POLITECNICO
MILANO 1863

MASTER OF SCIENCE IN
MANAGEMENT ENGINEERING

(FINANCE STREAM)

School of industrial and Information Engineering

Academic Year 2020-2021

ACTIVE OWNERSHIP STRATEGIES BY INVESTORS IN EQUITY CROWDFUNDING

AUTHOR: CONTI MATTEO 944389

SUPERVISOR: GIANCARLO GIUDICI

ABSTRACT (ENGLISH)

This paper provides information on the analysis of participation to the 'corporate life' and, more in particular, to the various shareholders' meetings, by those individuals (whether they are natural or legal persons) who entered in the ownership structure by subscribing shares during the equity crowdfunding campaign(s) launched by the company on a dedicated online platform. The expression 'follow-up' gives a good idea on the events described in the minutes that have been analysed: the term derives from the medical field and indicates a scheduled activity of continuous or periodic patient monitoring during the rehabilitation phase subsequent to the illness, in order to verify status of progress in the recovery process. Similarly, the term can be adapted to the questioned economic and financial context, indicating the operation of controlling one or more specific parameters in the events successive to the end date of the fundraising campaign.

In this regard, also thanks to the collaboration with the 'Osservatorio Crowdinvesting' from 'Politecnico di Milano', it has been realised a dataset of sixty-seven companies (among start-ups and small-medium enterprises) which have carried out at least one collection round in the period from 2014 (year of the first equity crowdfunding campaign in Italy) to the end of 2017. Obtained results show how it is possible to perform a first major distinction based on the total number of investors who contributed to the campaign, identifying two opposite macro-areas for what concerns characteristics and participation level; while the analysis of individual interventions together with votes during the shareholders' meetings provides further details on the existence of a weak balance internal to the company, and on the possibility to convert the proactive participation from investors (shareholders) into an added value for the company, as well as a competitive advantage in the long-run.

Keywords: Equity Crowdfunding; Investments; Active Ownership; SMEs; Start-up; Meeting Minutes.

ABSTRACT (ITALIAN)

Questa tesi fornisce al lettore informazioni riguardo all'analisi della partecipazione alla 'vita aziendale' e, più in particolare, alle varie assemblee degli azionisti da parte di quegli individui (siano essi persone fisiche o giuridiche) che sono entrati a far parte della struttura societaria sottoscrivendo quote durante la campagna (o le campagne) di equity crowdfunding lanciata dall'azienda su una piattaforma online dedicata. L'espressione 'follow-up' rende bene l'idea degli eventi riportati nei verbali che sono stati analizzati: il termine è di derivazione medica e sta ad indicare una fase programmata di controllo continuo o periodico del paziente durante la fase di riabilitazione successiva alla malattia, al fine di verificarne lo stato di avanzamento nel percorso di guarigione. Allo stesso modo, tale termine può essere adattato al contesto economico-finanziario in questione, andando ad indicare l'attività di controllo (mirato ad uno o più parametri specifici) degli eventi successivi alla data di fine campagna.

A tal proposito è stato realizzato, grazie anche alla collaborazione con l'Osservatorio Crowdinvesting del Politecnico di Milano, un dataset di sessantasette società (tra start-up e piccole-medie imprese) che hanno effettuato almeno un round di raccolta dal 2014 (anno della prima campagna di equity crowdfunding in Italia) fino alla fine del 2017. I risultati ottenuti evidenziano come sia possibile effettuare una prima grande distinzione in base al numero totale di investitori che hanno contribuito alla raccolta, individuando due macroaree opposte per quanto riguarda caratteristiche peculiari e livello di partecipazione; mentre l'analisi degli interventi personali e delle votazioni durante le assemblee fornisce maggiori dettagli quanto all'esistenza di un sottile equilibrio interno alla società e alla possibilità di convertire la partecipazione attiva degli investitori in un valore aggiunto nonché un vantaggio competitivo per l'azienda nel lungo termine.

Parole chiave: Equity Crowdfunding; Investimenti; Azionariato Attivo; PMI; Start-up; Verbali di Assemblea.

INDEX

LIST OF FIGURES

LIST OF TABLES

1 EXECUTIVE SUMMARY

Nowadays equity crowdfunding is recognised as a reliable source of financing for entrepreneurial firms, through which many SMEs and start-ups from the most disparate sectors came out of the pandemic crisis. Equity crowdfunding represents an open call through the Internet in which entrepreneurs receive funds in exchange for shares of the company, by selling in some sense the right to participate to the future cash flows generated by the firm. This mechanism made its first appearance in Australia in 2007, but really started to become important around 2010, when emerged as an effective solution for the 'Subprime Mortgages crisis'. This positive trend received another important sprint in 2020 also thanks to the shift by financing channels towards digitalization partially imposed to face Covid-19. The numbers collected at the end of 2021 highlight how this trend is still growing rapidly: just focusing on Italy, data published last November by the 'Osservatorio Crowdinvesting' highlighted a growth in the total amount of money raised of about 40% with respect to the previous year, made possible also thanks to sprint provided at the regulatory level both at national (PNRR) and European (ECSP) level.

Alongside with its growing impact on early-stage financing for small companies, equity crowdfunding has become more and more important within the academic community. From the very beginning, literature was divided among two different schools of thought: on one hand, some studies pointed out the potential benefits provided by equity crowdfunding, which can reduce typical inefficiencies of traditional financing channels thanks to the digital nature of the tool, allowing the so-called 'Democratization of Finance'. On the other hand, many scholars focused on the possible threats and consequences, questioning the moral issue of providing unsophisticated investors and, more in general, small savers with such a powerful instrument. Another aspect that has been analysed in depth by existing literature is given by the assessment of the main determinants of success for equity crowdfunding campaigns and their implications on the medium and long-term performances (both financial and non-financial) of the firm.

When launching a new round on an equity crowdfunding platform, entrepreneurs recur to the 'surcharge mechanism' to preserve their absolute majority in the ownership of the company also after the end of the campaign, by offering shares made up of a small nominal part together with a large premium for the innovative idea. As a result, the total stake offered in the round is relatively small and investors turn to be minority shareholders. For this reason, it has been made necessary to deepen the evolution in the role of minorities within the company and the different types of shareholder engagement, especially focusing on the active ownership strategies.

Besides the general statement for which, in equity crowdfunding, investors' active ownership strategies in the company are generally absent, none of these studies have directly examined their level of engagement and participation in the follow-up events after the end of campaign. To achieve this objective, it has been created a sample of sixty-seven companies, among start-ups and SMEs, which concluded at least one equity crowdfunding campaign between 2014 and the end of 2017. Using the database on the Italian equity crowdfunding campaigns provided by the 'Osservatorio Crowdinvesting' as a reference point, data have been collected by looking at the different Meeting Minutes, the business profile and information document for each firm, together with the information directly stored on the platform website. At the end of the data collection phase, three synthetic indexes about average value of participation and investment, and total amount of money raised have been calculated for each company.

Looking at *Chapter 5*, the first step of the procedure has been the search for possible correlations among the above-mentioned variables by looking at the distribution of points in the scatterplots. The analysis of the average participation to the meetings by equity crowdfunding shareholders together with the total number of investors who joined the campaign highlighted the presence of a negative and non-linear relationship: in case of successful crowdfunding rounds backed by few investors, their attendance resulted to be on average high because each shareholder generally perceived his/her role and participation as pivotal for the company.

On the contrary, when passing to very large investor pools, their average participation to the meetings seemed to fall to very low percentage values, due to the presence of 'Block Out' effects at the individual level that let minorities think to be left out, in terms of relevance, from the discussion, resulting in a higher likelihood to desert the meeting.

Briefly passing to the second case, the computation of the variance-covariance matrix between participation by equity crowdfunding shareholders and the average value of the investment resulted in a positive value for covariance. In practice, excluding the special case of real-estate equity crowdfunding, it is reasonable to think that a high value in the average investment is associated to the case of a campaign backed by few wealthy individuals, who own non-marginal stakes in the firm in terms of total share capital and thus are encouraged to actively participate to the shareholders' meetings. In the opposite situation, it is not always true that low average investment values are related to low percentages in participation as, for firms characterized by a low number of investors (e.g., less than ten), 'Pivot effects' at the single shareholder level can turn average participation to higher values.

The third and last case, in which average participation by equity crowdfunding investors has been plotted against the total amount of money raised, approximately followed the previous one, with the difference that here the correlation between the two variables is negative because average value of the investment subscribed, and total amount of money collected from the campaign are inversely related. What is important to underline regards the distribution of points in the scatterplot, which concentrated in the area characterized by a total amount lower than €500.000, despite a much higher threshold allowed by regulation till 2019 of €2,5 million.

Chapter 6 went one step further by identifying all the interventions and votes by equity crowdfunding investors within shareholders' meetings successive to the end of the campaign, trying to assess some information on their active ownership strategies. In this sense, the first significant datum that arose is related to the number of interventions made by this shareholder category, which turned to be extremely low if compared with the total number of Meeting Minutes analysed.

The case study analysis pointed out how active ownership strategies are more likely to be found within companies whose successful campaign has been backed by few investors, where the environment favours the presence of 'Pivot effects'. In this context, equity crowdfunding shareholders can be recognised as an added value for the firm and can contribute to future value creation in the medium and long-term. Active ownership strategies by investors go from the possibility to provide alternative internal solutions exploiting their personal network, knowledge, and expertise, to the possibility to subscribe larger stakes during the subsequent capital increase. At the same time, these individuals, who are risk-sensitive, can question the decisions taken by the controlling shareholder/coalition in order to preserve the survivability of the company in the long run and safeguard their rights as minority shareholders during the meetings. This possibility introduced with last two case studies, the discussion related to the existence of an internal balance within the company, which can be perturbated in every moment as a consequence of a specific action or decision, leaving the firm to decide whether to intervene to restore the initial condition or look for a new balance, with the threat that it could turn into a 'bad equilibrium' in the long run.

The analysis of the outcome of the voting phase highlighted how this parameter is not always significant for measuring the level of cohesion among the different shareholder categories within the company, as it reflects the preference expressed only by those individuals who attend to the meeting but, in case of a high value in the total attendance (usually expressed in percentage terms, it can be considered a good proxy for this parameter.

Finally, *Chapter 7* concluded and underlined the implications and further research directions of the study.

2 A GENERAL INTRODUCTION TO CROWDFUNDING

For a firm, finding the capital required to undertake a new project could be seen as an obstacle to overcome in traducing the business and strategic plan into practice. Firms could cover financial needs in two ways: by recurring to self-financing and/or to external sources. In the actual economic context, it is extremely rare the case in which the firm is able to entirely fulfil its financial obligations through self-financing and this pushes towards the need for external sources. Traditional channels like bank loans, lines of credit, commercial papers, … are still valid options for collecting funds; but crowdfunding allows a firm to ask for the support to a group of individuals who collectively invest in the project.

According to the definition provided by the European Commission (EC) on its website: *"Crowdfunding is a way of raising money to finance projects and businesses. It enables fundraisers to collect money from a large number of people via online platforms. Crowdfunding is most often used by start-up companies or growing businesses as a way of accessing alternative funds. It is an innovative way of sourcing funding for new projects, businesses or ideas"*.

In addition, the EC highlights the advantages coming from the creation of a community around the project, which provides useful market insights and access to new unexplored market segments.

From proposing the project to a wider investor pool to enjoying more flexible fundraising options, there are several benefits to crowdfunding over traditional methods:

- Enlarged investor pool: through the crowdfunding platform, individuals, or firms (especially Start-ups and Small and Medium Enterprises – SMEs –) have access to thousands of accredited investors (savers, pension funds and asset management companies) who can evaluate, and actively share and promote the fundraising campaign.

- A more strategic approach: by creating a crowdfunding campaign, the entrepreneur goes through the invaluable process of looking at the business from the top level (its history, offerings, target market, business plan and value proposition) and translating it into an easily digestible presentation.

- PR & Marketing: from launch to close, the platform shares and promotes the crowdfunding campaign through its social media channels, email newsletters, and other online marketing tactics (for instance web advertisements). In the same way, the firm can control the progress of the fundraising campaign.

- Validation and Approval: promoting the project through online channels to a wide audience represents an excellent opportunity to validate and reshape the offering. As potential investors begin to show interest and ask questions (usually during video-conference presentations or in the appropriate Q&A box on the platforms' websites), the firm will be able to understand if there is the possibility to add some missing information that would make them more likely to invest in.

- Efficiency: one of the major aspects about crowdfunding is given by its ability to centralize and streamline fundraising efforts by building a unique, comprehensive profile; saving time and avoiding duplication costs originated from to the need to reach each single investor category separately.

2.1 TYPES OF CROWDFUNDING

According to the classification provided by the European Commission, the crowdfunding activity can be divided into sub-categories, each of them presenting specific features.

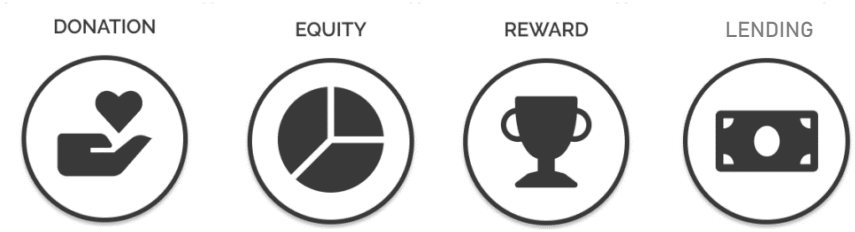

Figure 2.1 - The four main types of crowdfunding

- Donation-based crowdfunding: individuals donate (typically small amounts of money) to a cause or effort (e.g., a charitable project) without expecting anything in return. It does not require the fundraiser to pay funders back, as money is collected in form of voluntary donation.
- Equity-based crowdfunding: it represents an opportunity for small businesses (SMEs) and early-stage start-ups to raise money by selling a 'stake' of the company/business in return for the investment. The idea is similar to how common stock is bought or sold on a stock exchange, or to a venture capital. Terms of these agreements can be different case-by-case and might require the fundraiser to pay back its donors at a later date (for instance, in case of further exit of the company as it happens in some situations in real estate equity crowdfunding).
- Rewards-based crowdfunding: it often uses a tier-based donation system, meaning that the fundraiser will provide investors with a reward (a service or good) at a later stage in exchange for a predetermined contribution amount. As it is a pre-selling activity, reward-based crowdfunding is subjected to e-commerce regulation.
- Lending crowdfunding: it requires borrowers to repay their investors by a predetermined time. Funds raised might be subject to interest rates depending on the contract signed by both parties. It is very similar to traditional borrowing from a bank, except that the individual or company borrows from lots of investors.

2.2 IS CROWDFUNDING A NEWLY BORN PHENOMENON?

The idea of collecting money from the crowd surely has its roots in the past: going back to the 1700's, the author Jonathan Swift set up the 'Irish Loan Fund' to provide loans to low-income Irish families. In the same period (1713) Alexander Pope was asking for donations to fund his work consisting in translating Greek poetry into English ('The Iliad') and Mozart, after a failed attempt in 1783, successfully raised money to finance his concerts (1784).

On a larger scale, in 1884 Pulitzer used his newspaper 'The New York World' to raise money in order to partially cover the costs for realizing the base for the Statue of Liberty and collected more than 160.000 donations ($101.091) in five months.

The history of modern-day crowdfunding can be traced back to the end of 1990's, when the arrival of the Internet allowed people to connect with each other, exponentially enlarging the possible investors' network and its potential. The first recorded successful instance of crowdfunding occurred in 1997, when the British rock band 'Marillon' funded their reunion tour through online donations (for about $60.000). Shortly after, in 2000, 'ArtistShare' emerged as first reward-base dedicated ("fan funding") platform and subsequently many charities joined in on the hype of this totally new challenge. Michael Sullivan, an entrepreneur looking for **backers**[1] to fund his company 'FundaVlog' (an incubator for videoblog projects), coined the actual term "crowdfunding" in 2006, which remained although Sullivan's campaign failed. In the same year the first peer-to-peer lending marketplace, named Prosper, was launched in the US.

Focusing on equity crowdfunding, which represents the main topic of this dissertation, the first known equity crowdfunding platform is probably the Australian Small Scale Offerings Board (ASSOB) launched in 2007 which channelled funds from both accredited and unaccredited investors to small businesses. Equity

[1] The term 'backer' refers to an individual who contributes to a reward-based crowdfunding campaign. Its etymology derives from the activity of supporting/backing a project.

crowdfunding came in the Northern Hemisphere later in 2011, when the platform 'CrowdCube' was launched in the UK.

Crowdfunding began to represent a mainstream phenomenon during the Great Recession (2007) which turned into a game-changer (see *Paragraph 2.3*): the perceived collapse of financial markets pushed entrepreneurs who needed funding towards the Internet. In the same period, two modern crowdfunding giants (IndieGoGo and Kickstarter) were launched in the US (respectively in 2008 and 2009) as well as many niche crowdfunding platforms. Money raised tripled from $530 million in 2019 to $1.5 billion in 2011 with a 74% **compounded annual growth rate**[2] (CAGR). This was possible also thanks to the fact that other financing options, such as Small Business Association loans, became less available than in the past.

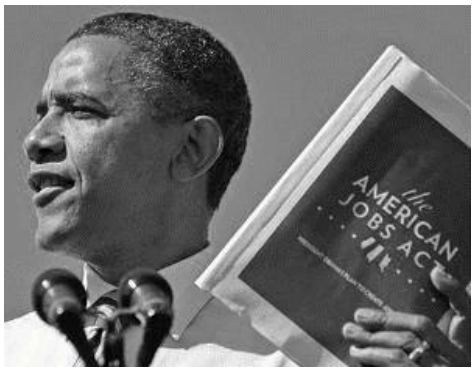

Figure 2.2 - President Obama illustrating JOBS Act during one of his conferences in 2011

In April 2012 President Obama signed the 'Jumpstart Our Business Start-ups[3]' (JOBS) Act (also called 'Crowdfund Act' or 'Crowdfunding Bill') into law which represented the first legal framework for crowdfunding. With the JOBS Act, equity-based crowdfunding became legal, regulation burdens on small businesses were reduced and the ban on general solicitation which prevented entrepreneurs from publicizing their campaign was removed. British policymakers followed in 2013 with a set of rules regulating investment-based crowdfunding.

The UK went a step further in 2019 when, to face the pandemic emergency, included debt-based crowdfunding platforms in the British Coronavirus Interruption Loan Scheme, recognizing their importance as alternative financing options.

[2] The CAGR is the rate of return that would be required for an investment to grow from its beginning balance to its ending balance, assuming the profits were reinvested at the end of each period of the investment's life span.

[3] The intended goal of the JOBS Act was to revitalize the small business sector after the financial crisis, helping entrepreneurs start businesses, grow current businesses, and putting Americans back to work.

2.3 CROWDFUNDING TO FACE THE ECONOMIC CRISIS IN 2007

To survive within the market and try to gain a competitive advantage over competitors, businesses require money availability for the ordinary and extra-ordinary operations. In this sense, the '**Subprime Mortgage crisis**' [4]in 2007 in the USA had repercussions throughout the global economy and has led to the creation of a 'financial gap' which penalized small businesses encompassing start-ups and, on a larger scale, SMEs. In particular, it is important to underline that resource requirements in terms of funds (considering both the amount to be raised and the modality) vary depending on the stage in the company's lifecycle.

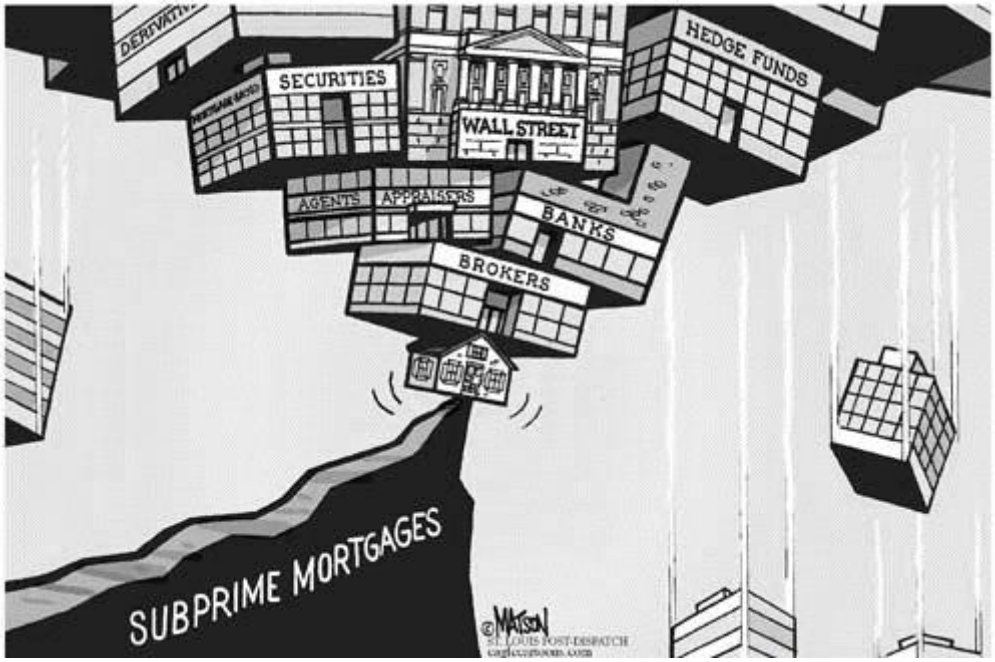

Figure 2.3 - Representation of the unstable equilibrium of the US financial market in the run-up to the crisis

In this sense, around 2010, equity crowdfunding emerged also as remedy to cover the financial gap, providing small businesses with a suitable alternative financing option with respect to traditional channels.

[4] Economists identify as the main trigger of the crisis the imprudent loan granting practices together with a rough regulatory control which led to the creation of a bubble that burst out in 2007, causing several repercussions on the financial markets especially between 2007 and 2010.

In particular, a start-up or an SME can resort to the following financing options:

- bank loans and other banking instruments (line of credit, commercial paper, overdraft, factoring, financial leasing);
- stock equity market;
- crowdfunding;
- minibonds, available for SMEs;
- venture capital, private equity and business angels;
- in addition, a newly born start-up in its early phase can raise money from **FFF**[5],

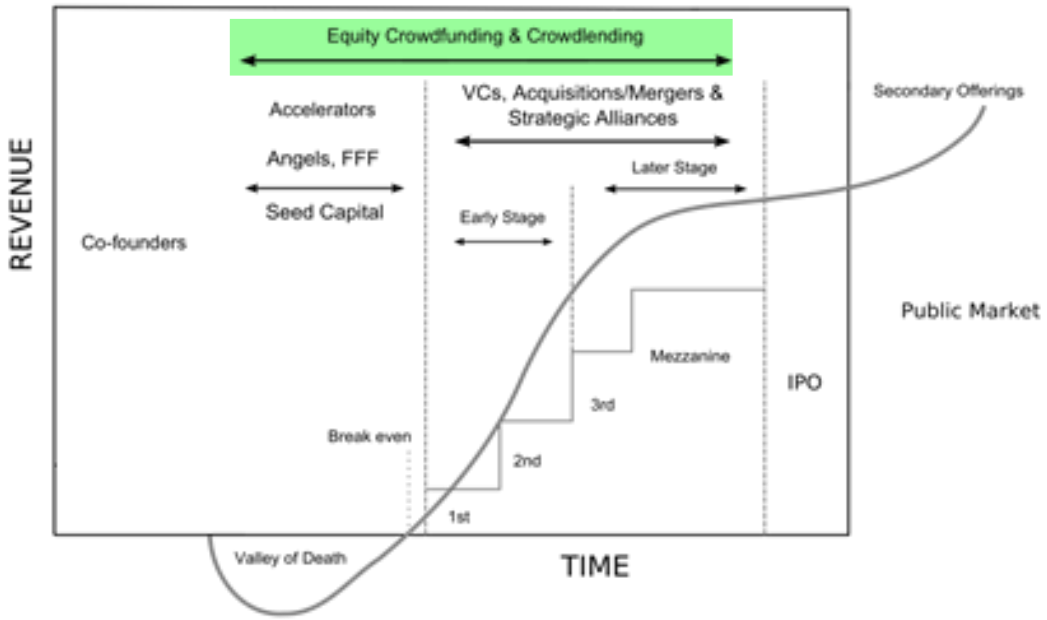

Figure 2.4 - Crowdfunding can support the firm's growth at different stages

Compared with the other options, crowdfunding represents the fastest solution (as the procedure is less time consuming with respect to, for instance, the due diligence performed by the bank or the private equity fund) and requires less resources (in terms of both money and effort) to be implemented. In addition, less than the case of an IPO but more than the other cases, crowdfunding is characterized by a relatively good grade of transparency.

[5] FFF is an acronym that stands for 'Founders, Family and Friends'. There is evidence on the fact that start-ups with high engagement at the local level in their early stages are more likely to survive on the market.

2.4 AN INCREASINGLY ATTRACTIVE MARKET …

Crowdfunding had another record year in 2021: according to Pitchbook, money raised at global level passed from $8.61 to $113.52 billion, with an increase of more than 1000% in a single year. The key point of this sudden success is related on one hand to the effectiveness of the tool itself and on the other to the increasing necessity of having access to digital services by a growing number of savers, consumers, and investors.

In facts, digitalization processes and practices have considerably augmented in the last two years as a consequence of the health emergency and the social distancing habits related to Covid-19 which will further push this transition.

According to Forbes, crowdfunding markets are likely to expand significantly in 2022 and 2023 as well, when trading platforms (**Alternative Trading Systems** [6]– ATSs –) on the alternative regulated secondary market will be able to provide more liquidity in the private securities market which is expected to grow from $7 trillion in 2021 to $30 trillion in 2030. Looking at the money raised through crowdfunding platforms, it was more than $211 million in 2020 which doubled in the subsequent year. By 2025, this market is expected to grow by $200 billion, with a CAGR of over 15%.

[6] An Alternative Trading System (ATS) is a trading venue that matches buyers and sellers for transactions and is not regulated as an exchange like traditional stock exchanges, but is registered as a broker-dealer, focusing on finding counterparties for security transactions. It should be noted that ATS is a North American term while, in Europe, it is known as a Multilateral Trading Facility (MTF).

2.5 … ALSO IN ITALY

In every business, the end of the year represents the opportunity to trace a line on what the trend will be for the next twelve months. In Italy, crowdfunding should continue to grow also in 2022: data provided by the '**Osservatorio Crowdinvesting del Politecnico di Milano**[7]' at the end of 2021 and published on 'IlSole24Ore' (Incorvati, 2022) show the comparison with 2020. The amount of money raised in a year through equity crowdfunding (€140.3 million) went up by almost 40% compared with 2020 (€101.1 million) and by 116% with respect to 2019 (€65 million): this is partially reflected by an increase in the total number of campaigns that have been successful (202 in 2021 against 164 in the previous year).

These data highlight the fact that the economic crisis due to the pandemic has not stopped the growth of crowdfunding market in Italy. During the first and second lockdown periods in 2020, many people have lost their job and many businesses recorded losses in their financial statements. It is reasonable to think that, among them, someone has tried to set up his/her own business, perhaps launching a new innovative product or service through a start-up.

At the same time, in 2021 Italy decided to earmark about €49.2 billion to the digitalization and innovation processes through the 'Recovery Plan', using as source the money coming from the European Union in form of 'Recovery Fund' or 'Next generation EU' (a package of subsidies and loans which accounted for around €222 billion). Digitalization is also one of the main topics discussed in the 'Piano nazionale di Ripresa e Resilienza' (PNRR) proposed by the ex-Prime Minister Giuseppe Conte and then approved under the mandate of Mario Draghi, which sets objectives to be reached for the medium and long term.

As already said for the situation at the global level, the digitalization process has represented an important boost for crowdfunding and for the digital markets in general.

[7] Born in 2016, it studies the equity crowdfunding and social lending market in Italy, monitoring the evolution of legislation, active platforms, collection, campaigns, and the impact on business growth.

2.6 THE NEXT STEPS FOR THE FUTURE

If the Covid-19 emergency has put a strain on many economic actors, alternative financing platforms have recorded a record increase both in 2020 and 2021. Therefore, crowdfunding market is playing an active role in supporting the economy during the crisis.

To control its growth, legislation is frequently changing, and consequently crowdfunding platforms must ensure time by time that they are in full compliance with new regulations. The latest development is the European regulation on participatory financing or European Crowdfunding Service Provider (ECSP) (see *Annex 8.1*) released on 10th November 2020, which became effective a year later. This regulatory harmonization of the crowdfunding regulation at the European level represents a major challenge for many crowdfunding platforms.

The ECSP lowered the ceiling for amounts raised per project to €5 million. By the end of 2019, the threshold had been raised from €2.5 million to €8 million. Crowdfunding platforms have been allowed to raise larger amounts of money with respect to the past and this could be seen as a signal of credibility on the market for money collection. This change in the regulation also enlarged the boundaries of the crowdfunding market in which platforms can now take part to projects whose investment requirements are larger than €2.5 million and that would previously have been financed by other players.

The increasing success of project-based finance, especially real estate and energy crowdfunding has led the legislators to include options for the acquisition of interest in non-liquid assets via the use of **Special Purpose Vehicles** [8](SPVs).

The development of market awareness has implicitly modified the 'structure' of crowdfunding platforms themselves. Their role in no longer that of a 'notice board': nowadays project leaders ask platforms a more global structuring (set-up) of their

[8] A Crowdfunding Vehicle is a type of Special Purpose Vehicle (SPV): a subsidiary created by the parent company commonly used to reduce the negative financial impact on the parent and its investor and allows entities to collateralize debt. In Italy SPVs are regulated by law 30.4.1999 n. 130 on securitization.

fundraising. Thus, platforms now tend to position themselves as full-fledged advisors to project holders.

On the investor side, platforms are also moving towards an advisory approach. As fundraising volumes become more substantial, the challenge is to mobilize various investor types (from small savers to collective investment undertakings) to cover the different investment logics.

Platforms must ensure a smooth investor experience to entrust their money to fund projects. If the platform's interface is too complex, investors will be reluctant in making loans / buying shares, and thus they will turn to more traditional investment channels. Crowdfunding platforms must therefore ensure user-friendliness, smoothness, and safety: these are the reasons for which platforms are nowadays passing to a more automated and intuitive scheme (for instance, in December 2021, Kickstarter has started a progressive shift to blockchain technology), also through partnership with third partied like digital payment service providers.

In their future development, crowdfunding platforms will integrate other fin-tech technologies, starting with block-chains and cryptocurrencies. In Italy it is already possible to invest in crowdfunding using cryptocurrencies (for instance, this is the case of Digital Rock Holding on to the platform OPStart) and this trend is expected to grow over the next years. On the other hand, on the block-chain side, it is important to highlight the experiences in lending crowdfunding of 'Valore Condiviso' in the real estate sector and 'Criptalia' as a more generalist platform dedicated to business.

2.7 EQUITY CROWDFUNDING AND VENTURE CAPITAL

In the last few years, many equity crowdfunding platforms have emerged as instruments and enablers for financing start-up companies and SMEs in their early stage.

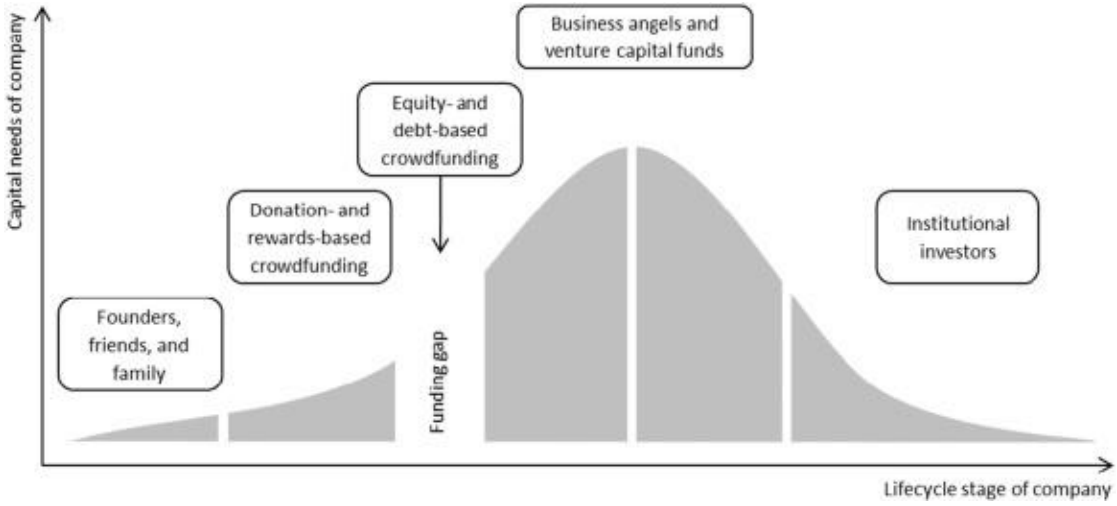

Figure 2.5 - Different funding stages during a company lifecycle

Although big Venture Capital (VC) funding rounds continue to consistently make the news, crowdfunding campaigns have gained importance on the media, especially on the Internet, which also represents their communication channel. As already said in the *Paragraphs 2.4* and *2.5*, the digitalization process (thought as one of the reactions to face the pandemic emergency) sped up the propagation of this phenomenon. When comparing traditional VC funding with equity crowdfunding, there are some differences that a company (start-up or SME) should consider when deciding which source of capital may be the right choice.

Companies with high scalability potential are suited to both options: such companies have highly innovative business models, and typically work within the software, fin-tech, biotech, MedTech and gaming industries. Evidence that confirms this statement is given by the last report from the 'Osservatorio Entrepreneurship Finance & Innovation del Politecnico di Milano' published in November 2021 ('*4º Quaderno di Ricerca: La Finanza Alternativa per le PMI in Italia'*) , which highlighted for Italy a strong prevalence of companies providing information and communication services (the ATECO code J class encompasses 289 companies, representing the

38.9% of the total number of firms), followed by firms whose activity is related to professional and scientific activities (ATECO code M with 119 companies counting for the 16% of the total). The reason for this is that both funding options allow them to raise capital quickly to achieve fast growth and avoid the risk of being swallowed up or beaten by competitors with deeper pockets and more endurance.

Other types of business, including more 'traditional' or 'main-street' companies (e.g., manufacturing companies, ATECO code C) might consider crowdfunding (in the report above they counted for the 14.8% with 110 firms) if they wish to go down the VC route, it's worth to remember that, typically, VCs are unlikely to be interested in any investment that does not have a chance of delivering a 10 ~ 100x original valuation exit. Below it is presented a list of the main differences between the VC and the equity crowdfunding approach.

- Business model complexity: equity crowdfunding is based on a huge marketing effort and momentum ('right time and place'). In order to properly exploit this channel, the company's business model has to be easy enough to be understood and the 'story telling' has to be convincing. In facts, the traction depends on the understanding of a wide crowd across all the campaign's lifecycle.

- Platform fees: here VC has for sure an advantage, as the money raised is entirely kept by the company, while in equity crowdfunding the firm has to pay a fee (which takes a percentage between 5 and 10%) to the platform for its service. In the choice between the two options, this cost has to be considered as it is differential.

- Marketing approach: crowdfunding marketing is essentially run through digital and online channels, trying to reach the biggest number of investors using, for instance, pay-per-view or pay-per-click advertising, mobile marketing campaigns, Apps, e-mail newsletters and other digital materials. With VC funding the modality shifts towards raising the interest of the 'right people' (venture

capitalists) through the introduction of business partners or through self-introduction, pitch meetings and networking events.

- Investment terms: many entrepreneurs do not like the idea of having to give board seats, majority control, having restrictive terms on themselves and losing preference in some liquidation events, which are often the main clauses set in a VC agreement. In addition, the venture capitalist may not evaluate the firm in the same way of the entrepreneur and, if he/she sees further potential in the business, the 'stake' required will be bigger in order to maximize the future profit form the investment.

- VC restrictions: as already said at the beginning of this chapter, typically venture capitalists focus their attention on investments that would potentially grant them high leverages in a scale between 10 and 100x the initial investment value. As a consequence, criteria adopted to select the target firms are stricter than in the case of equity crowdfunding. In this second case, these considerations are made by the platform itself, which decides whether to allocate the campaign on the website. In this sense, equity crowdfunding is for sure an easier and more flexible investment option.

- Network effects: the firm's network becomes larger with crowdfunding (at least theoretically). The simple fact of adding the start-up name to a crowdfunding campaign will bring a lot of attention, because investors know that platform's criteria have been respected. In some cases, this may represent the starting point for developing and further exploiting network effects. On the other hand, the present of an important venture capitalist in the company is a strong signal to the market as it brings attention from other big investors.

- VC participation in the company management: equity crowdfunding may onboard 'smart money' investors (which are ensured by law for at least the 5% of the fundraising round) as well as 'spectator' or 'passive' investors. Regarding

this topic, the general idea in that, usually, VC funding is better, as it frequently comes with a higher level of engagement. It is not rare for venture capitalists to try to help the start-ups they invest in by suggesting company strategy through the board of directors (BoD), make some introductions to flagship suppliers and most importantly, clients. On the other hand, large investors can also be brought in via crowdfunding rounds, as equity crowdfunding platforms today will even encourage anchor investors to take part in the round to improve the odds of a successful round and aftermath valuation.

This dissertation work puts its emphasis on this latter aspect of an equity crowdfunding campaign, trying to analyse the behaviour and the investors' participation in the ordinary and extraordinary events, successive to the end of the fundraising campaign. The main aim is to prove or contest the general statement that the engagement in the company by equity crowdfunding investors is low or, at least, lower than the other options.

TRADITIONAL FUNDING METHODS V/S CROWDFUNDING

	BANK LOANS	VENTURE CAPITALISTS	CROWDFUNDING
COLLATERAL	REQUIRED	NOT REQUIRED	NOT REQUIRED
TIME REQUIRED	LONG	LONG	FAST (AVG 8.2 WEEKS)
RELATIONSHIP	FORMER BANK RELATIONS HELPFUL	NEED RIGHT NETWORKING	CAN GAIN LARGE PUBLIC SUPPORT
SUCCESS RATE	SECURING LARGER LOANS IS UNLIKELY	0.07%	AVG MINIMUM OF 33%
MANAGEMENT CONTROL	NONE	LARGE INFLUENCE	NONE

Figure 2.6 - Comparison among different financing options (traditional vs alternative funding)

2.8 EQUITY CROWDFUNDING AND ICOs

The introduction of cryptocurrencies within the crowdfunding market has led to significant transformations, providing companies with new tools for raising capital from the 'Internet crowd' and, at the same time, offering more diversification alternatives to investors. In particular, **Initial Coin Offerings**[9] (ICOs), which began to be popular starting from 2017, represent a valid way for collecting funds compared with traditional methodologies, thanks to the wide use of digital and online channels, as in the case of crowdfunding. However, unlikely from this latter, an ICO process does not offer company shares but it sells virtual coins of a digital currency ('token'). Therefore, ICOs are also known as token sales, as these tokens are sold in a public bidding process: in a token sale, investors can exchange either traditional currencies (dollars, euros, yen, …) or cryptos (Bitcoin, Ether, ...) for the start-up's tokens. In the following paragraph it is provided a brief description on the main differences and similarities between equity crowdfunding and ICO.

?	Crowdfunding	Equity Crowdfunding	ICOs
Who is raising	Private or startups	Startups at different maturity level	Startups at different maturity level
Product Stage	Pre product	Existing business	Pre product
Supporting Documents	Product concept	Existing KPIs	White Paper
What is received	Perks	% of company equity	Digital currency
Market Value	N/A	Based on existing KPIs and forecast for future	None at present and forecast for future

Figure 2.7 - Comparison between crowdfunding (in both reward-based and equity versions) and ICOs

[9] An ICO is the cryptocurrency industry's equivalent to an IPO. Some ICOs have yielded massive returns for investors, while numerous others have turned out to be fraudulent or have performed extremely poorly, due to the mainly unregulated nature of these markets.

- Platforms: the mean through which an equity crowdfunding campaign is carried out is the platform, that performs the role of supervisor and guarantor by sifting through the projects, checking the requirements, and monitoring the state of the fundraising. On the other hand, those who wish to participate in an ICO send money directly to the address of a company, without any intermediary: this may require a higher level of trust towards the company launching the ICO, but, in return, all interested parties are usually exempt from transaction fees.

- Information disclosure: the vision of an ICO project is usually presented in a (non-mandatory) document called 'White Paper': some projects have raised a significant amount of money with just a vaguely described idea. This is the reason why some investors are still sceptical on ICOs and prefer to invest their money into safer options. However, in some cases this approach allowed the development of the most innovative ideas.

- Value and potential remuneration: firms that raise money through equity crowdfunding platforms can easily be compared with those in the same market or segment: when a project is introduced, investors are aware of the company's value and have an idea about the potential revenue (loss) from that investment. In some cases, especially for real estate equity crowdfunding campaigns, among the documents available in the preliminary phase, before the launch, there is a kind of rating of the campaign assessed by the platform itself (e.g., Walliance in Italy) or by an external professional entity, which provides an idea on the degree of risk associated to the issuer. Instead, projects that go on ICOs usually set the price of the coins themselves: it is virtually impossible to predict the outcome of an ICO, especially if users are not fully aware of what they can expect. The ICO itself is not based on any real market value, which therefore makes it subject to a substantial undervaluation or overvaluation of the assets.

- Default risk: the default rate for equity crowdfunding is around 25% about five years after the project's launch, which is roughly in line with the expectations of traditional venture capital funds. By contrast, more than half of all ICOs have already failed after less than a year, including some of the largest ICOs with investments in the hundreds of millions: it is suspected that many of these ICOs have been fraudulent from the outset.

- Exchange rate risk: since many ICOs are not settled in cryptos, investors first need to convert their 'traditional' currency on a crypto exchange. However, the market for cryptocurrencies is extremely volatile, subjected to fluctuations in the scale of double-digit percentage price changes. It may happen that, during the open window, the investment turns into a disadvantage for the investor, for instance if the price of the crypto collapses. Instead, in equity crowdfunding investments are only made in 'traditional' currencies: these are subject to such small fluctuations that the offered participation is not significantly affected.

- Liquidity risk: one of the main disadvantages of buying equity crowdfunding shares is related to their illiquidity. Still in 2022 there is not an effective secondary market where to trade those instruments. Unlikely from IPO shares, that can be traded on specific markets whose liquidity is granted also by market makers, equity crowdfunding shares are quite illiquid despite the fact that some platforms (e.g., CrowdFundMe in Italy or Exporo in Germany) provide a specific section in their websites where it is possible to trade them. On the contrary, the Blockchain Distributed Ledger Technology (DLT) grants tokens great tradability and liquidity, as the transaction and the associated shift in the ownership are recorded in a univocal way within a digital 'block' that is added at the end of the chain.

To conclude this comparison, it is important to underline that both ICOs and crowdfunding can generate public support for the project and those marketing benefits are often more valuable than the money raised.

2.9 CROWDFUNDING AND BLOCHCHAIN TECHNOLOGY

Security Token Offerings (STOs), intended as the procedure through which financial instruments (that have a monetary value and can be traded, e.g., shares, rights, derivatives, …) are inserted in smart contracts and digitalized in the form of tokens, represents a newly born, innovative option. Any 'traditional asset' can be converted ('tokenized') into a token which guarantees its authenticity and ownership thanks to the Blockchain DLT: the process is similar to the securitization one, with the difference that STOs are based on the use of this technology.

STOs also represent a valid alternative ICOs. Unfortunately, ICOs have suffered at the very beginning from many frauds due to the unregulated nature of this environment. In this context, equity crowdfunding platforms have helped investors in removing/pushing away the most obvious scams.

On the 2nd January 2020 the Italian Market Authority (CONSOB), after a public discussion with public operators, suggested a regulatory framework ('*Le offerte iniziali e gli scambi di cripto-attività*') which provided a definition of crypto-assets and some guidelines for platforms and exchanges. In the proposal, among the entities authorized to deal with cryptos, there were also registered equity crowdfunding platforms.

In facts, an **Initial Exchange Offering**[10] (IEO) is a supervised token sale that can be controlled by a cryptocurrency exchange, for instance by an authorized platform such as Opstart (in Italy). IEOs are available exclusively for users of the exchange and allow, in particular, a reduction in transaction costs the costs charged to the issuer, which relates to a single platform, and greater protection for subscribers in terms of 'liquidity', due to the fact that the newly issued tokens can be immediately traded on the 'secondary' market.

[10] An Initial Exchange Offering (IEO) is a fundraising event that is administered by an exchange. In contrast to an ICO (where the project team themselves conduct the fundraising), an IEO means that the fundraising will be conducted on a well-known exchange's fundraising platform.

3 LITERATURE REVIEW

In the last decade crowdfunding emerged as a valid alternative to the traditional channels of funding. As a consequence, also the academic literature related to this macro-area increased in terms of both quantity of topics and quality of contents. This third chapter will analyse more in detail the most significant notions regarding the crowdfunding phenomenon, its strengths and weaknesses.

After a general introduction about the etymology of the term 'crowdfunding' and its origin, it will be provided a deeper analysis on equity-based crowdfunding, which is the main topic of this dissertation work. The *Figure 3.1* below provides a diagram that resumes in quantitative terms the number of studies per sub-category for the years from 2009 to 2017. In the graph, equity crowdfunding is quite at the bottom, especially compared with reward-based crowdfunding: one of the reasons that could explain this trend is the fact that equity crowdfunding has diffused at a later time (around 2010), in a period in which the first academic papers regarding crowdfunding in its reward-based version had already been published.

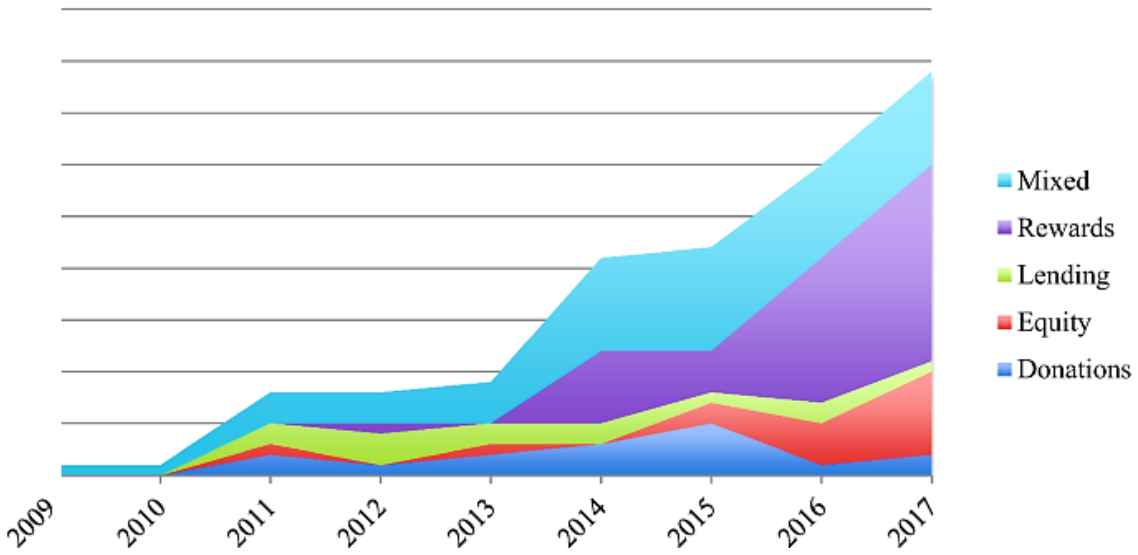

Figure 3.1 - Number of studies per model focus (2009-2017) - (Alegre & Moleskis, 2019)

It is easy to imagine that. starting from the first months of 2020, the curve of equity, lending and mixed crowdfunding had a change in the slope due to their strategic importance in letting countries exit from the crisis generated by the pandemic.

3.1 ETYMOLOGY OF THE TERM 'CROWDFUNDING'

To better understand the impact that crowdfunding has carried out on investors in the last decade, it is good to start from the etymology of the word. The term 'crowdfunding' represents the portmanteau between the English noun 'crowd', which describes a large number of people gathered together in a disorganized or unruly way, and the verb 'fund' that represents the action of providing money for a specific purpose. As showed in the *Figure 3.2* below, the origin of the term dated back to 2006, when it was adopted for the first time by the American Michael Sullivan in his fundraising campaign 'FundaVlog'.

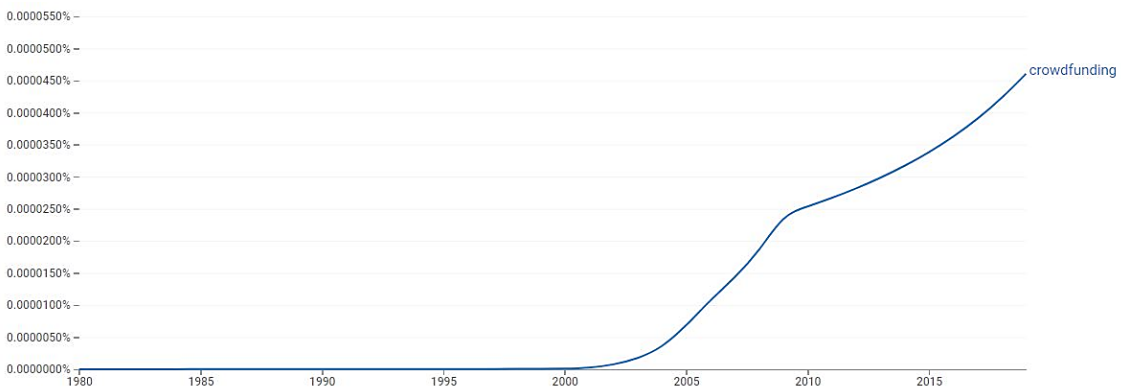

Figure 3.2 – 'Google Ngram Viewer' for the term 'crowdfunding'

Crowdfunding is only one of the branches of the wider phenomenon of 'crowdsourcing', which *"takes place when a profit-oriented firm outsources specific tasks essential for the making or sale of its product to the general public (the crowd) in the form of an open call over the Internet"* (Kleeman, et al., 2008) and represents *"an online, distributed problem-solving and production model"* (Brabham, 2008).

3.2 FOCUS ON EQUITY-BASED CROWDFUNDING

The main topic of this dissertation work is represented by equity crowdfunding which is a sub-category of crowdfunding described as *"a new form of entrepreneurial finance, in which investors do not receive perks or engage in pre-purchase of the product, but rather participate in the future cash flows of a firm"* (Hornuf & Schweinbacher, 2018). In the last decade, this phenomenon achieved more and more popularity and emerged as an effective alternative to traditional sources of funding. Nonetheless, equity crowdfunding at the very beginning, and more precisely with the implementation of the JOBS Act in the US in March 2015, generated mixed opinions among economists and scholars who decided to side with two opposing schools of thought.

With the aim of describing these trends more in detail, the following paragraphs have been built on the structure of the famous board game 'Monopoly', where chance card stands for the risks suffered from investors, while the community chest represents all the potential benefits achievable through the participation to the fundraising campaign.

Figure 3.3 - Monopoly chance card, representing the risks related to equity crowdfunding

On the most radical side, there were the concerns on the high riskiness of this financial instrument offered to unsophisticated investors: *"The problem is that companies that participate will be terrible prospects. As a result, crowdfunding investors are virtually certain to lose their money. Plus, the losses most issuers inflict will not be offset by a few huge winners. The only solution that will protect investors is abolishing equity crowdfunding for the unaccredited*" (Dorff, 2013).

A more 'moderate' position showed that *"Equity-crowdfunded firms have 8.5 times higher failure rates than matched non-equity-crowdfunded firms. There are important adverse selection issues on equity crowdfunding platforms, although these platforms also serve as a*

catalyst for innovative activities. Moreover, there is a more complex relationship between dispersed versus concentrated crowd shareholders and firm performance. For policy makers and crowdfunding platforms, investor protection against **adverse selection**[11] *will be important to ensure the sustainability of equity crowdfunding markets"* (Walthoff-Borm, et al., 2018).

On the other side, many studies highlighted how the equity crowdfunding process brought several benefits to the firm: for instance, it helped the company in spoiling the **equity gap**[12] in the early stages of its life (Deffains-Crapsky & Sudolska, 2014); brought investors' contribution of personal experience and expertise and, at the same time, increased public exposure by recruiting additional investors (Wald, et al., 2019).

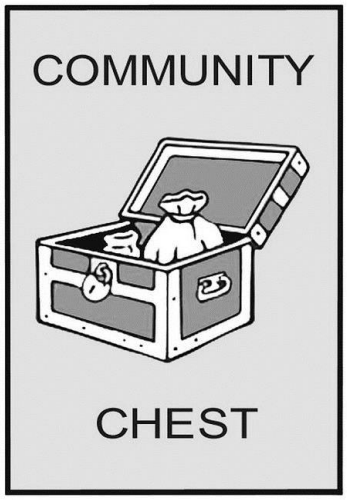

Figure 3.4 - Monopoly community chest representing the benefits that can be reached through equity crowdfunding

For the company strategy, *"This form of funding confers important relational benefits to recipients which amount to 'more than money'. Equity crowdfunding is a highly 'relational' form of entrepreneurial finance, requiring holistic forms of empirical investigation"* (Brown, et al., 2019).

In addition, always from the research from Walthoff-Borm, Vanacker, & Collewaert, it is possible to understand the implications that equity crowdfunding has in the innovation processes, where *"3.4 times more equity-crowdfunded firms have patent applications than matched non-equity-crowdfunded firms"*.

[11] Adverse selection refers generally to a situation in which sellers have information that buyers do not have, or vice versa (information asymmetry problem), about some aspect of product quality.

[12] Equity gap is a term used to explain the gap a company experiences in funding as it moves up the ladder of different finance sources. For example, some businesses require much greater funding than that which can be provided by business angels, but do not need the levels of funding venture capitalists would consider. The gap between these two finance situations is known as the equity gap.

3.3 RISKS FOR INVESTORS

The *Figure 3.5* below, coming from the economic article 'Stakeholders in equity-based crowdfunding: respective risks over the equity crowdfunding lifecycle' (Turan, 2015) describes the risk exposure for each player with respect to the different phases of the fundraising campaign.

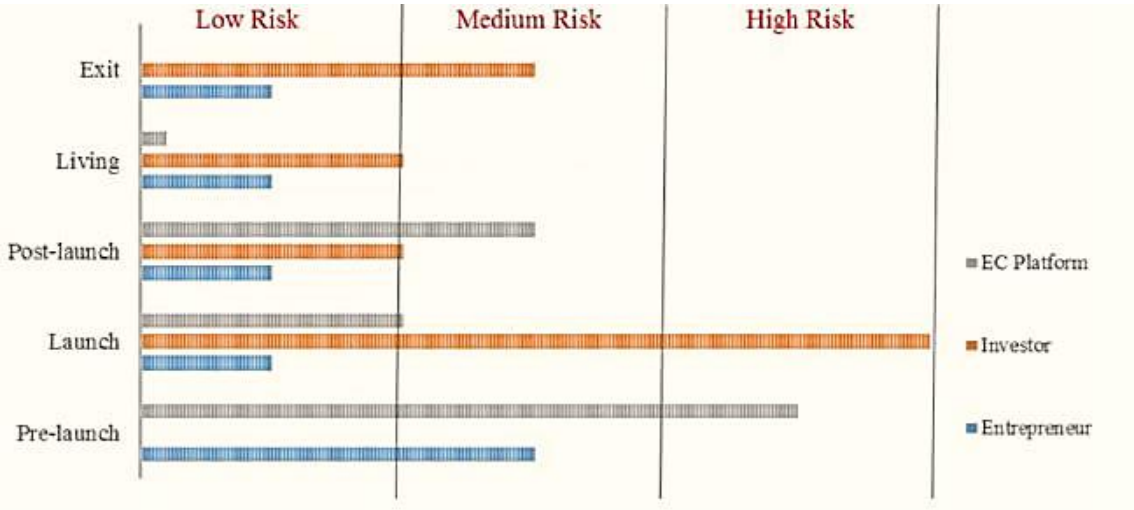

Figure 3.5 - Risk exposure during the lifecycle of an equity crowdfunding campaign (Turan, 2015)

Turan considered as KPIs for assessing the risk exposure for each category the following parameters: time, costs, and employed resources. The researcher then provided a table indicating all the risks that each of the three actors (entrepreneur, investor, and equity crowdfunding platform) must face, divided into the different stages of the equity crowdfunding campaign (from pre-launch to exit).

Focusing on investor side, who represent the main target of this dissertation work, it is possible to see how risk starts from the 'launch' phase with a peak mainly due to low risk awareness, payoff uncertainty, valuation and ROI, and lack of comparability; in addition, the investor will suffer from information asymmetry with respect to the entrepreneur.

Then the risk exposure decreases in the 'post-launch' and 'living' phases up to an intermediate value characterized by the presence of difficulties in tracking performances, potential managerial problems, and dilution effects.

Finally, the column representing the investors' perspective increases again in the moment in which the investor decides to sell his/her stake of shares (on the secondary market, if present, or by exploiting a tag-along clause), or alternatively the company realises an exit (M&A, IPO, takeover, …): in this phase the main problem is related to the illiquidity of the instrument itself which, differently from the case of IPO, suffers from the absence of a proper secondary market for the trading.

3.4 MARKET AUTHORITY INTERVENTION

To try to mitigate the risks related to this type of investments, market authorities decided (some earlier, some later) to intervene by setting the boundaries of the crowdfunding enviroment. For this purpose *"it had been introduced a '10% rule', which required retail investors that are neither 'sophisticated' nor 'high net worth' to certify that they are not committing more than 10% of their net investable assets in equity-based crowdfunding"* (Financial Conduct Authority, 2014). For what concerns Italy, the primary legislation which regulates the interaction between entrepreneurs and investors is the 'Testo Unico sulla Finanza' (TUF) also known as 'legge Draghi', approved in 1998; while the secondary regulation is dictated by the 'Regolamento sulla raccolta di capitali tramite portali on-line' or 'Regolamento CONSOB' which mainly governs crowdfunding portals. In this regard, CONSOB estabilishes that *"a share of at least 5% of the financial instruments offered is subscribed by 'professional' investors or by banking foundations, finance companies for innovation and development, incubators of innovative start-ups, with the aim of providing small investors with a minimum signal on the quality of the issuer"* (Osservatorio Entrepreneurship Finance & Innovation, 2021).

Finally, in October 2021 the ECSP Regulation (see *Annex 8.1*) has come into force establishing a real common European market for web platforms.

3.5 LEMON PROBLEM & FUNDRAISING PERFORMANCE

At the very beginning of the crowdfunding trend, literature has heavily relied on the theory of signalling (Spence, 1973) to assess the performances of a crowdfunding campaign. The crowdfunding market, especially in the case of equity crowdfunding, can be seen as a 'market for lemons' (Akerlof, 1978) and consequently *"…can lead to a lemon problem, where high quality start-ups are driven out from the market by low quality projects"* (Tomboc, 2013). In particular the mechanism of *"Signalling (by effectively transmitting observable indicators of otherwise not directly observable qualities) is important to deal with the large information asymmetries inherent to entrepreneurial finance. Using credible signals entrepreneurs can convey positive information about their company and enable investors to better judge the quality of the available investment opportunities. This is expected to facilitate equity crowdfunding success"* (Ralcheva & Roosenboom, 2020).

Among the credible signals that can be used, retaining equity represents one of the strongest in terms of quality; *"the actions of entrepreneurs 'speak' for the quality of their venture and their willingness to invest in their own project sends a positive signal to investors"* (Leland & Pyle, 1977). *"For instance, by retaining more equity, entrepreneurs can effectively signal their confidence in the future potential of their business. On the contrary, entrepreneurs who are less dedicated to their company are likely to sell a higher amount of equity, that way shifting a higher proportion of potential future losses onto investors. Such behaviour is likely to be taken into account by equity crowdfunding investors thereby impacting the success probability of equity crowdfunding campaigns"* (Ralcheva & Roosenboom, 2020). This interconnection between retained equity and equity crowdfunding success is supported by empirical evidence, with an overall negative relation among the two parameters (Vismara, 2016) (Ahlers, et al., 2015).

3.6 CROWDFUNDING AS A DRIVER FOR INNOVATION …

Crowdfunding campaigns have emerged also as an innovative approach for validating demands through the feedback provided by investors and, among these latter, discovering early adopters. *"Through crowdfunding, creators raise relatively small amounts of money from many individuals through the Internet to fund the development of creative designs into innovative products"* (Song, et al., 2020). This aim of asking for instant feedback from the crowd is one of the main advantages of the reward-based version of crowdfunding, while other forms (included equity crowdfunding) are more focused on the financing part. Nonetheless, as showed from the *Figure 3.6* below, equity crowdfunding represents one of the main vehicles for a start-up or an innovative SME to collect funds, hence it participates and favours the innovation process within these firms.

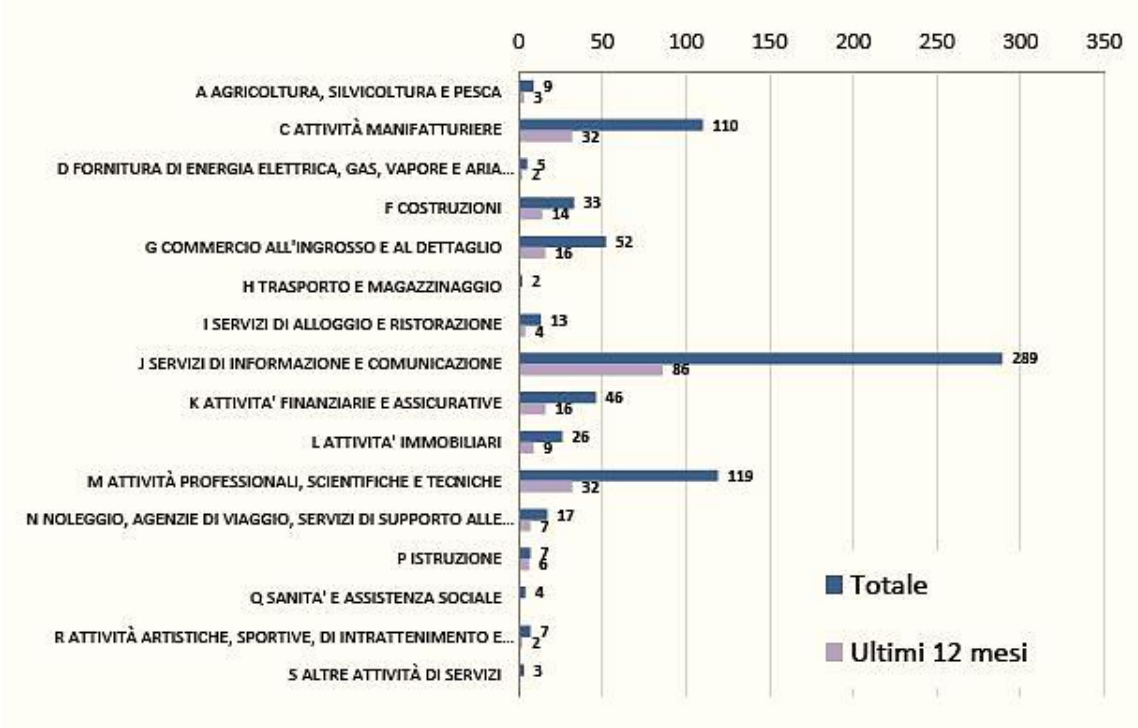

Figure 3.6 - ATECO classification of the Italian firms which raise money through ECF

From the histogram (as already said in *Paragraph 2.7*) it is evident how many firms asking for funds through equity crowdfunding come from the sector of IT and communication, corresponding to the ATECO code 'J'. This area encompasses a large variety of firms, from fin-tech companies providing digital solutions for

managing individuals' (or companies') investment portfolio to app and platform developers offering a service to a specific group/set of individuals.

By way of example, it is possible to present the cases of 'Sporteams' (200 Crowd, 2021) for the development of an ERP software for amateur sport clubs, and 'Magic Farm' (ongoing campaign on CrowdFundMe) which offers fin-tech solutions for the financing activity for the film industry.

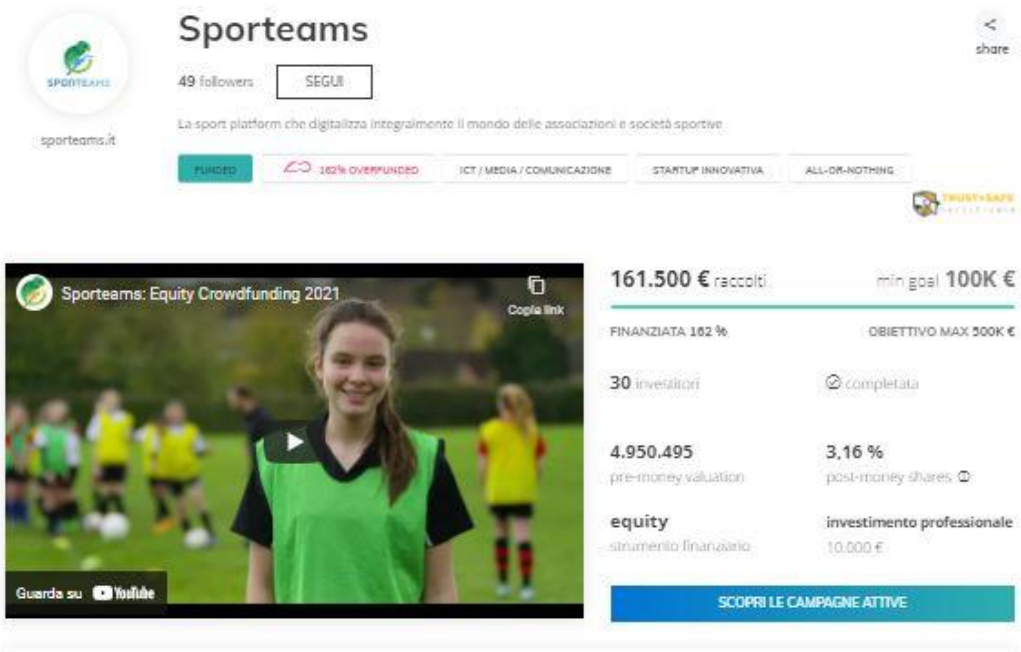

Figure 3.7 - Presentation page for the fundraising campaign of 'Sporteams Srl' (200 Crowd, 2021)

IT companies are followed by firms working in the scientific and technical field (ATECO code 'M'), which historically allocated a certain part of their budget to Research and Development (R&D) activities, strictly connected with the concept of innovation.

The creation of a network effect among (potential) investors, together with the benefits coming from the 'advertising campaign' conducted through the web by both platform and firm, represent an 'added value' compared with the traditional financing channels, especially for an SME which typically is not the target of VC/business angels. Usually, the value coming from these benefits can also be much higher (if translated into monetary terms) than the total amount raised through the campaign.

3.7 … AND SOCIAL VALUE

Further studies highlighted how one of the the main characteristic on which crowdfunding leverages is the strength of the crowd, and indeed this is the most important factor in solving business problems (Brabham, 2008); and that a mass of inexperienced individuals would still be able to provide an adequate and valid answer to a question more than the experts are capable of (Surowiecki, 2004). Regarding this point, it is particularly important to describe the relationship between crowdfunding and social capital, as most researchers report a positive but dynamic impact of this latter on crowdfunding activities over time.

The notion of social capital comes form the sociological field: contemporary sociology provides its definition as *"the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition or in other words, to membership in a group"* (Bourdieu, 1986). A further distinction has been done between internal and external social capital, which are both connected with the crowdfunding environment.

In the first case, entrepreneurs who need to collect funds might benefit from their own private network, outside the crowdfunding platform, and there is empirical evidence that this helps the campaing in its early stages, as the more the number of early contribution, the higher the chance of campaign success (Colombo, et al., 2015).

In the second case, the crowdfunding platform itself can be considered as a collective, allowing the development of social capital within the network of (potential) investors (Adler & Kwon, 2014). Of course these two phenomena can coexist, as one does not exclude the other.

3.8 THE ROLE OF MINORITY SHAREHOLDERS

In the specific context of equity crowdfunding, where issuing companies are almost always innovative start-ups, innovative SMEs or SPVs, shares that are offered thoughtout the fundraising campaign account for a small percentage of the company value (generally lower than 20%, with some exceptions). As a consequence, in the majority of cases, the pool of investors in the project through the equity crowdfunding campaign is converted into a certain (small or large, depending from the case) number of minority shareholders in the company ownership structure after the capital increase. For this reason, it is useful to provide the definition of 'minority shareholders' and analyse what the academic literature says about their activism and participation in the company. In addition, the *Annex 8.2* shows the main schemes in the company's governance structure in relation with the position of minority shareholders.

A minority shareholder is a shareholder who does not hold majority control over a company (less than 50%). In contrast, a majority shareholder holds over 50% of the shares within a company and therefore has the control on it. Often, minority shareholders can be disregarded in favor of the opinions of majority shareholders. Because of this, they often do not have much direct power over the company and its decisions. Any decision made will fall within the hands of the majority shareholder to decide. However, minority shareholders are protected by some guaranteed legal rights: in particular, *"At the end of 2005 the Italian legislator modified the rules on the appointment of the members of the board of directors of listed corporations. Now these legal entities are not free to design the appointment strategies of the members of the board, but it is mandatory for listed corporations to reserve at least one seat on this corporate body to persons not appointed by the majority or by the controlling shareholder"* (Malberti & Sironi, 2007).

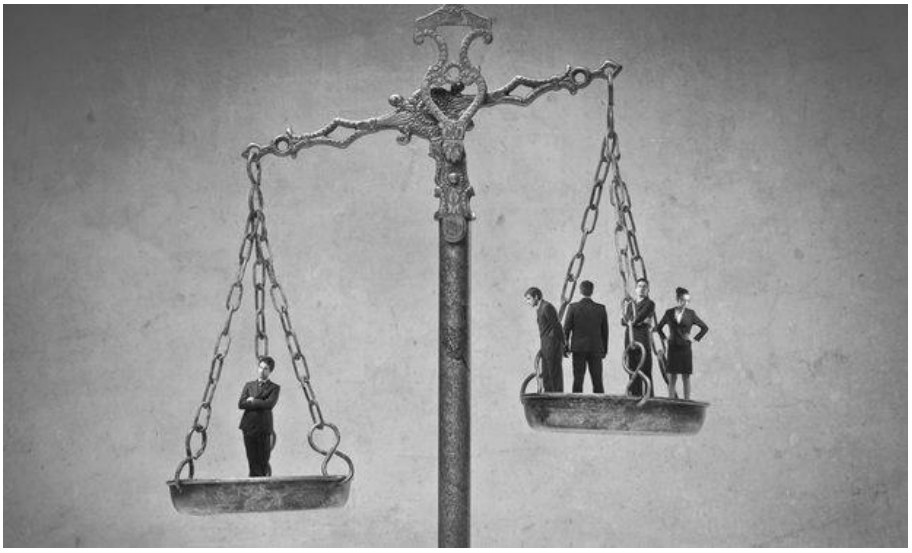

Figure 3.8- Minority shareholders compared with majority shareholder(s), here represented on the scales

Starting from the 2000s, the rise of social governance themes together with the requirements for increased transparency in the company's activity pushed the regulatory framework toward a more comprehensive approach: *"The most important trend in corporate governance today is the move toward 'shareholder democracy'. Changes in financial markets, in business practice, and in corporate law have given minority shareholders in* **public companies** [13]*greater power than they have ever enjoyed before. Activist investors, especially rapidly growing* **hedge funds**[14] *are using this new power to pressure managers into pursuing corporate transactions ranging from share repurchases, to special dividends, to the sale of assets or even the entire firm. In many cases these transactions benefit the activist while failing to benefit, or even harming, the firm and other shareholders"* (Anabtawi & Lynn, 2007).

[13] A public company, also called a publicly traded company, is a corporation whose shareholders have a claim to part of the company's assets and profits. Through the free trade of shares on stock exchanges or over the counter (OTC) markets.

[14] Hedge funds are actively managed alternative investments that typically use non-traditional and risky investment strategies or asset classes. They charge much higher fees than conventional investment funds and require high minimum deposits.

3.9 SHAREHOLDERS' ENGAGEMENT IN THE COMPANY …

"Activism represents a range of activities by one or more of a publicly traded corporation's shareholders that are intended to result in some change in the corporation. The activities fall along a spectrum based on the significance of the desired change and the assertiveness of the investors' activities" (Cloyd, 2015). On the most impactful side, there is hedge fund activism which seeks a significant change to the company's strategy, financial structure, management, or board. On the other side (the most passive one), instead, there are one-on-one engagements between shareholders and companies triggered by **Dodd-Frank's** [15] 'say on pay' advisory vote in the form of letters written to the compensation committee.

From the regulatory point of view, *"the European Commission (EC) launched, in April 2014, a new initiative to amend the shareholder rights directive as regards to the encouragement of long-term shareholder engagement. Under this heading, the EC proposal intends to grant rights to shareholders concerning director remuneration and related party transactions. Moreover, it also imposes duties concerning an engagement policy on institutional investors and asset managers and gives rights to the management concerning shareholder identification"* (Böckli, et al., 2015).

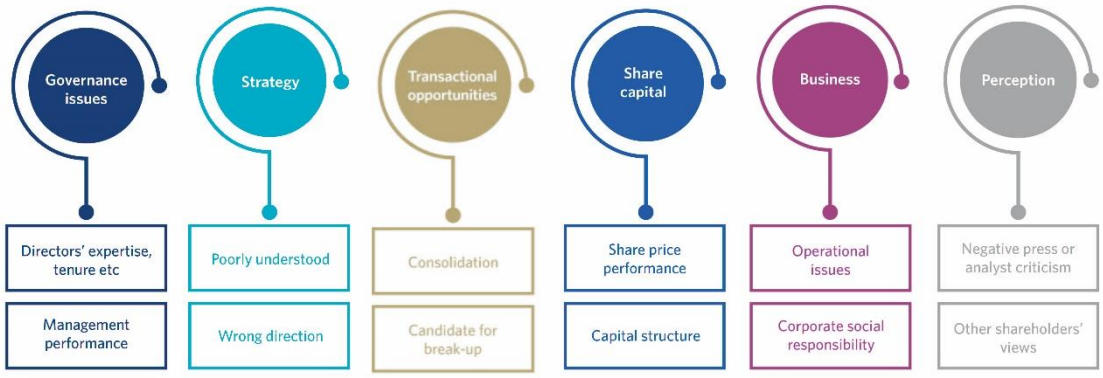

Figure 3.9 - The main objectives/threats in shareholders' activism

[15] The Dodd–Frank Wall Street Reform and Consumer Protection Act (commonly referred to as Dodd–Frank) is a United States federal law that was enacted on July 21st, 2010. The law overhauled financial regulation in the aftermath of the Great Recession, and made changes affecting all federal financial regulatory agencies and almost every part of the nation's financial services industry.

Coming back to the previous point, the goals of today's activist hedge funds are broad: the historical activity was that of participating in the company's management by entering in the BoD, by investing large sums to control the majority, or by representing minority in the board representation (taking, for instance, jusyt one or two seats); while nowadays the horizon has enlarged, encompassing also changes (strategic decisions) that fall within the category of capital allocation strategy.

Under a more moderate approach, it can be found the case in which an investor (or coalition of investors) urges shareholders to withhold their votes from one or more of the board-nominated director candidates. Usually, this type of activity in carried out by public or labor pension funds whose aim is to safeguard their 'clients'.

Finally, there is the sponsorship (or the threat) of a sharholder proposal which can be extremely heterogeneous, but of course is introducing a shift (change) in the company. Here, the type of 'sponsor' is related to that of the proposal; for instance it can be the case of an ESG[16]-oriented manager sponsoring a 'green project'. Regarding the specific topic of shareholders' engagement in the ESG performance of the company, literature has multiplied just in few years (Barko, et al., 2021) (Hoepner, et al., 2016).

[16] ESG is the acronym which stands for Environmental, Social, Governance: this topic has become extremely relevant over the last few years, especially as a consequence of the worsening of global warming effect.

3.10 … AND ACTIVE OWNERSHIP STRATEGIES

Staying on the same topic presented in the previous paragraph, it is useful to provide some more insights about the active ownership strategies that can be applied by shareholders within the company. *"Active ownership leverages the rights and influence of shareholders to improve some aspect of corporate performance. It includes shareholder dialogue with companies (also called shareholder engagement) and the use of formal shareholder rights, such as voting and filing resolutions at the company meetings. Institutional shareholders have used active ownership strategies since the 1970s to encourage better performance on a broad range of issues, including companies' ESG issues"* (Majoch, et al., 2012). The term described by using three different attributes:

- Engagement: intended as more than just participating to the company shareholders' meetings, exploiting the opportunity to gain insights on the firm's approach to a specific topic;
- Dialogue and Discussion: represent the phase in which it is possible to share personal suggestions, comments, proposals, or even complaints about the theme, trying to influence the outcome of the subsequent vote towards the desired decision;
- Voting: comes after the other two steps, but represents one of the most effective ways in which a shareholder can directly communicate his/her views.

Enlarging the view to all European companies, data at the end of 2015 highlighted how active ownership strategies involved total investments in Europe for a total amount of €4,270 billion (+30% compared to 2013) positioning at the third place in the ranking of the most popular strategies according to **EUROSIF**[17] data. Among the reasons that accompany this strategy are encompassed:

- maximization of risk-weighted yields;
- improvement of business conducts;

[17] European Sustainable and Responsible Investment Forum: is a multi-stakeholder network established in 2001 with the aim of promoting and developing socially responsible investments

- increase the attention on ethical and moral issues;
- contribute to the sustainable (ESG) development.

This activity found regulatory support also at the continental level: on the 3rd of April in 2017, the European Council approved the Shareholders Rights Directive (SRD), a regulation that aims to *"strengthen the involvement of shareholders in large European companies"*, by providing specific requirements to encourage shareholders engagement and at the same time increase transparency. These requirements applied to the following areas of the firm's activities:

- Managers' remuneration policies;
- Shareholder identification;
- Facilitation of the proprer exercise of shareholder rights;
- Information trasmission mechanisms;
- Transparency on the activities by institutional investors and asset managers;
- Related party transactions, for instance transactions and agreements that occur between two parties characterized by some link or business relationship prior to the transaction.

4 OBJECTIVE AND METHODOLOGY

Academic literature on equity crowdfunding, for what concerns the performance analysis after the end of the fundraising campaign, mainly focuses on the achievements reached by the firm. In particular, in the last few years, post-campaign performances have been analysed in terms of both productivity/impact on existing processes and financial/economic sustainability; while it has been recently added also the study of those aspects related to ESG issues, which have become a mainstream topic nowadays.

In this dynamic and continuously evolving environment, there is, for sure, room for improvement, especially if looking at the investor's point of view: at the actual state of art, there is not a proper literature on investors' involvement and active ownership strategies in the company after an equity crowdfunding campaign. In this sense, the most similar academic papers are those related to the role of minority within the company's ownership structure (see *Paragraph 3.8*) as, in most cases, controlling shareholders offer through the equity crowdfunding campaign only minority stakes.

In order to collect higher amounts of money, without losing power in terms of ownership and control, controlling entrepreneurs often recur to the mechanism of '**surcharge**[18]'. In this way, each offered share will be seen as the result of a small part accounting for the nominal value, which will increase the share capital of the company, and a larger part consisting in the surcharge that the investor has to cover as 'fee' for the innovative idea presented by the project, that will increase the company's reserves in the balance sheet. Looking at the proportion between nominal part and surcharge, this latter could be orders of magnitude higher, allowing the firm to collect great sums.

[18] It can be translated in Italian with the term 'sovrapprezzo'.

Having performed this preliminary introduction and focusing only on those shareholders who joined the firm through the equity crowdfunding campaign, the main objective of this dissertation work consists in proving or rejecting the validity of the following hypothesis, deriving from a general statement that:

(H_0) in equity crowdfunding, investors' active ownership strategies in the company are generally absent

In other words, this statement represents the general perception by which investors who entered in the company ownership structure through the equity crowdfunding campaign play a marginal role during the shareholders' meetings, participating in a passive way or even (in the most extreme case) not taking part at all. This idea comes from the fact that those investors generally represent a minority stake in the company, often holding extremely low percentages in terms of shares. Alternatively, by rejecting the null hypothesis, the reasoning leads to the acceptance of the presence of active ownership dynamics within the company, which can have an impact (positive or negative) on its performances in the medium and long run. It is important to specify that this dissertation work does not stop to assessment of the average investor's participation per se, but it will also search for the existence of possible correlations among investors' behaviour and some specific (both financial and non-financial) parameters. Following intuition, three different alternative hypotheses will be considered:

(H_{A1}) there is a negative correlation among average participation by equity crowdfunding shareholders and the total number of investors

(H_{A2}) the average value of the investment subscribed is positively related to the average participation by investors

(H_{A3}) correlation between average participation and total amount of money raised from the campaign is expected to be negative

To spot the differences, the study of H_A will differentiate among:

- the most general situation, considering all equity crowdfunding investors;
- the case restricted only to those investors who subscribed voting shares.

In the second step, the analysis will go more in depth in examining equity crowdfunding investors' active ownership strategies with respect to their interventions in the meetings of shareholders. In facts, it is quite common that the administrator asks shareholders to express their preference, in terms of vote, on a certain topic, which can vary from the approval of the financial statement typical to the ordinary minutes at the end of the (financial) year, to extraordinary events like the vote for capital increase, M&A, IPOs, liquidation, …

The vote from each shareholder is generally expressed as for or against the proposal, with the possibility of abstention. It is also useful to understand the nature of these active investors about their attitude to subscribe investments in the equity-crowdfunding environment: with this purpose, the dissertation will investigate the investor typology (for instance, natural vs. legal and sophisticated vs. unsophisticated). In the author's point of view, it is expected to be found evidence on the fact that interventions made by sophisticated investors (be they firms or individuals) usually receive more consideration (in terms of relative weight) by the governance body of the company), just as in the case of 'qualified' minorities described in depth in *Annex 8.2*. One possible parameter that can be used to spot this investor typology is represented by the individual investment subscribed in the equity crowdfunding round; alternatively, also the investor's background and experience can represent meaningful parameters to be considered. Finally, another relevant variable for the case is given by the **total number of equity crowdfunding investors**[19] that, as it will be presented in the next chapter, can indirectly affect the decision by each shareholder on whether to attend or not to the meeting.

[19] In case of small companies like start-ups or SMEs which ran only one equity crowdfunding round, this parameter is a good 'proxy' by default (in Italian 'per difetto') of the total number of shareholders.

4.1 SAMPLE SELECTION AND CONSTRAINTS

The initial step of the dissertation work consists in the selection of the sample which will be at the basis of the computation and the successive formulation activities.

It is also necessary to specify in advance that this type of analysis is restricted only to the Italian (local) equity crowdfunding campaigns. As already said, the ECSP (see *Annex 8.1*) regulation which became effective starting from the 10th of November 2021, provided general guidelines in the field of crowdfunding, with the aim of creating a common framework for the member states of the European Union. This fact does not exclude the possibility that there can be differences at the national level: for this reason, the study will be limited only to Italian companies (more precisely, SMEs and start-ups), exploiting data provided by the 'Osservatorio Crowdinvesting del Politecnico di Milano'.

Fundraising mechanisms also change in depending on the type of crowdfunding (see *Paragraph 2.1*). Equity crowdfunding, represents the only alternative which allows investors to effectively become shareholders of the company, providing them access to the general meetings; while lending crowdfunding belongs to the debt market, and reward-based crowdfunding is just like pre-selling (and thus is subject to the e-commerce regulation). Donation-based crowdfunding, instead, is not relevant for this study, as it does not apply to entrepreneurial projects.

The list of Italian equity crowdfunding campaigns has been filtered exclusively through those operations, prior to 2018, which ended with success. In facts, it is not always the case in which the firm succeeds in reaching its minimum target capital. Often but not necessarily the firm, in order to strengthen its credibility on the market, divides the total amount of capital increase approved into two or more tranches, with the first one to be reached (corresponding to the minimum target) that presents a 'take-it-all' nature. If, after the collection period, this target has not been reached, investors are refunded their entire amount subscribed that, in the meanwhile, had been frozen on their bank account.

The deadline period that has been selected is not random but provides a relatively wide time window in which successive (ordinary and extraordinary) events might have happened.

In addition, campaigns that have been selected are only those offering (at least in part) voting shares. In facts, the share type can vary case-by-case for each campaign (even if performed by the same company, there could be differences):

- some firms offer only ordinary (voting) shares;
- others offer just 'preferred' shares (e.g., saving shares, 'quote di risparmio'), without voting rights in the shareholders' meetings;
- there can be the case in which the company offers a mix between voting and non-voting shares, usually with the presence of the voting right depending on the achievement of a certain investment threshold (decided by the firm).

In the case in which voting rights are offered (at least under certain conditions), investors coming from the equity crowdfunding campaign might play an active role in the meetings of shareholders (despite representing a small minority within the ownership structure) by intervening during the discussion phase and voting when required by the firm's controlling body. This does not exclude the possibility that also non-voting shareholders can participate to the general meetings and can actively contribute to the company's improvement; but this represents a very wide and unexplored environment, which would deserve a dedicated and detailed study.

In particular, in the following analysis, this latter case will be only cited in *Paragraph 6.2* and it will be given perfunctory consideration. Having made all the necessary premises, *Table 1* in the following page displays all the campaigns in the dataset that have been selected as result of the constraints applied to the sample.

Table 1 - List of the firms in the dataset, divided by year in which the equity crowdfunding campaign ended

2014	2015	2016	2017	
Paulownia SP	Bioerg	Media Vox Pop	InfinityHub	Crowdfundme
Cantiere Savona	Shin Software	Enki Stove	Nano	Glasstopower
Nova Somor	Cynny	BrainSeeding	Hortikultural Knowledge	Paladin True
	Nextop Italia	Maxtrino	Skymeeting	Little Sea
	Kyunsys	Xnext	Luche	Taskhunters
		P2R	Parterre	Smiling
		Synbiotec	Felfil	Orwell
		CleanBNB	Sharewood	Ermes Cyber Security
		NexApp	Scuter	Green Energy Storage
		Club Italia Investimenti 2	Oreegano	Yocabè
		Ricetta italiana	Keisdata	Cubepit
		Glassup	Winelivery	Provita
		Miropass	Ambiens VR	Stantup
		Primary System Research	Yakkyo	The Digital Box
		Safeway Helmets	Findmylost	Babaiola
		Upsens	HYMY GROUP	Qaplà
		Papem	Graphene XT	Family Nation
			Bloovery	Verso Technologies
			TAEBioenergy	GK
			Take Off	Coco
			Alea	Dreama

4.2 DATA COLLECTION AND CREATION OF THE DATABASE

The preliminary phase, preparatory to the true and own analysis of the follow-up events successive to the equity crowdfunding campaign, consists in the fulfilment of an 'ad hoc' database. Relatively to this consideration, follow-up events that have been considered encompass both ordinary and extraordinary operations: in particular, approval minutes of the financial statement at the end of the financial year or of a subperiod (e.g., a quarter or half a year), belong to the first category, while minutes referring to capital increases, **M&A**[20] processes, spin-offs, IPOs, **exits**[21] … fit in the second group.

The 'Osservatorio Crowdinvesting' provided, as a starting point for the analysis, the database of all the Italian equity crowdfunding campaigns (see *Annex 8.3*), from the oldest (Paulownia Social Project in June 2014) to the most recent one. Data included here present a different nature, going from qualitative information on the issuers (both company and its entrepreneurs), to more quantitative notions about the amount of money raised or the valuation of the company.

With the aim of analysing in detail all the follow-up events characterizing each company within the list (see *Table 1*), it has been designed an Excel file in which each row refers to a specific equity crowdfunding campaign. For each of them, it is reported the name and the fiscal code of the issuing company, the name of the crowdfunding platform which manages the fundraising, and the end date together with the total amount of money raised and the number of investors who joined the campaign.

[20] M&A in the acronym of "Mergers & Acquisitions" and refers to transactions involving at least two companies in which their ownership or that of their operating units (including all assets and liabilities) is transferred to another entity. A merger is the consolidation of two entities into one, whereas an acquisition occurs when one company takes over ownership of another.

[21] The most frequent cases of exit are in the real estate environment where, after a certain period from the end of the fundraising campaign (necessary, for instance, for the construction work), the real estate will be sold, and equity holders will receive a premium from this operation.

Table 2 - Database containing all the information on the campaigns and the follow-up events

The fiscal code, as in the case of a natural person, allows the identification of the firm in a univocal way

The total number of investors can vary from just few individuals to a large pool of heterogeneous people, depending on their perceptions and on the campaign's features

Here it can be found the list of all the minutes in a chronological order, divided between ordinary and extraordinary events

Impresa	Codice Fiscale	Nome Progetto	Portale	Data fine	Raccolto (se successo)	Investitori	DOCUMENTI DISPONIBILI	Data
Ricetta italiana srl (1)	09020040961		CrowdFundMe	16/10/2016	200000	85	ORD	apr-17
							STR	dic-16
							STR	apr-18
							ORD	mag-18
Ricetta italiana srl (2)			MamaCrowd	15/07/2018	533119	94	ORD	mag-19
							ORD	lug-20
							ORD	giu-21
Glassup srl	03480130362		200 Crowd	12/11/2016	€ 250.000	46	Liquidazione	ott-20
Glassup srl (2)			200 Crowd	24/06/2018	€ 141.000	51	ORD	mag-18
							ORD	dic-18
							ORD	giu-19
Micropass srl	07826360963		BacktoWork24	30/11/2016	€ 250.174	13	ORD	apr-17
							STR	nov-17
							ORD	apr-18
							ORD	mar-19
							ORD	giu-20
							STR	lug-20
							ORD	giu-21

It may be the case that a firm performed more than one equity crowdfunding campaign

In case of more than one campaign for the same firm, it may happen that the crowdfunding platform has been changed, or remained the same as before

Certain extraordinary events (liquidation, IPO, acquisition, ...) represent 'de facto' an 'exit' for the firm and its shareholders

From the **website of the Italian Chamber of Commerce**[22], it is possible to search by name or, in an easier way, by fiscal code each of the issuing companies, and then download the list of both ordinary and extraordinary minutes subsequent to the end of the equity crowdfunding campaign (filtered through the specific command). Meeting Minutes then have been collected into specific folders on a Microsoft® OneDrive database, divided by equity crowdfunding platform at the top level and by issuing company name at the bottom one.

Finally, in a specific column on the Excel file, it is possible to find the list of minutes for each equity crowdfunding campaign presented in chronological order, starting from the oldest one.

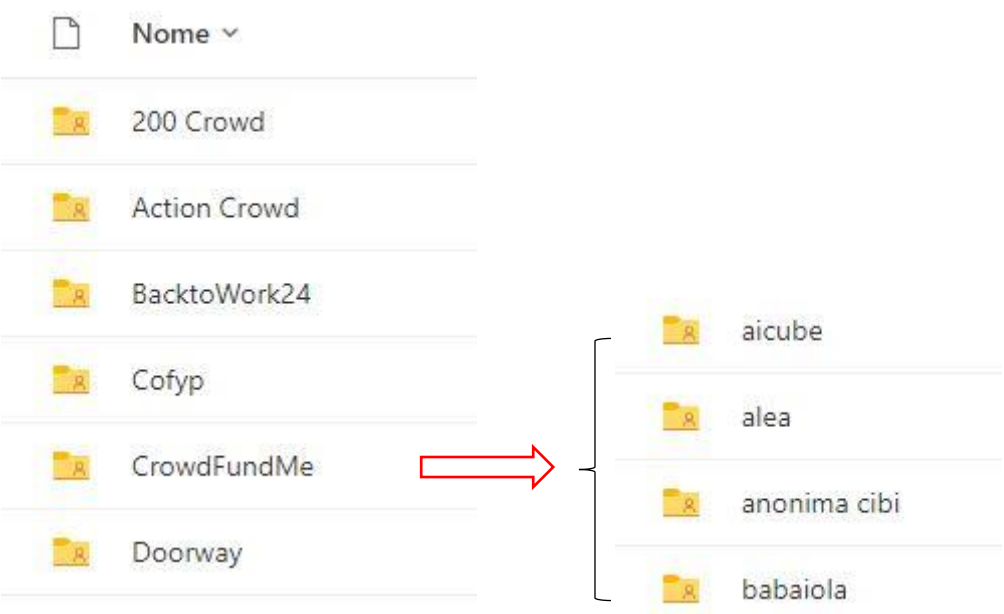

Figure 4.1 - OneDrive cloud collecting all the folders related to each campaign grouped together by platform. In this figure it is possible to see an example for some of the campaigns belonging to one of the most famous Italian equity crowdfunding platforms

[22] Telemaco Infocamere; at the following link: https://login.infocamere.it/eacologin/login.action

4.3 MEETING MINUTES AND PARTICIPATION

Starting from the information described above, the first real step of this dissertation work is represented by the categorization of all the Meeting Minutes, together with the initial assessment of the investors' participation to the company's follow-up events. The database has been divided into two sheets: the first one is dedicated to the shareholders' meetings, their nature, and the contents that have been discussed; while the second sheet refers more in depth to the participation of each single individual to the meetings, annotating all his/her interventions and votes. With this aim, it is necessary to specify the fact that shareholders' participation and interventions have been considered only for those individuals coming from the equity crowdfunding campaign: as already said, the principal objective of this dissertation consists in the analysis of equity crowdfunding investors' active ownership dynamics in the events successive to the end of the campaign and thus, the point of view of already existing shareholders (or other categories) is for sure interesting in properly understanding the internal dynamics of the company, but it is not so relevant for the main point of this thesis. In order to collect the information regarding investors' participation, the 'Osservatorio Crowdinvesting' has provided also a second database, specific for the investment phase (see *Annex 8.4*): it gathers all the data regarding the investment made by each single individual/firm for each campaign, together with qualitative information regarding the type of investor and his/her/its attitude. The new data have been added to completion of the previous information stored in the database. The first sheet presents an initial (compact) part for what concerns the contents of the discussion and the voting outcomes for each shareholders' meetings; while the second one is organised in a more detailed and structured part at the level of the single shareholder, focusing on proposals, complaints, preferences (votes), and other intervention types.

Before presenting the database section dedicated to individuals' participation, interventions, and votes in the general meetings of shareholders, it is useful to provide a real example of Meeting Minutes (looking at Figure 4.2 in the next page) and try to assess all the information that can be inferred from it.

The introductory part is dedicated to the data on the firm's personal information: registered office, share capital (both approved and paid-up), and fiscal code

Then it is reported the information regarding the date of the event together with the agenda, which highlights the main topics that will be discussed during the shareholders' meeting

DITTA ……
Sede legale in …… – Via ……
Cod. fiscale e iscriz. Reg. Imprese: ……
C.S. euro ……, versato per euro ……

VERBALE DI ASSEMBLEA ORDINARIA

L'anno ……, il giorno …… del mese di …… alle ore …….. presso la sede sociale, si e' tenuta l'assemblea ordinaria totalitaria dei soci, in prima convocazione, per discutere e deliberare sul seguente

ORDINE DEL GIORNO

1) Approvazione del bilancio chiuso al 31/12/……;
2) Varie ed eventuali.

The following part regards the presence/absence by each shareholder. This info can be reported here in a compact way and then exploded in the attendance sheet

Assume la presidenza l'Amministratore Unico/il Presidente del Consiglio di Amministrazione, sig. ……., il quale chiama il/la sig./sig.ra ……, consigliere, a svolgere la funzione di segretario.
Il Presidente dell'assemblea, constatato che sono presenti tutti i soci, in rappresentanza dell'intero capitale sociale, dichiara validamente costituita l'assemblea.
Si passa alla discussione degli argomenti posti all'ordine del giorno ed al riguardo il Presidente legge all'assemblea il bilancio al 31/12/……, fornendo i necessari chiarimenti su alcune poste di bilancio e su altri quesiti richiesti.

Dopo ampia discussione, l'assemblea

The discussion part can be small or large depending on the case. This part represents the most important section for studying investors' active ownership strategies

DELIBERA

di approvare il bilancio d'esercizio chiuso al 31/12/…… e di riportare la risultante perdita al successivo esercizio/di accantonare a riserva l'utile, così come proposto dall'Amministratore Unico/ Presidente del Consiglio di Amministrazione.

Il Presidente, constatato che l'ordine del giorno e' esaurito e che più nessuno chiede la parola, dichiara l'adunanza conclusa alle ore …….. previa redazione, lettura ed approvazione del presente verbale.

Il segretario Il presidente

Here are recorded (if any) all the interventions made in form of questions, suggestions, complaints, proposals, …) made by each single shareholder

The deliberation phase represents the last part of a 'standard' minute: here it is registered the outcome of the voting, usually followed by the explicit vote (if any) of each shareholder, who can be in favour or against a certain decision, or even refrain from it

Figure 4.2 - Facsimile of a 'standard' Meeting Minutes and brief description of its composition

Table 3 – Characteristics of the shareholders' meeting in terms of topic, date and voting outcome

The first part of the 'compact' sheet of the database 2.0 is the same as before, collecting the firms' personal information

The identification of the shareholders' meeting class has been reorganized into a system of flags for what concerns the distinction between ordinary and extraordinary

The last part refers to the voting outcome: the most interesting cases for the dissertation work are those where there is debate around a certain topic which results in a partition among preferences (votes)

Impresa	Codice Fiscale	Portale	Data fine camp	Raccolto (se suc	Investitori	ata del verbal	ORD	STR	TIPOLOGIA	NOTE assemblea	esito assemblea
Ricetta italiana srl (1)	09020040961	CrowdFundMe	16/10/2016	200000	85						
						apr-17	1		BIL	anche ripianamento perdita	unanimità
						dic-16		1	AUC	aucap gratuito riservato ai soci della campagna di equity crowdfunding	unanimità
						apr-18		1	AUC	riservato ai soci e il non optato/prelazionato a terzi	unanimità
						mag-18	1		BIL	anche determinazione rimborso spese trasferta per amministratori	unanimità
Ricetta italiana srl (2)		MamaCrowd	15/07/2018	533119	94						
						mag-19	1		BIL	anche nomina amministratori	unanimità
						lug-20	1		BIL	anche determinazione compenso amministratori	unanimità
						giu-21	1		BIL	anche determinazione compenso amministratori	unanimità
Glassup srl	03480130362	200 Crowd	12/11/2016	250.000	46						
						mag-18	1		BIL		unanimità
Glassup srl (2)		200 Crowd	24/06/2018	141.000	51						
						dic-18	1		BIL		unanimità
						giu-19	1		BIL		unanimità
Miropass srl	07826360963	BacktoWork24	30/11/2016	250.174	13						
						apr-17	1		BIL	prima assemblea deserta + invio ai soci di una delibera degli obiettivi conseguiti	unanimità
						nov-17		1	AUC	riservato ai soci e, in caso di mancata sottoscrizione, a terzi	unanimità
						apr-18	1		BIL	prima assemblea deserta	unanimità
						mar-19	1		BIL	prima assemblea deserta	unanimità
						giu-20	1		BIL	soci divisi sull'approvazione del bilancio causa perdite	maggioranza
						lug-20		1	AUC	ripianamento perdite con riserve e cap sociale + ricostruzione con aucap per i soci	unanimità
						giu-21	1		BIL		maggioranza

The following columns provide a further step for the classification of the meeting typology: in particular, in the space dedicated to the notes, it is presented a brief description of all the contents that have been discussed, in addition to the main objective of the meeting

Table 4- Computation of the participation percentage for each investor in the campaign (data here refer to Paulownia Social Project Srl)

Here it is provided the list of investors (both companies and individuals) who joined the equity crowdfunding campaign

The next two columns describe the type of subscribed shares by each investor with respect to the presence/absence of voting rights

This column represents the total number of times in which a shareholder delegates another individual to participate to the meeting

NOME INVESTITORE	SOCIO ESISTENTE?	quote votanti	quote non votanti	#partecipazioni ORD	#partecipazioni STR	di cui, con delega	#assenze	CHECK (tot. assemblee)
MILLENIUM PARTECIPAZIONI S.R.L	no	1		2		2	6	8
UMBERTO IMMOBILIARE SRL	no	1					8	8
TEALDO SERVIZI S.R.L.	no	1		1		1	7	8
BONAFEDE ALESSANDRO	no	1					8	8
CASENTINI NATALE LUCIANO	no	1					8	8
DEDE' MARIA ELISABETTA	no	1		1	1	2	6	8
MOSCA MARCO	no	1		2	1	2	5	8
MUSACCHIA SAVERIO	no	1					8	8
ROMANO ASSUNTA MARIA	no	1					8	8
ROMANO VALERIO	no	1		3		2	5	8
URAS ANNA	no	1					8	8
VITAGLIANO VINCENZO	no	1		2	1	2	5	8

This flag ('yes' or 'no') indicates if the investor was already present in the company's ownership structure or not

Here it is provided the counter of the attendances by each investor to the shareholders' meetings, divided among ordinary and extraordinary. Their sum provides the total number of attendances

Finally, the check of the total number of meetings (that varies campaign-by-campaign) is useful for the computation of the participation percentages

4.4 CALCULATION OF THE PARAMETERS

Having described the database and its composition, the further and last step to be undertaken is represented by the computation of the main parameters that will be analysed in the following pages. First, the most important and central variable of all the work is given by the **average participation percentage by all equity crowdfunding shareholders**[23]. Looking at data in *Table 4* above, it has been initially calculated the average participation by each single investor as:

$$individual\ participation\ [\%] = \frac{total\ \#attendances}{total\ \#meetings} * 100 \quad (for\ each\ row)$$

Then, participation percentage has been computed as the mean value among all the individual participations:

$$participation\ [\%] = \frac{\sum_{i=1}^{N} individual\ participation_i}{N}, \quad with\ N = total\ \#investors$$

In the same way, participation related to 'voting shares only' follows the same formulae but considers only those investors who subscribed ordinary or voting shares in the equity crowdfunding campaign, identifiable in *Table 4* by the activated flag (=1) in the specific column dedicated to voting shares.

With reference to the total amount of money collected from the campaign, it can be easily found in Table 3 or, alternatively, directly on the equity crowdfunding platform.

Finally, the average investment value [€] has been computed as the simple mean among all the individual investments subscribed:

$$average\ investment\ value\ [€] = \frac{total\ amount\ of\ money\ raised\ in\ the\ campaign\ [€]}{total\ \#investors}$$

[23] For the sake of conciseness, this term will be indicated in the following page just as 'participation percentage'.

5 LOOKING FOR POTENTIAL CORRELATIONS

5.1 PRELIMINARY STUDY

Once that the database has been completed, it is possible to search for the presence of strong and weak relationships among the different data provided in the dataset. In particular, this section of the dissertation focuses on the assessment of equity crowdfunding shareholders' participation to the meetings in dependence of the input provided. Shareholders' participation is an important parameter to be analysed, as it represents the first step (at the highest 'aggregation level') for the study of crowdfunding investors' active ownership dynamics in the company.

Before starting, it is useful to describe the modalities through which a meeting is convened: some days (or few weeks) before the meeting date, all the equity holders are notified by a letter of convocation: in the past, the letter was delivered in paper form, while nowadays it has been substituted by the e-mail and/or by an announcement on the company's website. In this second way, shareholders are provided with a (quite large) time window in which they can confirm their presence or even (not compulsorily) justify their absence. Looking at the *Table 4* in the previous paragraph, it is possible to see how participation can also happen in the form of mandate to a delegate, who temporarily inherits the voting rights of the delegator: these cases are 'de facto' considered as normal attendances to the meeting of shareholders: for this reason, in the counter of participation on the Excel file, there is no distinction between physical and delegated attendance.

Starting from the last months of 2019, especially as a consequence of the restrictions made necessary to face the pandemic emergency, it has become more diffused the remote participation through videoconference, which has also partially limited the delegation mechanism. Similarly to the previous situation, the counter does not distinguish between remote and 'in presence' participation.

Having done these preliminary considerations on shareholders' participation, it is now time to check whether it is possible to identify in advance a potential relationship between this latter and the different inputs. In particular, as already said at the beginning of *Chapter 4*, intuition theoretically suggests the presence of a negative correlation among participation and total number of investors; while it is expected to be found a certain positive correlation between participation and average investment value.

Equity crowdfunding investors' participation has been computed in two different ways depending on the type of shares offered. In facts, paragraph 4.1 showed the different types of shares, provided with different features also in terms of voting rights: in some cases, the voting right is strictly related to the achievement of a certain (minimum) investment threshold. For this reason, the first alternative considers the investor pool as a whole while, in the second case, the reasoning is restricted to 'voting shares only'. The absence of voting rights does not imply that those investors cannot actively participate to the shareholders' meetings. Based on the assignment rules (written in the firm's prospectus or, alternatively, in the resolution) and the individual investment subscribed, investors (both natural and legal persons) have been classified based on the 'voting' or 'non-voting' criterion (see *Table 4 above*).

- **Preliminary study**: campaigns have been clustered into five different classes with respect to the total number of investors coming from the equity crowdfunding campaign, going from the most 'concentrated' cases with less than 10 subscriptions, up to those firms which raised money from more than 100 investors. It is somehow possible to prove that different clusters relate to different objectives in terms of type of project, requirements, and target capital to be raised. Once the classes have been created, for each of them it has been computed the average participation [%] (as the simple mean among all the firms belonging to a specific cluster). The methodology through which clusters have been generated does not allow a company to be simultaneously present in more than one class.

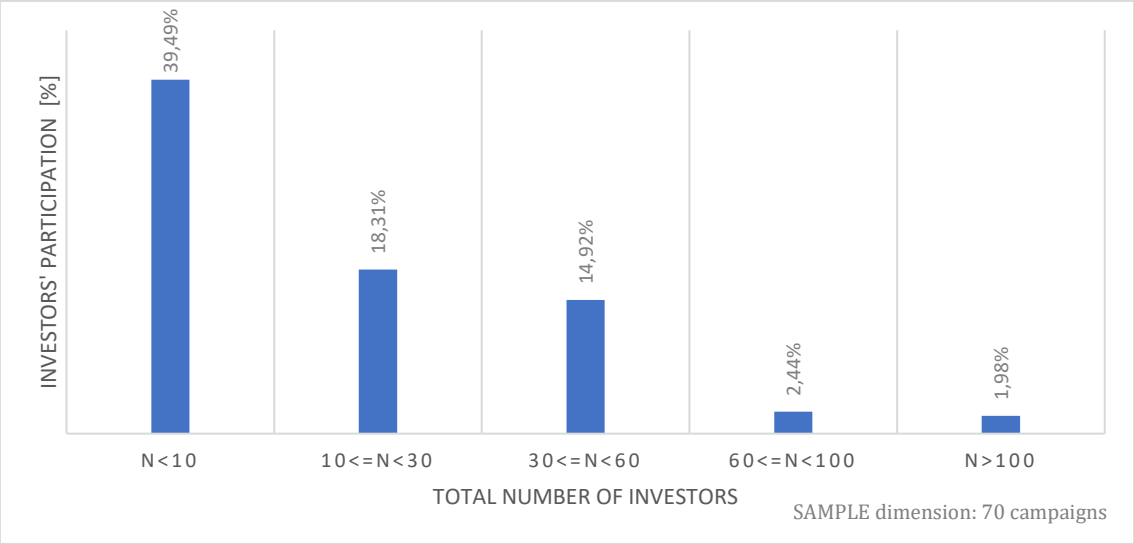

Figure 5.1 - Histogram representing the investors' participation to shareholders' meeting for each cluster

The histogram in *Figure 5.1* describes how equity-based crowdfunding shareholders' participation reacts to an increase in the total number of investors. In particular, it seems to be present a kind of non-linear negative relationship between the two parameters, as expected from the intuition. A small number of investors joining the campaign might be represented by two cases: in the first one, the idea is that of a young start-up, which collected a relatively small amount of money (not much higher than the minimum target to be reached) mainly from its internal network, almost composed by family, relatives, and friends; while in the second case the money requirement is filled in almost its entirety by few particularly wealthy individuals (e.g., business angels) or firms (e.g., investment funds). In both cases, the environment within the firm favours the generation of a small 'ecosystem' in which every investor (even if with different motivation among the two cases) perceives his/her own importance it terms of being pivotal (determinant) for the company: this condition is highlighted in the graph by a percentage which is almost the double of the following two clusters. Going to the cases where the campaign is characterized by a very large investor pool, the percentages stand around 2% ~ 2.5%: here, instead, there is the general perception that decisions are only a matter of the majority shareholder/coalition and that minority shareholders' opinions have a marginal weigh which tends to the null. As a consequence, it is reasonable to think that, in this case, minority shareholders tend to not participate to the meetings.

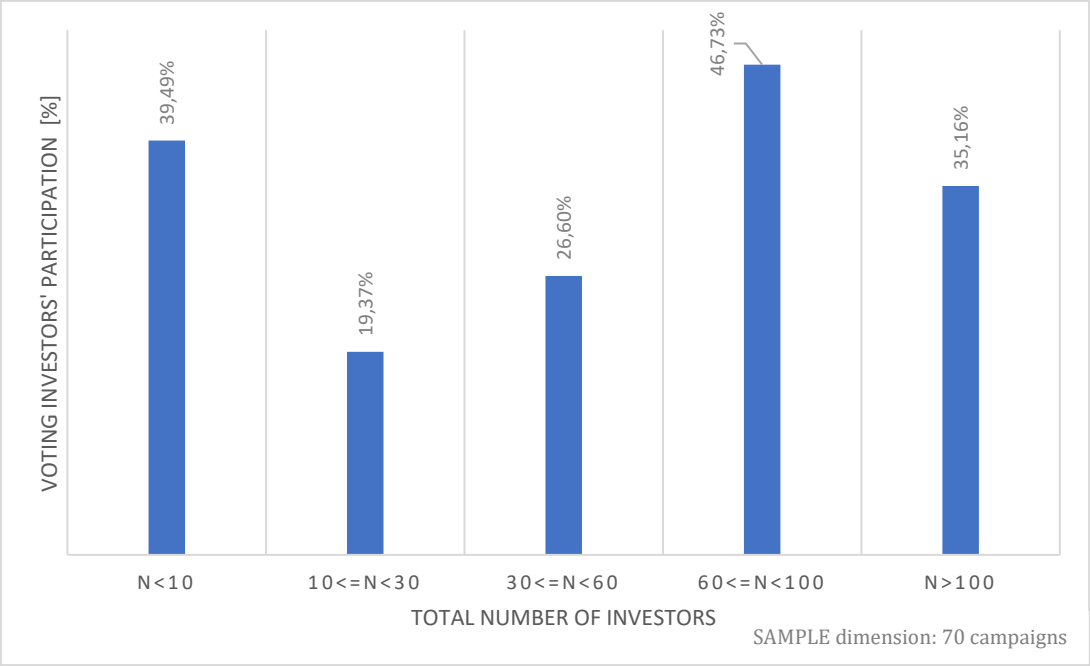

Figure 5.2 - Histogram in the case of 'voting shares only'

If the study is restricted only to 'voting shares', it is possible to see how the graph changes from its previous shape: in particular, the negative trend that was present before here seems to be absent: this might signal that participation of 'voting' (equity crowdfunding) shareholders does not depend on the total number of investors.

Measures of participation concentrate within a quite wide range, going from 19% to 47%, with a mean value of 33.47%. A possible explanation for these fluctuations is given by the fact that 'voting' shareholders' participation is particularly case-dependent (meaning that it varies a lot on a case-by-case basis) and it is also strictly related to the individual's relative importance within the company in terms of ownership percentage (reflected by the value of the individual investment subscribed together with the proportion between nominal value and surcharge).

It is not surprising the fact that, comparing each column with its previous version in *Figure 5.1*, as the total number of investors increases, percentages suffer from a reduction (amplified for campaigns with a very large investor pool): in particular, the first column is exactly the same as before while, starting from the second cluster, this effect becomes more and more impactful going ahead.

5.2 PARTICIPATION % VS. TOTAL NUMBER OF INVESTORS

In this case, it has been built the scatterplot in which each point represents a specific equity crowdfunding campaign whose coordinates are characterized by the participation percentage on the vertical axis and total number of investors on the horizontal one. The resulting graph has been reported below:

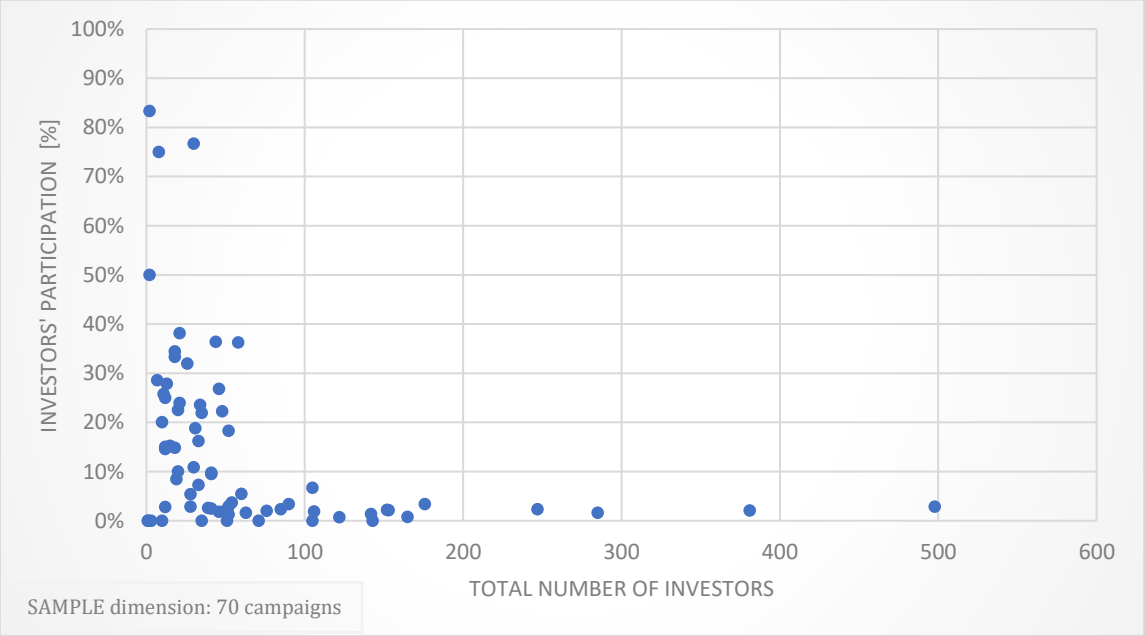

Figure 5.3 - Investors' participation plotted in function of the total number of investors in the ECF campaign

The scatterplot in *Figure 5.3* presents a quite particular distribution, with the large majority of the points concentrated in the bottom left corner: this highlights the fact that, generally, the number of investors joining the fundraising campaign is quite small (usually lower than 60 ~ 70 people between natural and legal persons). This is reasonable essentially for two motivations: first, equity-based crowdfunding deals with small companies (more precisely, start-ups and SMEs) in their early lifecycle stage and second, this activity can be classified within the category of risky investment and consequently small savers (unsophisticated investors) might prefer safer but still profitable options like, for instance, bonds or, remaining in the crowdfunding environment, loans through lending crowdfunding. Clusters analysed in the preliminary study (*Paragraph 5.1*) provided evidence on this fact, showing how the number of positively concluded campaigns with less than 60 investors accounts for the 71,43% (in absolute numbers, 50 over 70) of the total cases.

Coming back to the scatterplot in *Figure 5.3*, the most important consideration to be done here is, for sure, related to the shape of the scatterplot: by plotting equity crowdfunding shareholders' participation (expressed in percentage terms) against the total number of investors who joined the campaign, the resulting graph highlights the presence of a certain non-linear, negatively related trend. In facts, it seems that the dependent variable, here represented by investors' participation [%], decreases following a certain curve as the total number of investors increases. A possible explanation in given by the fact that, for large values in the total number of investors, it is easier that, on average, each single individual perceives his/her position in terms of importance during the general meetings of shareholders as marginal and irrelevant and consequently is pushed towards a more 'passive' participation that, in the extreme case, directly leads to the absence in the meeting. In this specific context, active ownership strategies are generally absent among equity crowdfunding shareholders.

Figure 5.4 - When there are few people, it is easier to express personal opinions independently from the stake owned

Focusing on the left part of the scatterplot, it is possible to say that, in the case of a campaign collecting money from few investors (for instance, less than 10), there is a higher probability that each shareholder perceives his/her role in the company as pivotal and thus he/she is encouraged to attend to the meetings. This phenomenon is known as '**Pivot effect**[24]' and exerts a positive influence on the average participation percentage to the meetings of shareholders. In this sense, the environment within these companies can be described as a 'round table' (as in *Figure 5.4*) in which each member feels free to intervene, suggest ideas, and raise doubts independently from the stake owned even if, at the practical level, the final decision is entitled to the majority shareholder.

[24] Pivot effect can occur in companies characterized by a small number of equity crowdfunding investors and positively affects the total average participation by indirectly increasing the attendance at the individual level, as each single investors feels determinant in driving the outcome of the meeting.

In addition, early financing stages (especially in the case of start-ups) might be characterized by the presence of the entrepreneur's internal network composed by his/her **relatives and acquaintances**[25].

On the contrary, when dealing with firms whose campaign has been characterized by the presence of many investors (for instance, in number higher than 100), equity crowdfunding shareholders who, in the large majority of cases represent a minority stake in the company ownership structure, tend to perceive their relevance in the meeting as marginal or, in the most extreme case, even null, resulting in the absence of active ownership dynamics within the company. This situation, opposite to the previous one, takes the name of '**Block Out effect**[26]' and negatively affects the average participation percentage by equity crowdfunding shareholders. Here, as already mentioned above, it is reasonable to talk about minority shareholders, as the total nominal value which can be subscribed in the crowdfunding round is spread among the large investor pool, resulting in a small stake in terms of ownership percentage at the single investor's level. In addition, there could be the possibility that voting rights are offered only above a certain threshold, resulting in the possibility of having a prevalence of non-voting shareholders (subscribing the minimum chip).

In these cases, the active role is, in some way, '**delegated**[27]' to the representative in the Board of Directors, who is elected through voting system that, in some structures (see *Annex 8.2*), allows minorities to be represented.

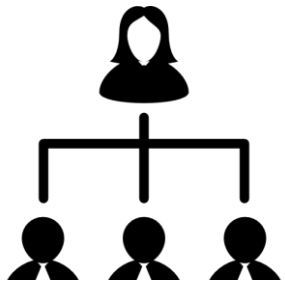

Figure 5.5 - The delegation mechanism becomes more important in firms characterized by many shareholders

[25] Looking at the list of investors for each equity crowdfunding campaign, it might be the case that there can be found relatives of the entrepreneur/administrator, recognized thanks to the same second name.

[26] Block Out effect (translatable with the Italian term 'Effetto Tagliafuori') generally occurs in companies characterized by many equity crowdfunding investors. In this scenario, under the same conditions of the previous case, investors generally perceive their role in the meetings as marginal (and thus, no more pivotal) like if they are indirectly 'cut off' from the discussion.

[27] In this specific section of the paper, the term is used with a different meaning, indicating the mechanism through which minority shareholders identify a spokesman who represents them. In general, in the dissertation, the term will be used for indicating the process through which a shareholder nominates an individual or another shareholder to attend to the meeting on his/her behalf, temporarily acquiring his/her voting right for the whole duration of the meeting.

Coming back to *Figure 5.3*, by looking at the 'shape' of the scatterplot, it is clear how there is a negative relationship between shareholders' participation percentage and total number of investors (if one increases, the other goes down and vice versa).

	inv	part
inv	1.0000	
part	-0.3388	1.0000

	inv	part
inv	7451.27	
part	-5.36318	.033629

Figure 5.6 - Correlation matrix (on the left) and variance-covariance matrix (on the right) between inv *(total number of investors) and* part *(shareholders' participation)*

The mathematical proof is given by the variance-covariance (symmetric) matrix on the right side of *Figure 5.6*, which displays a negative value for the covariance of the two variables (position 1-2 or, alternatively, 2-1). This numbers shows, another time, that an increase in one variable negatively affects the other one. In the same way, also the **correlation**[28] matrix (on the left side) shows the same behaviour. The correlation coefficient is negative but far from the value -1: this fact, together with the analysis of the shape, allows to exclude with a certain degree of certainty the presence of a negative linear trend.

Having analysed all these aspects, it is interesting to try to assess an expression for the curve showed in *Figure 5.3*. Before starting, it is necessary to specify that the dataset is not exempt from the presence of **outliers**[29], in particular in the first section of the curve. Sometimes it might happen that, especially in firms which collected funds from few investors, there is one shareholder (usually the sole administrator) who owns the large majority of shares (sometimes even more than 60~70%) and fully exerts his/her power during the meetings of shareholders (for instance, he/she is not so open to dialogue and does not take into consideration other shareholders'

[28] It is useful to provide here the difference between covariance and correlation: both parameters measure the relationship and the dependency between two variables. Covariance indicates the direction of the linear relationship between variables while correlation measures both the strength and direction of the linear relationship between two variables. In particular, correlation is a function of the covariance.

[29] In statistics, an outlier is a data point that differs significantly from other observations. An outlier may be due to variability in the measurement, or it may indicate experimental error; the latter are sometimes excluded from the data set.[3] An outlier can cause serious problems in statistical analyses.

suggestions): in these cases, the previous hypothesis of 'Pivot effect' fails due to the absence of a proactive environment and, as a consequence, it is reflected in a participation which is almost null. This generates outliers that can be found in *Figure 5.3* in the first section (total #investors < 100) on the x axis. These points were not eliminated, as they do not represent 'errors', but they are just (rarer) alternative cases. *Figure 5.7* below, try to display a possible expression for the relationship between the two variables: the arc of hyperbola in the first quadrant of the Cartesian plane represents a good approximation for the distribution of points in the scatterplot. The presence of upper and lower constraints reflects the need of having percentage values related to investors' participation which cannot assume negative values ($y \geq 0$) and, at the same time, cannot cross the 100% participation ($y \leq 1$). If looking at the x axis (corresponding to $y = 0$), the function presents one horizontal asymptote when the total number of investors tends to $+\infty$ (because of the presence of a strong 'Block Out effect'). On the other hand, **if the total number of investors is low**[30], the firm will generally (excluding the presence of outliers) benefit from the 'Pivot effect' by each shareholder, resulting in much higher values in terms of average participation percentages.

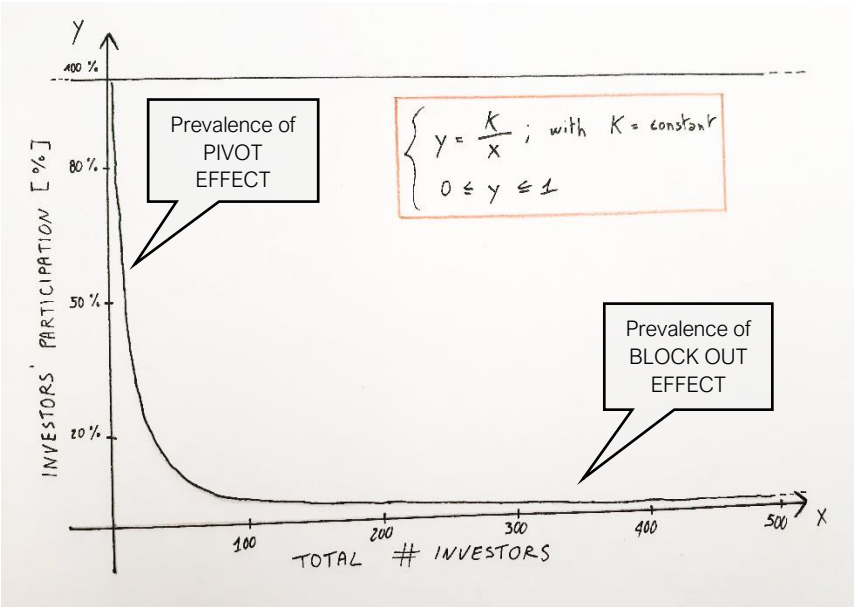

Figure 5.7 - A possible function for the relationship between total number of investors and percentage participation

[30] It makes no sense to let x tend to 0: there is a (physical) constraint on the total #investors for which $x \geq 1$.

Briefly passing to the scenario which considers 'voting shares only', as already seen in the preliminary study (*Paragraph 5.1*), the scatterplot changes its shape, losing the characteristic negative correlation among the variables previously described.

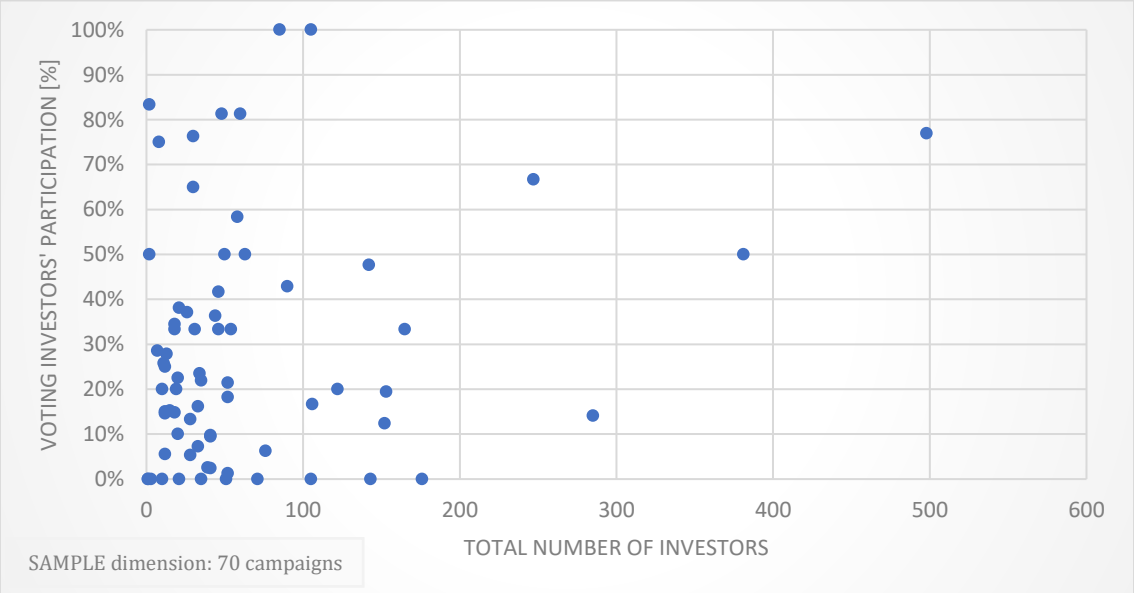

Figure 5.8 - Participation of 'voting shares only' [%] plotted in function of the total number of investors

Figure 5.8 highlights this specific case where, differently from before, it is difficult to identify the presence of a clear trend: data here appear to be randomly distributed with respect to the y axis, while it is still possible to identify a larger concentration of points in the left part of the graph (looking at the horizontal axis), as a consequence of the characteristics (in terms of total #investors) of the firms in the sample. The simple mean of all the participations (used in this case as a 'rough' indicator/proxy) stands at 28.5%.

From the scatterplot, it can be deduced that equity crowdfunding shareholders holding voting shares generally do not suffer from the 'Block Out effect' given by the large (for instance, larger than 100 individuals among natural and legal persons) investor pool. The main explanation is provided by the fact that, especially in companies collected money from a wide set of investors (in the sample, the highest number refers to the second round performed by 'Glasstopower Srl' in 2018 with 498 investors), voting shares are often associated with high amounts in terms of minimum investment threshold: these requirements, if fulfilled, allow particular

investors' classes to end up with an important stake in terms of ownership percentage, granting them relatively high importance at the general shareholders' meetings. Therefore, these investors' categories are encouraged to participate to the meetings, often in a proactive way.

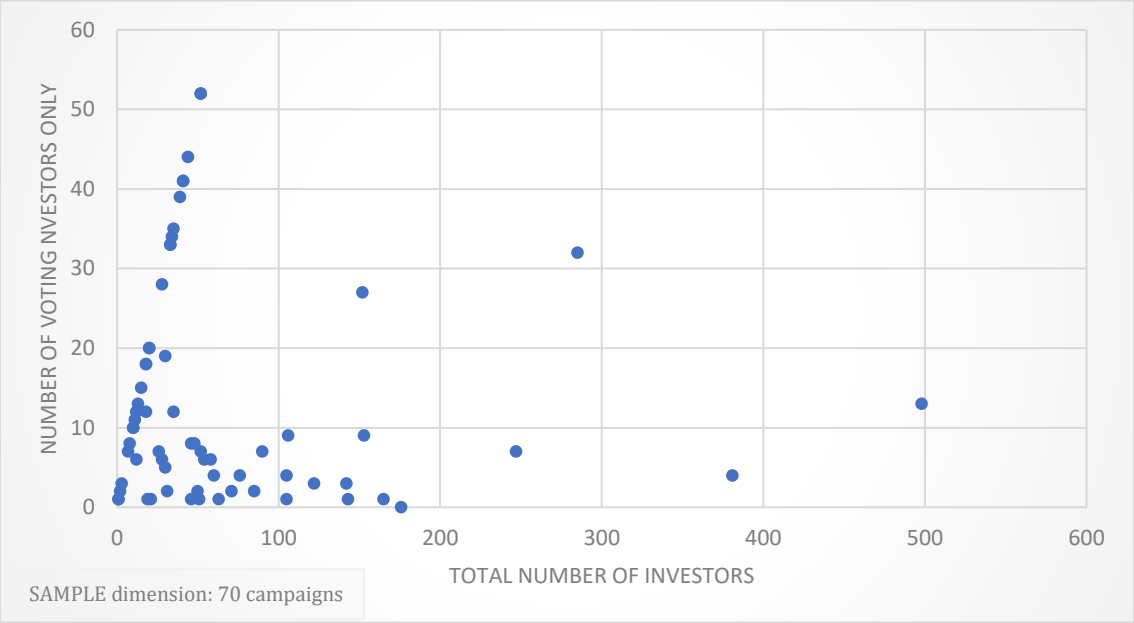

Figure 5.9 - #voting investors only plotted in function of the total #investors

To support this explanation, it has been plotted in *Figure 5.9* the number of voting investors' only against the total number of investors who joined the campaign. The resulting scatterplot is quite characteristic in terms of shape: the left part is characterized by the presence of a linear relationship between the two variables: in particular, this type of behaviour can be described by the linear equation y = x, indicating how the slope of the curve is equal to one. This is due to the fact that in these cases the company is offering ordinary shares and, as a consequence, all investors turn to be 'voting' investors. On the other hand, when the firm wants to collect money from a large crowd, in generally ends up by offering voting shares only above a certain threshold (depending on the specific case, campaign-by-campaign). As a results, the percentage of 'voting investors' over the total number of investors falls. In the specific case of the sample analysed, looking at *Figure 5.9*, it is possible to identify on the horizontal axis a kind of 'discontinuity point' approximately around the value of 50 investors per campaign.

5.3 PARTICIPATION % VS. AVERAGE INVESTMENT

Before starting, it is useful to write off the existing relation that links the average investment subscribed per campaign and the total number of investors who joined the fundraising. The mathematical expression has been already written in *Paragraph 4.4*. As a support tool, it will be provided another time the scatterplot of the average investment value [€] plotted against the total number of investors.

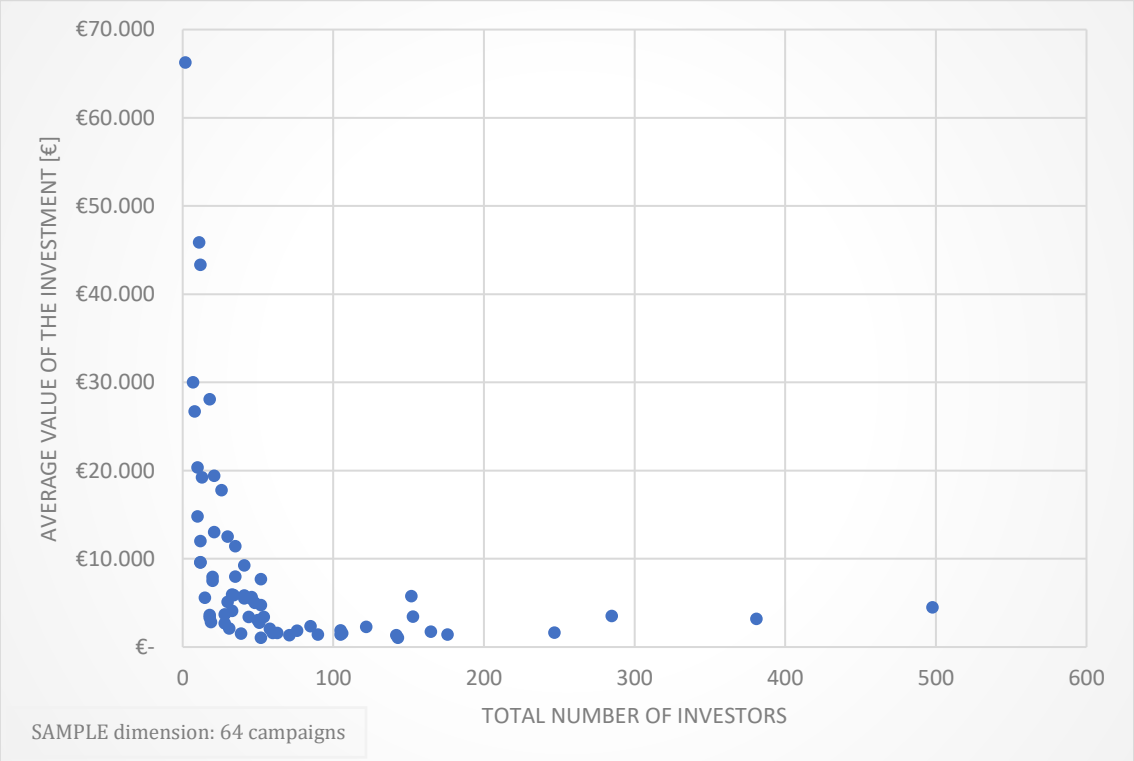

Figure 5.10 - Average investment value [€] plotted in function of the total number of investors

Figure 5.10 clearly signals the presence of a negative relationship between the two parameters. In facts, it is reasonable to think that, as the number of investors increases, the target quantity (in terms of amount of money to be raised) is spread among a wider number, resulting in a lower average investment value.

The scatterplot highlights another time the presence of a non-linear relationship which presents similarities in terms of shape with the case that have been seen in *Figure 5.7*, with the difference that here there is not an upper limit for the investment sum (which theoretically can reach the entire target of the fundraising that, in turn, varies case-by-case).

Another important difference is related to the absence of the horizontal asymptote given by y = 0: for sure, even if at a theoretical level the total number of investors is brought to +∞, the average investment value will not tend to 0, but it will tend to the value of the minimum chip of the equity crowdfunding campaign, which varies case-by-case. For this reason, the graph does not present any horizontal asymptote. On the other hand, even if there is no upper limit for the average investment value, there is not any vertical asymptote, as there is the constraint on the x variable (total number of investors) which, just as in the previous cases, has to be ≥ 1: consequently, is makes no sense to let x tend to 0 (where, from a purely mathematical point of view, there should be a vertical asymptote).

For this reason, given the negative relationship between average investment and total number of investors, and considering as given the study analysed in the *Paragraph 5.2*, intuition suggests the presence of a positive correlation between average investment value and investors' participation percentage, that will be verified in the following part of the dissertation work.

Before analysing the scatterplot, it is necessary to specify that, for this case, outliers have been 'removed' from the dataset in order to compute a more significative value for the covariance. Outliers here refer to those cases in which a high investment value is associated to a participation equal to 0%. When looking at the *Figure 5.3* in the *Paragraph 5.2*, they correspond to those points belonging to the x axis, characterized by a small investors' number. In practice, this specific study is excluding the few cases in which, for a very small number of investors who joined the equity crowdfunding campaign, the 'Pivot effect' did not manifest.

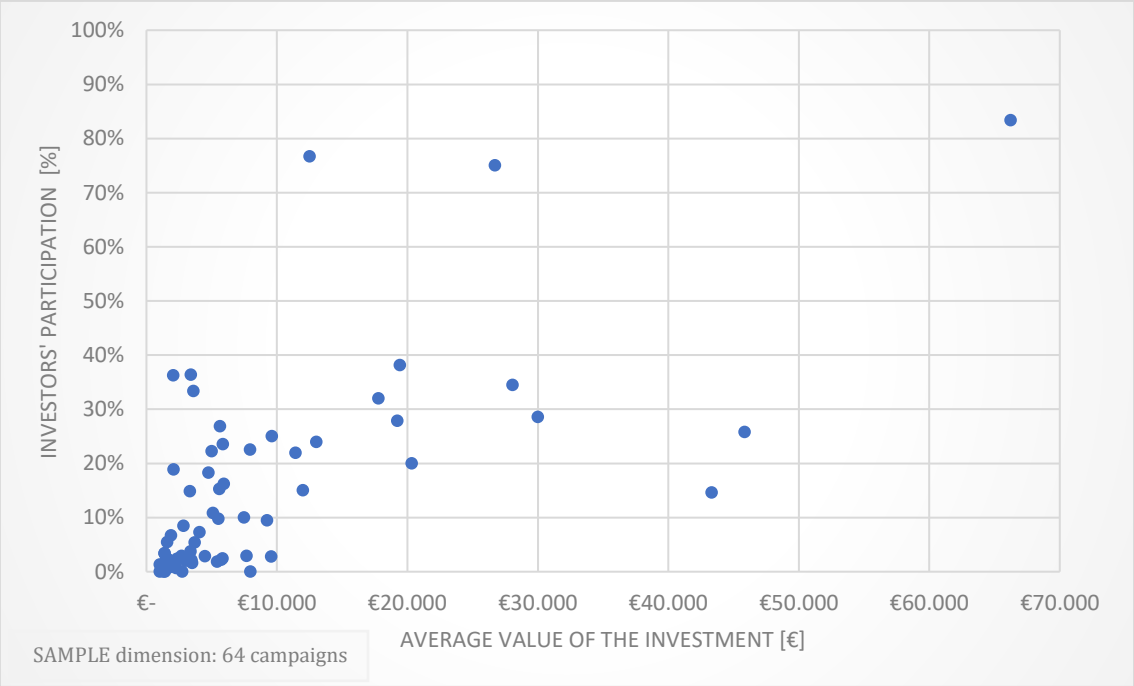

Figure 5.11 - Investor participation [%] plotted in function of the average investment value [€]

Figure 5.11 shows the situation described by the points in the sample by looking at the relation between investors' participation and average investment subscribed. The first aspect that could be analysed is related to the fact that points are mainly concentrated within a small area of the graph, more precisely the large majority of points presents an investment value which, on average, is lower than €10.000, and it is reasonable as, through the crowdfunding mechanism, start-ups and SMEs raise money from the 'Internet crowd'. It usually happens that, also considering the riskiness associated to this type of investments, investors, especially unsophisticated ones, join the project by subscribing the minum chip and this results in a large number of investors associated with a low average investment value as already seen in *Figure 5.10*.

Figure 5.12 below, represents a zoom of the situation in proximity of the largest concentration of points (exactly in the bottom-left corner of *Figure 5.11*). Looking at their distribution, points do not show a clear trend differently from the previous case. On the contrary, they seem to belong to different tracks depending from their 'area of competence'.

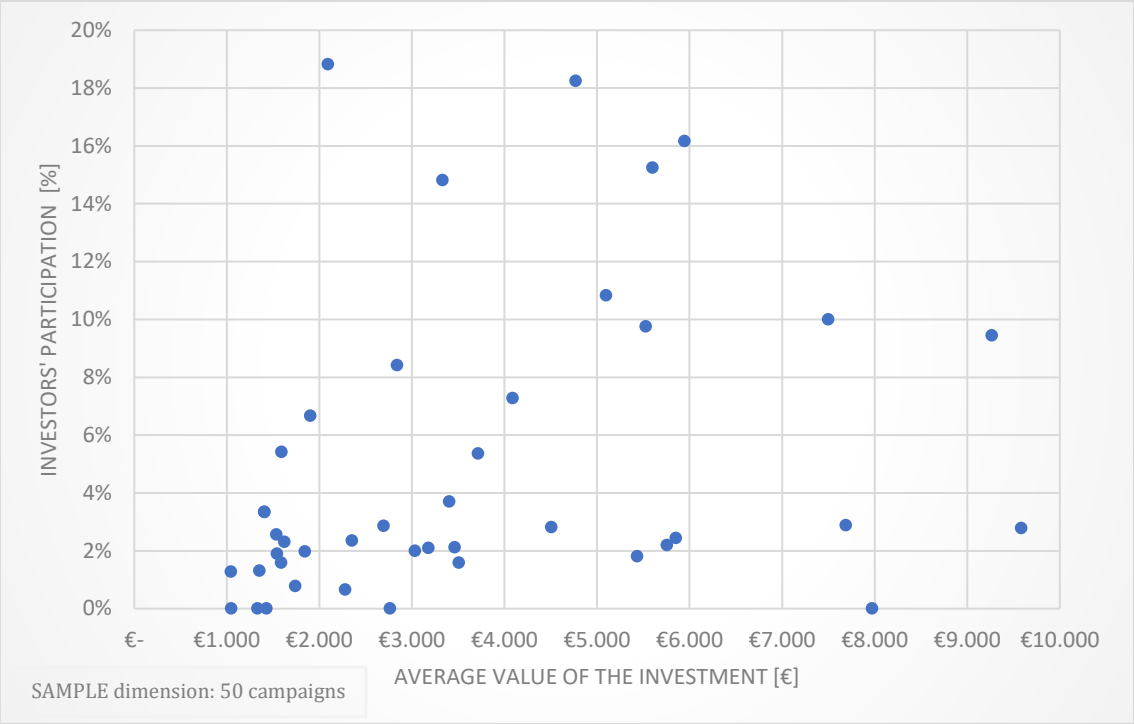

Figure 5.12 - Zoom on the area of figure 3.13 in which points are mainly concentrated

As better represented in *Figure 5.13*, these areas are characterized by different properties related to the nature of the points in the dataset. In particular, the blue area in the upper side encompasses those points in which the 'Pivot effect' is prevalent; while the red area is characterized by a strong prevalence of 'Block Out' effects. Even if, in the Cartesian plane, these points are close from a purely graphical perspective, they represent completely different situations that have been better analysed in *Figures 5.3* and *5.7*. In facts, the average value of the investment is not always capable to distinguish, in terms of total number of investors, among cases with low and high values which here can lead to very similar results. In-between the two extreme cases, there in a green 'intermediate' area that encompasses all the points for which the prevalent effect is not so clear. In this sense, it reasonable to think that a larger dataset in input can help in solving these doubts by providing a more precise definition for the areas. Nonetheless, the number of cases belonging to the green area is quite restricted, as generally data show a prevalence in a sense or another.

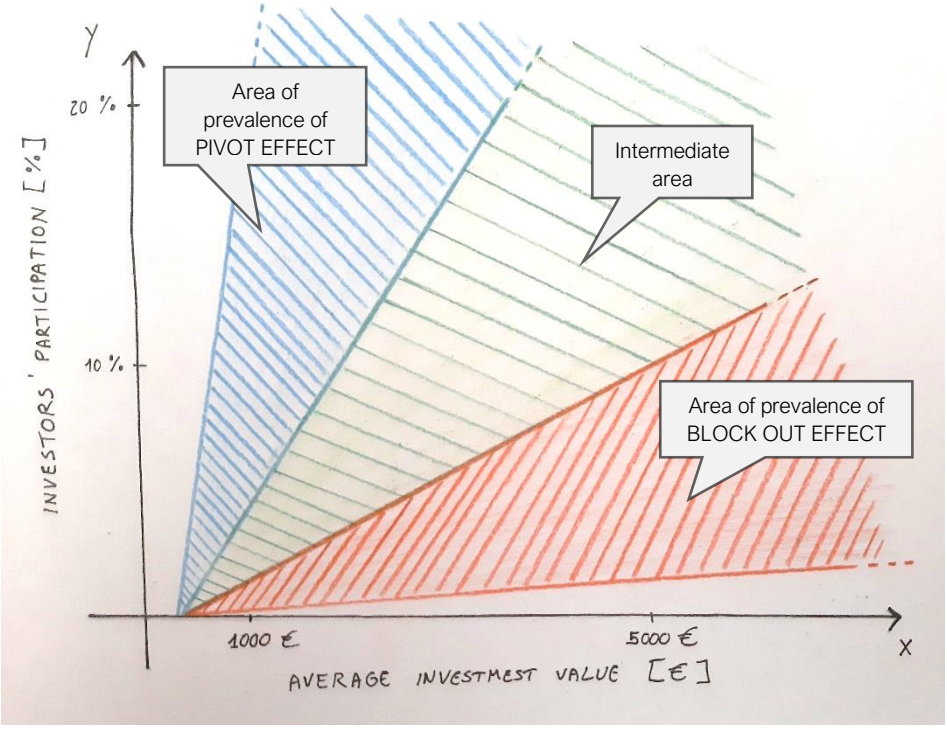

Figure 5.13 - Visual representation of the three areas of competence for the scatterplot in Figure 3.14

Coming back to the most general case showed in *Figure 5.11*, it is clear how it is very difficult to imagine a unique 'general equation' that approximates with an acceptable degree of precision the behaviour of all the points in the dataset, for the reasons that have been explained above. What can be done instead is the computation of the variance-covariance matrix to analyse the sign of the relation which links investors' participation percentage with the average value of the investment. It is important to remind another time that, for this specific study, outliers have been removed from the dataset.

	avg_inv	part
avg_inv	1.4e+08	
part	1388.56	.032975

Figure 5.14 - Variance-covariance matrix between part *(investors' participation [%]) and* avg_inv *(average value of the investment subscribed in the equity crowdfunding campaign)*

The number in position 1-2 (or alternatively, in position 2-1 as the matrix is symmetric) shows a positive value for the covariance: this indicates that an increase in the average investment value brings also to an increase (following a certain equation/rule) in the investors' participation to the shareholders' meetings. The positive sign is reasonable: in facts, if the average investment value increases, it means that more individuals/firms have subscribed higher amounts of money which are translated into larger stakes in terms of ownership percentage. Therefore, those investors are encouraged to participate to the shareholders' meetings, as they represent a 'non marginal' stake in the company. It is necessary to specify that, when the average investment value is particularly high (for instance, higher than €10.000 ~ €15.000), it is generally the case of companies that collected money from few investors which also benefit (in terms of percentage participation) from the 'Pivot effect', resulting in average participations usually higher than 25%.

On the contrary, when the average investment subscribed is low, the situation is that described in *Figure 5.13*, where two possible options are available. On one hand, the investment might be low despite a low number of investors: in this case, the 'Pivot effect' could offset the negative condition of having a small percentage in terms of ownership and, consequently, participation results in a high value (belonging to the blue area). On the other hand, the low investment value may be associated to a very large number of investors: in this scenario, the presence of 'Block Out effects' at the level of the single investors responsible for a low value in the average participation percentage (belonging to the red area).

It is possible to sum up the situation related to this study in the following table:

Table 5 - Analysis of the possible outcomes, in terms of investors' participation [%], considering as given both total number of investors and average investment value [€]

		AVERAGE INVESTMENT VALUE [€]	
		LOW	HIGH
TOTAL NUMBER OF INVESTORS	LOW	Here it might happen that, despite the low average investment value subscribed, the company is offering ordinary shares which grant each investor voting rights at the meeting. In this scenario, it might be the case in which the 'Pivot effect' prevails on the other variables, resulting in a high value of average participation.	*HIGH PARTICIPATION* Investors have relatively large stakes in terms of ownership and thus are encouraged to participate to the meetings. In addition, average participation also benefits from the presence of the 'Pivot effect' at the individual level, generated by the small (sometimes familiar) environment.
	HIGH	*LOW PARTICIPATION* Many investors have a marginal stake (considering the ownership structure) in the company or own non-voting shares and thus they do not have incentives in participating to the shareholders' meetings. In addition, the wide investor pool worsens the situation for what concerns the average percentage participation, by introducing 'Block Out effects' at the individual level.	This scenario is quite improbable, as it is indicating that many investors have subscribed high sums in terms of investment value; while the most common case happens when the average investment value decreases as the total number of investors increases, as it is more probable that many investors subscribed the minimum chip

Among the four outcomes described in *Table 5*, three are reasonable to be found in the real practice, while the case in the bottom right corner is almost improbable. However, examples of this latter scenario might be identified when dealing with real-estate equity crowdfunding campaigns, which present average numbers (in terms of both minimum chip offered and amount to be raised) that are much higher than in the other cases: in particular, the minimum chip is generally included between €1.000 and €5.000: this can be also 20 times higher than the value of the minimum chip offered in a non-real-estate campaign. This phenomenon (that can be easily identified and 'isolated') will bring to a higher value for the average investment.

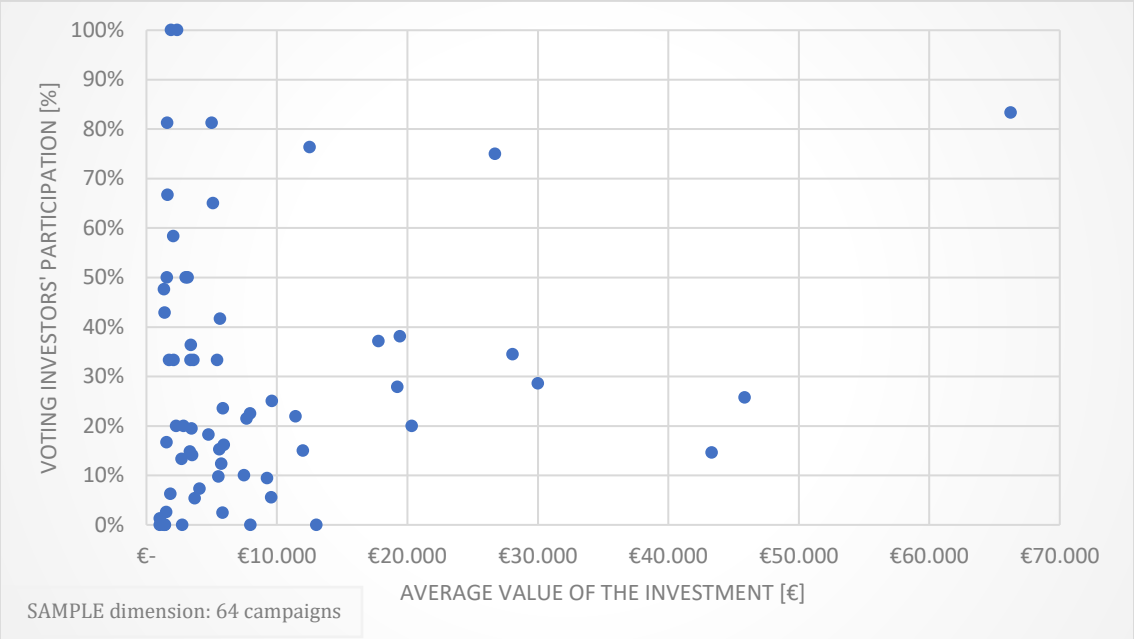

Figure 5.15 - Participation of 'voting shares only' [%] plotted in function of the average value of the investment [€]

If the reasoning is restricted to 'voting shares only', the scatterplot seen in *Figure 5.11* changes its shape another time, as it happened in *Paragraph 5.2*. In facts, voting shareholder do not suffer from any 'Block Out effect' and consequently those points that previously belonged to the red area have now shifted upwards. Looking at the relationship which links together voting investors' participation [%] and average investment value [€], it seems to be absent: looking at the scatterplot it is possible to see how voting investors show, on average, high percentages of participation independently from the value of the average investment subscribed. The explanation here is not so simple: it is necessary to divide the scatterplot into two parts: left and right, with a separating element that can be put approximately around the value of € 20.000 (on the horizontal axis).

The part on the right is very similar to the previous case showed in *Figure 5.11*: when the average investment value is high, it is reasonable to think that the company has collected money from few (wealthy) investors (among them can be recognized also some business angels) and consequently, the higher the average investment value, the larger the probability to find a high percentage participation by equity crowdfunding shareholders at the meetings (positive relationship).

In these cases, (almost) all investors will have voting rights:

- if offered shares are ordinary, voting rights are present by default;
- otherwise, they still have subscribed enough money (in a quantity larger than the threshold required by the firm) to receive voting rights.

On the other side, looking at the left part, the situation changed with respect to the previous one: here, in the large majority of cases, participation percentage is high independently from the value assumed by the x variable. The average investment value is low as a consequence of the large denominator given by the (high) total number of investors who joined the equity crowdfunding campaign: when a company wants to collect funds from a wide investor pool, it usually resorts to a certain threshold that must be exceed in order to obtain voting rights in the meeting of shareholders. In this scenario, the number of 'voting investors' (who exceed the required threshold) is much (even an order of magnitude) lower than the total number of investors and consequently, despite the low average investment value at the global level, they are encouraged to participate to the meetings as they are entitled with non-marginal percentages in terms of ownership. When instead, the type of offered share is still ordinary, the correlation seen in the previous case (*Figure 5.11*) seems to stand (and thus, low average investment values are generally related to low percentages in terms of investors' average participation).

It is possible to sum up the entire case by saying that the average investment value varies with the total number of shareholders and consequently and thus, when passing to the 'voting shares only' scenario, investors' average participation becomes independent from the mean value of the investment. The positive dependence, found by looking at the variance-covariance matric, returns in the moment in which the number of voting investors corresponds to the total number of investors, and it generally happens in case of high average investment values or when only ordinary (voting) shares are offered in the equity crowdfunding campaign.

5.4 PARTICIPATION % VS. TOTAL AMOUNT COLLECTED

Differently from the previous two cases, here it is more difficult to identify 'a priori' the type of potential correlation among the two considered variables. A potential reasoning suggests that, if the total amount of money collected during the campaign is very large, the firm's project has been perceived as potentially profitable, generating interest around it and, in ultimate analysis, resulting in a very large investor pool: here the evidence found in *Paragraphs 5.2* and *5.3* would suggest low participation percentages. Despite this interpretation, this latter case can depend on many variables and consequently, in order to properly identify (or not) the presence of a potential correlation among the two variables, it is necessary to analyse the distribution of points in *Figure 5.16* below.

Figure 5.16 - Investors' participation [%] plotted against the total amount of money collected from the equity crowdfunding round

Looking at the amount of money raised (on the x axis), the large majority of campaigns shows values ≤ €500.000, despite the regulation before 2019 (the sample analysed encompasses campaigns up to the end of 2017) allowed a maximum collection threshold of €2.500.000. Points appear to be concentrated in the bottom left corner of the Cartesian plane.

What can be immediately noticed is the fact that high amounts (> €600.000) are all characterized by very low participation percentages: this indicates that in these cases the 'Block Out effects' (seen in detail in *Paragraph 5.2*) seem to prevail. On the contrary, the left side (and most concentrated) part of the graph mainly presents two different behaviours (just as in the case of average investment value described in *Paragraph 5.3*): this is due to the fact that in this section different types of data are coexisting. Despite similar values in the 'total amount', money could have been collected from few investors subscribing high individual investments or, alternatively, by a very large pool of investors who subscribed low individual investments (close to the minimum chip). As already seen in the previous two paragraphs, these two cases present different properties in terms of investors' participation.

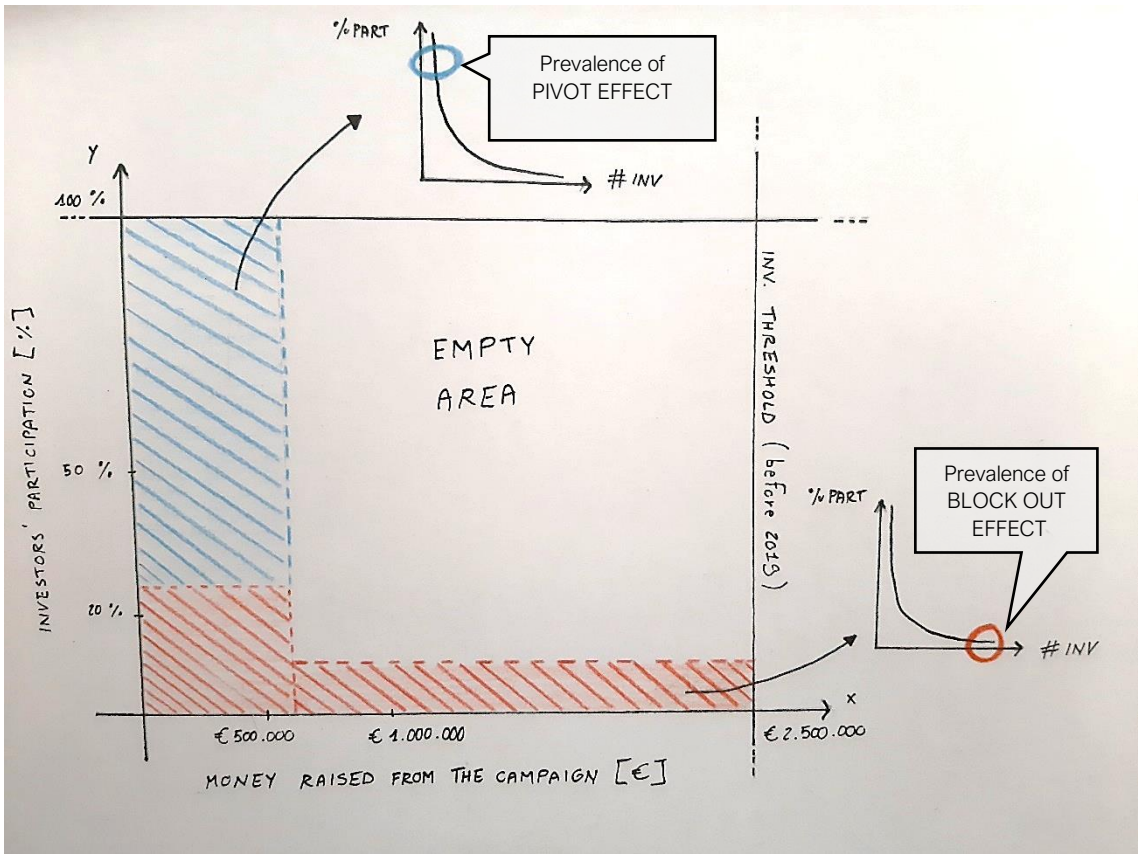

Figure 5.17 - Areas of prevalence of the different effects related to the number of investors

Figure 5.17 shows in a graphical way what has been said on the points' distribution. From the analysis of the investors' participation percentage against the total amount of money raised, I can be derived that, when the total amount of money collected from the campaign is very high, usually 'Block Out' effects clearly prevail on the other variables, resulting in low percentage values in terms of average participation by all equity crowdfunding shareholders. When, instead, the total money raised is quite small (< €500.000 ~ €600.000), both 'Pivot' and 'Block Out' effects coexist in the same section of the Cartesian plane.

The distribution of the points here does not allow to imagine a relationship which links the two variables. It is also important to underline that the graph presents a big 'empty area' that, under a theoretical perspective, represents all those points in which the 'Pivot effect' still prevails, despite the large amount of total money raised. It is reasonable to think at this area as an empty one, as it would represent the case in which few (for instance, less than 10) investors have subscribed very large sums (for example €200.000 ~ €300.000 each) in terms of investment per individual covering almost the totality of the target capital: in the real practice, this is not feasible, mainly because of the high riskiness associated to these types of investment: if they have this amount of money available, they can for sure invest it safer, but still profitable activities (as said before, bonds or lending crowdfunding – for instance - could represent safer but still good alternatives).

6 CHECKING INVESTORS' ACTIVISM

Equity crowdfunding investors' participation, in terms of attendance to the ordinary and extraordinary meetings of shareholders, represent only the entry level for the study of their active ownership strategies in the company. The second step consists in analysing the type of interventions, if any, during the discussion phase together with the preference expressed when the assembly asks for a vote on a certain topic. For this reason, Meeting Minutes for each company in the sample have been analysed in depth, with a particular focus (for this section of the dissertation work) on the discussion and deliberation phases.

In particular, the discussion phase is useful to spot the interventions made by each shareholder during each meeting: in facts, the Secretary of the Assembly (usually nominated time-by-time) has the task to record on the Meeting Minutes the contents of all the interventions made by each shareholder (see *Figure 4.2* in *Paragraph 4.3*). On the other side, the deliberation phase (usually) reports, in its first rows, the outcome of the vote followed by the preferences expressed by each shareholder (which can also be attached in the attendance sheet) in case of open voting (usually by show of hands).

It is necessary to specify that the voting does not follow the 'one person, one vote' logic as it would not reflect the ownership structure of the firm. The first distinction is made between voting and non-voting shares, where these latter (despite some firms allow also non-voting shareholders to **attend**[31] to the meetings) are totally excluded from the whole voting process. Among non-voting shares are encompassed both preferred and saving shares, which offer a higher priority than ordinary shares in case of dividend distribution, giving up to the voting right; in addition, there are also other categories of shares that do not offer voting rights, for instance when, in an equity crowdfunding campaing, voting rights are conditioned on a certain threshold, as already explained in detail in *Paragraph 5.3*.

[31] This phenomenon would require a dedicated follow-up study as, actually, there is no academic paper on it.

The voting modality, instead, follows a particular logic that, in absence of special types of shares (for instance, there could be shares offering a double voting power or, in another case, some shareholders might have particular benefits when voting, …), is represented by the '**one share, one vote**[32]' rule. In this way, the ownership percentage by each shareholder is reflected in the voting power during the meeting. In this scenario, the preference expressed by the majority shareholder/coalition is sufficent to 'direct' the outcome of the vote, independently from the preferences expressed by the other shareholders (some of these cases will be analysed in detail in the following sections).

The vote itsef represents a powerful tool for the firm (represented by the sole administrator or by the board of directors), as it provides information on the adhesion to the corporate initiatives. Usually vote is used for approving the financial statement at the end of each financial year (which usually ends in Decemeber, concurrently with the calendar year; or in June), appointing administrators and financial revisors, estabilishing the annual reward for the members in the board, … In addition, it is used also when dealing with extraordinaty events, like in the case of the appointment of the liquidator, the approval of a capital increase, the final decision on a merger/acquisition, …

The following chapters will analyse in depth all these aspects, focusing on both the contents of the interventions made by each shareholder (only those coming from equity crowdfunding will be considered here) and the outcomes of the votes. As better explained in the next section, these situations are small in 'quantity' compared with the total number of firms in the sample and consequently and consequently, they will be treated as singular case studies and analysed one-by-one.

[32] Following the 'one share, one vote' (OSOV) logic, each common share in a company represents one vote at meetings of shareholders. That is, two persons each holding one share have one vote each. However, one person who holds two shares has two votes.

6.1 PRELIMINARY INTRODUCTION TO THE CONTENTS

The database that has been built for this dissertation work includes a list of 331 Meeting Minutes, divided among the 67 companies in the sample. More precisely, it counts 253 minutes for the ordinary part, while the remaining 78 deal with extraordinary events. The information reported within the Meeting Minutes is various: it is necessary to specify that in each meeting it can be discussed more than one topic in the agenda. The following table briefly shows, for the sample analysed, the main topics of the discussion:

Table 6 – Main topics discussed during the shareholders' meetings for the 67 firms in the sample

MEETINGS OF SHAREHOLDERS			
ORDINARY (253)		EXTRAORDINARY (78)	
Topic	#times	Topic	#times
Approval of the financial statement at the end of the year/period	252	Capital increase (offered to existing shareholders and/or third parties)	69
Appointment of administrator(s) and/or members in the Board	29	Liquidation and related documents	7
Share capital and/or reserves used for covering the loss of the year	24	Change in the company name/type	5
Discussion on the annual reward for the administrator and/or members	9	Change in the registered office	4
Discussion on the company activity and the further steps to be taken	7	Shares offered to the management and/or employees to control their performance	4
Alternative options (internal financing by shareholders) for covering losses	1	Emission of **Participating Financial Instruments** [33](PFI)	2
		M&A and related documents	1
		Shares buyback	1

[33] In Italian, they are called 'Strumenti Finanziari Partecipativi' (SFP) and (for example) give shareholders the possibility to subscribe new shares at certain conditions, in every moment up to the end of the deadline period (usually long, often > 1 year).

Table 6 shows how, for the ordinary part, there is a strong prevalence of financial statement approvals, and it is reasonable as it is required to be done (at least) once a year by the regulation. It might happen that the financial year ends with a recorded loss in the income statement: in these cases, the firm is called to solve this problem by using its reserves (if present) or directly the share capital. The appointment of members (and/or administrator) represents the second item in the list: the duration of the mandate is variable, and it is written in the corporate governance code of the firm, and it is generally higher than one year. For this motivation, it is appropriated to find this voice with less frequency if compared with the previous one. The subsequent elements, going from the discussion on administrators' reward to the analysis of the company activity together with the further steps to be taken, are rarer in terms of frequency. It is clear how all the items gathered within the ordinary (left) part of *Table 6* deal with the interaction mechanism between governance body and shareholders, which goes from the simple discussion to the more formal approval.

The extraordinary (right) part of the table instead deals with more sensitive topics, which usually modify the ownership structure (as in the most frequent case of capital increases, or in the shares buyback mechanism, …) or have strong implications on the company itself, as in the cases of liquidation, M&A, IPOs, … In addition, in this section are included also 'una tantum' changes, like those in the company type and in the registered office.

6.2 SHAREHOLDERS' INTERVENTIONS: CASE STUDIES

This section will present in detail all the relevant case studies for the interventions made by the shareholders coming from the equity crowdfunding campaign, with the aim of providing an idea on their active ownership strategies in the company. In case the discussion on a specific topic brings to a voting request, both phases will be analysed within the same case study, otherwise data referring to the voting phase will be discussed at a later time in *Paragraph 6.3*.

The type of intervention could be 'heterogeneous', going from the simple request of information on a certain topic, to the suggestion of solutions to solve a specific problem. Another distinction that can be done is that between proactive interventions and complains against the management/administrator, both made (even if in a completely different manner) in order to preserve the survivability of the company. Another time it is necessary to clarify that these interventions are extremely rare in terms of frequency compared with the total number of Meeting Minutes that have been analysed and, for this reason, they will be treated as case studies. In addition, as the dissertation work aims at providing insights on the active ownership mechanisms by equity crowdfunding investors, only this shareholder category will be taken into consideration.

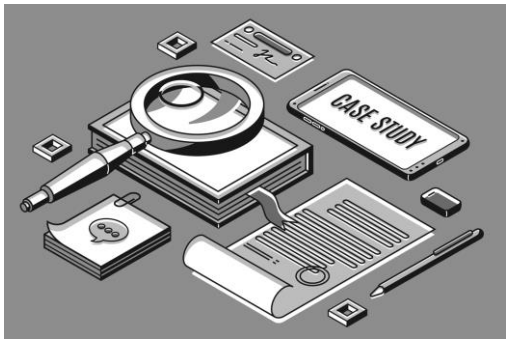

Figure 6.1 - Case study analysis is useful to collect insights from real cases

Therefore, it is necessary to warn the reader about the fact that this case study analysis is not always significant when referring to the active ownership strategies on a larger scale (by considering all the shareholders of the company), as it focuses only on a small sub-group.

Having made all the preliminary considerations of the case, it is now possible to start with the description of each case study and the relevant information that can be inferred from it.

Each case study is composed by a brief introduction on the company's activity and the project proposed in the equity crowdfunding campaign, followed by the proper description of the case, and finally ending with the findings and the comments on the situation. Case studies are reported down here as bullet points.

- Paulownia Social Project S.r.l.

Innovative start-up with the aim of cultivating 'fast growing' tree plantations, to supply the national and international wood supply chain with the raw material obtained. With this objective, the company proposed to plant the 'Paulownia' (botanical name) tree in the Trapani province area. The project on Assiteca Crowd represented the first equity crowdfunding campaign in Italy (in 2014) and collected a total amount of €520.000 from 12 investors.

In July 2018, during the ordinary meeting of shareholders, the firm, looking for financing options for its activity, received by two shareholders (Millenium Partecipazioni Srl and Romano Valerio, with an amount subscribed in the equity crowdfunding round respectively of €140.000 and €50.000) in the person of the delegate Marcello Nocera, the proposal of an interest-bearing loan together with the request of a technical (economic and financial) report for the continuation of the project. During the deliberation phase, the request has been approved unanimously by all the participating shareholders.

The following year, in the ordinary meeting of June, the sole administrator highlighted the necessity of using the company's share capital to cover the financial loss, and the consequent need to rebuild it through a capital increase, receiving the adhesion from some shareholders.

The capital increase was subscribed on the subsequent 30th September of the same year, receiving the participation of many shareholders (11) coming from the equity crowdfunding campaign.

Paulownia is a good example of a company which collected money (€520.000) from few investors (12, of which 3 firms and 9 individuals) presenting a high average investment value (€43.333). This case study is interesting as it shows how investors coming from equity crowdfunding can represent an important resource for the company not only for the collection phase represented by the campaign itself, but also looking at the long-term horizon. In particular, a datum that arises from the case is related to the availability for some of them to further invest money in the company: at this aim, the interest-bearing loan and the capital increase represent two different (in terms of both riskiness and 'repayment') alternatives.

The case study of Paulownia shows how also shareholders who entered in the firm's structure through equity crowdfunding can match the company's needs in terms of financial resources by offering alternative (and sometimes also cheaper and more flexible) solutions, playing an active role in its development/survival. It is also important to underline the fact that, before proceeding with any type of capital injection, these shareholders have requested further information on the further development of the project, in order to properly assess the risk related to the financing operation. Looking also at other Meeting Minutes from other companies, it is clear how the request of information on financial aspects of the firm is not a singularity of Paulownia, but represents a diffused behaviour among equity crowdfunding investors, and consequently, it is reasonable to say that, when considering further investments in the company, equity crowdfunding shareholders are risk-sensitive, meaning that the uncertainty level can influence their decisions.

- Cantiere Savona S.r.l.

An innovative start-up which designs, produces, and commercializes an environmentally friendly model of (green) yacht with a hybrid-solar system made up by one heat and one electric engines. In 2014, the firms prosed its project on the platform StarsUp, with the aim of financing the R&D department for the realization of a zero-emission engine, finishing the works on the prototype, and commercializing the first model on the market. The company received many adhesions (41, of which 4 firms and 37 individuals), collecting a total amount of €380.000 with an average investment value around €9.268.

For the purpose of the case study, the most significative document to be analysed is represented by the minutes from the ordinary meeting called in June 2021. The main topic was about the check of the financial situation of the company through the approval of the financial statement. Some shareholders were physically present, while some others were connected from remote, for a total participation of 80.27% of the total share capital. As it happened for many start-ups and SMEs, during 2021 also Cantiere Savona had to face the challenge brought by the pandemic emergency, with serious implications on its business. These problems resulted in a large loss in the income statement for more than €830.000 which was added to the previous loss for more than €22.000, against a total share capital oh €140.429. The main voice responsible for the loss was identified with the necessity by regulation to build provisions for risks together with the strong reduction in revenues.

> Having a clear idea on the weak financial situation on the firm, after that the meeting had unanimously approved the financial statement, the administrator questioned shareholders about their availability to subscribe a capital increase to cover losses, but he received a negative answer. The shareholders suggested two possible solutions in addition to the search for new customers. The shareholder (from remote) Stefania Caramagna (with an amount subscribed in the equity crowdfunding campaign equal to €499,05) proposed to search for new investors among the Private Equity funds in her network, exploiting her long experience in the sector. Another shareholder, Giacomo Mandis (with an investment of €5.500), proposed instead to search new investors in the sector-dedicated cryptocurrency exchange platforms, exploiting the opportunity of an ICO and his knowledge of the field. After having discussed all the points in the agenda, the meeting was closed.

The case study of Cantiere Savona is particularly interesting for assessing the active ownership strategies by shareholders coming from the equity crowdfunding campaign. The main aspects that arise from the case are represented by the know-how brought by these individuals within the company. Despite a quite low amount in terms of investment subscribed, especially for Stefania Caramagna, both shareholders provided their knowledge to help the firm in exiting from the negative financial situation. Therefore, it is reasonable to say that also investors covering a (quite) marginal position in the firm's ownership structure can contribute to its future growth by bringing their experience and expertise.

The case of Cantiere Savona shows how investors can potentially attract further investors by exploiting their personal network, independently from their percentage ownership in the company. In particular, the case refers to the exploitation of the (personal) professional network for the first shareholder, and the knowledge of a specific environment for the second one.

The main information gathered by this second case study refers to the fact that a firm can benefit from the knowledge and expertise brought by equity crowdfunding shareholders, independently for their ownership percentage.

❖ Nova Somor S.r.l.

An innovative start-up which designs and produces solution to substitute electricity with solar energy and recycle the waste heat to increase the efficiency. With this aim, the company proposed on StarsUp at the end of 2014 the project of an irrigation pump powered by solar energy, also opening the pre-selling period up to April 2015. The equity crowdfunding campaign collected €250.000 from 2 investors (Curti S.p.A. and Alessandro Di Maiuta with respectively €12.500 and €237.500).

In particular, Di Maiuta, who entered in the company with a stake of 25,833% of the total share capital, can be considered a sophisticated investors that helped the company in calibrating its objectives since the very beginning, thanks to his professional experience (as can be read in the ordinary minutes from April 2015).

For the case study it is particularly relevant the ordinary meeting of May 2017, in which the company took stock of the financial situation, recording losses in the income statement because of the project (that still had not reached the break-even point). Then Di Maiuta who, in the meantime, had been appointed as council member, explained to the present shareholders (the 77,49% of the total share capital) the situation regarding the ongoing financing by the 'Credito Agricolo Siciliano', in order to let production and commercialization of the pump.

Still in this view, an extraordinary meeting was called in September of the same year, with the aim of helping the company's development though internal financing without recurring to any external financing form. In this sense, the administrator proposed a capital increase which, in the end, was subscribed only by some shareholders: among them, Di Maiuta subscribed the larger stake (€169.825) taking over also unexercised options (encompassing, among the others, also that of Curti S.p.A.). The new ownership structure resulted in the identification of Di Maiuta as the new majority shareholder (with the 53.91% of the total share capital) and President of the board.

Di Maiuta then enforced his position in terms of ownership percentage in the company after the second capital increase in 2020, necessary to cover the losses recorded in the income statement, reaching the 83,56% of the total share capital. In the meanwhile, it is necessary to point out that, after the ordinary meeting for the financial statement's approval of September 2018, all the other shareholders had always deserted the meetings (for unknown reasons), with the only exception of the sole administrator, holding the absolute majority.

The case study of Nova Somor is very peculiar, as it describes a situation which is very different from the other two case. In particular, the case focuses its attention on the shareholder Alessandro Di Maiuta, who entered in the firm's structure through the equity crowdfunding round on StarsUp (subscribing €237.500, of which €7.750 as nominal value and the remaining €229.250 as surcharge) with an initial ownership percentage of 25,833% and then raised it up to reaching the absolute majority of the company. This represent the unique situation among all the firms in the sample in which a shareholder, who was not present in the ownership structure previous to the equity crowdfunding campaign, takes over the absolute majority, and so the control, of the company. The case study does not allow to exclude 'a priori' the possibility that a shareholder who joined the company through the equity crowdfunding round, can become in a second step, under certain conditions, the majority shareholder of that firm. Of course, these dynamics cannot be to a 'more general case' valid for a certain company typology, as they depend on the specific case and vary firm-by-firm. What is interesting is the fact that this scenario, at least for small companies (with few shareholders) cannot be excluded 'a priori'. In the specific case of Nova Somor, the shareholder in question is for sure a **sophisticated**[34] one.

Therefore, it is extremely rare, but not impossible, that an equity crowdfunding shareholder can become, in moment successive to the end of the campaign, the majority shareholder by taking over the majority of shares of the company. For sure, as said before, this fact depends on the specific circumstances of the company, its environment and situation. Spending few words on the desertion by the other shareholders, it would have been interesting to analyses the causes behind this choice, but there is no sufficient information on it to develop a reasonable hypothesis.

[34] A sophisticated investor is a high-net-worth investor who is considered to have a depth of experience and market knowledge that makes them eligible for certain benefits and opportunities. In reality, there is no single correct definition of a sophisticated investor, as it varies based on country or circumstance.

Considering Nova Somor as the most extreme case, the following two case studies (Xnext and Upsens) will describe similar, but more 'moderate', situations: the first case refers to shareholder's involvement in the company, with the subscription of a new type of (voting) shares subsequent to the end of the campaign; while the second one is related to the appointment in the board of shareholders coming from the equity crowdfunding campaign.

❖ Xnext S.r.l.

An innovate start-up with the objective of designing advanced innovative solutions based on the X-ray technology dedicated to the inspection phase for the industrial and security control system. In order to finance the development of a new (X-ray) technology that can be applied to different field, going from the food industry to the airports, the company launched in 2016 an equity crowdfunding campaign on the platform 'BacktoWork24', collecting (in May of the same year) €462.412 from 26 investors (of which 3 firms and 23 individuals) with an average investment value around €17.785. A peculiarity of this campaign was related to the type of offered shares, with the possibility to subscribe two different share types (based on some specific requirements): ordinary and preferred, with this latter assigning higher priority in case of dividend distribution renouncing to the voting right in the shareholders' meetings.

Among the shareholders who subscribed preferred shares, a particularly relevant case is that of Alberto Bergamasco, who entered in the firm with an investment of €9.980. Before proceeding with the history of the case, it is necessary to highlight an aspect of Xnext: in facts, the company allowed also non-voting shareholders (16 over the total number of 27) to participate to the meetings, and this resulted in a quite high percentage in terms of participation (more than 30%).

Coming back to the case, in October 2018 it had been necessary to call an extraordinary meeting which had as main objective a capital increase, in order to strengthen the financial position of the firm. The questioned capital increase had been conducted through the emission of (convertible) Participating Financial Instruments attributing voting rights. Bergamasco (who participated to all the meetings till that moment) was among the shareholders who subscribed the capital increase: in this way he became an effective voting shareholder, holding both ordinary and preferred shares.

> Another event that happened within Xnext is related to the extraordinary meeting of November 2019. Also in this case, the main objective for the convocation of the shareholders' meeting was about the proposal of a capital increase, this time in a more 'traditional, form. The main intervention here was made by the shareholder Francesco Zerega, who entered in the company through the equity crowdfunding campaign and, like Bergamasco, in the moment of this meeting owned both ordinary and preferred shares. Zerega manifested his aversion towards the tag-along rule that forces minority shareholders to sell their stake in case one majority shareholder decides to sell his/her share package. Then the discussion was turned into a vote, where all shareholders, except for Zerega and the company which indicated him as delegate, decided to approve that specific part of the firm's statute.

The case study of Xnext can be divided into two sub-cases: the first situation is related to the history of Mr. Bergamasco, while the second one focuses on the intervention made by Mr. Zerega. What associates the two cases is for sure related to the fact that both shareholders entered in the company through the equity crowdfunding campaign (and, in particular, by subscribing preferred shares at the beginning). The first sub-case follows the participation at the different meetings by Alberto Bergamasco who, despite owning non-voting shares, demonstrated a very high involvement grade in the company (resulting in a 100% participation percentage on the total number of analysed minutes from Xnext). In some sense this datum can be led back to the 'Pivot effect' that has been described in depth in *Paragraph 5.2*: the total number of investors (which in general is a good proxy of the total number of shareholders, especially in these cases when dealing with small companies) is quite small and this favours the proliferation of a 'good environment' in which each individual can be important, independently from his/her ownership percentage. What can be deducted from the case is that, at least theoretically, an **outcome**[35] similar to of the 'Pivot effect' could manifest in case of non-voting shareholders.

[35] It is not exactly an overestimation effect, as it does not affect the perceived ownership percentage for each shareholder; but it allows also non-voting shareholders to feel important for the company's management and further development.

This effect has then resulted in the purchase of ordinary shares (corresponding to effective voting rights) in the subsequent opportunity of capital increase and consequently, it is reasonable to think that this phenomenon can effectively become 'Pivot effect' on a later stage.

Going to the second sub-case, the attention is on the divergence that can be present between majority (controlling) shareholders and minorities. In this situation, Mr. Zerega asked the meeting to provide minority shareholders with more flexibility when dealing with tag-along clauses. This highlights the fact that objectives within the company could not coincide among the different shareholders' groups. Therefore, in the very large majority of cases (with some exceptions) equity crowdfunding shareholders represent a minority stake in the company and want to preserve/protect their rights as such.

❖ Upsens S.r.l.

An innovative start-up which designs and produces IoT (Internet of Things) sensors for measuring the air quality or the electromagnetic smog. Since 2014, the firm had worked simultaneously on two projects: Air and Wave respectively for the objectives written above. In 2016, with the main aim of commercializing these products on the market (starting from 2017), the firm run an equity crowdfunding campaign on the platform 'StarsUp'. In December 2016, Upsens collected €196.200 from 33 investors, with an average investment of €5.945. This short case study focuses its attention on the new entrant 'Lean Up S.r.l.', which participated to the round by subscribing a total amount of €15.000.

In the subsequent ordinary meeting of shareholders in March 2017, the board made necessary to modify the management structure by introducing an additional member identified in the person of Michele Curti, representative for Lean Up, in charge till 2019 and then re-confirmed.

The very short case study of Upsens highlights an important aspect in assessing equity shareholders' active ownership strategies in the company. As in the previous case study of Cantiere Savona, some shareholders (especially, but not necessarily, sophisticated ones) can bring their knowledge and expertise within the company. If, in that case, they limited to participate and provide ideas as 'normal' shareholders, here in Upsens the governance body meets this necessity by appointing a member directly in the board. In some sense, a legal person like Lean Up can often be considered as a 'sophisticated' shareholder, thanks to the know-how of its specific sector and the (potential) experience in the governance and/or management.

Consequently, it is reasonable to say that the governance body of the firm can meet its necessity to increase knowledge/expertise by directly appointing members in the board (if present) among equity crowdfunding shareholders. This results in a long-term effect brought by equity crowdfunding investors (through their active participation) on the company's development and performances.

The next two (and last) case studies, following the example brought by Xnext, show examples in which shareholders participate in an extreme active way to the company governance, by questioning the position and the action of the administrator.

❖ Shin Software S.r.l.

An innovative start-up which brings the power of the 3D videogame graphics and transfers it to the entrepreneurial world, by realising a software that CAD files into 3D dynamic renders simply through the smartphone, tablet, or pc. With this aim, the firm launched in 2014 an equity crowdfunding campaign on Assiteca Crowd, collecting €408.000 from 21 investors (of which, 3 firms and 18 individuals) with an average investment value around €19.428.

In July 2020 it was called the ordinary meeting to approve the financial statement for the year, in which were recorded losses in the income statement because of the delays in the development and successive commercialization of the product due to the pandemic emergency. The sole administrator then proposed a plan for the financial recovery.

> In March 2021, the administrator called an extraordinary meeting to cover the losses by using the firm's share capital and then re-build it through a capital increase offered to existing shareholders. On this point, the shareholder Paolo Scudieri (entered in the company through the equity crowdfunding campaign by investing €100.000) who delegated his participation to Mr. Vitiello, presented a letter of criticism towards the sole administrator (Mr. Provenzano) and his activity in applying the special rule for the pandemic situation and forecasting the expected results; ultimately rejecting the capital increase proposal. Always on this topic, the shareholder Emanuela Barbara Ferrari (who subscribed €40.000 in the equity crowdfunding round) pointed out the necessity of a business plan which, at that moment, was missing. Both proposals were rejected by the administrator.
>
> The following vote ends with only one 'yes' preference by Mr. Provenzano, holding the absolute majority and thus sufficient to approve the capital increase; while all the other shareholders who participated to the meeting expressed the negative preference (except from Tealdo S.r.l. which decided to abstain).
>
> In the following ordinary meeting of 2021, the lack in listening to the minority shareholders' opinions by the sole administrator, ended with a total desertion apart from him.

The case study of Shin Software is important for assessing the participation modalities of the equity crowdfunding shareholders. Also in this situation, the total number of investors is quite low, and this favours the creation of a 'good environment in which each shareholder can express his/her opinions without pressure. In this particular case study, the intervention is not about a suggestion, but regards a complaint about the activity of the governance body (here in the person of the sole administrator) on the specific topic of the management of the Covid-19 emergency. It is evident another time how vision and objectives for different shareholders' classes might be different, and this can cause problems within the firm.

In the case of Shin Software, the strong stance of the sole administrator against all the other shareholders brought to the immediate break of the 'good' environment and the creation of a reaction which is completely the opposite of the 'Pivot effect', resulting in an almost null participation in the following meetings (like in the outliers seen in *Paragraph 5.2*).

The case study teaches how 'Pivot effect' depends on an equilibrium within company, that can be broken in every moment by a certain event/decision, causing exactly the opposite (negative) effect on the shareholders' participation.

❖ Safeway Helmets S.r.l.

An innovative start-up that created an innovative helmet equipped with light signals for the traffic circulation when riding a moped/motorbike. The technology installed on the helmet can also be used in ski and on building sites. In 2016 the company launched an equity crowdfunding campaign on StarsUp, collecting €400.000 from 35 investors (of which, 3 firms and 32 individuals among sophisticated and unsophisticated), with an average investment of €11.429.

The first important event for the case study is represented by the ordinary meeting in April 2019 for the approval of the financial statement. During the discussion phase, Mirco Grespan (entered in the company through the equity crowdfunding campaign by subscribing an investment of €15.000) spoke for himself and the shareholders who delegated him (among the others, also Simon Capelli coming from the ECF round) reading a document which pointed out the disappointment on the management and the explicit request for an external appraisal. Despite the negative preference expressed by all the (present) minority shareholders, the financial statement was approved thanks to the 'yes' vote from the sole administrator (owning the absolute majority).

In March of the following year (2020), the firm recorded a loss in its income statement and Mrs. Bernardi (the company's administrator) pointed out the necessity for a future capital increase to re-build the share capital used to cover the loss. The approval of the financial statement ended with only one sufficient 'yes' vote (from the majority shareholder), against three 'no' votes and two abstained.

The third 'confrontation round' happened at the ordinary meeting in June 2021 when, after having discovered the existence of a controversy between the sole administrator and another shareholder, Paolo Ceriani (another investor coming from the ECF campaign) asked for a no-confidence vote that received the large majority (considering that the sole administrator abstained). After the outcome of the vote, Mrs. Bernardi decided not to step down from her position and consequently, the group of shareholders that voted for the no-confidence (among them, Grespan, Ceriani, MGS S.r.l., Bassano, Capraro, and Giol, all coming from the equity crowdfunding campaign) asked the administrator to find potential buyers in order to exit from the firm.

The case study of Safeway Helmets is, for some aspects, an extremization of Shin Software. As for the previous situation also here the total number of investors is quite low. Another time, it clearly emerges how the 'Pivot effect' is clearly connected to an equilibrium that can be perturbed by an action in the form of an event or decision. Differently from the previous case study, in Safeway Helmets the perturbation did not lead to the total desertion by shareholders (and consequently the shift from an active to a passive position): the diffused discontent instead led to a no-confidence motion through which minority shareholders tried to restore the 'good' environment, failing because of the absence of co-operation among the different shareholders' groups (majority and minority).

The case of Safeway Helmets helps to better understand the dynamics behind this equilibrium: in particular, a perturbation can put the company at a crossroads. On one hand, an action that goes in the opposite direction of the perturbation can set a new equilibrium point (or even restore the previous one). On the other hand, if no further action is taken, exploiting inertia, the situation can lead to the total desertion from the dissident shareholders' group, or even its exit from the company, as in the case study (which, 'de facto', represent new 'bad' equilibria).

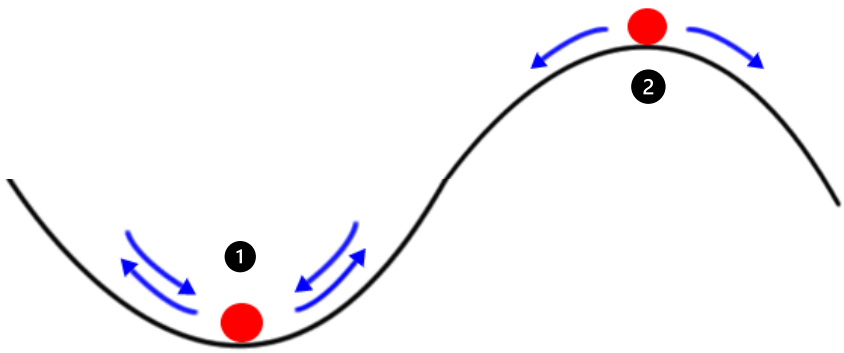

Figure 6.2 - Graphical representation of the equilibrium and a possible perturbation acting on it

Figure 6.2 describes in a graphical way the situation presented in the case study.

Position #1 can be considered as the starting point corresponding to the 'good' equilibrium, characterized by the presence of the so-called 'Pivot effect' which exerts a positive influence on the average participation percentage by equity crowdfunding shareholders, also pushing those (natural or legal) individuals owning small percentages in terms of (voting) shares towards an active ownership strategy (by expressing opinions, suggestions, constructive criticisms, …).

In a certain moment of time, an action (internal, like in this case, or even external) with a specific direction and intensity associated (which can be assessed 'a posteriori' in a qualitative way) could be enough powerful to let the equilibrium point move towards a new position, here represented by the position #2. This point is representing a crossroads that, in ultimate analysis, can be considered as an instable (temporary) equilibrium.

From position #2, the company has two options:

- generate an action in the opposite direction of the perturbation (for instance, considering the case study, the administrator could recognize some mistakes and re-negotiate the terms with the other shareholders, or, in the most extreme case, she could give up to her mandate as administrator) to try to restore the previous equilibrium, or generate a new 'good' equilibrium;

- alternatively, the firm could exploit the inertia of the perturbation by letting the equilibrium set in a new position, but, in this second case, the threat is that of a 'bad' equilibrium resulted from the almost total desertion by the other shareholders or, in a worse scenario, their exit from the company, as it happened in the case study of Safeway Helmets.

6.3 SHAREHOLDERS' VOTING OUTCOME

Focusing only on the voting phase, in 321 situations over the total number of Meeting Minutes (321); representing in percentage terms the 96,98% of cases, the decision (be it ordinary or extraordinary) has been approved unanimously. This number has a relative significance, as unanimity is computed only among the participating shareholders and consequently, situations like that described in the Shin Software's case study (where all minority shareholders deserted the meetings after a confrontation with the sole administrator) can result in a unanimous outcome for what concerns the voting phase. Having specified that, the remaining 10 situations deal with a decision that has always been approved with the 'absolute majority' of votes. In facts, in small companies like those in the sample (start-ups and SMEs), it is usually the case of a unique shareholder (who generally also covers the position of administrator of the firm) owning the absolute majority of the voting shares, resulting in the possibility to decide alone (if not abstaining) the outcome of a vote; as it happened, for instance, in the case study of Safeway Helmets.

In ultimate analysis, the voting phase for this type of companies loses its significance in terms of approval/reject of a certain proposal/request, as the outcome is in some sense driven by the majority shareholder; but it remains still important as a measure of cohesion among the different shareholders groups in a company. In this sense, the simplest case is given by only majority and minority shareholders while, as the company increases in complexity (for instance, when it has a high number of shareholders), there can be more than two sub-groups.

It is then reasonable to think that the voting outcome (in case of high participation percentage by all shareholders to the meeting) represents a good proxy for measuring the level of inter-cohesion among the different shareholders' groups in the company only when the total attendance to the meeting is very high. Generally, in the large majority (approximately 99.9%) cases with some exceptions, equity crowdfunding shareholders are considered minority shareholders and, in some cases, can be considered as a stand-alone subgroup.

7 CONCLUSIONS

7.1 FINAL RECAP

The structure of this dissertation work presents the main findings and comments divided by topic in the section directly below to the case analysed. For a more complete comprehension, it is recommended to read both the previous *Chapters 5* and *6*. In this perspective, this section will represent a recap of the main information that can be gathered from the analysis of the follow-up events post equity crowdfunding campaign for the Italian innovative start-ups and SMEs with the aim of assessing information regarding investors' active ownership strategies.

In particular, the work focused on those shareholders who entered in the company through the equity crowdfunding campaign and analysed their behaviour in terms of participation and activism in the general shareholders' meetings; in order to prove or reject the general statement for which, in general, active participation provided by this category of shareholders is generally very low or even null. In this sense, having performed the analysis, it can be said from the beginning that this statement represents a mere generalisation and does not reflect the reality.

As showed by data, the 'world' of equity crowdfunding is really various in terms of issuers and, most in general, 'players' and this is reflected in big differences in the firms' behaviour when looking at the follow-up events subsequent to the end of the equity crowdfunding campaign.

Starting from *Chapter 5*, in the preliminary study, equity crowdfunding campaigns in the sample have been clustered based on the total number of investors who joined the equity crowdfunding campaign. The histogram, presenting the different clusters on the horizontal axis, and the average participation percentage by all investors on the vertical one, highlighted the presence of a negative correlation between the two variables. When passing to 'voting shares only', this relationship failed and, in general, percentage values appeared as quite similar for all the classes, with an average participation value of 33,5%.

Passing to the analysis of the relation among participation percentage and total number of investors, the scatterplot presented a distribution which can be described as a negative non-linear function (similar to an arc of hyperbola). For a low number of investors, the graph shows a high percentage in terms of participation, indicating the presence of 'Pivot' effects at the individual investor level, which positively affects shareholders by letting them perceive their attendance to the meetings as extremely relevant and ultimately resulting in high percentage values in the average participation by all investors. On the contrary, in case of large numbers of investors, 'Block Out' effects lead shareholders to the perception of their role in the meetings as marginal, like if they were cut-off from the decisions, resulting in very low average participation percentage, often even less than 5%. Also in this case, when passing to the 'voting shares only' scenario, this negative effect disappears: the main reason is given by the fact that, in this second situation, the is no dependence on the total number of investors.

The correlation analysis between equity crowdfunding shareholders' average participation [%] and the average subscribed [€] provided instead different results, mainly due to the fact that average investment value and total number of investors are linked by the following negative relationship:

$$\boldsymbol{average\ investment\ value}\ [€] = \frac{total\ amount\ of\ money\ collected\ [€]}{total\ number\ of\ investors}$$

Coming back to the analysis, the computation of the variance-covariance matrix for the two variables (participation and $\mathbf{avg}$[36] investment subscribed) provided a positive value for the covariance: in facts, it is reasonable that a high value in the avg investment corresponds to a larger presence of large individual sums subscribed among investors. This datum can be translated into a higher importance in terms of ownership percentage (with respect to the total share capital of the company) and, in ultimate analysis, into an encouragement for those shareholders to participate to the meetings.

[36] Average, here intended as the 'mean value'.

If this reasoning is shifted another time towards 'voting shares only', the relationship described above stands only under some conditions; in particular only when the total number of investors equals to the total number of 'voting' investors (in other words, when the two curves can be overlapped), corresponding to the cases in which only ordinary shares are offered or when the total number of investors is particularly low.

The last case of *Chapter 5* regards the analysis of shareholders' participation against the total amount of money collected from the equity crowdfunding campaign. The most important aspect that emerged from this section is related to the distribution of points in the scatterplot, where the large majority of values is concentrated in the left part of the Cartesian Plane, corresponding to a total sum < €500.000, despite the possibility (allowed by the regulation at that time) to collect sums up to €2,5 million. The distribution highlighted how, for small sums, there is a coexistence between 'Pivot' and 'Block Out' effects, with data distributed respectively in the upper and in the lower part (with respect to the y axis) of the graph; while for large sums (> €600.000) there is a strong predominance of 'Block Out' effects, due to the fact that it is reasonable to think that such a high sum has been collected through a very large number of investors (also for the high risk associated to these types of investment).

After having analysed shareholders' participation in terms of effective physical, remote, or delegated presence to the meetings, *Chapter 6* analysed in depth the type of interventions (always looking only at those shareholders who entered in the firm through the equity crowdfunding campaign) and the outcomes of the voting phase (if any). The first aspect to be considered from this kind of analysis is related to the frequency of interventions (in the total number of 15) that turned to be extremely low if compared with the total number of Meeting Minutes (331) taken into consideration.

A characteristic which unites all the seven case studies refers to the fact that the firms analysed in these cases all have a relatively low number of investors: this allowed to cluster all the cases among the firms that in face of a small internal 'ecosystem' benefit from the 'Pivot effect', which is translated, at the core practical

level, into higher participation to the meetings also from small (sometimes even marginal) shareholders.

Briefly passing to the proper analysis of the case studies, they displayed how shareholders coming from equity crowdfunding are risk-sensitive and can effectively represent (whenever they are allowed to actively participate) an added resource for the company, also looking at the long-term horizon. The second aspect that clearly emerged is related to the fact that the 'good' environment (which favours the perception of a pivotal position by shareholders and ultimately encourages participation) is linked to a fine balance that can be broken in every moment through a decision and/or an action; forcing the firm to decide whether it is convenient to restore the previous situation or not, finding a new equilibrium point. In this second case, the tangible risk is represented by the fact that, especially when looking at the long-term, the point turns to be a 'bad' equilibrium, bringing negative consequences/effects on the company overall.

Finally, the analysis of the voting phase allowed to assess that the voting outcome (intended as number of votes in favour and against together with the number of abstained, in percentage or in absolute terms), in case of high participation percentage by all shareholders to the meeting, is a good indicator for the internal level of cohesion among the different shareholders' group (and more in general, for the company) only when the total attendance to the meeting is very high.

7.2 POTENTIAL IMPLICATIONS ON THE EQUITY MARKET

The study of equity crowdfunding investors' participation to shareholders' meetings for the Italian companies in the sample pointed out several considerations. First, the null hypothesis for which active ownership strategies by investors are generally absent within the company finds confirmation only partially and is restricted to those cases where companies were backed by a very large (for instance, higher than 100) number of investors: these situations are generally characterized, under the same conditions in terms of total capital collected (which, looking at *Figure 5.16* in *Paragraph 5.4*, is a reasonable assumption), by a lower average investment value as a consequence of the fact that the total amount of money raised is spread among a higher number of investors. On the other hand, when dealing with firms whose equity crowdfunding campaign has been backed by few wealthy investors, the null hypothesis is not reflected in the real cases and can be rejected, highlighting the presence of active ownership strategies as evidenced by the case studies in *Paragraph 6.2*.

Looking at the situation from the investor's point of view, in the first case, the investor directly subscribed the minimum chip or a multiple quantity very close to it with the main aim of building his/her investment portfolio by adding a certain percentage of risk to increase the expected return. Considering the risk-return curve, the purchase of shares in an equity crowdfunding campaign can be considered a very aggressive strategy, characterized by high levels in both risk and return, as the percentage of start-ups that fail in very high (approximately 9 out of 10 cases, which become more than 95% after four years) but, at the same time, it is generally enough to have at least one unicorn in the portfolio to repay the investment and have access to a positive return. This means that the investor is for sure interested in the good result of the project and the consequent growth of the issuing firm, which ultimately influences the investment portfolio performance but, at the same time, considers the investment just as a mean to achieve the expected result, and thus is not interested in participating to the shareholders' meetings for many motivations that can be summed up in the 'Block-out effect'.

In the second one, it is likely that the investor, who subscribed a high investment in the crowdfunding round, is more involved in the project and in the 'life of the company' in terms of both attendance and active participation to the meetings of shareholders. In this situation, the investor (who, in some cases, corresponds to the figure of the business angel) believes in the project and in the company's future profitability and for this motivation, differently from the previous case, has decided to perform a 'targeted investment'. This context leads to a non-marginal percentage in terms of ownership in the firm, that is translated into the perception by the investor of a central/pivotal role during the meetings and a consequent encouragement to actively participate. In support of this second stance, the dissertation provided in *Paragraph 6.2* some examples of real cases. Having introduced the two possible scenarios, it is now time to describe the potential implications that this type of analysis can have on the equity market and its players which, in some sense, takes up the considerations previously made in *Paragraph 2.6*.

- Entrepreneurs

Looking at the list of investors at the end of the equity crowdfunding campaign, focusing on their total number and on the individual investment subscribed, the entrepreneur can have preliminary information on the expected attendance and active participation by each shareholder to the meetings. This allows the administrator to know in advance the likelihood to receive questions, suggestions, criticisms, … on a certain topic and thus get prepared for the discussion at the general meeting. Nonetheless, the most important notion for the entrepreneur regards the possibility to design the type of shares to be offered in the equity crowdfunding round based on the desired type of shareholder and the forecasted (expected) participation: if the objective is that of creating an environment in which each shareholder, independently from the stake owned, can actively participate to the meetings, the firm could offer ordinary shares with a high minimum chip, to drive the outcome of the campaign towards few wealthy investors. This could be the case in which the company is in its early stage and still needs to absorb knowledge,

expertise, and innovative ideas. On the contrary, the firm could offer shares in which the presence of voting rights is dependent from a high threshold, favouring the entrance in the voting structure by only sophisticated investors but, at the same time, letting unsophisticated ones the possibility to subscribe the investment and benefit from the potential expected return. Among the different cases, this second option could fit with the **crowdlisting**[37] mechanism through which a more 'structured' company wants to build a certain percentage of floating capital to later speed up the listing process on a stock exchange through IPO.

- Equity crowdfunding platforms

As it already happens in lending crowdfunding, where two possible options, the 'anonymous' and the 'peer to peer' (P2P) lending models, are allowed, also equity crowdfunding platforms could adopt this binary approach. Recognising the existing mechanism as P2P, equity crowdfunding platforms could offer an alternative option, more similar to the 'anonymous' one. Differently form lending crowdfunding, where the platform itself takes the role of the lender, here it would not substitute the position of the shareholder, but simply provides suggestions on the type of investment to subscribe, just like an advisor. In other words, the platform matches what is required by the entrepreneur on one side, with what is expected by investors on the other. To adopt this approach, the platform would be required to ask to the investor more information on money availability, motivations for the investment, and level of acceptable risk and, at the same time, assess a kind of '**credit score**[38]' to cluster the different campaigns. On the other hand, looking at the actual equity crowdfunding mechanism, the platform could disclose the 'credit score' for each company (as it already happens in some cases) with the aim of increasing transparency.

[37] Once the minimum target to be collected is reached, crowdlisting provides that the company, after the appropriate checks, is admitted to trading on one of the markets of the Euronext NV holding. This grants international visibility, shares liquidity and an enlargement of the potential investor pool.

[38] Equity crowdfunding platforms already perform something similar when they are required to select among all the proposals the campaigns to publish on their website.

- Policymakers and market authorities

As it is possible to see in *Annex 8.1*, policymakers at the European level have already introduced improvements for what concerns the maximum amount of money to be raises in a year (actually at €5 million), the signal of credibility (by requiring that at least the 5% - in some cases the 3% - of the total capital is subscribed by professional investors), and the introduction of a passport for raising capital directly at the European level. Reconnecting with the previous point, a strong co-operation between market authorities and equity crowdfunding platforms would benefits the whole system in terms of both transparency and efficiency. By introducing the mandatory requirement (for the platforms) of a credit score for each equity crowdfunding campaign and, at a later stage, standardising the 'credit scoring' mechanism, policymakers would increase the whole transparency of the system in terms of information provided to investors, providing them with a smart tool able to compare the different alternatives looking at both risk and expected return. This enforcement in the regulation, together with the possibility to share information on issuers and investors' expectations, could help policymakers and regulatory authorities to design and control that both points of view are matched, 'assigning' the right type of shareholder to the right type of firm, taking into consideration the importance of the follow-up events successive to the end of the campaign.

- Investors

As already explained above, investors would benefit from an environment which has been designed basing on their expectation on the investment and its long-term implications on the firm. The reform of the system would allow the distinction among individuals who just look at an investment to add in their portfolio from those who instead believe in the firm's value proposal and want to become active shareholders of that company.

- Equity market

Having said almost everything on the equity market by looking at the considerations made at the level of its players, this section will focus on the possibility of improving equity crowdfunding market efficiency by creating an appropriate secondary market. The previous comments focused on the problem of information asymmetry among the different actors in the equity crowdfunding market, and the consequent necessity to grant and preserve the transparency of this system. Another problem characteristic of this environment is related to the illiquidity of the financial instruments offered which, differently from the case of stock exchanges, suffers the consequences of the lack of an effective secondary market where shares can be traded after the end of the equity crowdfunding campaign, despite some platforms, like CrowdFundMe, already offer such a possibility in special sections (bulletin boards) on their websites.

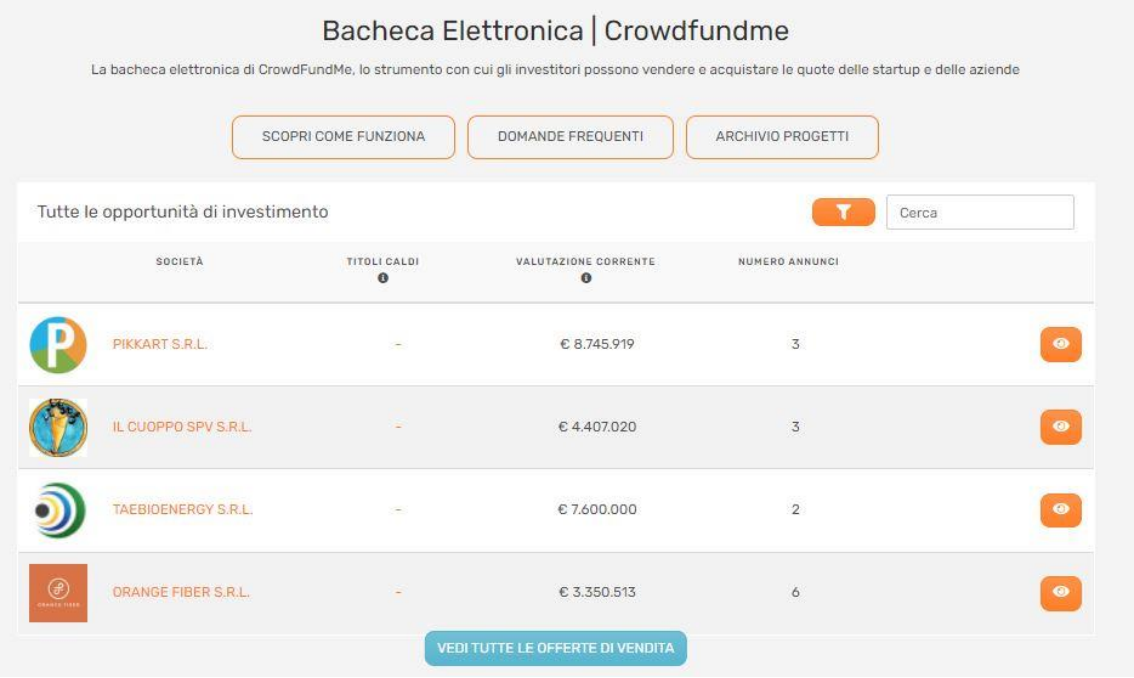

Figure 7.1 - Bulletin board of the Italian equity crowdfunding platform CrowdFundMe

What is really missing is the presence of 'market makers' with the task of keeping the secondary market as liquid as possible: this is not as easy as in the case of stock exchanges because these financial instruments are characterized by a higher risk compared with shares of companies listed on the stock exchange. Despite this fact, the national regulatory authority (in Italy, CONSOB) could intervene and ask the platforms to grant liquidity at least in certain ranges. To enforce this possibility, platforms could be required to ask for the authorization by the market authority before offering a section in which to trade shares on the secondary market, as it would make sense only for those equity crowdfunding platforms characterized by high annual volumes in terms of campaigns concluded with success.

The introduction of an effective secondary market for equity crowdfunding shares in Italy would provide benefits also considering the main aim of this dissertation work: in facts, in case the investor's vision and expectation does not coincide with that of the major shareholder/coalition, or the investor simply wants to divest, the secondary market offers him/her the possibility to sell (totally or in part) those packages of shares. On the other hand, an individual or a firm (SGR) who did not participate to the equity crowdfunding round but considers potentially profitable to make an investment in the firm, would be provided with the possibility to enter in the company without having to wait till the next equity crowdfunding round or capital increase offered to third parties. In ultimate analysis, the introduction of an efficient secondary market for trading equity crowdfunding shares would benefit the flexibility of the whole system.

7.3 LIMITATIONS AND FURTHER RESEARCH DIRECTIONS

A first restriction of the dissertation work is represented by the choice of the sample, which has been selected by filtering and selecting only those campaigns offering, at least in part, voting shares. From the analysis, it emerged (especially with specific reference to the case study of Xnext in *Paragraph 6.2*) the fact that also non-voting shareholders can potentially contribute to the value creation in the company (for instance, when they are allowed to participate to the meetings). It would be useful to enlarge the study also to those cases in which only non-voting shares were offered and then compare them with the other types of shares. Just considering the same time horizon (2014-2017) selected in the dissertation, the number of companies would increase from 67 to 78. As already said, the analysis of the behaviour of non-voting (equity crowdfunding) shareholders is a very wide and unexplored topic, which would require a dedicated and detailed study.

A second limitation is related to the sample dimension, that is quite small if compared with the total number of Italian campaigns that have been concluded so far. Looking at the data provided by the 'Osservatorio Crowdinvesting', just considering 2018 (the first year after the 'end period' of the sample), the number of campaigns ended with success had more than doubled with respect to the previous year, passing from 50 to 115. Referring to the last year (2021), the number has still increased, reaching the value of 214 campaigns (concluded with success) in a single year. Considering the positive trend of equity crowdfunding in Italy, it could be interesting to analyse a larger sample population, maybe trying to identify the presence of potential trends in the behaviour which could have had effects on the participation percentage.

Finally, another suggestion for further studies in this field is represented by the possibility to run a detailed analysis on the company's performance, given in input the different active ownership strategies by shareholders, together with the assessment of the frequency of the interventions in relation with the number of Meeting Minutes, to better evaluate the incidence of this phenomenon.

8 ANNEXES

8.1 EUROPEAN CROWDFUNDING SERVICE PROVIDERS

DISCLAIMER: This section has been built using the information that can be found directly on the European Commission website and on the last report form 'Osservatorio Crowdinvesting'.

Sources: (European Commission, 20202);
(Osservatorio Entrepreneurship Finance & Innovation, 2021)

Entered into force on the 10th of November 2020, the Regulation on European Crowdfunding Service Providers (ECSP or 'Regulation EU 2020/1503) represents the latest regulation in the field of crowdfunding in the European Union, attempting at aligning all the already existing rules at a national level. After a transition period of 12 months, the rules entered into application on the 10th of November 2021, applying directly across the EU. The initiative was part of the European Commission's fintech action plan and the mid-term review of the capital markets union action plan.

The ECSP introduces important new elements both in terms of the platforms' authorization regime and code of conduct, as well as allowing platforms (that has a kind of 'passport') to perform cross-border operations in other European countries.

This new set of rules is expected to increase the availability of crowdfunding as an innovative form of financing, which will help companies seeking alternatives to the traditional bank financing. Investors on crowdfunding platforms, meanwhile, will benefit from an aligned and enhanced investor protection framework, based on

- ✓ clear rules on information disclosures for both project owners/entrepreneurs and crowdfunding platforms;
- ✓ rules on governance and risk management for crowdfunding platforms;
- ✓ strong and harmonised supervisory powers for national authorities overseeing the functioning of crowdfunding platforms.

This regulation introduces a common framework valid for both equity crowdfunding and social lending (in this latter, however, only with respect to loans to businesses and in general to individuals or entities that raise money to finance business initiatives) and includes several new features:

- the register of authorized portals will be centralized at the ESMA (European Securities and Markets Authority) level;
- also companies different from SMEs will be able to raise risk capital;
- it will no longer be possible for platforms to place UCITS[39] units (funds);
- campaigns concerning indirect investments made through SPVs will be possible but only in certain cases;
- it will be necessary to provide the investor with a standardized information document (Key Investment Information Sheet, KIIS) of up to 6 pages;
- the maximum collection threshold over a year for each company will be limited from € 8 million to € 5 million;
- the introduction of an 'appropriateness' assessment for both equity and lending crowdfunding, strengthened for the so-called 'unsophisticated 'investors, with a maximum investment limit;
- the introduction of more stringent rules on conflict of interest and incentives for platforms, which include, for instance, the prohibition for platform managers to adhere to the offers published on the platform; furthermore, prudential requirements are required in terms of minimum capital and business continuity.

It is interesting the case that the European Regulation adopts the 'electronic bulletin boards' model introduced in Italy for the secondary investment market in equity crowdfunding, which is then confirmed.

[39] Undertakings for Collective Investment in Transferable Securities, in Italian 'OICR', 'Organismi di Investimento Collettivo del Risparmio'.

8.2 SHARE MINORITIES IN COMPANY GOVERNANCE

DISCLAIMER: This section follows the structure of the working paper 'La minoranza al potere? Società quotate e «secondo azionista» in CdA', with the aim of describing the different shareholder structures within the BoD.

Source: (Di Toro, 2012)

The author, after a brief introduction on the main topic of the academic paper, immediately presents the classification of the different shareholder structures for the appointment of the members in the Board of Directors (BoD) and its composition. Below, for each of them, it is provided a short description.

- **'Pure' Majority System**: unless differently specified by the statute or the shareholder agreements for the appointment of directors of non-listed Italian companies, the majority principle applies in its 'pure' version. A single majority shareholder, or a 'coalition' of shareholders (even only with relative majority) being in conditions of the so-called 'de facto' control, can appoint all members of the BoD or the Supervisory Board (depending on the governance system adopted by the firm). The coalition can therefore appoint the members without any contribution of the minority, although this latter, if all present and compact (in a utopic way) may even be prevalent 'on paper'. However, in this regard, at least on a theoretical level, it stands the principle which states that *"when the decisions of the Board can affect differently the various shareholder groups, the Board has to treat all shareholders 'correctly'"* (Organization for Economic Co-operation adn Development, 2004).
- **Voluntary marginal concessions to minorities**: it is not uncommon, since the beginning of the XXI century, the voluntary granting (from majority shareholders) of seats to 'qualified' minorities. Among this category are encompassed different investor classes, going from public entities like governments (as residuals from State-owned enterprises), universities, …to profession investors, as in the case of private open/closed funds (for instance, rural banks, cooperatives, 'Società di Gestione dei Risparmi' – SGR –). It is easy to imagine that, in the company statute, 'qualified' minorities benefit from the right to appoint one member of the BoD as delegate.

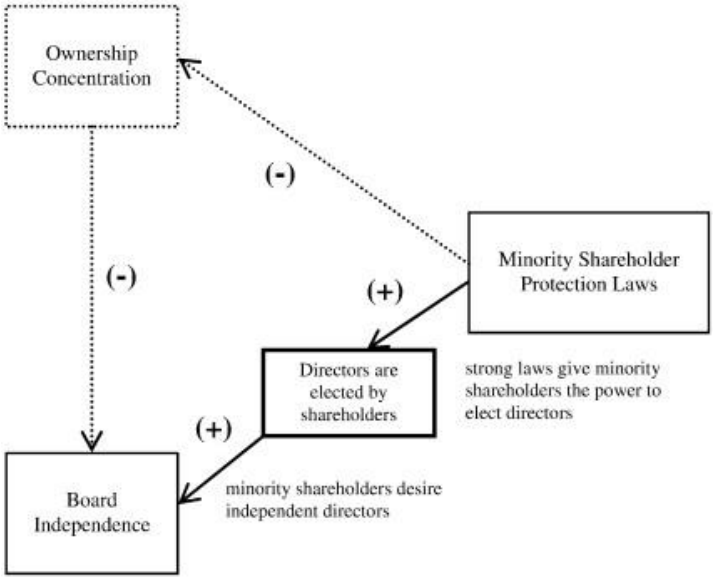

Figure 8.1 - Law can empower minority shareholders' position in the company

Beyond voluntary marginal concessions during shareholder meetings, the forms of proportional voting system , or the 'cumulative voting' or 'slate voting' ones (even more if expected by company statute) are those able to lead towards a 'substantial' correspondence (more or less 'perfect') between percentages held in terms of capital/shares and that of the trusted directors included in the BoD or in the supervisory board; or, at least, to allow minorities to be represented (more precisely, it would be better to say to a 'second' ultimate owner/shareholder, who will appear to be independent of the company and its controlling shareholders). This necessity is strictly related to the well-known theme of 'separation between ownership and control', here considered as difficulty for the non-controlling shareholder part in monitoring the company management conducted by of the BoD, in some sense 'loyal' to the majority shareholders.

> IMPORTANT: For the sake of completeness, it is useful to specify that in the cases under examination during this dissertation work, for both start-ups and SMEs, in almost 90% of cases there is NO separation between ownership and control, with the majority shareholder also performing the charge of SOLE DIRECTOR or CEO of the firm.

- Cumulative Voting System: On a more formalized level since 2005 the Chinese regulation recognises that *"When electing administrators or supervisors (statutory auditors), the shareholder meeting can, according to the statute or specific shareholders' agreements, adopt a cumulative voting system"*. The expression 'cumulative vote' refers to the system by which each shareholder can multiply his/her voting rights for the number of seats available and then use them all to vote for a single candidate for director or supervisor, while each single vote can be cast only for one candidate. From this mechanism it results a 'guarantee effect' for the participation of the minority.

- Slate Voting System: The purpose of this system is to try to protect minorities (minority shareholders) or, at least, shareholders weighing less than those composing the majority coalition, giving them the opportunity to appoint their own representatives in the BoD. *"Such arrangements must ensure adequate representation within the company of the various components of the shareholder base (institutional investors, qualified minorities, …) especially when this is particularly fragmented (as, for example, in cooperative banks); in order to facilitate minority shareholders' participation at meetings"* (Consob, 2005).

- Second Ultimate Owner: Thanks to the opportunity of the slate vote, numerous opinions have been expressed towards the appointment in the Board of member indicated by institutional investors, to protect the interests of micro-shareholders. In parallel, institutional investors have seen the participation in the appointment of members in the BoD an effective tool for carrying out forms of 'transparent' activism and not necessarily conflicting with respect to the existing control structure.

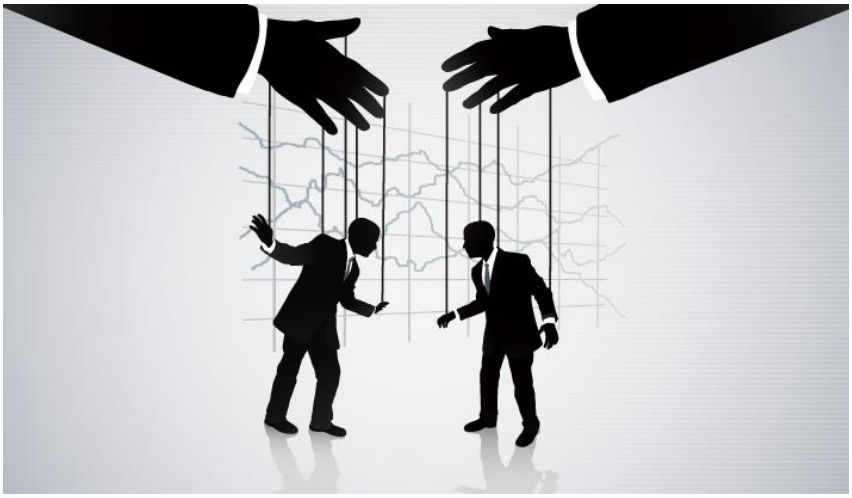

Figure 8.2 - The second ultimate owner, representing (as delegate) minorities within the company

However, an alternative (and sometimes in "opposition") to institutional investors is represented by 'individual private investors of weight' (large outside shareholder in the position of second ultimate owner).

In a multilateral relation environment, characterizing the capitalism and entrepreneurship of a particular Country, the phenomenon of the 'second private ultimate owner' generates the doubt of partial vanishment of the target of the rule of guarantee deriving from the slate vote: the risk it is that of a sum of special interests more than that of a close confrontation and a constant dialectic that guarantees balance, neutrality and respect for interests disseminated by the shareholder community. For this aim, there are guidelines to help minority shareholders in protecting their interests.

In Italy, to avoid any possible misunderstanding about the possibility that the slate voting system is not intended for the access of micro-shareholder in the company management, proliferation of "micro-lists" is avoided by arranging that the statute determines the minimum shareholding requirements for their presentation. However, the effect of the slate vote can even result totally useless by a too high quorum request for the appointment of members representing minority shareholders in the BoD/supervisory board. The representativeness of minority shareholders (or the search for partial "proportionality") could in fact be prevented by the requirement of the 'Minimum Quorum' for presenting the lists.

8.3 ECF CAMPAIGNS (DATABASE FROM 'OSSERVATORIO')

DISCLAIMER: This annex aims at describing more in depth the structure of the database on the equity crowdfunding campaigns in Italy, which has been used as a reference point for the creation of the database described in *Paragraph 4.2*.

Source: Osservatorio Crowdinvesting del Politecnico di Milano

This database encompasses all the relevant (qualitative and quantitative) data on the equity crowdfunding campaigns in Italy for the period going from 2014 (year of launch of Paulownia Social Project, the first Italian campaign) till nowadays. Once published online on equity crowdfunding platforms (CFPs), the web pages of campaigns are permanently available, regardless from their result. For each of them, issuers provide a brief description (using text, figures, videos, and tables) of the project that will be published on the CFP. The funding amount and the objective target to be reached are available directly on the web page dedicated to each campaign, together with both financial and non-financial information on the company (for instance, its pre-money valuation, balance sheets, business plan, patents, …). As a result, each crowdfunding platform can be seen as a large data library in which information in permanently updated from the pre-launch period up to the end of the campaign. In some cases, especially looking at the real-estate equity crowdfunding field, platforms (like, for instance Walliance or Concrete Investing) come out with data also for the period subsequent to the end of the campaign, providing information on the exit of the company and on the **investors' profitability**[40].

[40] Provided in the form of annual ROI (Return on Investment) [%], to evaluate the investment performance

Coming back to the database, it has been provided in the form of Excel file in which each row refers to a specific equity crowdfunding campaign: qualitative information in the first columns encompasses a different set of data:

- name and the fiscal code of the issuing company;
- area and region of the registered office;
- product classification, in the form of ATECO 2007 code;
- company typology, which can be:
    - **innovative start up**[41],
    - **innovative SME**[42],
    - simple SME,
    - **SPV**[43]

All this type of information is available looking at the company's business profile (which can be translated with the Italian term 'visura camerale'), first physically deposited and now online stored at the Chamber of Commerce. In addition, directly from the CFP website, it is possible to find, a brief description of the project, which alternatively is available in detail on the company's business plan. From the information document (prospectus) it is possible to collect the information regarding:

- the type of shares that have been offered:
    - ordinary shares vs preferred and saving shares,
    - voting vs not-voting shares,
    - shares dedicated to specific investor category vs shares available for all;
- the minimum chip to be subscribed;
- the maximum target of the fundraising, which is usually composed by:
    - an **all-or-nothing**[44] part;
    - one or more **take-it-all**[45] parts.

[41] 'Start-up innovativa' → SU Inn in the database
[42] 'PMI innovativa' → PMI Inn in the database
[43] 'Veicolo d'investimento' → VEIC in the database
[44] 'Inscindibile'
[45] 'Scindibilie'

Table 7 - Basic information on the type of company and activity followed by a brief description of the project

These columns represent in some sense the 'identity card' of the company

This flag is activated only in case of a company performed more than one equity crowdfunding round

Type of company and name of the equity crowdfunding platform

Impresa	Codice fiscale	Provincia	ATECO	Round >1?	Tipo	Portale	Progetto
Milano RE Invest Srl	11662480968	MI - Lombardia	F 41.1		PMI	Concrete	Progetto immobilare a Milano (Forze Armate 195)
G2 Real Estate Srl	12268100968	MI - Lombardia	K 64.20.00		PMI	Concrete	Progetto immobiliare a Milano (via Giannone)
BRE Gerola Srl	12119970965	MI - Lombardia	K 64.20.00		PMI	Concrete	Progetto immobilare a Milano (Cascina Gerola)
SpaceExe srl	12256801007	RM - Lazio	J 62.02.00		SU Inn	CrowdFundMe	Implementazione sistema di tracciabilità per giocatori calcio
OpenTail srl	08985230963	MI - Lombardia	M 70.22.09		SU Inn	CrowdFundMe	Toc Toc Box - sistema di spedizione pacchi in social-economy
AppSide Italy srl	03995830241	VI - Veneto	J 61.90.99		SU Inn	CrowdFundMe	Watchy Talky, app di social dating
GoBimbo Srl	09165390965	MI - Lombardia	J 62.01.00		SU Inn	CrowdFundMe	APP per famiglie con bambini (SIAVS)
CleanBNB Srl	09365370965	MI - Lombardia	J 62.01.00	x	SU Inn	CrowdFundMe	Full service per chi affitta camere con AIRBNB e simili

The letter in the ATECO code identifies the industry in which the firm operates, while the numbers provide a univocal description of the company activity

Brief description of the project

Table 8 – Data on the target capital to be reached, type of offered shares, minimum chip and period

Target capital	Quota offerta	Soglia minima successo	Soglia massima	Tipo quote offerte	Ord	Non vot	Vot + non v	Altre	Data inizio	Data fine	Versamento minimo
900000		900000	1000000	Quote AA non votanti		1			21/12/2021	22/12/2021	5000
3500000			4000000	Quote AA non votanti			1		01/03/2022	04/03/2022	5000
1300000		1300000	1500000	Quote AA non votanti			1		04/01/2022	07/01/2022	5000
300000	10%	200000		Ordinarie	1				01/01/2015	21/06/2015	50
80000	39,02%	80000		Quote B non votanti			1		11/03/2015	31/08/2015	250
162000	43,76%	162000		Quote B votanti (se > 9.510 €) e quote C non votanti				1	21/01/2016	16/06/2016	250
72187	11,00%	72187		Quote A (votanti) e B (non votanti) se sotto 20 k€				1	16/02/2016	16/06/2016	250
50000	11,11%	50000		Quote A (votanti) e B (non votanti) se sotto 10 k€				1	16/02/2016	30/06/2016	250

Ownership percentage, in terms of total share capital, corresponding to the target capital of the campaign

take-it-all part [€]

all-or-nothing part [€]

Description of the type of offered shares (with the respective thresholds, if any) and the relative flags

minimum chip [€]

Equity crowdfunding campaign's beginning and end dates

Table 9 - Data about the outcome of the campaign, the total amount of money raised and the number of investors

Flags indicating the outcome of the campaign among ended with success, failed, and ongoing

Total number of investors who subscribed shares in the campaign

SI	NO	INCO	Raccolto	Validato?	Raccolto (se successo)	Numero investit	N (se successo)
1			1000000		1000000	72	72
		1			0		
1			1500000		1500000	104	104
	1		0		0	0	
1			94626	ok	94626	31	31
	1		14033		0		
	1		4494		0		
1			126702	ok	126702	90	90

Total amount of money raised [€] from the equity crowdfunding campaign

Table 10 - Computation of the percentage of success, pre- and post-money value and follow-up events

Successo %	Successo vero su adesioni	Successo se sì	Successo se n	Anno attribui	V post-money	V pre-money	Moltiplicatore (pre2 / pr	Valore aggiornato	Fatti successivi
111,11%	111,11%	111,11%		2021			1,00	1.000.000,00	
0,00%	0,00%								
115,38%	115,38%	115,38%		2022			1,00	1.500.000,00	
0,00%	0,00%		0,00%	2015	€ 3.000.000	€ 2.700.000			
118,28%	118,28%	118,28%		2015	€ 219.626	€ 125.000	1,00	94.626,00	Liquidazione maggio 2020
8,66%	8,66%		8,66%	2016	€ 370.201	€ 208.201			Liquidazione dicembre 2020
6,23%	6,23%		6,23%	2016	€ 656.245	€ 584.058			
253,40%	253,40%	253,40%		2016	€ 526.702	€ 400.000	14,18	1.796.163,32	IPO su AIM (2019) a 2 € e premoney

Percentage of success of the campaign with respect to the target capital declared

Year in which the equity crowdfunding campaign ended

Multiplier/Coefficient to consider the revaluation after a subsequent event

Computation of the pre- and post-money value [€] to assess the monetary evaluation of the company

Description of the main/most recent follow-up events

Starting from this dataset, looking at *Table 10*, the database provides the calculation of some parameters like the pre-and-post money value [€] and the percentage of success/failure for each issuer, together with the revaluation on the total amount of money raised after a follow-up (extraordinary) event.

The database has been provided also in another form (that will not be presented in this paper as it does not provide any further relevant information for the dissertation work) which assigns more importance to the time in which an event happened: in this case, both equity crowdfunding campaigns and extraordinary events (IPO, M&A, exit, dividend distribution, …) are listed in a chronological order, with the aim of assigning the correct 'weight' in terms of incidence in the calculation of the 'Italian Equity Crowdfunding Index' (Osservatorio Crowdinvesting, 2020).

8.4 INVESTORS' DATABASE (FROM 'OSSERVATORIO')

Source: Osservatorio Crowdinvesting del Politecnico di Milano

Together with the previous one, this annex represents the reference point for the creation of the database described in *Paragraph 4.3*, by providing further information at the individual level of the investors who subscribed shared during the equity crowdfunding campaign. The list of investors is sometimes available directly on the equity CFP, otherwise it can be obtained by comparing the firm's business profile before and after the campaign. It could be the case in which the investor participates to the crowdfunding round through an investment fund (for instance, an SGR) which grants the anonymity of all its subscribers.

Coming back to the investor database, data here are no more collected at the level of the single campaign, but each row refers a specific investor (individual or firm) and provides information on:

- value [€] of the investment subscribed in a specific campaign;
- investors typology
    - legal vs natural person,
    - serial vs non-serial,
    - already existing in the company vs new;
- investor's age, fiscal code, and region;
- total number of equity crowdfunding investments subscribed.

Table 11 – Section of the database reporting data on investor typology and #investments subscribed

This column indicates the investor typology between natura (PF, persona fisica) and legal (PG, persona giuridica)

Total amount of money collected by serial and non-serial investors

Flag indicating if an investor can be identified as serial or not

Total number of investments subscribed in equity crowdfunding by each investor

Total number of serial investors in the campaign

Tipologia Investitore	Seriale	N.investimenti	importo seriali	importo non seriali	N. inv seriali	Nome/Cognome
PF	0	1	Non Seriali	30000	0	MARINI FABIO
PF	0	1	Non Seriali	30000	0	MASSETTI LUIGI
PF	0	1	Non Seriali	30000	0	SPAGNOLI SANTO
PG	0	1	120	1615,135135	2	DIGITAL INK SRL
PG	0	1	120	1615,135135	2	CONSULTING DIRECTION S.R.L.
PG	0	2	120	1615,135135	2	FINRISE S.R.L.

9 BIBLIOGRAPHY

Adler, P. S. & Kwon, S.-W., 2014. Academy of management review. 8th October.

Ahlers, G. K., Cumming, D. & Günther, C., 2015. Signaling in Equity Crowdfunding. 1st July.

Akerlof, G. A., 1978. The Market for Lemons: Quality Uncertainty and the Market Mechanism.

Alegre, I. & Moleskis, M., 2019. Beyond Financial Motivations in Crowdfunding: A Systematic Literature Review of Donations and Rewards. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 19th November.

Anabtawi, I. & Lynn, S., 2007. Fiduciary Duties for Activist Shareholders. *Social Science Research Network (SSRN)*.

Anon., 2021. *200 Crowd.* [Online]
Available at: https://200crowd.com/campaign/details/sporteams

Barko, T., Cremers, M. & Renneboog, L., 2021. Shareholder Engagement on Environmental, Social, and Governance Performance. *Journal of Business Ethics*.

Böckli, P. et al., 2015. Shareholder Engagement and Identification. 23rd February.

Bourdieu, P., 1986. The forms of capital. *Handbook of Theory and Research for The Sociology of Education*.

Brabham, D. C., 2008. Crowdsourcing as a Model for Problem Solving: An Introduction and Cases. 1st February.

Brown, R., Mawson, S. & Rowe, A., 2019. Start-ups, entrepreneurial networks and equity crowdfunding: A processual perspective. *Industrial Marketing Managemen*, July.

Cloyd, M. A., 2015. Shareholder Activism: Who, What, When, and How?. *Harvard Law School Forum on Corporate Governance*, 7th April.

Colombo, M. G., Franzoni, C. & Rossi-Lamastra, C., 2015. *Internal social capital and the attraction of early contributions in crowdfunding.*

Consob, 2005. Testo Unico della Finanza (TUF). In: *Decreto Legislativo 58/98.*

CONSOB, 2020. Le offerte iniziali e gli scambi di cripto-attività. 2nd January.

Deffains-Crapsky, C. & Sudolska, A., 2014. Radical Innovation and early stage financing gaps: Equity-based Crowdfunging challenges. *Journal of Positive Management*, 6th October.

Di Toro, P., 2012. *La minoranza al potere? Società quotate e «secondo azionista» in CdA.* Pavia.

Dorff, M. B., 2013. The Siren Call of Equity Crowdfunding. *Journal of Corporation Law*.

European Commission, 2022. [Online]
Available at: https://ec.europa.eu/info/business-economy-euro/growth-and-investment/financing-investment/crowdfunding_en

European Commission, *Internal Market, Industry, Entrepreneurship and SMEs.* [Online]
Available at: https://ec.europa.eu/growth/access-finance-smes/guide-crowdfunding/what-crowdfunding/crowdfunding-explained_en

Experts, E. C. L., 2015. Shareholder Engagement and Identification. 23rd February.

Financial Conduct Authority, 2014. *The FCA's regulatory approach to crowdfunding over the internet, and the promotion of non-readily realisable securities by other media.*

Hoepner, A. G. F. et al., 2016. ESG Shareholder Engagement and Downside Risk. *European Corporate Governance Institute – Finance Working Paper*, 25th November, Issue 671/2020.

Hornuf, L. & Schweinbacher, A., 2018. Market mechanisms and funding dynamics in equity crowdfunding. *Journal of Corporate Finance*, June.

Incorvati, L., 2022. Equity Crowdfunding; Italia in leggero ritardo sul regolamento UE. *IlSole24Ore*, 29th January.

Kleeman, Voß, G. & Rieder, K., 2008. *Un(der)paid Innovators: The Commercial Utilization of Consumer Work through Crowdsourcing.*

Leland, H. E. & Pyle, D. H., 1977. Informational asymmetries, financial structure, and financial intermediation. *The Journa of Finance*, May.

Majoch, A., Gifford, J. & Hoepner, A., 2012. Active Ownership and ESG Performance. In: *Contemporary Issues in Sustainability Accounting, Assurance and Reporting.*

Malberti, C. & Sironi, E., 2007. The Mandatory Representation of Minority Shareholders on the Board of Directors of Italian Listed Corporations: An Empirical Analysis. *Bocconi Legal Studies Research Paper*, 27th February.

Organization for Economic Co-operation adn Development, 2004. Principi di Governo Societario dell'OCSE.

Osservatorio Crowdinvesting, 2020. L'Italian Equity Crowdfunding Index. April.

Osservatorio Entrepreneurship Finance & Innovation, 2021. Quaderno di Ricerca: La Finanza Alternativa per le PMI in Italia. November.

Ralcheva, A. & Roosenboom, P., 2020. Forecasting Success in Equity Crowdfunding. *Small Business Economics*.

Song, C. et al., 2020. *Crowdfunding for Design Innovation: Prediction Model with Critical Factors.*

Spence, M., 1973. Job Market Signalling. *Quarterly Journal of Economics*.

Surowiecki, J., 2004. *The Wisdom of Crowds.*

Tomboc, G. F. B., 2013. The lemons problem in crowdfunding.

Turan, S. S., 2015. *Financial Innovation - Crowdfunding: Friend or Foe?.* Istambull, Turkey.

Turan, S. S., 2015. Stakeholders in equity-based crowdfunding: respective risks over the equity crowdfunding lifecycle'. *Journal of Financial Innovation*.

Vismara, S., 2016. Equity retention and social network theory in equity crowdfunding. *Small Business Economics*.

Wald, A., Holmesland, M. & Efrat, K., 2019. It Is Not All About Money: Obtaining Additional Benefits Through Equity Crowdfunding. *The Journal of Entrepreneurship*, 2nd July.

Walthoff-Borm, X., Vanacker, T. R. & Collewaert, V., 2018. Equity Crowdfunding, Shareholder Structures, and Firm Performance. *Corporate Governance: An International Review*, September.

Acknowledgements

Al Professor Giudici.

Al gruppo di ricerca dell'Osservatorio Crowdinvesting.

A mamma, papà e a mia sorella.