Branten and Purju, 2013; Altman et al., 2020; Beltrame et al., 2023).

In the following section we focus on the equity crowdfunding (ECF) tool, that within the donation-based, reward-based and lending-based, represents one of the main ways to raise money from the crowd (Belleflamme et al., 2014; Younkin and Kashkooli, 2016; Pagano et al., 2021). Through ECF, SMEs can raise money in return for shares and promote their innovative entrepreneurial project on the on-line portals, better known as platforms (Vulkan. Et al., 2016; Davis et al., 2017; Walthoff-Borm et al., 2018). In the Italian context, until early 2023, access to ECF has been reserved for innovative SMEs called innovative start-ups that satisfy the formal and substantive conditions established by law (Law Decree no. 179/2012)¹.

Recently, Legislative Decree No. 30 of March 10, 2023 and CONSOB Resolution No. 22720 of June 1, 2023, provided that all SMEs in the form of LLCs, including non-innovative ones, can access equity crowdfunding.

As it is clear from this short introduction, the platforms play a crucial

<sup>&</sup>lt;sup>1</sup>The formal conditions require the company to be established as a corporation or a joint-stock company, not to be listed, not to be more than 5 years old, not to be driven from extraordinary operations, to reside in Italy (or within the European Economic Area but with production head-quarters in Italy), not to have an annual turnover of more than five million euros, not to have ever paid dividends and to have as its exclusive or prevalent purpose, the development, production and marketing of goods or services with a high technological content. The substantial conditions however, require the company to be an innovative start-up, to spend at least 15% of the greater value between turnover and cost of production in R&D and innovation; to employ highly qualified employees of which at least 1/3 have PhDs, are PhD students or researchers, or at least 2/3 are in possession of a master's degree; to be the owner, depositary or the licensee of at least one patent or the owner of a registered software.

role in financing SMEs and innovative start-ups. However, scholars seem to underestimated the role of these platforms and instead, have focused on the characteristics of the projects presented by SMEs (campaigns) (Modaffari et al., 2020; Caputo et al., 2022) and the behaviour of individuals in subscribed equity-share (investors) (Davis et al., 2017; Lukkarinen et al., 2022).

In this stream, the present work aims at investigating the ECF platform contribution in supporting innovative SMEs, as a hub between enterprises and investors. Analysing these issues is important because they represent the material junction in the financing model, without which the innovative SMEs would not have the opportunity to share equity to fill the gaps in the financial sphere.

Therefore, ECF platforms certainly represent one of the many facets of the innovative and digital entrepreneurial phenomenon, that contribute to the development of SMEs through innovative financial tools.

For this reason, the main research questions (RQs) of this first exploratory study are:

RQ1: how are equity crowdfunding platforms demographically distributed in the Italian economic landscape?

RQ2: what are the main operational performances of Italian platforms?

To reach the declared goals, the present paper is supported by qualitative methodology of exploratory descriptive qualitative (EDQ) research (Carvalho et al., 2005; Cleff, 2014; Modaffari and della Corte, 2022). In this way, an explorative analysis of the 51 Italian equity crowdfunding platforms authorised by CONSOB (Italian acronym of "Commissione Nazionale per le Società e la Borsa") in 2018- 2021 period was conducted. For the best knowledge, CONSOB is the regulatory board of the Italian financial market.

Findings show several relevant topics to RQs. Firstly, the Italian equity-crowdfunding platforms have an irregular distribution. Most of them are located in northern Italy while only a few are in the middle, and only two in southern Italy (RQ1). Several considerations in this stream are presented in the discussion and conclusion section, among which is the potential beginning of a phenomenon already known to Italy's economic content: districts. This new phenomenon, due to the territorial concentration of platforms, could be recognized as a digital district for innovative financing tools.

Secondly, focusing on platforms' performance (RQ2), only a residual part of the sample shows positive results. Most platforms achieve negative performance in terms of income and cash flow.

Finally, there are only a few major players the equity crowdfunding market. While the official data shows an increase in raised funds, only a few platforms reach positive performances. This shows that SMEs prefer specific platforms for promoting their equity crowdfunding campaigns. In addition, findings show that while generating negative results, platforms try to survive as if the opportunity cost of losing the CONSOB authorization is greater than the negative performance achieved each year.

The originality of this first explanatory study can be appreciated both from a theoretical and a practical point of view. From a theoretical perspective, the work can enrich the literature on innovative small-medium enterprises and innovative financial tools. Several aspects of the functioning of the innovative equity financial market for SMEs have been treated, and several topics theorized by scholars on equity crowdfunding platforms have been checked within this empirical study. From a practical perspective, the present research can be useful in two ways. On one hand, it can support public authorities such as CONSOB, in monitoring the equity crowdfunding phenomenon. On the other hand, it can direct practitioners toward platforms that perform better and gives them a better chance at success in raising capital.

The main limitations of the work refer to the lack of qualitative information to support the analysis. Future research perspectives will be focused on developing case studies, with direct interviews on the members of platforms' governance. This methodology will be useful for understanding the critical elements of success that cause the equity crowd funding market to be so heterogenous.

The paper is structured as follows: paragraph 2 analyzes the existing literature on equity crowdfunding platforms, paragraph 3 describes the methodology, paragraph 4 elaborates on the results of the research, the conclusions of the work are provided in paragraph 5 and limitations and future research prospects are described in paragraph 6.

#### 2. Literature review

The present study could be intended as an explanatory study with the aim of deepening the platforms' role in the financing of small-medium enterprises. In order to grasp the real operation of these particular business-investor linking entities, it is useful to investigate the main features of their operation and how they manage to achieve their mission. For these reasons, the literature section introduces a general panorama of the equity crowdfunding tools, and then, it focuses on the function of platforms with particular attention to describing their business model. Equity crowdfunding represents one of the main equity-side innovative financial tools introduced by the Fintech Revolution (Belleflamme et al., 2014; Modaffari et al., 2020; Grassi and Fantaccini, 2022; Caputo et al., 2022). In 2012, equity crowdfunding was introduced in Italian Law (Law Decree no.83/2012) and other relevant regulations (for instance in the USA by the Jobs ACT),

allowing innovative start-ups to raise equity from investors (the crowd) through online portals, namely platforms (Zarandi et al., 2015; Vulkan et al., 2016; Walthoff-Borm et., 2018; Cumming et al., 2020). This instrument was born to reduce the equity-gap in start-up ventures, allowing them to overcome liquidity threats in the early-stage (Veugelers, 2011; Cesaroni and Sentuti, 2016; Quintiliani, 2017; Baldissera, 2019; Pencarelli et al., 2020). Unlike business angels, who are one of the main forms of initial funding for innovative startups (Iacoviello, 2015; Pagano et al., 2021; Paoloni and Modaffari, 2022), the equity crowdfunding protects the intellectual capital of start-ups (Wilson and Testoni, 2014). In Italy, since early 2023 a crucial shift is taking place; in fact, by the LD No. 30/2023 and CONSOB Resolution No. 22720/2023, the Regulator has provided access to equity crowdfunding to all SMEs incorporated as limited liability companies (LLC), including non-innovative ones.

However, while several scholars focus their works on other facets of equity-crowdfunding, such as campaigns' issues or investors' behaviors, platforms' research stream has been underestimated.

Through the openness, collaboration, and participation of platforms (Danmayr, 2013), the equity crowdfunding instrument can be considered as an open and sharing system between companies and individuals (Paoloni, et al., 2019; Cillo et al., 2019; Nespoli et al., 2022), increasing the sustainable growth of innovative start-ups. Therefore, platforms represent the link between firms and investors and play a fundamental role in resolving potential principal-agent mismatching that hurt the financing process. Their effectiveness can be observed in relation to the services offered pre, during and post campaign (Burtch et al., 2015; Vismara, 2016; Paschen, 2017; Davis et al. 2017; Hornuf and Neuenkirch, 2017; Signori and Vismara, 2018). More specifically, their typical behavior can be deducted from phases such as the evaluation of the project presented by firms, the preparation of the negotiation and the shares placement, the possible subscription by investors and finally, the assignment of the capital shares of the start-up (Hagedorn and Pinkwart, 2016).

The information provided during these phases, helps the investor to better understand the entrepreneurial initiative. Project evaluation and subscription phases are a crucial moment for the business model of the platform (Attuel-Mendes et al., 2018), in which a lot of activity return is generated. In fact, during the project evaluation phase the platform, based on the business plan provided by start-ups, fixes its yield expectation.

In this way, the literature agrees on recognizing the kind of raising activity that characterizes the negotiation and placement phase in twofold. On one hand, it is possible to find the first-come-first-serve system (in Italian context known as "prendi tutto") in which regardless of the raised amount, the campaign closes successfully and the amount is transferred to the start-

up as equity. On the other hand, there is the threshold-pledge system (in Italian context known as "tutto o niente"), in which, in order for the campaign to be successful, a certain amount of capital needs to raised. The capital will be transferred to the start-up only if the collection goal is met; otherwise, the amount will be returned to investors. Campaigns usually have a limited duration, usually ranging from 30 to 60 days (Hemer et al, 2011; Cumming et al., 2020).

However, in countries where there is weak or no regulation, platforms have more liberty to adapt their business models based on market needs. Conversely, in countries where there is strong regulation, platforms have to try to be profitable by adopting more rigid business models in compliance with the law.

In this way, relevant gaps highlighted by previous research identify the need for legal framework revision, starting from the creation of a more efficient capital market to support innovation entrepreneurship (Borrello et al., 2015; Younkin and Kashkooli, 2016; Hornuf and Schwienbacher, 2017; Lukkarinen at al., 2022). Currently, ECF remains a funding technique for SMEs and small investors, but it is unlikely to attract institutional investors. To improve the tool's status, platforms should expand their services and renew their business models (Tiberius and Hauptmeijer, 2021).

In the light of the above, in order to appreciate the real contribution of platforms and the effort they make to drive the equity crowdfunding industry, it is useful to analyze the specific disciplines that each country has for ECF.

Focusing on the Italian context, the Consob Regulation nr. 18592 issued on 2013, June 26, (updated on 2020, 6 feb by the resolution nr. 21259) regulates this instrument. in addition to certain access requirements, the regulation provides some behavioral requirements that platforms must maintain while operating as online portals. These include disclosure requirements, investor protection duties, confidentiality issues and obligatory reporting of any violations to CONSOB

Obligations that limit the use of the generic business model framework described above include: insurance coverage (Art.7-bis), maximum inactivity limit of not more than 6 months (Art.11-bis), conflict of interest with investors in terms of disclosure and co-investment (Art.13), due diligence to be carried out on each project by an independent professional (Art.13), negotiation of mini-bonds (Art.13), fraud risk prevention measures (Art.14), confidentiality obligations (Art.19) and record-keeping obligations (Art.20).

These issues fit in the present research, which attempts to illustrate the state of Italian equity-crowdfunding platforms through the empirical study of the phenomenon. The evidence from this initial observation may help academia to address the contextual issues highlighted above.

### 3. Methodology

Exploratory Descriptive Qualitative (EDQ) research (Carvalho et al., 2005; Cleff, 2014; Modaffari and della Corte, 2022) supports the paper. EDQ is a qualitative methodology suitable for addressing research objectives that aim to provide a direct description of phenomena (Caelli et al., 2003; Sandelowski, 2004). EDQ design fits in the various qualitative approaches as phenomenology, ethnography, grounded theory and action research (Swedberg, 2020). Explorative research can be defined as a method aimed at underlining how a phenomenon is manifested. Explorative research allows researchers to explore an issue with limited coverage, contributing to the development of new knowledge in that area (Glaser & Strauss, 1967; Glaser, 1978).

According to Hunter et al. (2019), EDQ methodology was born as a hybrid methodology between the exploratory research proposed by Stebbins (2001) and the descriptive qualitative research promoted by Sandelowski (2010). Specifically, Stebbins (2001), defines explorative research as the conception of an exploratory project to be developed through research design, data collection, and final report writing. Sandelowski (2010) emphasizes that qualitative descriptive studies are not intended to rescue poorly or partially conducted research. Rather, they are appropriate when a different, more interpretive qualitative methodology would not have been better suited to the research goals.

Focusing on the research topic, the EDQ was applied to understand the phenomenon of equity crowdfunding platforms in Italy, through the analysis of 51 active portals that are authorized by CONSOB (Italian acronym for "Commissione Nazionale per le Società e la Borsa"), the competent body in the matter.

In order to develop the analysis and answer the RQs, the authors had to build a complex dataset that combines platform data from different sources.

# 3.1 Dataset description

The analysis dataset was built through matching the platforms information extracted by ordinary Register held by CONSOB, extracting the financial information for the period 2018-2021 for each platform by AIDA database and finally, using the Italian equity crowdfunding market official data provided by the School of Management of the Politecnico di Milano, 2022.

# 3.2 Platform data by CONSOB

CONSOB is the public authority in charge of authorizing equity crowdfunding platforms. It also supervises the activity of the platforms in line with the provisions of Consob Regulation nr. 18592 issued on 2013, June 26 (updated to Feb -2020) and holds the record of authorized subjects. Data collection started from the ordinary section of this record. As of 2023, Jan 03, there were 51 platforms authorized to raise equity in Italy. As shown below (Fig.1):

Fig.1 Identikit of Italian Equity Crowdfunding platforms

nr.	Auth. nr.	Year of release	Name	City	nr.	Auth. nr.	Year of release	Name	City
1	2	2014	ACTION CROWD S.R.L	MILANO	27	61	2021	INNEXTA S.C.R.L.	MILANO
2	45	2020	ACTIVANT S.R.L.	MILANO	28	29	2018	LIFESEEDER S.P.A.	ROMA
3	57	2021	AGRI4CROWD S.R.L.	MILANO	29	38	2019	LOCAL CROWDFUNDING NETWORK S.R.L	LAIVES
4	58	2021	AZIMUT DIRECT X S.R.L.	MILANO	30	40	2019	MERIDIAN 180 S.R.L.	BOLOGNA
5	12	2015	BACKTOWORK24 S.R.L.	MILANO	31	5	2014	MF NEXT EQUITY CROWDFUNDING S.R.L.	CIVITANOVA MARCHE
6	13	2015	BALDI FINANCE S.P.A	MILANO	32	54	2021	MIGLIORA S.R.L.	MILANO
7	53	2021	BILDAP S.R.L.	MILANO	33	7	2014	MUUM LAB S.R.L.	LECCE
8	56	2021	BRICKUP S.R.L.	BOLOGNA	34	18	2015	OPSTART S.R.L.	BERGAMO
9	34	2018	BUILD AROUND S.R.L.	MILANO	35	46	2020	PARITER EQUITY S.R.L.	TRENTO
10	20	2017	CLUBDEAL S.P.A.	MILANO	36	65	2021	PARTNERSINCROWD S.R.L.	GENOVA
11	6	2014	CROWDFUNDME S.P.A.	MILANO	37	50	2020	PUZZLE FUNDING S.R.L.	MILANO
12	31	2018	CROWDINVEST S.R.L.	PRATO	38	47	2020	RE-ANIMA S.R.L.	MILANO
13	33	2018	DOORWAY S.R.L. SOCIETA' BENEFIT	BOLOGNA	39	59	2021	REROI S.R.L.	MILANO
14	10	2014	ECOMILL S.R.L.	MILANO	40	66	2021	RESTARTUP S.R.L	MILANO
15	44	2020	EQUIFUNDING S.R.L.	MILANO	41	8	2014	SIAMOSOCI S.R.L.	MILANO
16	49	2020	ETIANUS S.R.L.	FRANCAVILLA FONTANA	42	1	2013	STARS UP S.R.L	LIVORNO
17	60	2021	EXRE CROWDFUNDING S.R.L	MILANO	43	35	2019	START FUNDING S.R.L.	LECCE
18	55	2021	FENICE CROWD S.R.L.	MILANO	44	4	2014	THE ING PROJECT S.R.L.	BRESCIA
19	48	2020	FINANZA CONDIVISA S.R.L.	PADOVA	45	52	2020	UPSIDETOWN S.R.L.	MILANO
20	63	2021	FIRMAID S.R.L.	SANT'OMERO	46	21	2017	WALLIANCE S.P.A.	TRENTO
21	36	2019	FORCROWD S.R.L.	MILANO	47	11	2014	WEARESTARTING S.R.L.	BERGAMO
22	51	2020	FOXCROWD S.R.L.	FIRENZE	48	41	2019	WEDEAL S.R.L.	MILANO
23	9	2014	FUNDERA SRL	MILANO	49	62	2021	Y- CROWD S.R.L	MILANO
24	25	2018	GAMGA S.R.L.	MILANO	50	28	2018	1001PACT ITALY S.R.L	TORINO
25	37	2019	GOPMI S.R.L	NAPOLI	51	32	2018	4CROWD S.P.A.	MILANO
26	24	2017	IDEA CROWDFUNDING S.R.L.	ROMA				·	

Source: author's elaboration

Moreover, data regarding legal address, province, state, website, the presence of Collective Investment Undertakings (CIUs) - (Ita OICR), authorization to trade debt securities (ITA mini-bond for SMEs), the presence of electronic dashboard for investors and finally, eventually endorsements issued by CONSOB has been extracted for each platform.

# 3.3 Platform financial data by AIDA

Aida is one of the most important databases for Italian SMEs information. Focusing on the present research, after obtaining data from CONSOB record, the authors were able to extract the information through queries via vat number for each platform.

The extracted information focus on several issues from income statement and financial statements, and performances' index as described in the following section 4.

### 3.4 Equity-crowdfunding volume data

Regarding the data on the volume of capital raised during the analysis period (2018-2021), this research refers to the equity crowdfunding information provided in the 7th Report by the School of Management of the Politecnico di Milano, 2022.

The report states that "up to June 30th, 2022, 799 campaigns have been successfully closed in the equity crowdfunding market with a total capital volume of 429.04 million euros" (Politecnico di Milano, 2022, p. 23). For the purpose of our analysis and to link the performance of platforms with the volume of raised capital, we can extrapolate from the report that:

- 36.39 million euros were raised in 2018;
- 65.41 million euros were raised in 2019;
- 101.05 million euros were raised in 2020; and
- 148.26 million euros were raised in 2021 (the last year of our analysis).

To comply with the journal's guidelines, much information has been provided in summary form. If interested in the study, you can request specific appendices from the authors by contacting them at blindforreviewers@blindforreviewers.it.

The following section provides the data analysis.

### 4. Findings

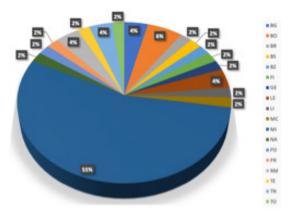
The present section is devoted to synthetize the main findings that the analysis points out. The following sub-sections highlight 1) geographical area; 2) the possibility of negotiating mini-bonds; 3) economic performances; 4) financial performances; 5) subsidiaries companies; 6) index.

### 4.1. Geographical area

The 51 Italian equity crowdfunding platforms have an imbalanced geographical distribution, with a concentration in northern Italy (38 units out of 51) and the remainder divided between central Italy (9 units) and southern Italy (3 units).

The following figure (Fig. 2) breaks down the data based on province and it shows a prevalent concentration of platforms in the province of Milan (MI) with 28 units out of 51 (55%), followed by Bologna (BO) with 3 units (6%), Bergamo (BG), Lecce (LE), Rome (RM) and Trento (TN) respectively with 2 units each (4%) and the remaining 12 provinces with 1 unit each (2%).

Fig.2 Geographical area by province distribution of Italian Equity Crowdfunding platforms



Source: author's elaboration

For the critical discussion of the information, please refer to the "discussion and conclusion" section.

### 4.2. Mini-bonds

This sub-section aims to highlight the number of Italian equity crowdfunding platforms, that allow SMEs to negotiate mini-bonds through the online portal, according to the reform introduced by CONSOB Regulation in the 2020.

Across the analysis, it is possible to identify the platforms (which for convenience we can define as "multi-strategy") allowing Italian SMEs to develop their financing strategies through innovative instruments of both the equity and debt type.

The following figure (Fig.3) shows the 7 equity crowdfunding platforms that have obtained authorization from CONSOB to also negotiate mini-bonds.

Fig.3 Italian Equity Crowdfunding Platform enabled for mini-bonds trading

nr.	Auth. nr.	Year of release	Name	City	Province
4	58	2021	AZIMUT DIRECT X S.R.L.	MILANO	MI
11	6	2014	CROWDFUNDME S.P.A.	MILANO	MI
20	63	2021	FIRMAID S.R.L.	SANT'OMERO	TE
23	9	2014	FUNDERA SRL	MILANO	MI
32	54	2021	MIGLIORA S.R.L.	MILANO	MI
34	18	2015	OPSTART S.R.L.	BERGAMO	BG
39	59	2021	REROI S.R.L.	MILANO	MI

Referring to seniority, the platforms authorized to issue minibonds are half among the oldest (years 2014-2015) and half among the newly established (year 2021). Most of these are located in the province of Milan (MI) (5 units out of 7, or 71.42%).

### 4.3. Economic performance

In an aggregate view, we can define the entire sector of Italian equity crowdfunding platforms as loss-making. The aggregate data show negative operating margins (in terms of EBITDA), and consequently also negative net results. The following figure (Fig.4) shows the aggregated data with an insight of the past performance of the current operating platforms. In other words, the analysis doesn't consider the platforms that shut down before 2021.

Fig.4 Aggregate economic results by the operating platforms in 2021-2018/EUR

Period:	2021	2020	2019	2018
Total Turnover	11.167.190	6.533.141	5.958.927	4.131.675
EBITDA	-385.549	-5.464.056	-1.841.482	-1.310.733
Net income (loss)	-2.663.920	-6.614.474	-3.041.834	-2.015.447
Operating Platforms	51	49	43	33

Source: author's elaboration

Focusing on the total turnover information, for 2021 the average of the sample is 218.915 euros. Starting form this benchmark value, only 8 platforms held a higher value than the average data.

The following figure (Fig.5) shows the results:

Fig.5 Top 8 Italian equity crowdfunding platform in 2021 per turnover/EUR

Platform	2021	2020	2019	2018
SIAMOSOCI S.R.L.	2.458.347	776.676	845.935	617.168
WALLIANCE S.P.A.	1.706.365	868.391	625.938	344.983
INNEXTA S.C.R.L.	1.465.231	1.137.868	1.273.793	387.060
OPSTART S.R.L.	1.348.407	632.027	280.111	180.958
CROWDFUNDME S.P.A.	1.336.475	420.415	390.175	186.480
BALDI FINANCE S.P.A	958.193	526.209	925.103	1.081.315
BACKTOWORK24 S.R.L.	772.204	905.550	535.162	679.781
DOORWAY S.R.L. SOCIETA' BENEFIT	343.526	222.595	101.460	0

As highlighted above, the total turnover generated in 2021 by the top 8 platforms (for a total of 10.388.748 euros) represents the 93% of entire market. Analysing EBITDA, only 18 platforms out of 51 reach a positive margin.

The following figure shows the findings (Fig.6):

Fig. 6 Equity crowdfunding platforms with positive EBITDA during the period (2021-2018)/EUR

Period:	2021	2020	2019	2018
Total Turnover	9.530.513	2.841.980	2.907.239	1.521.714
EBITDA	1.706.504	397.007	381.559	140.465
Net income (loss)	538.951	107.954	31.180	81.772
Operating Platforms with positive EBITDA	18	14	12	6
Platform with pos. EBITDA on total Platform (%)	35.29%	28.57%	27.91%	18.18%

Source: author's elaboration

From the data above, it is clear that only a residual part of the sample shows positive results. Although the results are growing, in 2021 platforms with positive results account for only 35.29 percent of the sample (18 units on 51).

Finally, comparing the above data with the equity crowdfunding volume provided by Politecnico di Milano, it is possible to highlight a slight decline in the ratio of platform revenues to raised equity volume, from average royalty ratio of 11.35% in 2018, falls to 7.35% in 2021. The analysis of this change in the incidence to total raised volume will be the subject of analysis in future work

# 4.4. Financial performance

The present section shows the main financial results of the Italian equity crowdfunding platforms.

The following figure (Fig. 7) shows the equity and debt range, in term of MAX/min value, for each period.

Fig.7 Equity and Debt range (MAX/min) of Italian equity crowdfunding platform per year/EUR

Period:	2021	2020	2019	2018
Total Equity MAX	4.651.447	8.442.000	2.032.201	1.735.729
Total Equity min	-308.885	-170.504	-131.379	-257.013
Total Debt MAX	1.244.518	2.528.000	696.417	756.650
Total Debt min	8	70	20	201

The highest (best) value in term of capitalization (equity) is reached in 2020, while the lowest (worst) value is reached in 2021. Moreover, the worst results have been held by the same entity (namely 1001PACT ITALY S.rl.) since 2019.

In the same way, referring to debt-side, while the platform holding the highest value of debt differs over time, the lowest stock of debt (near zero) has been held by the same entity (namely STARTFUNDING S.rl.) until 2020.

Referring to the composition of the Italian platforms' assets, there is a prevalence of intangible assets that generally account for almost 80% of the composition, the remaining 20% being liquidity and only a residual part of tangible assets. This facet is interesting since, according to national accounting standards, the value of licenses (as well as the authorization granted by CONSOB) is accounted for as intangible assets. It is, therefore, this asset that has the greatest value among the assets in the financial statement.

Also, analyzing the patenting activities, only three Italian platforms (SIAMOSOCI S.R.L.; CROWDFUNDME S.P.A.; and BACKTOWORK24 S.R.L.) dedicate part of their work to new products/inventios.

For the best of knowledge, it is useful to point out that in Italy there are several limitations regarding the business model of the platforms. The most relevant one concerns the impossibility to invest in the campaigns promoted in their portals. Therefore, the performances shown are the result of the mere characteristic activity of junction between companies and investors, i.e. as match of demand (by SMEs) and of offer (by investors) of capital.

#### 4.5. Subsidiaries

Holding activity is not very common among Italian equity crowdfunding platforms. In fact, only 9 out of 51 hold one or more subsidiaries. Even more uncommon is holding activity for internationalization, as out of the 9 mentioned only 2 hold foreign subsidiaries. We refer, in particular, to the Opstar Srl platform that holds an English company (SEED SET Ltd) and the Walliance platform that holds a French company (Walliance France). Walliance is the only platform in Italy that carries out the real estate equity crowdfunding.

#### 4.6. Index

As framed in sub-section 4.4, also for index, we provide an insight based on MAX/min value for each item. Particularly, we analyzed the performance indicators inherent to working capital, operating cash flow, ROI (%), ROE (%), Debt/Equity ratio, Debt/EBITDA ratio and NFP (Net Financial Position). In our opinion, the present analysis is useful for understanding the real situation and the overall balance of Italian equity crowdfunding platforms.

Indeed, information regarding working capital and operating cash flow is useful for understanding how platforms intend to meet short-term commitments (working capital) and to what extent they have cash flow from operations (operating cash flow).

ROI and ROE ratio, on the other hand, provide evidence of the profitability of the operating income on invested capital and net income on equity.

Finally, the study of the ratio of debt to Equity and to EBITDA grant important insight into the financial sustainability of overall debt exposure. The first ratio helps to understand the stock of debt versus the size of equity, while the second ratio expresses debt relief versus operating cash flow generated from operations (EBITDA).

NFP means the difference between total financial debts, regardless of their maturity, and liquid assets, i.e., those financial assets whose immediate conversion into currency or transferability can be demanded.

Following figure (fig.8) shows the highest and the minimum value for each indicator during the analysis period.

Fig.8 MAX/m	iin value index o	of Italian equ	ity crowdfundin	g platform per year,	/EUR

Period:	2021	2020	2019	2018
Working Capital MAX	4.141.963	1.469.617	1.749.521	464.695
Working Capital min	-117.324	-142.202	-250.793	-265.824
Operating Cash Flow MAX	725.736	118.283	109.862	43.417
Operating Cash Flow min	-541.646	-963.746	-916.527	-377.598
NFP (Net Financial Position) MAX	-3.946.083	-1.341.655	-1.064.974	-80.456
NFP (Net Financial Position) min	328.613	109.581	463.886	227.958
ROI (%) MAX	25.9	15.3	39.4	27.4
ROI (%) min	-746.2	-466.5	-383.5	-254.7
ROE (%) MAX	77.7	25.9	573.6	1,091.9
ROE (%) min	-495.2	-679.8	-1,371.2	-1,682.3
Debt/Equity ratio MAX	16.1	75.1	7.6	21.8
Debt/Equity ratio min	0.0	0.0	0.0	0.0
Debt/EBITDA ratio MAX	50.5	34.9	22.0	7.3
Debt/EBITDA ratio min	0.0	0.3	0.8	1.8

<sup>\*</sup> the representation not consider the platform with negative Equity.

<sup>\*\*</sup> the representation not consider the platform with negative EBITDA.

Representing the same data by entity (Fig.9), we can see several correlations that lead us to think of the platform market as a context represented by only a few subjects.

Fig.9 MAX/min index value of Italian equity crowdfunding platform per entity per year

Period:	2021	2020	2019	2018
Working Capital MAX	SIAMOSOCI	OPSTART	WALLIANCE	WALLIANCE
	S.R.L.	S.R.L.	S.P.A.	S.P.A.
Working Capital min	1001PACT ITALY S.R.L.	MIGLIORA S.R.L.	CROWDFUNDME S.P.A.	BACKTOWORK24 S.R.L.
Operating Cash Flow MAX	SIAMOSOCI	INNEXTA	INNEXTA	BALDI
	S.R.L.	S.C.R.L.	S.C.R.L.	FINANCE S.P.A
Operating Cash Flow min	CLUBDEAL S.P.A.	BACKTOWORK24 S.R.L.	BACKTOWORK24 S.R.L.	BACKTOWORK24 S.R.L.
NFP (Net Financial Position) MAX	SIAMOSOCI S.R.L.	OPSTART S.R.L.	WALLIANCE S.P.A.	CROWDFUNDME S.P.A.
NFP (Net Financial Position) min	CLUBDEAL	MIGLIORA	CLUBDEAL	CLUBDEAL
	S.P.A.	S.R.L.	S.P.A.	S.P.A.
ROI (%) MAX	LOCAL CROWDFUNDING NETWORK S.R.L.	BUILD AROUND S.R.L.	ETIANUS S.R.L.	MF NEXT QUITY CROWDFUNDING S.R.L.
ROI (%) min	1001PACT	1001PACT	1001PACT	1001PACT
	ITALY S.R.L.	ITALY S.R.L.	ITALY S.R.L.	ITALY S.R.L.
ROE (%) MAX	PUZZLE	INNEXTA	MUUM LAB	GAMGA
	FUNDING S.R.L.	S.C.R.L.	S.R.L.	S.R.L.
ROE (%) min	GAMGA	PUZZLE	4CROWD	CROWDINVEST
	S.R.L.	FUNDING S.R.L.	S.P.A.	S.R.L.
Debt/Equity ratio MAX	PUZZLE	PUZZLE	ETIANUS	LOCAL CROWDFUNDING
	FUNDING S.R.L.	FUNDING S.R.L.	S.R.L.	NETWORK S.R.L.
Debt/Equity ratio min	GOPMI S.R.L.	START FUNDING S.R.L.	START FUNDING S.R.L.	START FUNDING S.R.L.
Debt/EBITDA ratio MAX	FUNDERA	ECOMILL	GAMGA	MUUM LAB
	SRL	S.R.L.	S.R.L.	S.R.L.
Debt/EBITDA ratio min	CROWDFUNDME S.P.A.	OPSTART S.R.L.	MIGLIORA S.R.L.	FIRMAID S.R.L.

Source: author's elaboration

According to the highlighted results, SIAMOSOCI platform is one of the most important platforms operating in ECF Italian market. It is the first Italian platform per turnover, reaching positive results, in terms of EBITDA, net income and operating cash flow. SIAMOSOCI reaches the best NFP only in 2021, as the previous years represent a start-up period. At this stage, SIAMOSOCI started its holding activity by reaching as many as 4 subsidiaries in 2021.

Analyzing the profitability of operating income, platforms present several different results in terms of ROI. The worst operating profitability for the entire analysis period is held by the 1001PACT ITALY S.R.L platform, while the best result is held by a different platform for each year observed.

Focusing on the analysis of the profitability of net income (ROE), Italian

platforms are presented as a wide-ranging picture with different subjects in different survey years. For the best knowledge, it is useful to highlight that the above results do not represent the best (or worst) in absolute value but they represent only the best (or worst) ratio compared to net income and the amount of the equity of the period. In this way, it is useful to highlight the best result in term of net income of the Italian equity crowdfunding for 2021 (Fig. 10):

Fig.10 Top five Italian equity crowdfunding platform for net income in 2021 with historical results

Platfrom	2021	2020	2019	2018
SIAMOSOCI S.R.L.	351.720	-504.951	-397.649	-341.803
INNEXTA S.C.R.L.	108.213	106.778	2.837	-193.053
OPSTART S.R.L.	69.521	28.272	24.817	15.938
WALLIANCE S.P.A.	36.191	-654.838	-223.509	-138.954
CROWDINVEST S.R.L.	9.668	-16.725	-37.488	-37.212

Source: author's elaboration

Finally, focusing on the analysis of the sustainability of the debts compared to equity and to EBITDA (please see previous fig.9), the best results in term of Debt/Equity is presented by GOPMI srl platform while in term of Debt/EBITDA is held by CROWDFUNDME spa platform.

#### 5. Discussions and conclusion

Equity crowdfunding represents one of the main innovative equity-side financing instruments that support small-medium enterprises (Modaffari et al., 2020). Using this tool, companies obtain financial resources as risk capital to financing their business idea. Investors, on the other hand, subscribe and get shares in the company, which offers future profits and capital gains in return.

The described mechanism can only be realized thanks to particular entities who aim to coincide the interests of SMEs and investors, namely the platforms (Vulkan et al., 2016; Walthoff-Borm et., 2018; Cumming et al., 2020). The equity crowdfunding platforms play a fundamental role in the promotion of innovative entrepreneurship, fitting in specific phases of innovative SMEs life cycle where, other financing agents such as business incubators, business angels and venture capital (Iacoviello, 2015; Pagano et al., 2021; Paoloni and Modaffari, 2022) cannot find place.

However, scholars seem underestimate the platforms' relevance, developing studies about companies and investors (Davis et al., 2017; Lukkar-

inen et al., 2022; Caputo et al., 2022); and treating platforms topics as a residual part of the equity crowdfunding tool.

Starting from this emerging gap, this first explanatory study aimed to observe the material platforms' role in the financing of small-medium enterprises in a specific context.

Particularly, the study has been developed in twofold. In one hand, by analysing the generic functioning framework of equity crowdfunding platforms, and then focusing on the specific Italian regulations. On the other hand, through an empirical analysis of the Italian scenario, by observing and analyzing the current workings of the platforms that promote financing function for SMEs.

To achieve this goal, two different research questions (RQs) have been formulated, which will be answered below with conclusive considerations in the light of the results mentioned in the previous section.

RQ1: how are equity crowdfunding platforms demographically distributed in the Italian economic landscape?

The findings reveal an uneven territorial distribution of the platforms. A significant concentration is found in the province of Milan, where 28 units out of 51 reside (or about 55% of the total). In the rest of northern Italy there are another 10 platforms, which together with the previous ones amount to 38 units (or 75.5% of the total). In central Italy there are 9 units while in the south only 3 units.

This disparity in geolocation does not have objective justification. An issue useful in explaining this disparity in distribution could be traced in the territorial proximity to firms. The concentration of the platforms in a specific area can also be linked with a phenomenon already known in Italian economic history as industrial districts. The empirical data evidences could be read as the beginning of a new conformation of districts: the "digital" ones. This new conformation has the scope to promote the innovative financing instruments in favor of SMEs, assisting them from the pre-collection phase up to the exit phase. This consideration is also in line with the literature discussed, which highlight that the platforms support is not limited to mere advertising of the campaign but it is tailored on SMEs needs.

A further aspect related to the physical distance between enterprises and platforms could be the issue of control. In fact, the distance of the platform from the company can trigger troubles regarding execution, by the platform, of due diligence requested by Consob Regulations before the funding campaign. Furthermore, empirical studies show that one of the investor's considerations when buying shares in innovative SMEs through the equity crowdfunding tool, is precisely the physical proximity to the project (Hornuf and Neuenkirch, 2017). Therefore, having a greater num-

ber of platforms that are equally distributed on territories, could be a stimulating factor for innovative entrepreneurial phenomenon, as well as a factor for the growth and development of entrepreneurial culture and the use of innovative financing tools, such as equity crowdfunding.

Despite of these issues, it is still possible to pursue the phenomenon of democratization of capitals to which, equity crowdfunding aspires. A further development out of this initial explanatory study that strengthens the thesis, according to which the investor prefers to finance projects that are physically closer, could be the observation of the connection existing between the provenience of the investors and the project characteristics that platform choose to launch. Developing this analysis is useful for understanding whether the platforms that are located in the north, promote projects by companies close to them and also if, on the contrary, companies not close to platforms turn to geographically distance platforms to promote their innovative projects. This last conclusion could confirm that equity crowdfunding is as an innovative financing tool isn't affected by physical constraints.

### RQ2: what are the main operational performances of Italian platforms?

Although in the period (2021-2018) the total aggregate revenues grow, negative results are observed both in terms of operating income and in terms of net income for the Italian equity crowdfunding platforms. The worst data is recorded in 2020, where the annual percentage growth in revenues is the lowest compared to year-on-year deviations and aggregate losses (operating (eur -5.4 mln) and net (eur -6.6 mln)) are the highest of the entire historical series.

For the best of knowledge also with respect to the contents illustrated for RQ1, it is useful to mention, that the number of active platforms grew during the survey period: out of the 51 actives today, 33 were already active in 2018.

However, negative statements about the sector are not entirely correct. In fact, by focusing only on the entities with positive EBITDA, encouraging performance results become visible. Firstly, we should mention that out of the 51 platforms, only 18 have a positive EBITDA (i.e. only 35% of the sector). These 18 platforms, in 2021, contribute to the production of approximately 85% of the entire revenue volume (eur 9.5 million out of eur 11.1), producing a positive EBITDA of eur 1.7 million and a net income of eur 0.5 million. This picture shows that in 2021, the probability of loss from EBIDTA, in terms of probability of occurrence of the harmful event compared to the number of participants in the sector, is around 64.70% (33 entities out of 51 record operating losses). From this conclusion, subsequent studies could be elaborated to understand which cost factors make platforms economically vulnerable.

Referring to the analysis by ratio, in the present work a MAX/min type analysis was performed on all 51 platforms. Using this technique, it was possible to identify the entities that recorded the best and the worst result, thus tracing the perimeter of the entire segment for each year.

Starting from the Debt/Equity ratio, it is important to observe that during the survey period, for the range between MAX value and min value, there was a reduction in the distance between the values in favor of the greater capitalization of the platforms. On the contrary, in the Debt/EBIT-DA ratio, there is a gap in the values whose cause could lie; on the one hand, by the increase in the use of credit capital and, on the other, by the reduction in operating profitability. Still with reference to the operational aspect of the platforms, the operational cash flow indicators show a worsening of the min results during the survey period as well.

In contrast to what is described for the previous ratios and with regard to the data of the net financial position (NFP), there is an expansion of the range of values. In fact, in 2021, there is a proportional percentage increase in MAX value compared to the previous year. There is also a worsening of min value, in spite of getting counterbalanced by the benefit recorded in MAX values.

In the historical series analysis, it is noted that, often, the same subject holds the value of min every year (for example the 1001PACT ITALY S.R.L platform records the result of the worst ROI for the entire historical series).

The natural consequence of reading this data would be the interruption of the activity over time, however the platforms seem to want to survive despite recording negative results. The procrastination of the negative period could be linked to the desire to preserve the value of the authorization issued by CONSOB. To support this view, as already mentioned in the literature section, we find the provision envisaged in article 11-bis of Consob Regulation nr. 18592/2013, which attests the possibility to revoke the authorization in the event of inactivity for more than 6 months. From this point of view, the platforms that find themselves in this situation, in order not to lose the authorization, could be led to accept non-performing equity crowdfunding campaigns.

Moving towards the conclusion of this first explanatory research, the positive role of platforms in supporting Italian SMEs, in a general perspective, can be confirmed. In Italy, there has been an increase in the total volume of raised equity, with a growing trend over the years. This confirms that platforms represent the key link between SMEs and investors. In addition, there is an increase of the average percentage of royalties that platforms receive from campaigns. It could be read as a better service provided by the platforms. Firms are willing to pay higher fees for the better collecting activities. This conclusion is in line with literature. In fact, according to

Wilson and Testoni, 2014 "platforms usually charge companies a fee, typically 5-10 percent of the amount raised" (p.5).

In the light of what has been discussed so far and the points derived from the answer to 2 RQs, we can conclude by defining the platform sector, which derives from the phenomenon of financing through equity crowdfunding, as a heterogeneous sector in which the risk of loss is greater than 50% of the entire sample. In other words, to date, the number of platforms with positive performances represents only 35% of the sector.

However, a further positive growth forecast can be linked to the regulations introduced in 2020, with which the possibility of negotiating debt-side instruments such as minibonds was also provided to the portal. Nowadays, this possibility is exploited by only 13% of Italian platforms (7 units), but in the near future it could allow a real democratization of the phenomenon of innovative financing instruments.

Last but not least, the aspect that requires greater attention is the holding activity of the platforms. Only a few entities hold investee companies and even fewer, are those whose investee activity is oriented towards the development of innovative SMEs. What we are referring to, specifically, is the creation of groups that can support the start-up from early stages to development and the creation of value. One could think of mixed groups in which there are incubators for idea screening services, company constitution and business modelling/start-up, business angels and venture capital, with the aim of providing financial resources in the pre-seed and seed phase. Finally, these groups can also include platforms that support SMEs in the collection of equity and then accompany them, with post-collection services, up to the possible "exit way".

In the light of the results of this study, we can assert that the conclusions we reach is not at all generic. In fact, the online platforms can function differently depending on country where they are located and also the place where fundraising takes place. In other words, the same instrument (equity crowdfunding) has different rules based on the countries considered and the business model performed by platforms. In countries with advanced laws, this financing instrument, and consequently the platforms business model, is subject to more stringent rules and precise control mechanisms. On the contrary, in countries where laws are weaker, its use is less controlled and opportunistic behaviors can occur.

Italy is involved in the first category and although the benefits of equity crowdfunding are tangible, several steps have still to be taken.

Considering financing and recapitalization SMEs as a primary pillar of the instrument, expanding or mandatorily providing consulting services instrumental to the start of the campaign by platforms could increase the effectiveness of equity crowdfunding and trust toward investors.

Across this assumption a twofold reflection must be drawn. On the en-

terprises and platforms side, Italian regulations do not still provide a specific rule for direct involvement of the platform in financing campaigns. Nowadays, the role of Italian platforms could be simply resumed as match of demand (by SMEs) and of offer (by investors) of capital. Instead, in other countries, even with low regulation, direct platform involvement in SMEs financing can occur.

On the investor side, however, there is still a lack of tools useful to preserve investors and support them in their investments' choices. Particularly, even today, there are no campaign rating or fraud prevention models. Equity crowdfunding, through the investors' turnover (new entries and exits), could lend itself to fraudulent practices, such as Ponzi schemes.

In this direction, policy maker could plan new rules that can better ensure investor protection and at the same time in financing small and medium-sized enterprises, including via the direct involvement of platforms. To reach this scope, among other, policy maker could require to platforms the implementation of specific models, that based multi-variable analysis, provides outputs in term of rating of campaign and fraud-risk for investors.

Campaign rating could cover different issues, such as scores on operational and financial performance; on sustainability issues; and many others.

Fraud risk, on the other hand, could relate to models that consider specific enterprise and campaign characteristics. For instance, they might consider qualitative variables such as board characteristics or even qualitative aspects of the project, or quantitative variables such as the amount of capital required, ROI or ROE compared to the feasibility of the proposed project, and many others. Even on these issues the literature is still underestimated.

Developing and following the above issues could encourage a further advance in the implementation of financial innovation and the process of financial democratization, a crucial point for crowdfunding.

Referring to the originality of this first explanatory work, several theoretical and practical implications can be mentioned. From a theoretical point of view, the work contributes to the literature on SMEs and innovative entrepreneurship linked with the studies on innovative equity-side financing instruments. Particular emphasis was dedicated to the contents discussed in the literature on the subject of equity crowdfunding platforms and their response in territorial contexts, where the financing instrument is specifically regulated, such as the Italian one. From a practical point of view, the work can help improve the relationship between start-ups and platforms by providing a clear representation of the current market. Furthermore, this work can help professionals involved in supporting the growth of start-ups, which represent a rapidly growing entrepreneurial phenomenon in Italy.

Limitations and future lines of the research are summarized in the next section

### 6. Limitations and future perspectives

The main limitation of this study lies in the nature of the accounting data used for investigating purposes. The data come from the AIDA database and need to be verified against the platforms' official balance sheet documents. Moreover, further qualitative documentation should be provided for better quantitative data processing.

This limit can be overcome in future research which, work on case studies aimed at investigating the issues that emerged in the concluding paragraph of this work; in particular, the analysis of the relationships between the SMEs and investors and equity crowdfunding platforms as their main link.

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