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# **Exploring success factors in Equity Crowdfunding Campaigns: Evidence from Italian Market**

## **Abstract**

Since small and medium size enterprises and innovative start-ups always face greater difficulties in obtaining capital from traditional sources of finance, the development of alternative funding tools such as equity crowdfunding has helped them to bridge their financing gap. The purpose of this paper is to examine which factors influence the performance of equity crowdfunding campaigns in the Italian equity crowdfunding market. The study is based on proprietary data that considers the entire Italian equity crowdfunding market, and analyses 175 projects from all Italian equity crowdfunding platforms between 2013 and 2018.

Campaigns' success is driven by ex-ante characteristics of the company itself, such as a large number of shareholders and the presence of an industrial partner among them. Since Italian equity crowdfunding is still in its infancy, the paper is the first to explore success drivers right across the market. The results have practical implications relevant both for seekers of funding and crowdfunding platforms.

**Keywords:** Equity Crowdfunding; entrepreneurial finance; campaign success; Italian market

## 1 Introduction

Over the last few decades, the number of players and investment methods in the entrepreneurial finance market has been expanding rapidly: venture capitalists, business angels, and finally crowdfunding through equity crowdfunding platforms, are becoming crucial for supporting start-ups in the seed and early stage segments.

Equity crowdfunding is an initial public offering of equity, using an online platform that provides the means for the transactions (the legal groundwork, preselection, the ability to process financial transactions, etc.). So equity crowdfunding is part of the online alternative financial markets, and it is receiving close scrutiny from policy makers and regulators due to its rapid growth and its different practices across European countries. The European online alternative finance industry - comprising equity crowdfunding, peer-to-peer lending and other activities - is grown from €1019 million in 2015 to €2063 million in 2016. This represents a substantial increase in annual growth from 72% in 2015, and is also above the average annual growth rate of 85% between 2013 and 2016. (Ziegler et al., 2018).

The existing literature in crowdfunding studies has mostly focused on project success, considering aspects related to the company and campaign on only one single platform (Ahlers et al. 2015; Lukkarinen et al., 2016; Vismara 2016a; Vismara 2016b.). Unlike previous works, our exploratory paper attempts to investigate success factors with the focus of the analysis extended to all campaigns appearing on the Italian equity crowdfunding platforms. Italy is an interesting context to study for many reasons: it was the first country to regulate equity crowdfunding investment and platforms with a specific regulation “Decreto Crescita 2.0” in 2012. The legislative changes introduced in 2018, contribute to enlarging the development of equity funds through a crowdfunding campaign to new subjects: limited companies, collective investment undertakings (investment funds) and investment companies (holdings), which invest primarily in innovative start-ups and innovative SMEs. Secondly, there is a high level of wealth held in bank accounts<sup>1</sup> that could potentially finance SMEs; and finally, due to Italy’s particularly large number of SMEs, the potential market for use of crowdfunding campaigns could be vast.

In this study, we analyse the performance of 175 projects – funded and not funded - which used equity crowdfunding campaigns and the activity of all platforms on the Italian market from 2013 to May 2018. This proprietary data set represents the entire Italian market of equity crowdfunding. The main contributions of the paper are related to the exploration of country specific campaigns’ success factors.

Our findings confirm the importance of the company’s number of shareholders and the presence or absence of an industrial shareholder on its board before the campaign in explaining the probability of success. We also find that the difference between maximum and minimum capital targets is relevant for campaigns’ likelihood of reaching the maximum target.

Our findings are relevant both for equity crowdfunding platforms and for entrepreneurs, because understanding campaign success factors, especially in a country where equity

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<sup>1</sup> 25.8 percent of financial assets held by Italian households is in form of current accounts. Bank of Italy, 2018, Annual Report for 2017, Rome.

crowdfunding is in its infancy but at the height of its potential, could offer a practical contribution to development of the market.

The remainder of this paper is organised as follows: section 2 presents the sample and the Italian equity crowdfunding market; in section 3 we discuss the variables used in the study on the basis of the current literature; section 4 explains our empirical approach and describes the methods and the models; and the results are discussed in section 5. Section 7 concludes and discusses the implications of our findings.

## **2 The sample: the Italian equity crowdfunding market**

Data about all Italian equity crowdfunding campaigns were collected by the authors in an ongoing process started in 2013 and ended on May 2018, constantly monitoring the campaigns published on all Italian platforms. Thus, this proprietary dataset is unique and generates an up-to-date picture of the state of the art of the Italian equity crowdfunding market, with data referring to the whole set of campaigns that have taken place in Italy.

In Italy, the legislation of equity crowdfunding is the result of an evolutionary process, started in 2012<sup>2</sup>, which involved both the buy side and the sell side. Italian legislation provides a number of benefits for issuers and a series of tax benefits for investors. Originally, only innovative start-ups were authorised to raise money, via offers to the public of equity participation, through specific on-line portals. With effect from 2018, after almost 5 years of gestation, the authorised bidders are:

- 01) small and medium-sized enterprises, as defined by Article 2, comma 1, point f), introductory sentence, of EU Regulation no. 2017/1129 of 14 June 2017<sup>3</sup>;
- 02) innovative start-up companies, including start-ups with a social vocation, as defined by Article 25, commas 2 and 4, of the Decree, and tourism start-ups pursuant to Article 11-b of Decree Law no. 83 of 31 May 2014, converted with amendments by Law no. 106 of 29 July 2014. A start-up is defined as innovative if it develops, produces and trades innovative goods or services having high technological value and these activities represent its sole or prevailing core business. Moreover, an innovative start-up must meet at least one of the following alternate requirements: a) the costs allocated to research and development must be equal to or higher than 20 per cent of the higher value between (i) the company's production costs and (ii) the company's production value; b) at least one-third of its workforce must consist of people who have or are engaged on a PhD or who have a degree and have completed a three-year research programme at a public or private research organisation in Italy or abroad; c) it must be the owner or assignee, or have applied for the registration with the relevant authorities, of an industrial property right

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<sup>2</sup> Legislative Decree no. 179 of 18 October 2012, converted by Law no. 221 of 17 December 2012; Decree Law no. 76 dated 28 June 2013, also known as "Decreto Lavoro" (duly implemented by Law n. 99 dated 9 August 2013); Decree Law no. 3 dated 24 January 2015 (known as "Investment Compact" and duly implemented by Law no. 33 dated 24 March 2015); Law no. 232 dated 11 December 2016 (so-called 2017 Legge di Stabilità)

<sup>3</sup> companies, which, according to their last annual or consolidated accounts, meet at least two of the following three criteria: an average number of employees during the financial year of less than 250, balance sheet total not exceeding EUR 43,000,000 and annual net turnover not exceeding EUR 50,000,000;

- (e.g., a patent) related to its core business. Innovative start-ups also have special advantages with regard, for example, to tax benefits and crisis management
- 03) innovative small and medium enterprises (“innovative SMEs”), as defined by Article 4, comma 1, of Decree-Law no. 3 of 24 January 2015, converted with amendments by Law no. 33 of 24 March 2015. An innovative SME is defined as a company operating in the field of technological innovation, regardless of its date of incorporation, economic sector of business or stage of maturity;
  - 04) collective investment schemes (“UCITS”) which invest mainly in small and medium-sized enterprises, as defined by Article 1, comma 2, point e), of the Ministry of Economy and Finance Decree of 30 January 2014;
  - 05) companies which invest mainly in small and medium-sized enterprises, as defined by Article 1, comma 2, point f), of the Ministry of Economy and Finance Decree of 30 January 2014.

In Italy, these entities may raise capital by offering new shares to the public through online platforms enrolled in a register<sup>4</sup> held by the public authority responsible for regulating the Italian financial markets, Consob. The Register includes an ordinary and a special section. In the ordinary section, registered portal managers are authorised by Consob further to verification of the requirements established by law<sup>5</sup>. The special section includes banks and investment firms (SIM) already authorised to provide the relative investment services, who have notified Consob of their intention to manage a portal before starting this activity

An initial crowdfunding offering is a less expensive process than a traditional initial public offering on a regulated market. For example, the legislation provides an exemption from prospectus requirements for public offerings of shares or stocks made through an authorised equity crowdfunding platform which do not exceed the overall amount of 5 million euros.

Investors can be divided into two categories: 1) unsophisticated investors, individuals or legal entities, and 2) sophisticated investors. Investors in the first category are subject to some investment limits: €500 per single order or €1,000 annually for individuals or €5,000 and €10,000 respectively for investments by legal entities. No MiFID application is required for single investments below EUR 500 and overall investments during the year below EUR 1,000. The second set is more copious: certified incubators, banks, financial intermediaries and professional investors. Sophisticated investors must invest at least 5% or 3% of the minimum funding target to permit the positive conclusion of the campaign. This aims to provide safeguards concerning integrity and protection against investor fraud, since more sophisticated investors are deemed by Consob to be more astute in selecting offers.

As 2018, the Italian market contained 28 authorised platforms (Table 1) but only 17 had operated in the market. In 2018, 15 platforms were still in operation, 2 platforms had closed down, 10 platforms were authorised but not yet operational and 1 portal had closed down without presenting a campaign. In the Italian markets, only one active platform is specialised in real estate, while the other platforms have no restrictions on their activities.

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<sup>4</sup> The register is established pursuant to article 50-comma 5 of Legislative Decree No. 58/1998

<sup>5</sup> TUF and the Regulation adopted by Consob by means of resolution No. 18592 dated June 26, 2013.

[INSERT TABLE 1 ABOUT HERE]

Our sample considers 175 campaigns<sup>6</sup>. As shown in Table 2, the first four platforms have around 70 percent of the market. There is a time gap between the date of establishment of the platform and the start of activity with the publication of the first campaign.

[INSERT TABLE 2 ABOUT HERE]

The number of issuer companies is 169<sup>7</sup> and their characteristics vary widely. Consistent with the legislation, 149 of the issuers are innovative start-ups, 2 are start-ups, 13 are innovative SMEs, 1 is an SME and 4 are Special Purpose Acquisition Companies (Table 3). Companies are relatively young when they decide to run a crowdfunding campaign: the average time between the year of the campaign and the year of companies' foundation is 2.38 years.

[INSERT TABLE 3 ABOUT HERE]

Considering the distinction between funded and not funded, Table 4 shows that the percentage rose over the period, meaning that the market is developing, with a learning effect allowing campaigns to be designed more effectively.

[INSERT TABLE 4 ABOUT HERE]

The total amount requested by the 175 campaigns closed is more than 55 million euro, and nearly 52 percent of the capital requested, more than 28 million euro, was received (Table 5).

[INSERT TABLE 5 ABOUT HERE]

Finally, the number of non-professional investors has grown, to 6,862, although it is still a long way from the idea of a real crowd, Table 6.

[INSERT TABLE 6 ABOUT HERE]

### **3 The determinants of equity crowdfunding campaigns' success**

The current literature on equity crowdfunding is mainly focused on a specific research question: *what are the most important factors associated with fundraising success?* On the basis of the main literature, we distinguish issuer company-related variables from campaign-related variables

#### *Issuer company-related variables*

In the context of entrepreneurial finance, the presence of market imperfections due to information asymmetries between management team and potential investors is well

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<sup>6</sup> We excluded the offering regarding real estate companies

<sup>7</sup> Five issuers undertook more than one campaign.

documented. In the case of equity crowdfunding, these problems are more severe due to the presence of start-ups and small investors, the crowd. Start-ups aim to collect capital from a large number of mostly anonymous investors, who contribute small amounts of money via the Internet (Belleflamme et al., 2014). Start-ups appear more opaque due to the absence of a track record, while small investors, unlike professional investors, are less likely to possess the financial expertise or have adequate time to perform due diligence to investigate firms and their business models in detail (Schwienbacher and Larralde 2012; Ahlers et al. 2015; Lukkarinen et al. 2016). In addition to limited expertise, small investors might have limited incentives to evaluate investment opportunities owing to their lower financial stake (Mohammadi and Shafi, 2018). The costs associated with sifting through a large number of potential projects to identify those worth investing in may outweigh the benefits for small investors. Agrawal et al. (2014) observe a potential free-riding situation on the due diligence efforts of other investors, which may lead to an underinvestment in due diligence.

Due to the specific characteristics of equity crowdfunding, establishing personal relationships to reduce information asymmetries, as in the case of business angel or venture capital investments, is not feasible in equity crowdfunding markets.

One important way to deal with information asymmetries is signalling (Spence, 1973). Hence, companies need to find alternative ways to communicate their quality to potential investors, gaining legitimacy and credibility, in order to receive financing.

Company-related aspects that influence the likelihood of campaign success may stem from traditional criteria used by business angels and venture capitalists in their decision-making process (Vismara, 2016a; Courtney et al., 2017, Lukkarinen et al., 2016). The most widely used factors are:

- a large number of team members with high human capital (Ahlers et al., 2015; Vismara, 2016b; Piva and Lamastra, 2017);
- the presence of a previous professional investor in the company and third-party endorsement alleviate the information gap concerning start-up opportunities (Courtney et al., 2017). Kim and Viswanathan (2013) find that early investments have a strong impact on later investments in profit-sharing crowdfunding; in particular, they reveal that less experienced investors are strongly influenced by the investment decisions of experts. Agrawal et al. (2016) show that the syndicate structure and incentive system may be quite effective for equity crowdfunding;
- geographical distance between the investor and the company (Agrawal et al., 2015; Vismara, 2016a).
- Networks and crowdfunding success are strongly linked and connected with company aspects and in particular with the proponent and the composition of the Board (Colombo et al., 2015; Vismara, 2016a; Skirnevskiy, 2017; Buttice et al., 2017). The network reduces informational asymmetries, particularly pronounced in an equity crowdfunding context due to the fact that small investors also tend to have limited experience in evaluating company propositions.

We take into account several variables in line with those identified in the literature review: company's age (a), company's number of shareholders (b), company's number of directors

(c), presence of business angels or other professional investors (d), presence of an industrial shareholder (e), and the adequacy of the proponents' professional skills (f).

We use the company's age (a), measured as the difference between the year of the campaign and the year of the company's foundation. The age of the company is considered as a measure of entrepreneurial skill in business development. Older companies in terms of business visibility appear to be less risky: the products and services that they produce are identifiable, and the customer target and the supplier relationships are defined. They achieve positive cash flow and are therefore able to attract more investors.

To analyse the network effects, we use two different variables: company's number of shareholders (b), and company's number of directors (c).

Network effects are present if users give importance to participation and look at the decisions of other users as a signal of projects' quality and sustainability. Network effects may emerge in a large variety of contexts and may be positive or negative depending on the circumstances. Networks and business linkages are important channels through which firms can access additional, and often complementary, resources. As argued by Baum and Silverman (2004), larger management teams are not only likely to possess higher human capital, but may also have more extensive networks. This does not conflict with the idea that equity crowdfunding should allow the raising of capital and render the role of networks superfluous, as firms and investors are brought together seamlessly via third-party internet platforms. However, many studies (Brown et al. 2017, Brown et al. 2016, Vismara 2016a, Colombo et al. 2015, Agrawal et al. 2015, Frydrick et al. 2014, Mollick 2014) suggest that networks are important for the success of the campaign.

Networks, and especially social relationships, can provide access to valuable information. Mollick (2014) showed that the number of a founder's social network connections is associated positively with the capital raised from a project. Colombo et al. (2015) found that the founder's social capital plays a crucial role in attracting backers in the early days of a campaign, which, in turn, mediates the success of the offer. Vismara (2016a) found that the projects of founders with more connections have a greater probability of success. Moreover, the number of members in entrepreneurial ventures is related positively to campaign outcome, reflecting this variable's perception by outside investors as a positive signal of a firm's ability to cope with market uncertainty. In a similar direction, Kuppuswamy and Bayus (2017) found that the majority of funds collected in rewards-based crowdfunding originate from companies' existing networks. Moreover, networks can enhance a venture's legitimacy (Baum and Silverman, 2004) and reputation, and may thus serve as a signal of quality (Hoang and Antoncic, 2003; Stuart et al., 1999).

The presence of informational asymmetries, limited experience in evaluating investment propositions and the difficulties in performing effective checks mean that the "crowd" has limited knowledge about the legitimacy of an entrepreneurial venture. As a signal of legitimacy and quality, we use the measures of the presence of business angels and other professional investors (d) and/or industrial operators as shareholders (e).

The certification theory is related to the signalling theory, as it emphasises the ability of reputable third-party agents to address adverse selection problems by sending effective signals that certify venture quality (Megginson and Weiss, 1991).



Hornuf and Schwienbacher (2014) affirm that in some cases crowd investors and business angels complement each other, as the crowd can rely on the financial negotiating skills and monitoring abilities of business angels, which also provide hands-on advice and lend their reputation to the entrepreneurial firm (Hsu, 2004; Ferrary and Granovetter, 2009). Dorff (2014) analyses data on angel investing, and states that angel investing is the closest analogue to equity crowdfunding. Manchanda and Muralidharan (2014) compare equity crowdfunding and venture capital investing, concluding that while venture capitalists may face some direct competition from equity crowdfunding, the two forms possess distinct characteristics that may make them complementary to each other. Kim and Viswanathan (2014) find that early investments have a strong impact on later investments in profit-sharing crowdfunding. In particular, they show that less experienced investors are strongly influenced by the investment decisions of experts. Agrawal et al. (2016) show that the syndicate structure and incentive system may be quite effective for equity crowdfunding.

Zacharakis and Meyer (2000) find that venture capitalists list experience and management skills among their most important selection criteria and Piva and Lamastra (2017) also show that entrepreneurial experience has a positive effect on crowdfunding success; we therefore use the variable adequacy of professional skills of the proponent (f). This variable has a qualitative rating, on a scale from one to three, and is obtained by reading the proponent's CV, looking at different aspects: industry expertise, track record, educational background, experience, and fit with the project. Ahlers et al. (2015) found that a higher number of board members with an MBA is positively, statistically significantly related to funding success

#### *Campaign-related variables*

Campaign characteristics that influence fundraising success offer signals which help to reduce the information asymmetries between ventures and investors and play a meaningful role in determining investors' willingness to pay (Hornuf and Neuenkirch, 2017). For example: the percentage of equity offered, since the retention of ownership after funding has a positive influence on funding success (Ahlers et al., 2015; Vismara 2016a); different share allocation mechanisms (Hornuf and Schwienbacher, 2018); the quality of the information provided in the campaign, such as use of project updates during the launch, financial forecasts and reporting of some income statement data, which may be considered a sign of credibility and capability (Moritz et al., 2015; Block et al., 2018; Lukkarinen et al., 2016); and minimum investment level - according to Lukkarinen et al., 2016, the minimum investment has a strong negative relationship with the number of investors and the amount raised. Large minimum investments may discourage many investors' thresholds for an investment decision. Investors may be discouraged because of both the higher requirement for liquid funds and the relatively high risk of losing money. Hornuf and Schwienbacher, 2015, state that levying a high minimum investment ticket attracts more sophisticated investors and essentially filters the crowd.

We focus on five key campaign characteristics: a) the percentage of share capital offered post campaign; b) maximum target with share premium account; c) the difference between maximum and minimum targets; d) the minimum investment; and e) the share premium account

The percentage of share capital offered post campaign (a) is calculated as the ratio of the amount of shares offered to the total share capital after the campaign. Traditionally, one of the commonly considered signals of quality in the literature is the retention of equity: Leland and Pyle (1977) argue that entrepreneurs' willingness to invest in their own projects sends a positive signal to investors. Entrepreneurs who are confident of the potential of their business are likely to retain more equity, as offering more equity to new investors would dilute their future wealth. Ahlers et al. (2015) and Vismara (2016a) confirm this result, while Ralcheva and Roosenboom (2016) did not find that retaining equity seems to meaningfully influence success.

The second variable refers to the maximum target with share premium account (b). This measure, expressed in thousand euros, is a measure of the total (overall) size of the campaign, and is calculated as the sum of nominal face value and the share premium requested for each share multiplied by the maximum number of shares issued. This variable is only used for Logit Model. Many studies on equity crowdfunding indicate that campaigns with higher funding targets are more likely to succeed, Duyen et al. (2017), Lukkarinen et al. (2016) and Belleflamme et al. (2014).

The difference between maximum and minimum targets (c), expressed in thousand euro is the difference between the maximum and the minimum targets set in the campaign. It is only used for OLS Models (as an alternative to Maximum target with share premium account) because it enables us to distinguish between the use of the "All-or-Nothing" (AON) and "Keep-it-All" (KIA) campaign model. These two types of campaign are related to two different way to manage a campaign. In the AON model, entrepreneurial firms set a capital raising goal below which the entrepreneurial firm does not keep any of the pledged funds. In the KIA model, by contrast, the entrepreneurial firm can keep the entire pledged amount, albeit at higher fees as explained below, regardless of whether or not the stated capital raising goal is reached. Cumming et al. (2014) provide large-sample evidence consistent with the view that the usage of AON is a credible signal to the crowd that the entrepreneur commits not to undertake the project if not enough is raised. This signal reduces the risk to the crowd, thereby enabling AON entrepreneurial firms to set higher goals, raise more money, and be more likely to reach their stated goals. In contrast, KIA projects tend to be less successful, since the crowd bears the risk that an entrepreneurial firm will undertake a project that is underfunded and hence more likely to fail after the campaign.

The minimum investment (d), expressed in thousand euro, represents the amount required to enable a single investor to take part in the campaign. According to Lukkarinen et al. (2016) the minimum investment has a strong negative relationship with the number of investors and the amount raised. Large minimum investments may increase many investors' threshold for making an investment decision. Investors may be discouraged because of both the higher requirement for liquid funds available and the relatively high risk of losing money. Hornuf and Schwienbacher (2015) state that levying high minimum investment tickets attracts more sophisticated investors and essentially filters the crowd.

The share premium account (e) is the difference between the value at which the shares were issued by the company and their nominal face value. The value of this measure could be viewed as a measure of risk, because the greater its value, the higher the increase in wealth needed. In fact, a higher pre-valuation implies a lower share of future cash flow per single

investment ticket, and, consequently could makes the investment less attractive. Conversely, a high pre-valuation signals a potentially lucrative investment, as an increase in these variables is associated with a higher premium.

## 4 Methods

### 4.1 *Dependent variables*

The main variables of interest in our study aim to capture the success of the campaign. We define a simple success dummy variable which is equal to one if the target capital was raised at the end of the campaign and zero otherwise. This measure of success is widely used in crowdfunding success studies (Ahlers et al., 2015; Vismara, 2016a; Vismara, 2016b). Then, for an in-depth examination of the relevance and role of the two subjects - issuer company and campaign characteristics – we consider the funds raised as a percentage of the total maximum amount of funds originally requested (Lukkarinen et al, 2016; Mamonov and Malaga, 2018). This variable is intended as a more accurate way of measuring campaigns' degree of success (or failure) than the dichotomous success/failure variable.

### 4.2 *Independent variables*

The independent variables are:

- Company-related variables: company's age, company's number of shareholders, company's number of directors, presence of business angels or other professional investors, presence of an industrial shareholder and the adequacy of the proponents' professional skills;
- Campaign-related variables: the percentage of share capital offered post campaign; maximum target with share premium account; the difference between maximum and minimum targets; the minimum investment and the share premium account.

Variables description is presented in Table 7.

[INSERT TABLE 7 ABOUT HERE]

### 4.3 *Methods and models*

Given the aforementioned list of selected variables, the empirical part of this paper is grounded on a twofold strategy.

Firstly, a logit model is implemented in order to assess whether the success of a given campaign is influenced by issuer company and campaign characteristics. The dummy variable “success/failure” of the campaign is taken (Table 7) as a dependent variable.

The traditional estimates of the coefficients in log-odds form are not particularly helpful for the analysis. In this case, they just indicate that, when a regressor increases by one unit, the expected change in the log odds is given by the coefficient itself. Thus, these coefficients only single out whether the effect of a given predictor is positive or negative. To overcome this,

Odds Ratios (OR) are also explicitly computed and commented. OR simply shows the effect of a unitary increase in the regressor for the odds of  $y = 1$ <sup>8</sup>.

As the logit model only allows identification of the determinants of the success/failure of an issue in the Italian crowdfunding market, it does not consider the actual amount of money collected by the issuer. A second empirical approach is therefore needed in order to also assess the drivers that lie behind issuers' ability to raise funds. In this latter case, alternative OLS models were implemented. All of them adopt the funds raised as a percentage of the total maximum amount of funds originally requested as a dependent variable.

With regards to this dependent variable, three different OLS models are implemented (Table 8).

Model 1 (M1) only includes information about the features of the company, including its age (in years at the time of the issue), its shareholders and directors before the issue, and the dummy variable Presence of business angels, the dummy variable Presence of industrial shareholder before the issue, and the categorical variable Adequacy of professional skills of the proponent. Model 2 (M2) focuses on the campaign itself and includes the Percentage of share capital offered post campaign, the Minimum investment (in thousand €), the Difference between the maximum and the minimum targets and the Share premium account. Model 3 (M3) is the most comprehensive model and includes all the aforementioned variables.

All the models were estimated using the R software package (R Core Team, 2018).

## 6 Results

Table 8 and Table 9 contain the results from the Logit model. Models are estimated on the sample of 175 observations previously discussed.

[INSERT TABLE 8 ABOUT HERE]

[INSERT TABLE 9 ABOUT HERE]

Results from these models show only one regressor is significant in explaining campaign success. Keeping all other variables constant, the presence of an industrial shareholder supporting the company makes the odds of the campaign being successful seven times higher than in the opposite case. The presence of an industrial shareholder conveys credibility and gives prospective investors confidence in the campaign.

For a clearer explanation of the drivers that could have a positive impact on campaign success, three different OLS models previously discussed are estimated (Table 10). Our dependent variable is the funds raised as a percentage of the total maximum amount of funds originally requested.

[INSERT TABLE 10 ABOUT HERE]

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<sup>8</sup> Odds ratio is obtained by taking the exponential of the logit coefficient.

Model 1 is concerned with platform and issuer company features, Model 2 with campaign aspects and, finally, Model 3 is the most comprehensive. In Model 1, the number of company shareholders has a positive and significant effect on the percentage of funds raised, together with the presence of an industrial shareholder. These two variables may also be related to the number of different kinds of partners that collaborate with the platform and may offer a perspective on the issuer company's network and the platform's selection ability. In Model 2, only the coefficient for the difference between the maximum and the minimum targets (1000€) is also significant, with a negative impact on the funds raised as a percentage of the total maximum amount originally requested. As mentioned in paragraph 3, crowdfunding campaigns can be offered under one of two basic models: AON, where the entrepreneur sets a funding goal and receives the money invested only if the goal is achieved, and KIA, where the entrepreneur sets minimum and maximum funding goals and keeps any funds collected. This result confirms that AON campaigns have more chances of achieving the amount required than KIA campaigns. Probably, investors take a negative view of the request for a large amount of money in excess of the minimum target, because it seems to be unclear how much funding is really needed to realise the project. It may even be seen by investors as a slight signal of opportunistic behaviour on the part of issuers.

## **7 Conclusions**

This paper attempts to identify and assess the role of the characteristics of the company, the company's issuers and campaigns on equity crowdfunding campaigns' success, by analysing all Italian campaigns and platforms. For entrepreneurs wishing to run an equity crowdfunding campaign, the number of shareholders and the presence of an industrial shareholder before the campaign may be crucial for the future campaign's success, as well as the features of the campaign itself. In terms of these features, requesting a target capital closer to the minimum target increases campaign success. Investors may perceive the maximum amount as not really necessary, leading them to focus their investment on the minimum level requested. Investors may not understand the necessities potentially covered by the maximum amount requested and they may be keener to invest in a precise target focusing on the minimum required, the success of which appears more likely. This behavioural aspect could be studied in greater depth in future studies. The entrepreneur must therefore find a balance between seeking sufficient funds and aiming to ensure that the minimum threshold is reached.

However, it must be noted that all the models under consideration here are actually characterized by a small R-squared value, which could point to the presence of additional variables, capable of affecting the dependent variable considered. From a theoretical perspective, this means there are some other factors that should be taken into account, first of all the characteristics of the platforms, which, to the best of our knowledge, have not yet been considered. Moreover, the informational aspect related to campaigns could be investigated, because Italian legislation establishes specific requirements for financial disclosure and the documents necessary for the campaign. The quality of the information provided, especially voluntary disclosure and its accuracy level, is a possible subject for future study.

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**Table 1: Number of platforms started per year**

	2013	2014	2015	2016	2017	2018	TOTAL
Platforms	2	10	6	1	6	3	28

**Table 2: Number of campaign per year and platform**

	2013	2014	2015	2016	2017	2018	Total number	%
Platform 01		6	8	4	11		29	16.6%
Platform 02		3		1	1		5	2.9%
Platform 03		1					1	0.6%
Platform 04			2	3	5	1	11	6.3%
Platform 05			3	1	1		5	2.9%
Platform 06		1	1	9	26	1	38	21.7%
Platform 07				3	1		4	2.3%
Platform 08				6	16	7	29	16.6%
Platform 10	1	3					4	2.3%
Platform 11			1	3	7		11	6.3%
Platform 12				7	2		9	5.1%
Platform 13			1		1		2	1.1%
Platform 16				5			5	2.9%
Platform 18				3	14	4	21	12.0%
Platform 19					1		1	0.6%
Total	1	14	16	45	86	13	175	100.0%

**Table 3: Types of issuers**

Type of issuer	Number	%
SME	1	1%
Innovative SME	13	8%
SPAC	4	2%
Innovative start-up	149	88%
Start up	2	1%
Total	169	100%

**Table 4: Percentage of successful campaigns per year**

Success of campaign	2013	2014	2015	2016	2017	2018	Total number	%
No		9	7	18	27	2	63	36%
Yes	1	5	9	27	59	11	112	64%
Total	1	14	16	45	86	13	175	100%
% Yes	100%	36%	56%	60%	69%	85%	64%	64%

**Table 5: Amount requested and effectively raised (euro)**

	2013	2014	2015	2016	2017	2018	TOTAL
Total amount required	147,000	4,665,400	6,743,829	12,324,893	27,746,768	3,604,000	55,231,889
Effective amount raised	157,731	2,063,298	2,621,812	4,936,619	15,856,884	2,817,567	28,453,911
	107%	44%	39%	40%	57%	78%	52%

**Table 6: Number of non-professional investors per year**

	2013	2014	2015	2016	2017	2018	Total
Number	72	94	347	1.349	4.413	587	6.862

**Table 7: Variables description**

Dimension	Variables	Measure
Company	Company age	Age of the issuer (in years), at the time of the campaign
	Number of shareholders before campaign	Number of the company's shareholders, before the campaign
	Number of administrators before campaign	Number of the company's administrators, before the campaign
	Presence of business angels or other professional investor before campaign	It is equal to 1 in case there is a business angels or a professional investor in the board of the company before the campaign, and 0 otherwise
	Presence of industrial shareholder before campaign	It is equal to 1 in case there is an industrial shareholder in the board of the company before the campaign, and 0 otherwise
	Adequacy of professional skills of the proponent	Categorical variable which could be limited, middle, high
Campaign	Percentage of share capital offered post campaign	Ratio of the amount of shares offered to total share capital after campaign
	Difference between the maximum and the minimum targets	Expressed in thousand euros
	Maximum target with share premium account	Expressed in thousand euros
	Minimum investment	Expressed in thousand euros
	Share premium account	Difference between the value at which the shares were offered by the company and their nominal face value

**Table 8 – Logit model: odd ratios**

	Odd ratios
Constant	1.860
Company's age	1.077
Number of shareholders before campaign	1.025
Number of directors before campaign	1.142
Presence of business angels or other professional investors before campaign •	1.466
Presence of an industrial shareholder before campaign	6.768 ***
Adequacy of the proponents' professional skills = high	0.346
Adequacy of the proponents' professional skills = medium	0.315
Percentage of share capital offered post campaign	0.983
Minimum investment	1.083
Share premium account	1.000
Difference between maximum and minimum targets (1000€)	0.999
Observations	175
Log Likelihood	-

Akaike Information Criterion  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

100.449  
224.897

**Table 9 – Logit model**

	Estimate	Std.error	Z- value	P.value
(Intercept)	0,621	0,904	0,686	0,493
Company's age	0,074	0,063	1,162	0,245
Number of shareholders before campaign	0,024	0,018	1,346	0,178
Number of directors before campaign	0,133	0,133	1,000	0,317
Presence of business angels or other professional investors before campaign •	0,383	0,371	1,031	0,302
Presence of an industrial shareholder before campaign	1,912	0,649	2,944	0,003 **
Adequacy of the proponents' professional skills = high	-1,062	0,857	-1,239	0,215
Adequacy of the proponents' professional skills = medium	-1,156	0,920	-1,257	0,209
Percentage of share capital offered post campaign	-0,018	1,200	-0,015	0,988
Minimum investment	0,079	0,103	0,773	0,440
Share premium account	0,000	0,000	1,063	0,288
Difference between maximum and minimum targets (1000€)	-0,001	0,001	-0,850	0,395

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
Null deviance: 228.7 on 174 degrees of freedom  
Residual deviance: 200.9 on 163 degrees of freedom  
(1 observation deleted due to missingness)  
AIC: 224.9  
Number of Fisher Scoring iterations: 6

**Table 10 - OLS Model**

	M1		M2		M3	
Intercept	0.618	**	0.705	***	0.677	***
	(0.187)		(0.070)		(0.192)	
Company's age	-0.001				0.003	
	(0.011)				(0.011)	
Number of shareholders before campaign	0.004	***			0.005	***
	(0.001)				(0.001)	
Number of directors before campaign	0.028				0.038	
	(0.028)				(0.028)	
Presence of business angels or other professional investors before campaign = Yes	0.114				0.104	
	(0.080)				(0.080)	
Presence of an industrial shareholder before campaign = Yes	0.385	***			0.392	***
	(0.106)				(0.104)	
Adequacy of the proponents' professional skills = high	-0.240				-0.214	
	(0.188)				(0.184)	
Adequacy of the proponents' professional skills = medium	-0.143				-0.128	
	(0.204)				(0.200)	
Difference between maximum and minimum targets (1000€)			-0.007	***	-0.001	***

			(0.000)		(0.000)
Percentage of share capital offered post campaign			-0.501	.	-0.110
			(0.276)		(0.261)
Share premium account			0.000		0.000
			(0.000)		(0.000)
Minimum investment			0.014		0.022
			(0.023)		(0.021)
Observations	175		174		174
F	5.504	***	1.273		4.485 ***
R <sup>2</sup>	0.153		0.005		0.194