**T.C.**

**ISTANBUL AYDIN UNIVERSITY**

**INSTITUTE OF GRADUATE STUDIES**

# WHAT MAKES A CROWDFUNDING CAMPAIGN SUCCESSFUL? INVESTIGATING CROWDFUNDING PLATFORMSAS A SOCIAL MEDIA MARKETING TOOL

**MASTER'S THESIS**

**Rahma DEBBABI**

**Department of Business**

**Business Administration Program**

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**Thesis Advisor: Asst. Prof. Dr. Burçin KAPLAN**

**MAY, 2022**

# DECLARATION

I hereby declare with respect that the study “What Makes a Crowdfunding Campaign Successful? Investigating Crowdfunding Platforms as a Social Media Marketing Tool.”, which I submitted as a Master thesis, is written without any assistance in violation of scientific ethics and traditions in all the processes from the Project phase to the conclusion of the thesis and that the works I have benefited are from those shown in the References. (25/04/2022)

Rahma DEBBABI

# FOREWORD

After thanking Allah Almighty, I would like to thank my supervisor Assist. Prof. Dr. Burçin KAPLAN for her guidance, reviews and recommendations. She was always present and has been guiding me every step of the way and without her support this work would not be possible.

I am really grateful to my parents and sisters for their perpetual and constant support. I would especially like to thank my beloved mother who always believed in me and encouraged me to pursue my dreams. Also, I thank my sister Mariem who was always present especially in difficult times and always gave me the strength not to give up.

April, 2022 Rahma DEBBABI

# WHAT MAKES A CROWDFUNDING CAMPAIGN SUCCESSFUL? INVESTIGATING CROWDFUNDING PLATFORMS AS A SOCIAL MEDIA MARKETING TOOL


## ABSTRACT

Crowdfunding was initially presented as a fundraising tool and an alternative financial instrument that enables SMEs to collect the needed funds directly from the public. However, this financial instrument has many collateral advantages that needs to be studied.The purpose of this study is, first, to introduce the crowdfunding phenomenon in a simplified way through its basis, types, and perspectives to help to its implementation especially in developing countries. Second, to understand how it can be used as a marketing tool, and finally, to study the independent variables that contribute to the success of a crowdfunding campaign.

In order to achieve these objectives, the study is divided into a theoretical section; where the bases of crowdfunding, its different types and its marketing assets have been drawn from the existing related literature; and an empirical section that studies the factors that potentially contribute to the success of a crowdfunding campaign. In this context, the factors affecting the success of a campaign were grouped into three major ones: Financial & Reward dimension, Quality dimension and Relational dimension. In order to study the relationship and interaction between these variables and the success of the campaigns, data were collected from 602 published project on the international platform Kickstarter and analyzed using SPSS software.

The results indicates that even if the three dimensions have a significant impact on the success of a campaign, the financial dimension have the highest weigh in the equation. The study also shows that there is a need to more empirical research to better understand the Turkish context.



**Keywords:** crowdfunding, entrepreneurship, marketing, e-commerce platform.

# BİR KİTLE FONLAMASI KAMPANYASINI BAŞARILI KILAN NEDİR? BİR SOSYAL MEDYA PAZARLAMA ARACI OLARAK KİTLE FONLAMA PLATFORMLARININ ARAŞTIRILMASI

## ÖZET

Kitle fonlaması başlangıçta bir fon yaratma aracı ve KOBİ'lerin ihtiyaç duydukları fonları doğrudan halktan toplamasını sağlayan alternatif bir finansal araç olarak sunuldu. Ancak, bu finansal enstrümanın incelenmesi gereken birçok teminat avantajı vardır. Bu çalışmanın amacı, öncelikle kitle fonlaması olgusunu temelleri, türleri ve bakış açılarıyla basitleştirilmiş bir şekilde tanıtmak ve özellikle gelişmekte olan ülkelerde uygulanmasına yardımcı olmaktır. İkincisi, bunun bir pazarlama aracı olarak nasıl kullanılabileceğini anlamak ve son olarak bir kitle fonlaması kampanyasının başarısına katkıda bulunan bağımsız değişkenleri incelemek.

Bu amaçlara ulaşmak için çalışma teorik bir bölüme ayrılmıştır; kitle fonlamasının temelleri, farklı türleri ve pazarlama varlıkları mevcut ilgili literatürden alınmıştır ve bir kitle fonlaması kampanyasının başarısına potansiyel olarak katkıda bulunan faktörleri inceleyen ampirik bir bölüm. Bu bağlamda, bir kampanyanın başarısını etkileyen faktörler üç ana başlıkta gruplandırılmıştır: Mali ve Ödül boyutu, Kalite boyutu ve İlişkisel boyut. Bu değişkenler arasındaki ilişki ve etkileşimi ve kampanyaların başarısını incelemek için uluslararası platform Kickstarter'da yayınlanan 602 projeden veriler toplandı ve SPSS yazılımı kullanılarak analiz edildi.

Sonuçlar, üç boyutun bir kampanyanın başarısı üzerinde önemli bir etkisi olsa bile, denklemde en yüksek ağırlığın mali boyutun olduğunu göstermektedir.

Çalışma aynı zamanda Türkiye bağlamını daha iyi anlamak için daha fazla ampirik araştırmaya ihtiyaç olduğunu göstermektedir.

**Anahtar Kelimeler**: kitle fonlaması, girişimcilik, pazarlama, e-ticaret platformu

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# LIST of ABBREVIATIONS

**CF** : Crowdfunding

**COVID-19** : Coronavirus Disease-19

**SMEs** : Small and medium sized enterprises

**SPK** : Turkish Capital Market

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# I. INTRODUCTION

## A. Research Background

The most critical stage for any new business is the “establishing & foundation” phase. It includes all the formal steps in order to create the start-up and within which the company is supposed to bring together the different resources (financial capital, human capital) that it needs.

The real challenge for any entrepreneur in this situation is to raise the needed money, especially that traditional financial institutions are hardly financing start-ups considering them as high-risk businesses.

The crowdfunding technology emerged from this new economic model in order to replace, or at least as an alternative to traditional financial institutions (banks, venture capitalist and business angels) (Li et al., 2016) allowing the entrepreneurs using the web 2.0 to reach potential lenders/investors and to collect the capital needed by gathering a small amount of money from a large number of people, namely the “crowd”. Due to the power of collectivism and the creation of communities, crowdfunding platforms can offer more than financial solutions; they can be used as marketing tools as well.

Many studies in the marketing field converge with Michael Beier et al. (2019) to say that "the reward-based variant of crowdfunding can also be applied as a powerful marketing tool for already established small and medium sized enterprises (SMEs)." This was based on the fact that reward-based crowdfunding is at some points a combination between social media and e-commerce (Beier and Wagner, 2015; 2016).

Crowdfunding platforms -even if they are not presented as- can be exploited as social media tools, in which the entrepreneurs interact with the potential investors and where entrepreneurs present the campaign as a showcase. The entrepreneurs can

present and promote their project or company using texts, photos, or videos (Lai and Turban, 2008; Xu et al., 2014).

Also crowdfunding platforms as social networks, allow the promoters of the project to keep in touch with investors by publishing updates on their own projects (Beier and Wagner, 2016; Mollick 2014; Xu et al., 2014).

On the other hand, in a crowdfunding campaign based on the reward-based model the fundamental of e-commerce are find. The crowdfunding platforms represents the first point of sale where entrepreneurs can offer their products and services to the public, estimate the demand, and condition the production according to the demand (Bartoli, 2020).

## B. Problem Statement and Purpose of the Study

Crowdfunding has been widely practiced abroad especially in developed countries such as United States, United Kingdom since 2009. Total Global Crowdfunding Industry estimated fundraising volume in 2015: $34 Billion (Massolution's 2015 CF Industry Report, 2015), almost $73 billion in 2018 (Technavio, 2018) and it's expected to exceed the $300 Billion by 2025 (Massolution's 2015 CF Industry Report, 2015). Unfortunately, it's still under used in developing countries. In Turkey, for example, the crowdfunding has become available for investors with the change in the Capital Market Law effective from 5th of December 2017. Also, in 2019, the Turkish Capital Markets Board (SPK) prepared a regulation on the principles and procedures regarding equity-crowdfunding to facilitating easier access to financing for entrepreneurs, small and medium-sized enterprises (SMEs), offering them an alternative financial resource other than the conventional banks (Demiray and Burnaz, 2019). So, it's expected that the number of crowdfunding platforms will increase considerably in the short-term, which makes all the significance of the study.

On another hand, in the face of the vulnerable economic situation and high unemployment rates around the world, especially after the global COVID-19 pandemic, this work aims to present alternative financing methods to motivate people to be entrepreneurs and to create wealth. In this perspective, Turkey represents a favorable ground for the application of such an economic model

In fact, in addition to its local population, Turkey is one of the countries attracting more and more foreign investors by establishing special laws and thus create an environment favorable to investment. Among them, full of students or young people with high entrepreneurial potential and innovative ideas but without a source of funding. Crowdfunding represents an adequate financing model for this category of person. Unfortunately, many of them are not aware of this method or find it difficult or too risky.

This study approaches the phenomenon through campaigns' success factors in order to present a practical aspect of crowdfunding and thus simplify it as much as possible and motivate people to take an interest in it

Even if recent studies start to focus on the crowdfunding phenomenon as a marketing tool, most of them are based on a qualitative approach from the point of view of the entrepreneurs such as in the research done by Sayedi et al. (2017).

So it is still a new topic for scientific research, and most published studies on reward-based crowdfunding as a marketing tool have focused on analyzing how launching a project can be useful for market controls, demand estimates or price discrimination (Beier et al. 2019).

The main purpose of the current research is to study the potential variables related to the success of a crowdfunding campaign (in particular reward-based crowdfunding).

By doing so, the researcher aims to simplify the crowdfunding process and sensibilize and attract entrepreneurs to using such a tool to promote their ideas and get funded.

## C. Importance of the Research

Academics have studied crowdfunding phenomenon from different areas including finance, sharing economy, innovation and entrepreneurship. Most published studies used a theoretical or qualitative approaches to investigate this relatively new financing model. They identified the fundamentals and key concepts of crowdfunding. A basic theoretical knowledge of the concept has been established.

Most research made on the success factors of reward-based crowdfunding campaigns were qualitative made to identify them, but the dynamic between

indicators that leads to the success of the project still not fully understood. Existing quantitative studies in this field are in majority made on particular context, either in specific countries or for a specific category of projects.

Based on the evidence from the literature, this research will study international campaigns to verify the applicability of the results in the global context. Rather than studying the intention to participate, the study aims to explore the marketing strategies already used and which convinced investors to achieve their funding goal.

By studying such an issue, a theoretical framework for future entrepreneurs seeking funds is proposed, to start a successful crowdfunding campaign in which more than collecting money they will meet the first consumers of the product and perform market research virtually; free of cost.

Also established crowdfunding platforms or developing ones will find some criteria when choosing the projects to be published in order to add-value to them.

The thesis also contributes to empowering the literature in entrepreneurial marketing and entrepreneurship fields. It contributes also to the knowledge about crowdfunding technology and encourage its adoption in other developing countries that are not using it yet.

## D. Organization of the Research

The current research is divided into five main chapters.

Chapter 1: The introduction: it includes the research background, the problem statement and the purpose of the study, and the importance of the chosen subject.

Chapter 2: The literature review section. It is a summary of the relevant literature on the field of the current research. It presents the origin of the phenomenon, the types of crowdfunding, the process of a reward-based crowdfunding campaign, and finally the components of crowdfunding that justify its use as a marketing tool.

Chapter 3: The research methodology chapter presents the research framework and the hypotheses to be tested. It also focuses on the research design and the methodology adopted. It explains the different variables to be studied and the statistical tools used in order to analyze the collected data.

Chapter 4: Data analysis and hypotheses testing section: it includes descriptive statistics of data, relationships between studied variables and correlation matrix, and finally the regression statistics and hypotheses testing section.

Chapter 5: The conclusions and proposals part englobe a snapshot of the major findings and the discussion related, it presents the implications of the study, the main limitations faced and propose some suggestions for further studies

# II. LITERATURE REVIEW

## A. Origin and Bases of the Crowdfunding Phenomenon

### 1. Origin of the Phenomenon

Crowdfunding is the financial aspect of Crowdsourcing (Howard, 2012). Crowdfunding is frequently depicted as a type of broader act, Crowd-Sourcing, which incorporates Crowd-Funding, Crowd-Creation, Crowd-Voting, and Crowd-Wisdom. Crowdsourcing was first considered an answer for organizations out of companies to take care of issues or access information from territories where the organization might not approach (Jeppesen and Lakhani, 2010). The concept was defined by Howe and Robinson (2006) in order to describe how businesses were using the Internet to "outsource work to the crowd". Howe (2006, 2008) defines crowdsourcing as the act by which a company or an institution outsources a function previously assumed by their employees to an indefinite network of people in the form of an open call. Brabham (2010a) specifies that the process of crowdsourcing is simply the act of posting a problem online, gathering a large number of solutions from the crowd, choosing the best ideas, and using those ideas in their business activities. As many and diversified definitions of crowdsourcing were proposed, Estellés-Antolas (2012) propose an integrative, extended, and generalist definition of the same phenomenon, which is crowdsourcing:

« *Crowdsourcing is a type of participative online activity in which an individual, an institution, a non-profit organization, or company proposes to a group of individuals of varying knowledge, heterogeneity, and number, via a flexible open call, the voluntary undertaking of a task. The undertaking of the task, varying complexity, and modularity, and in which the crowd should participate bringing their work, money, knowledge, and experience always entails mutual benefit. The user will receive the satisfaction of a given type of need, be it economic, social recognition, self-esteem, or the development of individual skills. At the same time, the*

*crowdsourcer will obtain and utilize to their advantage that what the user has brought to the venture, whose form will depend on the type of activity undertaken*. »

Starting from the general concept of crowdsourcing and applying it to the project financing field, the notion of crowdfunding is reached. So that crowdfunding was defined as the funding of a project or a risky business by a group of individuals rather than by professionals. (Schwienchenbacher and Larralde, 2010). According to Onnée and Renault (2014), crowdfunding would be: taping in the collective wallet, allowing a wide range of individuals to replace banks and other institutions as a source of funding. Unlike crowdsourcing, crowdfunding would only be a lever for mobilizing the crowd. The crowdfunding process consists of a project leader relying on individuals to obtain a source of funding where they have no direct involvement in the project's content. Crowdfunding is based on two principles: first, the wisdom of the crowd, and second, the promise of alternative finance.

What differentiates crowdfunding from traditional financing methods is the link created between the financier and the project leader, which gives new dimensions to the investment. The spirit of involvement of the participants in the project and with the project leader is fundamental in crowdfunding, which is not just a fundraising operation. It is also a way of involving many internet users in financing a project, developing its notoriety, and multiplying it through social networks, and promoting its commercial success through wide distribution via the Internet (Bessière and Stéphany, 2017).

## 2. The bases of Crowdfunding

Initially, and in addition to its financial function, crowdfunding was presented by Valančienė and Jegelevičiūtė (2013) as having a marketing function, then it was described by several authors. The justification for this movement is undoubtedly found in the first postulate, which found its effectiveness: the crowd's wisdom. The following formulation will be retained: If many people believe in an idea or a project, and it is funded, it is the expression of the crowd's wisdom, then this project can only succeed. This definition is a promise of relevant choice by the crowd, coupled with positive funding, which induces the idea that the realization of financing by the crowd is a guarantee of the adequacy of the product or service offered to the market.

The theoretical basis is undoubted to be found in Condorcet's jury theory (1785) which stipulates that collective competence increases with the number of agents having to decide, starting from the observation that the competence of an agent or a group is a function of the information acquired and, the collective competence is an increasing function of individual competence.

The validity of this theory is confirmed by Poder and Sebagh (2008). They conclude that collective competence rises even if individual choices are correlated but comes up against a constraint of individual rationality. Surowiecki (2004) has studied the predictions made by crowds via Internet tools in areas as varied as sports results, politics, and other areas and has noted that crowd predictions are often more accurate than those of specialists "Under the right circumstances, groups are remarkably intelligent, and are often smarter than the smartest people in them." (Surowiecki, 2004). He clarifies a crucial point which implies that decisions made by the crowd are not necessarily made for personal interest but according to the collective interest. Moreover, he goes on to say that groups of people are more cooperative than what is generally expected. On the other hand, he draws attention to the fact that this predictive capacity assumes that crowds are diverse because if a crowd is made up of almost identical people, it is unlikely to be wise, as the group will not know more than the members in the crowd. In the case of crowdfunding, as diverse as this crowd can be in the Lending or Equity Crowdfunding models, we are faced with groups whose primary interest is financial; it is instead the interest in profitability that is in the majority . This leads us to think that in this kind of project's "wisdom of the crowd" is questionable, in contrast to the predominant idea in the Donation and Reward-based Crowdfunding models where “altruism” is predominant. Surowiecki says that, in terms of investment, the worst groups are those with the most common interests and social ties: "The worst-performing investment clubs in the United States consist of people who like one another, socialize together, and show a great deal of consensus."

To determine the role of the crowd in the evaluation process, Bessière and Stephany (2014) question the motivations and expertise and postulate that investment decisions will be more a matter of perception than of in-depth examination. This would be a decision in which “affects” plays a key role. In their conclusions, the authors insist on the differences in investment motivations and choices by postulating

that "crowdfunding opinions and recommendations can be considered as a form of "public testing", "a marketing logic prevails over a financial logic", "crowdfunding institutionalizes this socio-cognitive movement". Therefore, crowdfunding would directly impact the choice of investments, which would not necessarily lead to changes in corporate governance.

The second principle of crowdfunding is the promise of so-called Alternative Financing, born following the various financial crises and, particularly that of 2007, which strongly impacted investor confidence in the system.

Should the term "alternative" be attributed, or used, rather than "participatory," and should it be contrasted with "conventional"? The term participatory is certainly linguistically correct since it refers to the crowd's participation in financing operations. However, it seems simplistic since it does not take up a characteristic that seems essential: its societal nature. In support of this vision, the position of KPMG (KPMG is a global network of professional firms providing Audit, Tax and Advisory services), which publishes an observatory of Crowdfunding, places it in the broader field of Participatory Finance and, in many aspects, it seems to belong to Socially Responsible Investment. Here, the term alternative finance is understood in its promise of differences and linked to the sustainable and solidarity economy. In contrast, even if a dualistic approach is probably not the most appropriate, it will oppose conventional finance, also called institutional finance. Thus, many authors have defended the thesis that the demand for "alternative" financing systems would be one of the consequences of the loss of public confidence in the financial system in general and in banks, particularly following the spitfire of 2007 (Clarens, 2019).

This dimension was strongly suggested with a helpful dissonance and an ethical requirement that remind the platforms that their founders did not have a shared ambition to succeed in business but that their common motivation was to give an almost transcendental humanistic sense to the credit activity (Souchaud and Van Winden, 2018). This mistrust gradually faded following the various regulatory provisions to strengthen the banks' capital and after the "stress tests" produced encouraging results.

Crowdfunding can be considered as an alternative because it allows financing projects in a field that is, a priori, not very appreciated by the institutions (Hemer,

2011). Crowdfunding is an opportunity to finance projects that appear too risky, too innovative, or complex in the eyes of traditional financial institutions (Renault and Boutigny, 2015).

Crowdfunding offers an alternative to actors who have difficulty financing their projects through traditional financing channels.

However, one of the main characteristics of crowdfunding is that its contributions to the financed company are not only financial but include marketing, solidarity, and local dimensions, oriented initially towards a more solidarity-based economy.

While crowdfunding is analyzed by researchers as initially an answer to the problem of the equity gap, it should be quickly pointed out that the different types of crowdfunding have been analyzed as responding to different moments in the development of the company.

Figure 1 illustrates the time-life of a startup and the adequate type of crowdfunding for each development stage.

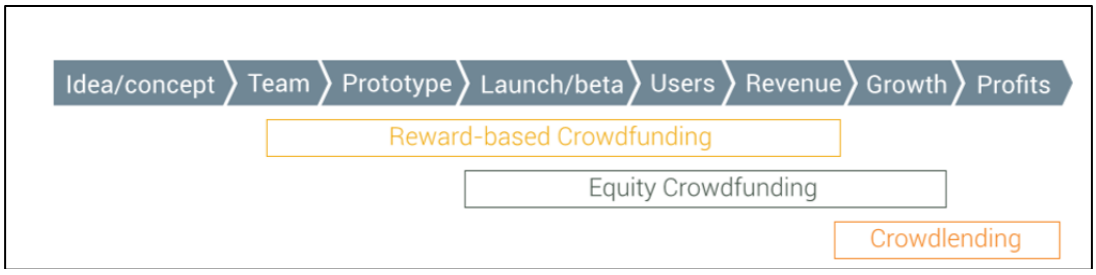


Figure 1 Which type of Crowdfunding, at what stage?
*Source:* N*ielsen, 2017*

Thus, the choice between Crowd-Lending and Equity crowdfunding does not arise at the same stage of company development. The notion of the Equity Gap is only addressed to the equity part since Lending is only addressed to companies whose results, over the last few years, show that they can repay the loans. For historical reasons, the literature uses this concept, Equity is anterior, and its first destination was the financing of startups. Historically, the financing of Startups is based mainly on access to Business Angels. However, according to Pope (2011), less than 3% of entrepreneurs seeking funding from Business Angels are financed. The most challenging part of the financing is between 35 and 150 k€ (Voorbraak, 2011), and the trend is that the "gap" is increasing as the Business Angels are increasingly looking for larger projects.

To sum up, crowdfunding is defined as a willingness for alternative financing based on the crowd's wisdom. However, this definition needs to be detailed given the four different forms of crowdfunding that exist.

## B. Types of Crowdfunding activities

As more and more entrepreneurs use crowdfunding to finance their startups, it is essential to determine, define, and explain the various models of crowdfunding that well-chosen will potentially conduct to the campaign's success.

For an entrepreneur, the objective of a crowdfunding campaign is to attract as many people as possible to the project and encourage them to participate financially. For this, he must present his project in a more or less straightforward way (text, photos, videos) to raise the funds necessary for its realization. The entrepreneur carries out this collection via the Internet on an individual site or, in the majority of cases, on a crowdfunding platform (Belleflamme et al., 2013). The platform serves then as a showcase for the project. It will be presented alongside other projects, which will be classified by field of activity. The platform will require the entrepreneur a presentation outline for his project and take a fee as a percentage of the amount collected. (Leboeuf, 2016). So, the entrepreneur must be able to choose the adequate form of crowdfunding for his project, first to publish it in the best platform regarding the model and also to make the more benefits possible, not only financial benefits (as it will be explained in this thesis).

Although crowdfunding is a complex phenomenon that is constantly changing and evolving, principally four main forms of crowdfunding models can be defined, which differ from each other principally in terms of resource allocation and return to investors. The potential investors, called the crowd, expect to receive a reward most of the time. The reward, which is in some way the return to investors, can have multiple aspects depending on the choices of the entrepreneurs. The two most used forms are: material or tangible compensation (monetary reward, good or service) or intangible compensation (social recognition) (Bartoli, 2020).

Figure 2 illustrates the different types of crowdfunding depending on the compensation offered to investors.

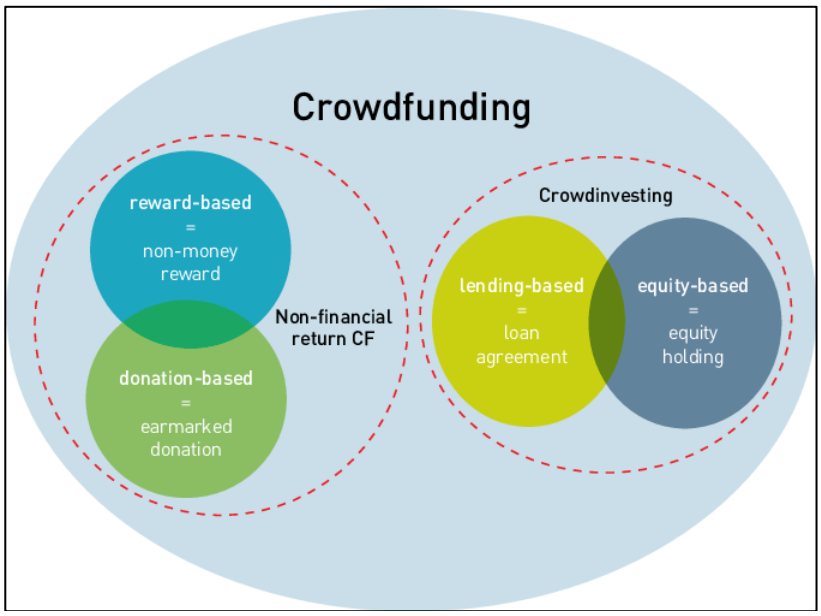


Figure 2 Different types of Crowdfunding
Source : Hauscke, 2018

The most common forms of crowdfunding are donation, reward-based crowdfunding, equity crowdfunding also called crowd-investing, and crowdlending also called P2P-lending or loan-based crowdfunding (Leeke, 2013; Belleflamme et al, 2014). Still, one of the strengths is the ability to combine several models, allowing the entrepreneurs to create a personalized campaign different from the others and without any limit or constraint. (Bartoli, 2020).

Table 1 Characteristics of main types of Crowdfunding activities

| Features | **Crowdfunding models (different names)** | | | |
|---|---|---|---|---|
| | **Donation-based Donation Crowddonation** | **Reward-based Reward** | **Equity-based Equity Crowdinvesting** | **Lending-based Credit-based Crowdlending** |
| **Motivation** | Intrinsic, social | Intrinsic, social, extrinsic | Financial gain | Social or financial |
| **Type of contribution** | Donation | Pre-order | Investment | Loan |
| **Expected return** | Intangible benefits | Tangible and intangible benefits | Return on investment, Profit sharing | Return on investment |
| **Main Focus** | Philanthropy | Products for first adopters | Start-ups, SMEs | Short-term borrower |
| **Complexity of the process** | Very low | Low | High | Medium |
| **Type of contract** | A contract without tangible reward | Purchase contract | Shareholding contract | Lending Contract |

Source : Krupa and Żołądkiewicz-Kuzioła, 2017

## 1. Donation-based Crowdfunding Model

This model is based on donation and charity. It is similar to non-profit organizations. Participants simply fund the project related to a cause they believe in or related to a product they want to support. At the same time, they expect nothing in return, at best to have their contribution recognized (Bombardier, 2015).

Due to the popularity of crowdfunding campaigns, many campaign strategies have been put to the test, and the results show that non-profit campaigns have a better success rate than for-profit campaigns. The research of Schwienbacher et al. (2010) suggests that non-profit organizations encourage more individuals to campaign and manage to raise more funds than for-profit organizations. It has also been shown that it is easier to reach the community and get accurate feedback from a non-profit organization. This kind of financing takes its roots from microcredits and is considered the first model used as a crowdfunding instrument (Bartoli, 2020).

## 2. Reward-based Crowdfunding Model

This model is based on rewards and generally consists of launching a product or even a service in pre-order or in a unique or limited version. The entrepreneurs thus offer one (or more) product (s) or service (s) at a fixed price and also determine a delivery date in exchange for participation in the financing (Bombardier, 2015).

Bartolini (2020) explained that this model allows for early participation in developing the product or service. The investor expects to receive a reward for their investment. This model is the best known and most used form, especially the most famous platforms, such as Kickstarter and Indiegogo, offer this funding model. Generally, the reward varies depending on the amount invested. Usually, it starts with formal thanks to material rewards that increase in value as the donation increases. The investor is more encouraged when the cost of the reward is lower than the perceived value and is generally lower than the market value which will be offered subsequently. Material rewards generally come down to two types: pre-purchases (the same product that will later be offered to the market) or a unique gadget or not, depending on the amount given. Consumers perceive added value in this type of investment, whether in terms of timing (receiving the product before others) or in terms of quality (receiving an exclusivity or a unique product) which encourages them to invest early (Nocke et al., 2011).

Let’s underline that this type of investment is not without risks. By engaging in such a financing model, investors must be aware that nothing is guaranteed. Even if the campaign achieves its fundraising objective, nothing guarantees that the entrepreneur will meet his commitments regarding product delivery in itself or the delivery time.

### 3. Equity-based Crowdfunding Model

It is the model that most closely resembles traditional investment models. In fact, in this type of financing, the investor contributes to the shares of the company and will therefore share the profits and losses incurred. Some platforms offer the possibility of receiving only a share of the income without being associate with the capital. Also, some specialized platforms play the role of the stock market mediator who advises clients when choosing or making decisions. (Leeke, 2013; Belleflamme et al, 2014; Hornuf and Schwienbacher, 2016 ; Bartoli, 2020)

This type of financing is most often used by technological startups who do not have easy access to traditional financial institutions (such as banks), which often consider startups to be very risky with the risk of failure and bankruptcy. From an investor perspective, this model targets both experienced investors who believe in this type of project, as well as new or young investors who have a small budget that they are trying to grow (Bartoli, 2020).

In order to cope with the high level of risk and scams, this financing and investment model is often subject to government regulations. The laws concern specialized platforms, investors, and fundraisers alike, with varying degrees of constraints from one country to another. For example, crowdfunding was introduced in Turkey in 2017 by the amendment of Capital Markets Law (CML) Art. The 3 of 28 of November 2017 which defines the framework of Crowdfunding activity. Article 35/A of the CML, as well as the Communiqué number III-35 / A.1 published by the Capital Markets Boards, reinforce the law by regulating the equity-based crowdfunding activities and setting out the principles of the crowdfunding system while prescribing detailed conditions and obligations that platforms need to follow (Pasli and Sönmez, 2020).

## 4. Lending-based Crowdfunding Model

In this kind of fundraising, individuals who lend their money for a particular project expect payments in return for their contribution (Leeke, 2013). The individuals expect their loan to be repaid as soon as the business begins to sell its products or services. The loan model can come in many forms: traditional loan agreement with or without interest and even in the form of pre-sale. Each of these models offers a return or reimbursement guarantee as soon as the project becomes operational.

This type of financing is also called a Peer-to-Peer loan or social loan because it is carried out between individuals without the intermediary of financial institutions such as banks. Entrepreneurs have recourse to this type of credit because of the ease and speed of access. In addition, by choosing to obtain credit through a specialized crowdfunding platform, entrepreneurs will pay a lower interest rate than that offered by traditional banks. In this case, the platforms that offer this type of crowdfunding guarantee the control and selection of projects as well as the analysis and distribution of loans. In return, they retain on average about 1% of the loan amount (Bartoli, 2020).

Other forms of crowdfunding still exist but are very marginal and only concern certain particular and specific types of projects (Bartoli, 2020; Leboeuf, 2016):

- **Real-Estate Crowdfunding:** It is a sub-category of crowd investing in which individuals come together to grant credit to a real estate project which can range from the purchase of real estate to the construction of a residential complex. On the other hand, investors expect to receive income.

**- Recurring Crowdfunding:** These are sub-categories of Donation-based and Reward-based crowdfunding but whose fundraising campaigns are differentiated by their indefinite duration.

**- Civic Crowdfunding:** it is the financing of public projects by citizens

**- Corporate Crowdfunding:** This model is based on Corporate Social Responsibility (CRS), where entrepreneurs involve customers from the design phase of the product or service.

- **Energy Crowdfunding:** this is the name given to all Crowdfunding campaigns that invest in green projects and renewable energy.

## C. The Reward-based Crowdfunding Campaigns

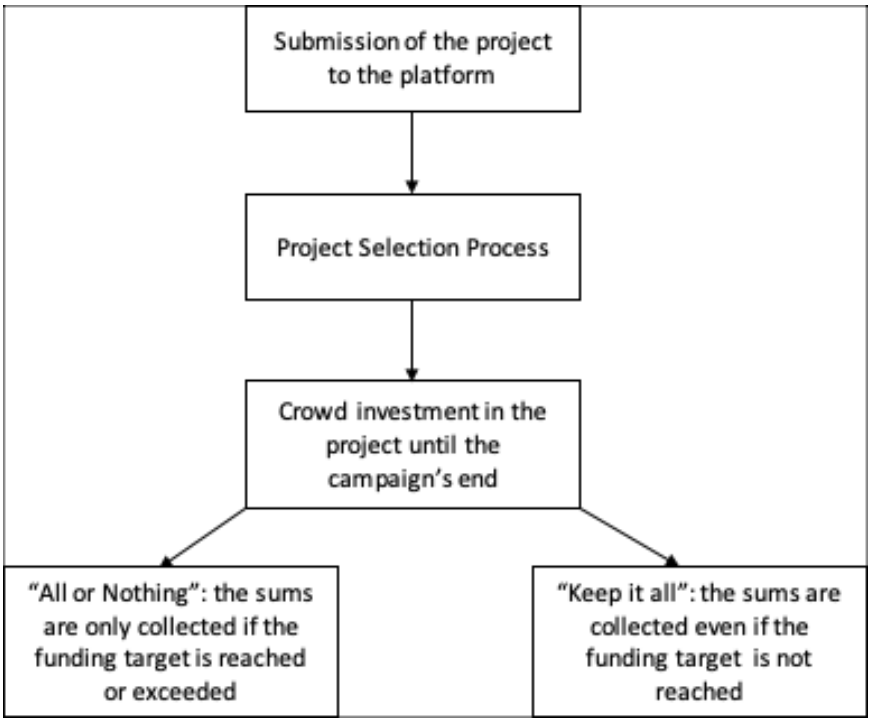


Figure 3 Fundraising Process
Adapted from Onnée and Renault (2013)

### 1. Campaign's goals

When an entrepreneur launches a reward-based crowdfunding campaign, his objectives can be multiple. A priori, the main objective is to finance a stage of its project development. However, it is not easy to talk about a business for some projects, especially when the funding concerns an association or a charitable cause. Likewise, a business can use a crowdfunding campaign as a marketing campaign or target market test for a new product without the primary focus being fundraising (Leboeuf, 2016).

According to Bradford (2012), a crowdfunding campaign has lots of advantages such as:

- Allows the entrepreneur to develop and test his concept

- Helps manage risks

- More accessible than traditional financial tools

- It is a valid marketing tool

- It is considered as an early marketplace

- It is a way to make the entrepreneur, a product or service, or a company well known and allows them to improve their reputation.

Figure 4 (Zeco et al., 2014) summarizes the SWOT analyzes of the crowdfunding model.

| **Strengths** | **Weaknesses** |
|---|---|
| • Entrepreneurs maintain control over their company's decisions<br>• Capital is very accessible<br>• Opportunity to test idea marketability<br>• Benefits for communities both locally and internationally | • Administrative and accounting challenges<br>• Ideas and business models presented public can easily be stolen<br>• Weaker investor protection and potential for fraud<br>• Internet-based, so investors might lack detailed advice |
| **Opportunities** | **Threats** |
| • Utilize the power of social networks for promotion, and connect with crowdsourcing<br>• Positive effects of crowdfunding on the economy<br>• Niche investment opportunity / way to raise capital | • Current legal restrictions in some jurisdictions are not suitable for equity crowdfunding<br>• Risky nature of small businesses |

*Note.* Adapted from "Valuation of Crowdfunding: Benefits and Drawbacks" by Valanciene, L., & Jegeleviciute, S., 2013, *Economics and Management*, *18*(1), p. 45.

Figure 4 SWOT analysis of Crowdfunding

The projects presented are at stages ranging from the design stage where the only thing presented is a starting idea but where everything remains to be done, to large-scale production and distribution, where the entrepreneur has already tested many prototypes, that the final design is stopped and that only remains to be manufactured on a large scale and distributed to end customers.

The entrepreneur will then define his financing objective, that is to say, the amount he considers necessary at this stage of his project. In the same way, he can define if his project requires the entire amount to start (All-Or-Nothing) or if he can afford to start his project with insufficient funding (Keep-It-All). Both models exist (most platforms offer one or the other, but some offer the choice between the two, as on Indiegogo or Fundrazr and present a different distribution of risk (Bartoli, 2020; Leboeuf, 2016).

## 2. Presentation of the Project and the Rewards

Once his objective has been defined, the entrepreneur will present his project to the public to make him want to participate financially in the company. During this stage, the entrepreneur is the freest in the choice of the design of his campaign. He has the possibility of providing qualitative information about his project in the form of text, photos, or videos. It can also provide hypertext links to site-specific or pages relating to the project on social networks. He also has the possibility of presenting himself on a specific page, individually or in a team. Indeed, a crowdfunding campaign can be carried out by a single person, but a project is carried out most of the time, and a whole team of several people carries out the campaign itself (Bartoli, 2020; Leboeuf, 2016).

In order to motivate people to participate in the crowdfunding campaign, the entrepreneur then sets up a reward scale. Depending on the amount that the participant decides to give to the entrepreneur, he has the possibility to choose one of the rewards. The most common reward offered by the entrepreneur is the product that the company will produce. In addition to this main reward, the entrepreneur can also offer any reward he deems relevant in order to attract a person potentially interested in his project; it can be a simple "thank you" in exchange for a symbolic sum (one dollar in the majority of the cases), various derivative products such as t-shirts or pens bearing the image of the project or even "premium" rewards, such as a special edition of the object, a visit to the workshops or studios, a meeting with the entrepreneur or even an opportunity to participate in the project (a supporting role in the film, the choice of the name of a character from a story...). By varying the rewards in terms of choice or amount, the entrepreneur will try to attract as many participants as possible and thus increase his probabilities of success (Bartoli, 2020).

## 3. Campaign Progress

Once the campaign is ready, the entrepreneur can decide how long the call for contributions will last. Most of the time, the platforms put a limit at 60, 90, or 120 days. However, it is also possible to have 'on-demand campaigns', for which the participants will continue beyond the planned duration provided that the initial objective was achieved on time (Leboeuf, 2016).

The campaign is then launched for the defined duration. Throughout the campaign, the public has the opportunity to ask questions to the entrepreneur, comment on the project and participate in it. All this is transcribed in real-time on the crowdfunding platform, and everyone is able to read the comments, the questions/answers and see how many people have already participated, for what amounts and what rewards have been chosen (or who remain available, as some rewards may be present in limited quantities).

The public can also see the identity of the participants for those who have not requested anonymization of their contribution. In addition, throughout the campaign, the entrepreneur can update the description page and add photos or videos to report on the project's progress. It is also important to note that the platform does not collect the money during the campaign, and the participants' credit cards are not debited (Bartoli, 2020; Leboeuf, 2016).

### 4. End of the Campaign

Once the campaign is over, and depending on the type of campaign chosen, the pledged sums are debited from participants' credit cards, and the entrepreneur is credited with all of the money-less fees accruing to the platform. If the financing model chosen by the entrepreneur is of the "All-Or-Nothing" type, the participations are only taken if the objective of the campaign is reached. Suppose the total of the participations is lower than the objective set by the entrepreneur. In that case, no one is debited, the entrepreneur receives no money, and the platform does not charge any fees. On the other hand, if the model chosen is of the "Keep-It-All" type, the entrepreneur may decide to receive the money proposed by the participants even if the objective of the campaign is not reached, and the platform will then perceive the costs (Leboeuf, 2016).

In any case, if the entrepreneur receives the funds, whether the campaign is a success or a failure, and decides to keep the money despite everything, he undertakes to deliver the planned rewards to the participants or reimburse them if he is unable to deliver. From a legal point of view, this type of crowdfunding is, most of the time, not regulated by the financial authorities and would seem to come under the consumer code (Gabison, 2014).

## D. Crowdfunding as a Marketing Tool

### 1. The Marketing Components in Crowdfunding Activities

The American Marketing Association (2018) defined Marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offering that has value for customers, clients, partners, and society at large".

In order to make this theoretical definition practical, many marketing instruments are used, but the "marketing mix"; known as the "4Ps" with its four components: "Product", "Price", "Promotion", and "Place" (Kotler, 1967); still the key component and the most used tool when talking about operational marketing (Bocconcelli et al., 2018).

Even if widely applied, this instrument is permanently criticized for being outdated and using "an internal perspective of companies on themselves" (Gordon, 2012), limiting the development and maintenance of interactions with a larger audience and differentiated segments in potential customers or partners.

To face these critics and be updated, a fifth component, "People," is more and more added to the traditional 4Ps making the marketing mix a more effective and pragmatic approach (Fan et al., 2015; Kotler et al., 2008; Van Riel et al., 2005), also a more interactive and dynamic approach (Van Riel et al., 2005).

Based on what was already described, the crowdfunding process, which encompasses campaigns and platforms, seems to meet the criteria of a marketing strategy, and can thus be considered a marketing tool in addition to its financial interest.

As crowdfunding activities, including the reward-based crowdfunding model, are mostly considered a financing tool for entrepreneurs, most studies focus on the functioning and the success factors from a financial perspective (Beier and Wagner, 2015; Koch and Siering, 2015; Kraus et al., 2016; Kuppuswamy and Bayus, 2018; Moritz and Block, 2016).

However, more and more authors are studying the crowdfunding phenomenon in a different light: How can crowdfunding (especially the reward-based crowdfunding model) be used as an effective marketing tool for small and medium-

sized enterprises? Well-used, crowdfunding proves to be an optimal marketing tool in addition to its known financing role. (Beier et al., 2014; Brown et al., 2017; Kunz et al., 2016).

According to Michael Beier et al. (2019), "the reward-based variant of crowdfunding can also be applied as a powerful marketing tool for already established small and medium-sized enterprises (SMEs)". Many authors support this idea and justify it by the fact that the reward-based crowdfunding activities are nothing but a combination of social media's elements and e-commerce (Beier and Wagner, 2015; 2016):

**a. Social media's aspect in Crowdfunding**

The existing crowdfunding platforms are somehow social media's platforms where entrepreneurs are allowed to upload texts, photos, videos to promote their project or activity (Lai and Turban, 2008; Xu et al., 2014)

Also, it allows them to interact with the crowd through publishing updates on their projects, answering questions of the crowd, and gathering comments from potential customers (Beier and Wagner, 2016; Mollick, 2014; Xu et al., 2014)

Talking about the social aspect and the marketing role of crowdfunding platforms, the concept of Web 2.0 needs to be introduced, which is one of the pillars of this phenomenon. Hemer (2011) affirms that "What is new in crowdfunding is that it exploits the capabilities of social networks and other new features of Web 2.0, especially the function of "viral networking and marketing", which enables the mobilization of a large number of users in specific Web communities within a relatively short period».

One of the most accurate definitions of the web 2.0 maybe "is the network as platforms, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their data and services in a form that allows remixing by others, creating network effects through an "architecture of participation," and going beyond the page metaphor of Web 1.0 to deliver rich user experiences" (O'Reilly, 2005).

A crowdfunding platform is a Web 2.0-technology-based platform (Leimeister, 2012), as it allows a dynamic and instantaneous interaction between user and content; publishing, sharing, commenting...(Evans, 2010); or between different users (Wolf et al., 2012, Bouncken et al., 2015).

**b. Crowdfunding as an e-commerce activity**

E-commerce or electronic commerce, also called e-business, can be simply defined by "the use of electronic, computing, and internet-based technologies to change traditional revenue models and business designs to the mutual benefit of customer and vendors" (Al Dabbagh, 2011).

Nowadays, and with the impressive development of Web 2.0 and social media, e-commerce is changing from a product-oriented process to a customer and social-oriented one. (Wigand et al., 2008). Essentially, social media refers to the applications created on Web 2.0, while Web 2.0 refers to internet-based concepts using collective wisdom and intelligence (Kaplan and Haenlein, 2010). In such an environment, Dennison et al. (2009) say that customers make more informed and accurate decisions when choosing a product or service by referring to social knowledge and experiences.

At the same time, e-business allows entrepreneurs or buyers to know more about customers' behaviors, giving them insights into their experiences and expectations so that they can come up with better business strategies (Constantinides and Fountain, 2008). Thus, e-business is experiencing an evolution by incorporating more and more Web 2.0 features and capabilities to improve customer engagement (Kim and Srivastava, 2007), consolidate relationships with customers (Liang et al., 2011), thus being able to claim to improve their economic value (Parise and Guinan, 2008). From the evolution of e-commerce is born the notion of social commerce.

Parise and Guinan (2008) define social commerce as a more social, creative, and collaborative approach than e-commerce, where the engagement of the crowd creates an added value. From a marketing perspective, social commerce allows companies to use social media as a marketing tool to understand customers' behaviors and decision-making process (Constantinides and Fountain, 2008), also to explore better the market opportunities (Michaelidou et al., 2011) and even be more

competitive (Constantinides et al., 2008). Based on previous definitions, crowdfunding platforms are one of the best examples of social commerce platforms.

When discussing the relationship between social commerce or e-commerce and crowdfunding, scholars mainly discuss the reward-based crowdfunding model. In fact, when choosing this model, an entrepreneur can make pre-sales through the crowdfunding platforms; even if they are called to be "rewards," not sales; and at the same time, he is making networking and interaction with his potential investors or/and customers (Bartoli, 2020).

## 2. The Marketing Mix

The concepts of social commerce, e-commerce, and Web 2.0 are the basis for understanding how crowdfunding can be used as a marketing tool and not just as a fundraising tool. To understand the relationship between crowdfunding and marketing, here is a brief reminder of the variables that make up the marketing mix and contribute to building a marketing strategy, namely the 4Ps: Price, Place, Promotion, and Product. They are presented in the frame of crowdfunding activities.

### a. The place

The place is obviously the Internet which constitutes a marketplace that attracts more than a billion connected people daily across the world. This allows an entrepreneur to use rewards-based crowdfunding platforms as a timely first sales channel. By doing so, SMEs can generate income through crowdfunding platforms. A project published on a crowdfunding platform is an experimental tool for entrepreneurs better to assess the value of their ideas or products, detect potential segments to target and gauge potential pre-orders or sales with new distribution channels, allowing the entrepreneur to early detect weaknesses and strengths in their sales and product distribution channels without incurring exorbitant costs (Beier et al., 2019).

### b. The price

During a crowdfunding campaign, and in order to collect as many funds as possible and also attract as many people as possible, the price is generally lowered. In some cases, several price brackets are offered with different "reward" products in return proportional to the investment amount. It is, therefore, necessary to offer

prices that are well aligned with the nature of the object. The presence of several awards that vary in their types and prices is an opportunity to properly segment future buyers before even starting to produce or sell products.

Moreover, the duration of a crowdfunding campaign is also a trial period for entrepreneurs to optimize their packages and adequately discriminate prices according to consumer expectations, and this through a new distribution channel that is limited in time. According to Sayedi and Baghaie (2017), the price offers that exist in crowdfunding platforms make it possible to distinguish the "early adopters" who are ready to pay high prices for a product, thus helping the development and improvement of the product through the feedback to the manufacturer.

The price usually distinguishes another consumer segment. They are those who are ready to pay the high price on the condition of receiving early a unique and innovative prototype that gives them a feeling of added value during the marketing of the product. (Belleflamme et al., 2014, Slater et al., 2007).

On the other hand, some investors prefer to pay the price lower than the market value because of the doubts that may exist concerning the reliability of the product or the delivery conditions. (Brown et al., 2017; Leone et al., 2018; Mollick, 2014).

**c. The product**

Damien Ryan and Calvin Jones (2013) explained that the product has to leave a positive impact and an accurate perception of value on the potential future buyer or consumer to be considered a good product. Having a 'good' product is not sufficient. Also, it must have a 'Unique Value Proposition' to meet the market needs and demand.

Reward-based crowdfunding is used as a helpful tool and means of testing and validating the products offered both as technical characteristics and as a packaging proposal (Brown et al., 2017). Crowdfunding helps SMEs to create campaigns with more freedom, far from traditional corporate management, allowing them to perceive stakeholders in a different light (Beier et al., 2014). Entrepreneurs usually offer varied rewards for the customers in a reward-based crowdfunding campaign which pushes investors to take more risk when testing new products or services (Beier et al., 2019).

**d. The promotion**

It refers to all actions online and offline that SMEs should take to attract their "core team" (they are the "early adopters" who believe in SMEs, their ideas, and their products and who are the basis for building solid relationships with the crowd), and then "bridges to weak links" (more reluctant and hesitant people), retaining them and little by little acquiring new ones from crowdfunders (Bartoli, 2020).

Kraus et al. (2016) underlined that considering the limited duration of a reward-based crowdfunding campaign and the traditional methods imposed in this type of campaign, entrepreneurs could and should present a compelling and emotional story to captivate and motivate the crowd. When a user consults a page of a crowdfunding campaign, he must be able to understand all the components of the project and the particularities of the products, so he would be more motivated to participate in this campaign (Frydrych et al. 2014). By using such technics, a company and its product will be more widely known and send a message to potential stakeholders that it is a digital and updated company.

Beier et al. (2019) describe crowdfunding campaigns as an opportunity for SMEs to carry out their communication actions, including all kinds of activities such as public relations and media management, online and social media advertising.

Beier et al. (2019) proposed an extended concept of Marketing Mix including the People dimension. Figure 5 is an overview 5Ps of Reward-based crowdfunding as presented by Beier et al.


Figure 5 Overview 5Ps of Reward-based Crowdfunding
Source: Beier et al., 2019

## E. Crowdfunding's Scope in Turkey

As explained in the introduction, one of the motivations of this research, is to popularize crowdfunding among the ranks of young entrepreneurs who want to invest in Turkey. This section presents a snapshot on the situation in Turkey.

### 1. Turkey's Economic Situation

According to the World Bank, since the early 2000s, Turkey's financial and social improvement execution has been noteworthy, driving to expanded business and earnings and so, making Turkey an upper middle-income nation. Amid this time, Turkey quickly urbanized, kept up solid macroeconomic and financial arrangement systems, opened to outside exchange and back, harmonized numerous laws and controls with European Union benchmarks, and incredibly extended get to open administrations. It moreover recuperated well from the worldwide budgetary of 2008-2009.

Unfortunately, in recent years Turkey has faced a lot of local economic challenges i.e., the fall in the value of the Turkish lira, the growth of inflation, but also a competitive and difficult international environment. This vulnerability is exacerbated by the global COVID-19 pandemic, which has accelerated the rise in inflation and the unemployment rate. These weaknesses mainly affect certain sectors and especially small and medium-sized enterprises.

Despite these weaknesses, the Turkish economy is expected to grow by another 8.5% in 2021, which continues to attract investors (worldbank.org, 2021).

### 2. Crowdfunding Awareness in Turkey

Even if the first Turkish reward-based crowdfunding platform were launched in 2010, crowdfunding is still considered as a new concept in Turkey and not enough studied. The population's awareness about crowdfunding has been studied in European countries. Daskalakis (2016) estimates that the highest level of awareness about crowdfunding is in Spain with 33%, followed by Germany and Poland with relatively 32 and 27%. Vergara (2015) while studying the crowdfunding in Philippine concluded that the awareness level in developing countries is very low. However, in Turkey, there is no study directly measuring the awareness of Turkish citizens about crowdfunding. Only Sirma et al. (2019) tried to measure awareness

level of university youth in Turkey, and between the 485 respondent 54% never heard about crowdfunding or know the term but not its meaning. Such studies must be generalized to have an exact idea about the awareness level in Turkey. What is really interesting in this study, 79% of the students were willing to use the crowdfunding as a fundraiser and 67% of them as investors. These results confirm the readiness of young people to adopt this new financing model.

## 3. Crowdfunding Platforms in Turkey

Demiray and Burnaz (2019) analyzed the active crowdfunding platforms in Turkey including all types of crowdfunding activities.

The equity-crowdfunding model has become available for investors with the change in the Capital Market Law effective from 5th of December 2017 and a complement. Also, in 2019, the Turkish Capital Markets Board (SPK) prepared a regulation on the principles and procedures regarding equity-crowdfunding to facilite easier access to financing for entrepreneurs, small and medium-sized enterprises (SMEs), offering them an alternative financial resource other than the conventional banks. Hence, three platforms have been developed (Fonbulucu.com invest, Fongogo Pro, StartupFon) and a larger number is expected to be developed in the coming years.

For the platforms adopting non-financial reward model, Bulusum and Ideanest propose the donation-based crowdfunding model, they launched respectively 14 and 10 projects with 12 and 9 successful projects and raised more than 620 000 TL until 2019.

For the reward-based crowdfunding, till 2019 there is three active Turkish platforms namely Arikovani, Crowdfon and Fonbulucu with respectively 66, 185 and 24 launched projects with 34, 18 and 11 successful projects. The 34 successful campaigns on Arikovani have raised about 4.600.000 TL.

Fongogo is a platform combining donation and reward-based crowdfunding models. It launched 422 projects with only 133 funded projects. The total raised amount to 2019 is 2.447.000 TL.

Figure 6 proposes a positioning map of crowdfunding platforms in Turkey according to their complexity level and level of expertise (Demiray and Burnaz, 2019)

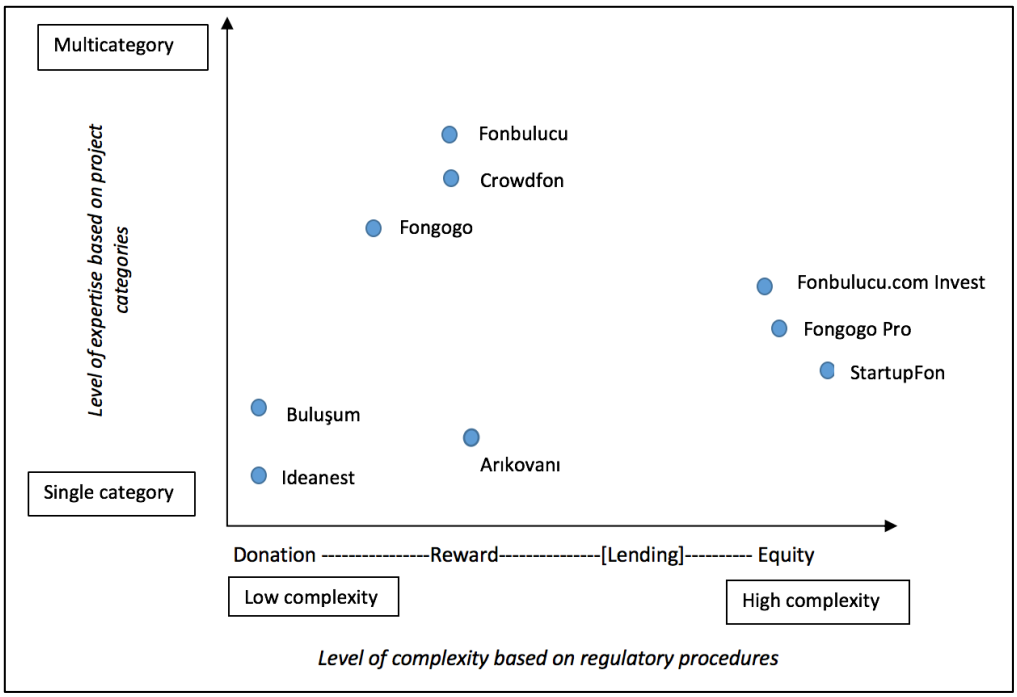


Figure 6 Positioning Map of Crowdfunding platforms in Turkey
Source: Demiray and Burnaz, (2019)

# III. RESEARCH METHODOLOGY

## A. Research Model Development and Hypothesis Formulation

### 1. Adapted Research Framework and Stated Hypotheses

The research framework is based on gathered information in the relevant literature and previous studies on this field, especially a study made in Italy and presented in the EURAM 2017 (European Academy of Management) Conference (Gangi and Daniele, 2017).

Gangi and Daniele (2017) showed that in the Italian context, three major dimensions may be considered as the success-driver for a Reward-Based Crowdfunding campaign:

- The Financial and Reward Dimension
- The Quality Dimension
- The Relational Dimension

#### a. The financial and reward dimension

Although, as described above, crowdfunding campaigns have a role that goes beyond the financial aspect, the main objective for this tool remains the financing of projects. (Belleflamme et al., 2014). Based on this, the first variable whose effect on the success of the campaign will be studied is the Funding Target. By setting the financing objective, which of course must first be consistent with the product offered, the entrepreneur must consider the feelings of the backer. Indeed, a very high goal may seem to the crowd to be unattainable and therefore its contribution will probably be ineffective and a waste of money. As a result, a small goal can seem more achievable and encourage the crowd to invest.

Therefore, the hypothesis is: **(H1.1)** A small funding target has a significant impact on the probability of a reward-based crowdfunding campaign's success.

One of the pillars of the crowdfunding phenomenon is the contribution of the crowd, which assumes a large number of individuals, with small amounts to finance a large project (De Buysere et al., 2012). So to attract a larger number of potential investors, the crowdfunding phenomenon is based on the theory supported by Colombo et al. (2015) and Cordova et al. (2015) which states that the lack of information on the quality and the value of the product when launching the fundraising campaign induces the contributors to trust others and follow their behaviors during decision-making, which leads to a snowball effect and a large number of backers will lead to more investors.

Assuming this, the second independent variable to be studied is bakers' number, and the hypothesis **(H1.2):** The bakers' number has a significant impact on the probability of a reward-based crowdfunding campaign's success.

Assuming that crowdfunding, especially the reward-based type, is targeting all the users of internet to encourage them investing even with a small amount, the researcher concludes that the lower the minimum contribution is the higher is the chance to attract people (De Buysere et al., 2012).

For this, the third independent variable is the Minimum Contribution Amount, and the hypothesis to be verified is **(H1.3)** A small amount of minimum contribution has a significant impact on the probability of a reward-based crowdfunding campaign's success.

As explained in the literature review, during a reward-based crowdfunding campaign, entrepreneurs are encouraged to make available to investors a variety of rewards that can be tangible or intangible, ranging from a simple "thank you "to exclusive, personalized, and expensive products. Cholakova et al. (2015) demonstrates that a material, tangible reward has more effect on the willingness of people to invest. So, the fourth independent variable is the Reward Type (Tangible/ Intangible) which is proposed with the minimum contribution.

The hypothesis related is **(H1.4)** The type of reward proposed (for the minimum contribution) has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**b. The quality dimension**

Since the fundraising campaign is normally early in the marketing of the product, the success of this campaign relies mainly on the presentation of ideas commonly known as the Storytelling. For this, crowdfunding platforms provide users with a variety of means of communication including written presentation text, sharing of multimedia tools in the form of images and / or videos. Numerous studies have identified the indicators that can be used as a means of measuring the perceived quality, including: the insertion of videos and photos and the quality of the text used (Mollick, 2014; Cordova et al., 2015; Balboni et al., 2016; Frydrych et al., 2014, Koch and Siering, 2015). Starting from this theoretical basis, the hypotheses to be verified concerning quality dimension are enounced bellow:

**(H2.1.a)** The existence of a video presentation has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H2.1.b)** The length of the video presentation has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H2.2.a)** The existence of pictures has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H2.2.b)** The number of published pictures has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H2.3)** The language used (use of English language) has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**c. The relational dimension**

Crowdfunding platforms have the characteristics of social networks, which are based on web 2.0, to allow interaction between individuals in a virtual environment. Gerber et al. (2012) confirms that the feeling of belonging to a community can motivate individuals to participate in the financing of a project. To stimulate this feeling of belonging, crowdfunding platforms offer a direct exchange interface between the entrepreneur and the potential investor through the possibility of posting comments, updates and asking questions (Cordova et al., 2015; Balboni et al., 2016). Therefore, the two hypotheses to be verified are:

**(H3.4)** The number of updates on the crowdfunding platforms has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H3.5)** The number of comments on the crowdfunding platforms has a significant impact on the probability of a reward-based crowdfunding campaign's success.

Moreover, the crowdfunding platforms offer the possibility to join other social media's account links to the project page as a leverage tool to gather a maximum number of potential investors. In fact, many authors studied from different point of views the relationship between the use of digital networks like Facebook and Twitter and the crowdfunding campaign (Mollick, 2014; Balboni et al., 2016; Koch and Siering, 2015). For each social media a hypothesis to be verified is formulated, as follow:

**(H3.1.a)** The existence of a Facebook page link has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H3.1.b)** The number of followers on the related Facebook page has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H3.2.a)** The existence of a Twitter account has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H3.2.b)** The number of followers on the Twitter page has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H3.3.a)** The existence of an Instagram page has a significant impact on the probability of a reward-based crowdfunding campaign's success.

**(H3.3.b)** The number of followers on the Instagram page has a significant impact on the probability of a reward-based crowdfunding campaign's success.

## 2. Conceptual Model

The research model proposed in this study is depicted in Figure 7, which describes the framework of variables to be examined and hypotheses to be tested. The independent variables can be summarized in three major ones: Financial and Reward Dimension, Quality Dimension, and the Social Dimension; and each dimension is represented by independent variables taken from the literature. The dependent variable is the reward-based crowdfunding campaign's Success.

As the main aim of the research is to predict the success of a reward-based crowdfunding campaign from the independent variables, the hypotheses will be tested through a binary logistic regression model (logit model). As the studied dependent variable is dichotomous (binary) supporting only two values (1 = success/ 0 = failure), the binary logistic regression method is chosen. Such model is chosen when studying the probability of an event to occur depending on more than two independent variables (Cameron and Trivedi, 2005)

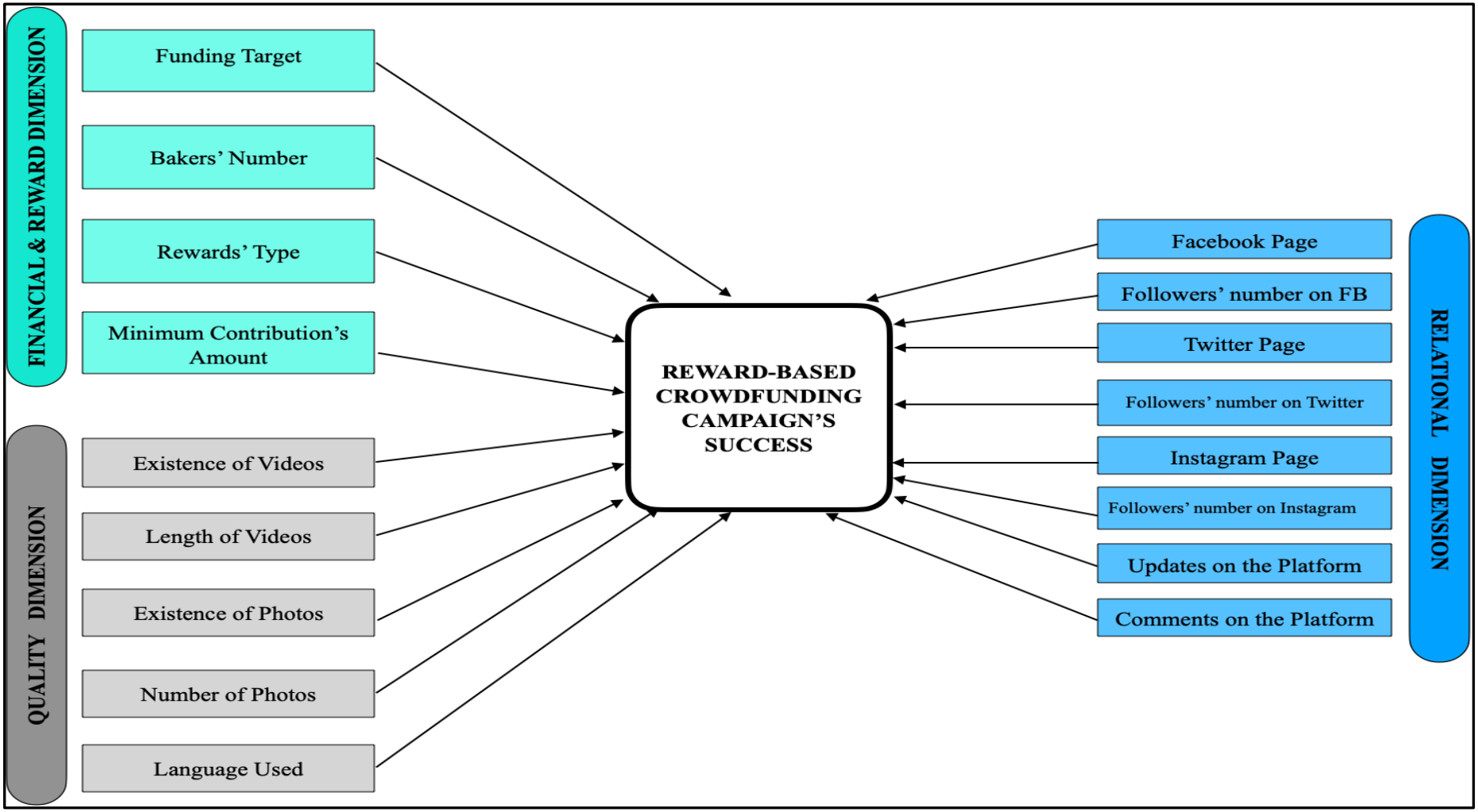


Figure 7 The conceptual framework of the study

## 3. Variables

### a. Dependent variable:

#### i. Reward-based Crowdfunding Campaign's Success: "SUCCESS":

A campaign is said to be successful, if it was able to collect at least 100% of the funding target amount (Gerber and Hui, 2013).

It is a dummy variable called "**success**" and takes value 1 if the project has reached to initial funding goal, and value 0 if it failed.

### b. Independent variables

#### i. Financial and reward dimension

Funding Target: "FT" is the amount of dollars expected to be collected before the end of the campaign (Boeuf, Darveau and Legoux, 2014). All the funding targeted were converted into U.S. dollars.

Bakers' Number: "BN" is the number of investors who participate to the fundraising by investing money (Ordanini et al., 2011).

Rewards Type: "RT" it is a dummy variable. If the reward proposed when giving the minimum contribution is an intangible reward "RT = 0", and "1" if it's a tangible reward (Voelker, 2013).

Minimum Contribution Amount: "MC" is the minimum amount of money settled by the entrepreneur to get a reward. All the amounts are expressed in U.S. dollars (Voelker, 2013).

#### ii. Quality dimension

Existence of videos: ***"Videos"*** is a dummy variable. "Videos = 0" if there is no video and "1" if there is at least one.

Length of video: "***Video_L"*** is the video duration in seconds

Existence of photos: ***"Photos"*** is a dummy variable. "Photos = 0" if there are no published photos and "1" if there is at least one.

Number of photos: ***"Photos_N"*** is the number of published photos

Language Used: ***"Language"*** is a dummy variable. "Language = 1" if the English language is at least one of the languages used and "0" if it is not used.

### iii. Relational Dimension

Existence of a Facebook account: ***"FB"*** is a dummy variable. "FB = 1" if there is a published link to a Facebook account on the project page.

Number of followers on Facebook account: ***"FB_N"*** number of followers on the related Facebook account.

Existence of a Twitter account: ***"Twitter"*** is a dummy variable. "Twitter = 1" if there is a published link to a Twitter account on the project page.

Number of followers on Twitter account: ***"Twitter_N"*** number of followers on the related Twitter account.

Existence of an Instagram account: ***"Insta"*** is a dummy variable. "Insta = 1" if there is a published link to an Instagram account on the project page.

Number of followers on Instagram account: ***"Insta_N"*** number of followers on the related Instagram account.

Updates on the platform: ***"Updates"*** number of updates performed during the campaign.

Comments on the platform: ***"Comments"*** number of comments published during the campaign.

In accordance with the regression model chosen, the independent variables that show high skewness degree were transformed using the $\log_{10}$ or $\log_{10}+1$ transforming techniques. $\log_{10}+1$ is used when the initial independent variable takes 0 value. This transformation is made with SPSS software.

Logarithmically transforming data is a frequently used technique in statistics which ensure the transformation of highly skewed dataset to a more normal distributed one (Benoit, 2011). The following table 2 resumes the variables used in the research.

Table 2 Summary of the variables

| Variables | | Name | Acronym | Explanation |
|---|---|---|---|---|
| Dependent Variable | | Reward-Based Crowdfunding Campaign's Success status | SUCCESS | dummy-variable<br>1= Success<br>0= failure |
| Independent Variables | Financial & Reward Dimension | Funding Target ($) | FT | The $ amount expected to be collected |
| | | | log_FT* | $\log_{10}$ transformed FT |
| | | Bakers' Number | BN | number of investors contributing to the project financement |
| | | | log_BN* | $\log_{10}$+1transformed BN |
| | | Reward Type | RT | dummy-variable<br>1= tangible reward<br>0= intangible reward |
| | | Minimum Contribution amount | MC | the minimum $ amount that can be invested |
| | | | log_MC* | $\log_{10}$ transformed MC |
| | Quality Dimension | Existence of Videos | Videos | dummy-variable<br>1= there is at least 1 video<br>0= No video |
| | | Length of video | Video_L | the video length in seconds |
| | | | log_Video_L* | $\log_{10}$+1transformed Video_L |
| | | Existence of Photos | Photos | dummy-variable<br>1= there is at least 1 photo<br>0= No photo |
| | | Number of Photos | Photos_N | the number of photos published |
| | | | log_photos_N* | $\log_{10}$+1transformed Photos_N |
| | | Language used | language | dummy-variable<br>1= English is used<br>0= English is not used |
| | Relational Dimension | Existence of Facebook Account | FB | dummy-variable<br>1= there is a link to a FB page<br>0= there is no link |
| | | Number of followers on FB | FB_N | number of followers on the FB page |
| | | | log_FB_N* | $\log_{10}$+1transformed FB_N |
| | | Existence of Twitter Account | Twitter | dummy-variable<br>1= there is a link to a Twitter page<br>0= there is no link |
| | | Number of followers on Twitter | Twitter_N | number of followers on twitter |
| | | | log_Twitter_N* | $\log_{10}$+1transformed Twitter_N |
| | | Existence of Instagram Account | Insta | dummy-variable<br>1= there is a link to an Instagram page<br>0= there is no link |
| | | Number of followers on Instagram | Insta_N | number of followers on Instagram |
| | | | log_Insta_N | $\log_{10}$+1transformed Insta_N |
| | | Updates on the platform | Updates | number of updates made in the crowdfunding platform |
| | | | log_Updates | $\log_{10}$+1transformed Updates |
| | | Comments on the platform | Comments | number of updates published in the crowdfunding platform |
| | | | log_Comments | $\log_{10}$+1transformed Comments |

## B. Research Methodology

### 1. Research Design

The research design will adopt an empirical cross-sectional analysis method. The research will adopt a descriptive and correlational research design. This research design is based on a quantitative research method where the researcher is gathering quantified data in order to maintain the maximum of objectivity. As the data collected are most expressed in numerical way (dollar, number, percentage) and standardized, the quantitative method fits the best to the study (Franzosi, 2010). According to Smith (2008), findings from such measures may be generalized by the researchers.

The descriptive research design has been chosen to summarize the collected data which can be presented as numbers to express the variables' characteristics.

In order to gauge and analyze the strength and the impact of the relationships between the various independent variables and the dependent one, the correlational research design will be used.

Also, to investigate the combined effect of the independent variables on the dependent variable (success of the campaign), a binary logistic regression statistical model will be adopted. This tool is chosen because of the binary nature of the output. In fact, the dependent variable can take only two values: 1 = the campaign was successful, and 0 = the campaign failed reaching the funding target.

### 2. The Study Area

The research will cover published reward-based crowdfunding campaigns available on Kickstarter.

The platform was chosen because it brings together projects and investors from around the world and is considered one of the most; if not the most; popular reward-based crowdfunding platforms in the world. This platform is based on the all-or-nothing principle which implies that a project must achieve its funding goal to receive the money. The platform gathers fifteen categories of projects: Games, Design, Technology, Film & Video, Music, Publishing, Fashion, Food, Art, Comics, Photography, Theater, Crafts, Journalism and, Dance.

Statistics published by Kickstarter's web site in October 2021 shows that $6,160,768,911 is the total amount pledged to Kickstarter projects, and 209,559 projects was successfully funded out of 538,309 launched projects. The platform brings together 20,291,140 backers including 6,863,694 who are repeat backers.

## 3. Population and Sample Size

To test the research hypotheses, the population is the 415,672 projects published in the international platform Kickstarter by the date of 07.01.2021, including the fifteen existing categories in the platform.

To determine the adequate sample size, the Taro Yaman's statistical formula is used. The sample size calculation procedure is as bellow:

$$n = \frac{N}{1 + Ne^2}$$

Equation 1

Where,

n = anticipated total sample size

N = population size

e = acceptable error term = 0,05

So, for the 415,672 targeted published campaigns the minimum sample size is computed as:

$$n = \frac{415\,672}{1 + 415\,672\ X\ 0{,}05^2} = 400$$

Equation 2

## 4. Sampling Procedure

The sampling method used is a convenience sampling method. As some of the data collected involve instant collection (may change over time), so this research only included ongoing campaigns, reducing the sample to 3,762 campaigns. Among these campaigns, the maximum duration of a campaign is 61 days, so in order to collect the necessary data, this research will be limited to projects launched between 1/1/2021 to 7/1/2021, which makes a sample of 602 campaigns. (> 400 necessaries).

In order to compare with the Turkish campaigns, a purposive sampling method is used. For this, the 188 available Turkish campaigns will be studied, and their characteristics will be compared to the 602 previously studied campaigns.

## 5. Data Collection

Primary data were hand-collected through direct observations from the international reward-based platform Kickstarter. All data are published and available to the public, there is no need to any manipulation. All data were gathered when the campaigns were on going as many of them may be subject to changes after the end of the campaign. For this, were included in the study the campaigns launched between 1/1/2021 and 7/1/2021 regardless of their duration. As the maximum duration for the studied panel was 61 days, the data collection process extended from 1/1/2021 to 8/3/2021.

The analysis considers the data collected from 602 campaigns. Both descriptive and analytical approaches were used to better understand the phenomenon.

## 6. Regression Model Construction

The binary logistic regression model is used in order to predict the independent variables (also called indicators or predictors) that impact the success of a crowdfunding campaign. So that the probability of success of a reward-based crowdfunding campaign can be calculated and anticipated.

The model construction is as follow:

$$P(Success = 1) = \frac{e^{(\alpha+\Sigma\beta_i X_i)}}{1 + e^{(\alpha+\Sigma\beta_i X_i)}}$$

Equation 3

Where:

P is the probability of success of the campaign

$\alpha$ is the intercept or constant of the equation.

X is the independent variable (predictor)

$\beta$ is the coefficient or slope of the independent variable

As the research aims to study the potential effect of the three dimensions described in the literature, each dimension's relative independent variables will be studied separately and then added subsequently to the proposed model. Using such technique, researchers are able to discriminate and interpret the effect of each dimension on the success of the campaign and the weights of the relative independent variables on the global equation. Table3.2 summarizes the variables to be studied in each step.

Table 3 Logistic Regression Model Construction

| | **Independent variables** | | |
|---|---|---|---|
| **Dimension** | **Model 1** | **Model 2** | **Model 3** |
| **Financial& Reward Dimension** | Log_FT<br>Log_BN<br>Log_MC<br>RT | Log_FT<br>Log_BN<br>Log_MC<br>RT | Log_FT<br>Log_BN<br>Log_MC<br>RT |
| **Quality Dimension** | | Videos<br>Log_video_L<br>Photos<br>Log_photos_N<br>Language | Videos<br>Log_video_L<br>Photos<br>Log_photos_N<br>Language |
| **Relational Dimension** | | | FB*log_FB_N<br>Twitter*log_Twitter_N<br>Insta*log_Insta_N<br>Updates<br>Comments |

## 7. Statistical Analysis Tools

Microsoft Excel Program was first used to gather the data. Then, the Statistical Package for the Social Sciences (SPSS 28) was used to perform the statistical analyses. Various statistical tools were used to analyze the data:

- Frequency and descriptive analysis
- Correlation analysis
- Binary Logistic Regression analysis

# IV. DATA ANALYSIS AND HYPOTHESES TESTING

## A. General Description

In this section, the characteristics of the studied campaigns are presented, making comparison between the successful and unsuccessful ones based on general criteria.

### 1. Geographic Origin

Table 4 describes the studied campaigns according to their launching geographic origin.

Table 4 Distribution of the studied campaigns depending on the Geographic Origin

| Location | Failure | | Success | | Total | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **USA** | 143 | 24<br>54* | 199 | 33<br>59* | **342** | **57%** |
| **EUROPE** | 82 | 14<br>31* | 82 | 14<br>24* | **164** | **27%** |
| **CANADA** | 11 | 2<br>4* | 21 | 3<br>6* | **32** | **5%** |
| **AUSTRALIA** | 9 | 1<br>3* | 9 | 1<br>3* | **18** | **3%** |
| **SOUTH AMERICA** | 9 | 1<br>3* | 6 | 1<br>2* | **15** | **2%** |
| **ASIA** | 10 | 2<br>4* | 19 | 3<br>6* | **29** | **5%** |
| **AFRICA** | 2 | 0<br>1* | 0 | 0<br>0* | **2** | **0%** |
| ***Total*** | ***266*** | ***44%*** | ***336*** | ***56%*** | ***602*** | ***100%*** |

*Percentage reported to the successful status

The global success rate for campaigns across all locations is 56% (336 campaign out of 602).

Table 4 shows that 57% of the campaigns are launched in the USA, and 59% of the successfully financed campaigns are those launched in the USA (199 out of 336) which represents 33% of the studied projects (199 out of 602). The successful

percentage are shown in figure 8. The second most frequent location is the European continent which represents 27% of the campaigns launched with a success rate of 24% over the successful campaigns and 14% over the total campaigns.

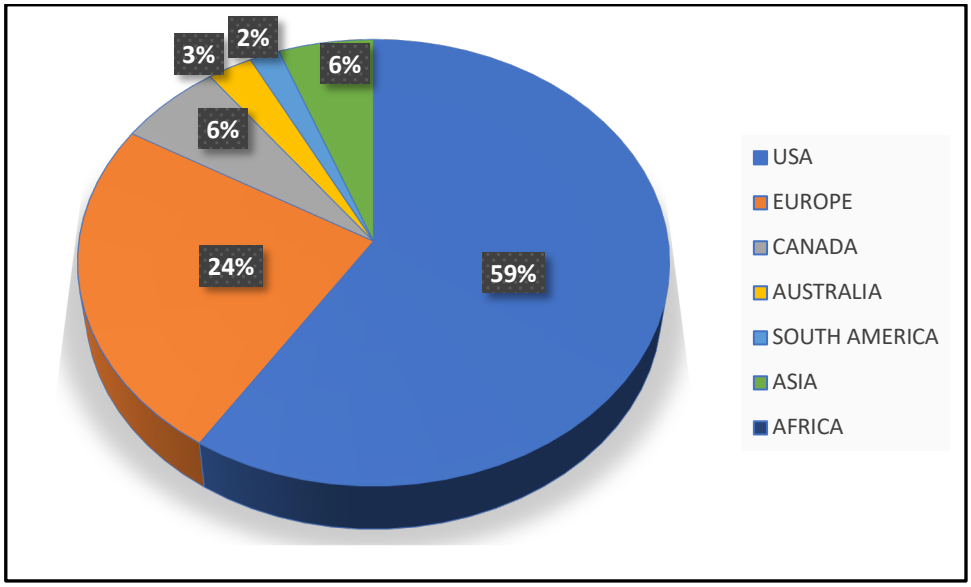


Figure 8 Distribution of the successful campaigns according to the Location

## 2. Experience Status (Number of created projects)

Table 5 Distribution of the campaigns according to the previous experience of the creators

| Experience status | Failure | | Success | | Total | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **No experience** | 206 | 34<br>77* | 148 | 25<br>44* | **354** | **59%** |
| **Experienced** | 60 | 10<br>23* | 188 | 31<br>56* | **248** | **41%** |
| ***Total*** | ***266*** | ***44%*** | ***336*** | ***56%*** | ***602*** | ***100%*** |

*Percentage reported to the successful status

Entrepreneurs with no previous launched projects as inexperienced, and those who has at least one previous project launched are considered as experienced entrepreneurs. The number of launched projects for the 248 experienced creators varies from 1 (minimum) to 55 (maximum) projects, with a Mean equal to 7,03 and Standard Deviation equal to 8,85. Table 5 shows that 59% of the entrepreneurs were using the crowdfunding platform for the first time. However, for the 336 (56%) successful projects 56% of the entrepreneurs have previous experience in

crowdfunding campaigns, while 77% of the entrepreneurs in the failed projects have no previous experience.

### 3. Categories

Table 6 Distribution of the campaigns depending on their categories

| Categories | Failure | | Success | | Total | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Art** | 22 | 4<br>0,08* | 49 | 8<br>0,15* | 71 | 12 |
| **Comics** | 9 | 1<br>0,03* | 28 | 5<br>0,08* | 37 | 6 |
| **Crafts** | 2 | 0<br>0,01* | 2 | 0<br>0,01* | 4 | 1 |
| **Dance** | 1 | 0<br>0,00* | 1 | 0<br>0,00* | 2 | 0 |
| **Design** | 6 | 1<br>0,02* | 13 | 2<br>0,04* | 19 | 3 |
| **Fashion** | 19 | 3<br>0,07* | 5 | 1<br>0,02* | 24 | 4 |
| **Film & Video** | 36 | 6<br>0,14* | 23 | 4<br>0,07* | 59 | 10 |
| **Food** | 19 | 3<br>0,07* | 13 | 2<br>0,04* | 32 | 5 |
| **Games** | 39 | 6<br>0,15* | 78 | 13<br>0,23* | 117 | 19 |
| **Music** | 11 | 2<br>0,04* | 18 | 3<br>0,05* | 29 | 5 |
| **Photography** | 10 | 2<br>0,04* | 28 | 5<br>0,08* | 38 | 6 |
| **Publishing** | 21 | 3<br>0,08* | 28 | 5<br>0,08* | 49 | 8 |
| **Technology** | 69 | 11<br>0,26* | 49 | 8<br>0,15* | 118 | 20 |
| **Theater** | 2 | 0<br>0,01* | 1 | 0<br>0,00* | 3 | 0 |
| ***Total*** | ***266*** | ***44%*** | ***336*** | ***56%*** | ***602*** | ***100%*** |

*Percentage reported to the successful status

As shown in table 6, more than the half of the studied projects (306/602) belongs to only three categories out of the fifteen existing categories: technology 20% (118 projects), games 19% (117 projects), and art 12% (71projects). The same three categories are the most successful ones in achieving the campaigns goals as 23% of the successful projects belongs to the games category, and 15% for both art and technology categories.

## 4. Campaign's Length

In the studied sample, a campaign lasts a minimum of 7 days and a maximum of 61 days, with a mean of 33.4 days (standard deviation = 15,33). This average is reduced for successful campaigns to 29,07 days (standard deviation = 10,88) while it is extended to 40,15 days for failure ones (standard deviation = 14,51). Table 7 compares the successful and unsuccessful campaigns according to their length.

Table 7 Descriptive statistics depending on the campaigns' length

| Success Status | N | Minimum (days) | Maximum (days) | Mean | Std. Deviation | Variance |
|---|---|---|---|---|---|---|
| **Failure** | 266 | 7 | 61 | 40,15 | 14,51 | 210,541 |
| **Success** | 336 | 7 | 60 | 29,07 | 10,876 | 118,294 |
| ***Total*** | ***602*** | ***7*** | ***61*** | ***33,24*** | ***15,33*** | ***234,927*** |

## 5. Funding Target

Table 8 shows that 470 projects intended to gather less than $10.000, and 65% of them succeeded in doing it, which represents a rate 51% of the 602 studied projects (27% seeking for less than $1.000 and 24% between $1.000 and $10.000). Among the successful projects, no one had the objective to gather more than $100.000, and only 9% of them succeeded to gather more than $10.000.

Table 8 Distribution of the campaigns depending on the funding target.

| Success / Funding Target | Failure | | Success | | Total | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **<$1.000** | 56 | 9<br>21* | 164 | 27<br>49* | **220** | **37%** |
| **$1.000-$10.000** | 107 | 18<br>40* | 143 | 24<br>43* | **250** | **42%** |
| **$10.001-$100.000** | 95 | 16<br>36* | 29 | 5<br>9* | **124** | **21%** |
| **$100.001- 999.999** | 7 | 1<br>3* | 0 | 0<br>0* | **7** | **1%** |
| **>1.000.000** | 1 | 0<br>0* | 0 | 0<br>0* | **1** | **0%** |
| ***Total*** | ***266*** | ***44%*** | ***336*** | ***56%*** | ***602*** | ***100%*** |

*Percentage reported to the successful status

## B. Descriptive Statistics

In this section there is a focus on descriptive statistics and frequencies of independent variables that will be used later for testing hypotheses

### 1. Financial and Reward Dimension

The description of the financial and reward dimension related variables is presented in table 9 and 10.

Table 9 Descriptive statistics for the financial dimension related variables

| Variables | Success Status | N | Min | Max | Mean | Median | Std. Deviation |
|---|---|---|---|---|---|---|---|
| **Funding Target ($)** | *Failure* | 266 | 30 | 78.874.244 | 315.624,13 | 6.093,5 | 4835112,095 |
| | *Success* | 336 | 1 | 50.000 | 3.701,83 | 1.225 | 6033,489 |
| **Number of Bakers** | *Failure* | 266 | 0 | 442 | 16,28 | 6 | 35,95 |
| | *Success* | 336 | 3 | 16.759 | 310,6 | 96 | 1090,282 |
| **Minimum Contribution Amount ($)** | *Failure* | 266 | 1 | 2.730 | 38,51 | 10 | 185,219 |
| | *Success* | 336 | 1 | 500 | 13,23 | 1 | 44,127 |

Table 10 Distribution of the campaigns depending on the reward type

| Success | Failure | | Success | | Total | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Tangible Reward** | 112 | 19<br>42* | 115 | 19<br>34* | **227** | **38** |
| **Intangible Reward** | 154 | 26<br>58* | 221 | 37<br>66* | **375** | **62** |
| ***Total*** | ***266*** | ***44%*** | ***336*** | ***56%*** | ***602*** | ***100%*** |

*Percentage reported to the successful status

### a. Funding target

The funding target for the successful projects range from a minimum of $1 to a maximum of $50.000, with a mean value equal to $3.701,83 and, a median of $1.225. However, failed projects show a higher mean value, $315.624,13, and a median of $6.093,5; with a funding target ranging from $30 to $78.874.244. As described in the literature, the mean value of the funding target established by the successful projects is lower than the one established by the unsuccessful campaigns (Frydrych et al., 2014; Gangi and Daniele, 2017).

**b. Number of bakers**

The bakers' number for the successful campaigns varies in an interval of 3 to 16.759 bakers with a mean equal to 310,6 and a median of 96 bakers. Conversely, the failed campaigns have a mean of 16,28 contributors ranging from no (0) baker to maximum 442 bakers, and a median of 6 bakers.

**c. Minimum contribution amount**

The mean value of the minimum contribution amount for the successful projects is equal to $13,23 varying from $1 to $500. While the mean value of the minimum contribution amount is almost three time higher ($38,51) ranging from $1 to $2.730.

**d. Reward type**

For each project, the entrepreneur can propose one or more rewards depending on the amount of the investment. The nature of the reward associated with the minimum amount required will be studied. Most projects 62% propose an intangible reward (mostly a "thanks") against 38% that propose a tangible one (pre-sale). Among the 336 successful projects, only 34% propose a tangible reward against 42% of the failed projects.

**2. Quality Dimension**

The related descriptive statistics are presented in table 11 and 12.

**a. Existence and length of videos**

54% (327/602) of the studied projects publish a video presentation of their products. 57% of them (186) successfully reached their objective. However, 45% of the successful campaigns do not have any published video. The maximum duration of the videos for the successful projects is 21 minutes with a mean equal to 1,34 minute and a median of 0,48 minute. However, the maximum duration of the videos for the failed projects is 11,39 minutes with a mean equal to 0,9 minute and a median of 0,2 minute.

**b. Existence and number of photos**

518 campaigns (86%) of the projects published at least one photo on their presentation. With a maximum of 122 photos for the successful campaigns and 66 for the failed ones. 94% of the successful campaigns published photos and only 6% did not. However, 77% of the failed campaigns have published photos on their

presentation. The mean value of the published photos of the successful campaigns is 13,18 photos (median=8), against 6,25 photos for the failed campaigns (median=4).

**c. Use of English language**

Almost all the campaigns (97%) use the English language, alone or with another language. Only 1% of the projects (4 projects) not using English language have been successfully funded.

Table 11 Distribution of the campaigns depending on the use of Videos, Photos, and the English language

| Variables | | Failure | | Success | | Total | |
|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % |
| **Existence of Video** | *NO* | 125 | 21<br>47* | 150 | 25<br>45* | 275 | 46% |
| | *YES* | 141 | 23<br>53* | 186 | 31<br>55* | 327 | 54% |
| **Existence of Photos** | *NO* | 62 | 10<br>23* | 22 | 4<br>6* | 84 | 14% |
| | *YES* | 204 | 34<br>77* | 314 | 52<br>94* | 518 | 86% |
| **Use of English** | *NO* | 14 | 2<br>5* | 4 | 1<br>1* | 18 | 3% |
| | *YES* | 252 | 42<br>95* | 332 | 55<br>99* | 584 | 97% |

*Percentage reported to the successful status

Table 12 Descriptive statistics related to the quality dimension variables

| Variables | Success Status | N | Minimum | Maximum | Mean | Median | Std. Deviation |
|---|---|---|---|---|---|---|---|
| **Length of Video (min)** | *Failure* | 266 | 0 | 11,39 | 0,9018 | 0,205 | 1,45815 |
| | *Success* | 336 | 0 | 21 | 1,3414 | 0,475 | 2,39164 |
| **Number of Photos** | *Failure* | 266 | 0 | 66 | 6,25 | 4 | 8,601 |
| | *Success* | 336 | 0 | 122 | 13,18 | 8 | 15,653 |

**3. Relational Dimension**

Table 5.10 and 5.11 present the statistics related to the relational dimension's independent variables, as of the existence or not of links to accounts on diver's social media's platform and the number of followers on it. Among the 602 studied project, only 26,1% have a Facebook account related to their page; 9,1% a Twitter account and 17,9% an Instagram account. Yet, 36% of them have at least one link to one of the three social media's platform. There are 452 initiatives out of the 602 (75,1%)

which are using the Kickstarter's platform as a social media's tool in order to interact with the potential investors through updates and comments.

Table 13 : Distribution of the campaigns depending on the existence of Social Media's accounts

| Variables | | Failure | | Success | | Total | |
|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % |
| **Existence of Facebook Account** | *NO* | 249 | 41,4<br>93,6* | 196 | 32,6<br>58,3* | 445 | 73,9 |
| | *YES* | 17 | 2,8<br>6,4* | 140 | 23,3<br>41,7* | 157 | 26,1 |
| **Existence of Twitter Account** | *NO* | 256 | 42,5<br>96,2* | 291 | 48,3<br>86,6* | 547 | 90,9 |
| | *YES* | 10 | 1,7<br>3,8* | 45 | 7,5<br>13,4* | 55 | 9,1 |
| **Existence of Instagram Account** | *NO* | 248 | 41,2<br>93,2* | 246 | 40,9<br>73,2* | 494 | 82,1 |
| | *YES* | 18 | 3,0<br>6,8* | 90 | 15,0<br>26,8* | 108 | 17,9 |
| **Existence of Social Media Account** | *NO* | 236 | 39,2<br>88,7* | 149 | 24,8<br>44,3* | 385 | 64,0 |
| | *YES* | 30 | 5,0<br>11,3* | 187 | 31,1<br>55,7* | 217 | 36,0 |
| **Use of Kickstarter 's platform** | *NO* | 138 | 22,9<br>51,9* | 12 | 2,0<br>3,6* | 150 | 24,9 |
| | *YES* | 128 | 21,3<br>48,1* | 324 | 53,8<br>96,4* | 452 | 75,1 |

*Percentage reported to the successful status

**a. Existence of Facebook account and number of followers**

As shown in Table 13, 23,3% of the projects (140/602) have a link to a Facebook account and succeeded in reaching their targets, and only 2,3% (17/602) failed on reaching their objective despite having one. Regarding the number of followers, it ranges from no follower to 183.000 followers for the successful campaigns with a mean value equal to 1.444. For the failed projects there is a maximum of 5.845 followers and a mean value equal to 43 persons.

**b. Existence of Twitter account and number of followers**

Among the studied projects 55 of them associated a Twitter account to their product page on Kickstarter (9,1%). Most of them succeeded in reaching their objectives (45/55) but it represents only 7,5% of the studied sample. Successful campaigns have a mean value of 573 followers, ranging from 0 follower to a

maximum of 81.400. The maximum followers on failed projects equal 638 with a mean of 7 followers.

**c. Existence of Instagram account and number of followers**

Only 17,9% of the projects have an Instagram account link on their presentation, within them 15% succeeded in gathering the funding target while 3% did not. The maximum followers' number for the failed projects equal 58.200 while it equals 38.900 for the successful ones. However, the mean value is respectively 423 and 977.

**d. Updates' number**

This number represents the number of updates published by the entrepreneur on the project page on Kickstarter during the campaign. It ranges from 0 to 50 for the successful projects with a mean value of 6 updates, while it varies from 0 to 12 for the failed projects, with a mean equal to 1 update.

**e. Comments' number**

It is an additional indication about the use of the Kickstarter web site as a Social Media platform where investors and creators can interact. The number of comments reach 3906 for the successful campaigns with a mean value equal to 37, while it does not exceed 25 comments for the failed ones, with a mean equal to 1 comment.

Table 14 Descriptive statistics related to the relational dimension variables

| Variables | Success Status | N | Min. | Max. | Mean | Std. Deviation |
|---|---|---|---|---|---|---|
| **Followers on Facebook** | *Failure* | 266 | 0 | 5.845 | 43 | 382 |
| | *Success* | 336 | 0 | 183.000 | 1.444 | 11.309 |
| **Followers on Twitter** | *Failure* | 266 | 0 | 638 | 7 | 57 |
| | *Success* | 336 | 0 | 81.400 | 573 | 4.996 |
| **Followers on Instagram** | *Failure* | 266 | 0 | 58.200 | 423 | 4.387 |
| | *Success* | 336 | 0 | 38.900 | 977 | 4.015 |
| **Updates' Number** | *Failure* | 266 | 0 | 12 | 1 | 2 |
| | *Success* | 336 | 0 | 50 | 6 | 6 |
| **Comments' Number** | *Failure* | 266 | 0 | 25 | 1 | 3 |
| | *Success* | 336 | 0 | 3.906 | 37 | 220 |

## C. Investigating the Relationship Between the Variables: Correlation Matrix

After the data were transformed (log10, log10 +1), the correlation coefficients between the pairs of variables are calculated, summarized, and presented in the correlation matrix. As there is a multiple set of data, first, the relationships between the independent variables of each dimension and the dependent variable will be presented in separate correlation matrix. Then the correlation matrix for the global model will be presented.

As the studied variables are both ordinal and continuous, and also do not necessarily respond to a linear relationship the Spearman correlation coefficients were preferred to the Pearson coefficients.

### 1. Financial & Reward Dimension

Table 15 Spearman correlations between the financial & reward dimension's independent variables and the success status of the campaigns

| | | Funding Target | Bakers' Number | Minimum Contribution | Reward Type | Success Status |
|---|---|---|---|---|---|---|
| Funding Target | Correlation Coefficient | 1 | -0,05* | -0,013 | -,143** | -,387** |
| | p-value | | 0,223 | 0,747 | <,001 | <,001 |
| Bakers' Number | Correlation Coefficient | | 1 | -,245** | ,095* | ,729** |
| | p-value | | | <,001 | 0,02 | <,001 |
| Minimum Contribution | Correlation Coefficient | | | 1 | 0,064* | -,322** |
| | p-value | | | | 0,115 | <,001 |
| Reward Type | Correlation Coefficient | | | | 1 | ,081* |
| | p-value | | | | | 0,048 |

** Correlation is significant at the 0.01 level
* Correlation is significant at the 0.05 level

Considering the relationships between the independent variables, Table 15 shows that there is no statistically significant correlation between the Funding Target and the Bakers' Number (rho= -0,05; p-value = 0,223); Funding Target and the Minimum Contribution amount (rho= -0,013; p-value= 0,747) and finally between the Reward Type and the Minimum Contribution Amount (rho= 0,064; p-value = 0,115). However, all the independent variables are significantly correlated to the dependent variable 'success status' with p-values < 0,05. The Funding Target and Minimum Contribution amount are negatively correlated to the Success Status with

respective correlation coefficients -0,387 and -0,322. There is a poor relationship between the reward type and the Success Status (rho= 0,81; p-value=0,048)

### 2. Quality Dimension

Table 16 shows that there is no statistically significant correlation between the Existence of Videos and the Success of a campaign (rho= 0,023; p-value= 0,283), and the Length of Videos is weekly related to the success status (rho= 0,071; p-value =0,041). However, the Existence of Photos (rho= 0,240; p-value <0,001) and their Number (rho = 0,327; p-value <0,001) are positively correlated to the Success Status. Also, there is a correlation between the use of English Language and the Success of the campaigns (p-value= 0,002).

Table 16 Spearman correlations between the quality dimension's independent variables and the success status of the campaigns

| | | Videos | Videos' Length | Photos | Photos' Number | Language | Success Status |
|---|---|---|---|---|---|---|---|
| Videos | Correlation Coefficient | 1 | ,907** | 0,006 | ,234** | 0,015 | 0,023 |
| | p-value | | <,001 | 0,441 | <,001 | 0,355 | 0,283 |
| Videos' Length | Correlation Coefficient | | 1 | -0,013 | ,210** | 0,034 | ,071* |
| | p-value | | | 0,374 | <,001 | 0,199 | 0,041 |
| Photos | Correlation Coefficient | | | 1 | ,602** | ,070* | ,240** |
| | p-value | | | | <,001 | 0,043 | <,001 |
| Photos' Number | Correlation Coefficient | | | | 1 | ,130** | ,327** |
| | p-value | | | | | <,001 | <,001 |
| Language | Correlation Coefficient | | | | | 1 | ,119** |
| | p-value | | | | | | 0,002 |

** Correlation is significant at the 0.01 level
* Correlation is significant at the 0.05 level

### 3. Relational Dimension

As shown in Table 17, all the independent variables related to the relational dimension are correlated between each other with p-value always <0,001 and correlation coefficients varying from poor ones to very strong ones (0,998; 0,985).

Also, all the independent variables are significantly corelated to the Success Status of the campaigns (p-values <0,001) and the highest two coefficients are attributed to the use of Kickstarter website as a Social Media's platform, as for the number of Updates (rho=0637) and the number of Comments (rho=0,553).

Table 17 Spearman correlations between the relational dimension's independent variables and the success status of the campaigns

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Correlation Coefficient | 1 | ,985** | ,297** | ,299** | ,245** | ,240** | ,382** | ,333** | ,399** |
| | p-value | | 0 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 |
| 2 | Correlation Coefficient | | 1 | ,309** | ,313** | ,250** | ,251** | ,386** | ,340** | ,404** |
| | p-value | | | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 |
| 3 | Correlation Coefficient | | | 1 | ,998** | ,408** | ,403** | ,239** | ,187** | ,166** |
| | p-value | | | | 0 | <,001 | <,001 | <,001 | <,001 | <,001 |
| 4 | Correlation Coefficient | | | | 1 | ,406** | ,403** | ,242** | ,193** | ,171** |
| | p-value | | | | | <,001 | <,001 | <,001 | <,001 | <,001 |
| 5 | Correlation Coefficient | | | | | 1 | ,994** | ,248** | ,160** | ,259** |
| | p-value | | | | | | 0 | <,001 | <,001 | <,001 |
| 6 | Correlation Coefficient | | | | | | 1 | ,246** | ,163** | ,263** |
| | p-value | | | | | | | <,001 | <,001 | <,001 |
| 7 | Correlation Coefficient | | | | | | | 1 | ,614** | ,637** |
| | p-value | | | | | | | | <,001 | <,001 |
| 8 | Correlation Coefficient | | | | | | | | 1 | ,553** |
| | p-value | | | | | | | | | <,001 |

(1)FB account (2)FB followers (3) Twitter account (4) Twitter followers (5) Instagram account (6) Instagram Followers (7) Updates (8) Comments (9) Success Status
** Correlation is significant at the 0.01 level
* Correlation is significant at the 0.05 level

## 4. The Full Model's Correlation Matrix

The following table (4.15) summarize all the correlation coefficients between all the variables. It shows as already mentioned that only the existence of Videos does not have a statistically significant correlation with the Success Status of the campaigns.

Table 18 . Correlation Matrix between the independent and dependent variables

| | | Funding Target | Bakers' Number | Minimum Contribution | Reward Type | Videos | Videos' Length | Photos | Photos' Number | Language | Facebook Account | FB Followers | Twitter Account | Twitter Followers | Instagram Account | Instagram Followers | Updates | Comments | Success Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Funding Target | Correlation Coefficient | 1 | -0,05 | -0,013 | -,143** | ,270** | ,260** | -,114** | 0,044 | -0,058 | -,179** | -,162** | -0,066 | -0,062 | -,185** | -,180** | -,176** | 0,008 | -,387** |
| | p-value | | 0,112 | 0,373 | <,001 | <,001 | <,001 | 0,002 | 0,142 | 0,079 | <,001 | <,001 | 0,053 | 0,064 | <,001 | <,001 | <,001 | 0,423 | <,001 |
| Bakers' Number | Correlation Coefficient | | 1 | -,245** | ,095** | ,113** | ,176** | ,293** | ,485** | ,151** | ,363** | ,378** | ,211** | ,216** | ,239** | ,247** | ,661** | ,761** | ,729** |
| | p-value | | | <,001 | 0,01 | 0,003 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 |
| Minimum Contribution | Correlation Coefficient | | | 1 | 0,064 | -0,025 | -0,054 | -0,004 | -0,032 | -,106** | -,141** | -,140** | -0,02 | -0,021 | -0,04 | -0,036 | -,226** | -,186** | -,322** |
| | p-value | | | | 0,057 | 0,271 | 0,091 | 0,465 | 0,214 | 0,005 | <,001 | <,001 | 0,31 | 0,307 | 0,166 | 0,19 | <,001 | <,001 | <,001 |
| Reward Type | Correlation Coefficient | | | | 1 | -,177** | -,170** | ,072* | 0,052 | 0,024 | 0,041 | 0,038 | ,092* | ,091* | ,114** | ,109** | 0,066 | ,102** | ,081* |
| | p-value | | | | | <,001 | <,001 | 0,038 | 0,102 | 0,275 | 0,16 | 0,177 | 0,012 | 0,013 | 0,003 | 0,004 | 0,052 | 0,006 | 0,024 |
| Videos | Correlation Coefficient | | | | | 1 | ,907** | 0,006 | ,234** | 0,015 | 0,066 | ,074* | -0,01 | -0,006 | -,075* | -,075* | ,074* | ,131** | 0,023 |
| | p-value | | | | | | <,001 | 0,441 | <,001 | 0,355 | 0,052 | 0,035 | 0,402 | 0,44 | 0,032 | 0,033 | 0,036 | <,001 | 0,283 |
| Videos' Length | Correlation Coefficient | | | | | | 1 | -0,013 | ,210** | 0,034 | ,086* | ,099** | 0,023 | 0,028 | -0,06 | -0,059 | ,112** | ,163** | ,071* |
| | p-value | | | | | | | 0,374 | <,001 | 0,199 | 0,017 | 0,008 | 0,285 | 0,246 | 0,069 | 0,075 | 0,003 | <,001 | 0,041 |
| Photos | Correlation Coefficient | | | | | | | 1 | ,602** | ,070* | ,174** | ,168** | ,128** | ,127** | ,113** | ,111** | ,282** | ,265** | ,240** |
| | p-value | | | | | | | | <,001 | 0,043 | <,001 | <,001 | <,001 | <,001 | 0,003 | 0,003 | <,001 | <,001 | <,001 |
| Photos' Number | Correlation Coefficient | | | | | | | | 1 | ,130** | ,203** | ,208** | ,168** | ,171** | ,157** | ,157** | ,419** | ,491** | ,327** |
| | p-value | | | | | | | | | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 |
| Language | Correlation Coefficient | | | | | | | | | 1 | 0,038 | 0,045 | 0,056 | 0,056 | 0,006 | 0,008 | ,140** | ,153** | ,119** |
| | p-value | | | | | | | | | | 0,178 | 0,136 | 0,086 | 0,087 | 0,443 | 0,422 | <,001 | <,001 | 0,002 |
| Facebook Account | Correlation Coefficient | | | | | | | | | | 1 | ,985** | ,297** | ,299** | ,245** | ,240** | ,382** | ,333** | ,399** |
| | p-value | | | | | | | | | | | 0 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 |
| FB Followers | Correlation Coefficient | | | | | | | | | | | 1 | ,309** | ,313** | ,250** | ,251** | ,386** | ,340** | ,404** |
| | p-value | | | | | | | | | | | | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 | <,001 |
| Twitter Account | Correlation Coefficient | | | | | | | | | | | | 1 | ,998** | ,408** | ,403** | ,239** | ,187** | ,166** |
| | p-value | | | | | | | | | | | | | 0 | <,001 | <,001 | <,001 | <,001 | <,001 |
| Twitter Followers | Correlation Coefficient | | | | | | | | | | | | | 1 | ,406** | ,403** | ,242** | ,193** | ,171** |
| | p-value | | | | | | | | | | | | | | <,001 | <,001 | <,001 | <,001 | <,001 |
| Instagram Account | Correlation Coefficient | | | | | | | | | | | | | | 1 | ,994** | ,248** | ,160** | ,259** |
| | p-value | | | | | | | | | | | | | | | 0 | <,001 | <,001 | <,001 |
| Instagram Followers | Correlation Coefficient | | | | | | | | | | | | | | | 1 | ,246** | ,163** | ,263** |
| | p-value | | | | | | | | | | | | | | | | <,001 | <,001 | <,001 |
| Updates | Correlation Coefficient | | | | | | | | | | | | | | | | 1 | ,614** | ,637** |
| | p-value | | | | | | | | | | | | | | | | | <,001 | <,001 |
| Comments | Correlation Coefficient | | | | | | | | | | | | | | | | | 1 | ,553** |
| | p-value | | | | | | | | | | | | | | | | | | <,001 |

## D. Hypotheses Testing: Regression Analysis:

A binary logistic regression model examines how each indicator (independent variable) influences the likelihood of a successful campaign. For this, the research will be conducted in steps. First, the research will study the combined effect of each dimension's related variables on the success of a reward-based crowdfunding campaign rather than performing a bivariate analysis between each indicator and the dependent variable. Thus, it is considering the possible interactions between the different independent variables. Second, adding the dimensions one by one to the global model, the researcher will study the cumulative effect of all variables. And using SPSS software this research will try to come up with the best model that considers only the more meaningful independent variables on the probability of success of the campaigns.

### 1. Results by dimension

### a. Financial and reward dimension (H1)

Table 19 Results for Logistic Regression Analysis for Financial & Reward Dimension's indicators

| Variable | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I.for EXP(B) | | Related Hypothesis |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper | |
| **log_FT** | -3,239 | 0,366 | 78,19 | 1 | **<,001** | 0,039 | 0,019 | 0,08 | **H1.1** |
| **log_BN** | 5,514 | 0,544 | 102,803 | 1 | **<,001** | 248,209 | 85,484 | 720,69 | **H1.2** |
| **log_MC** | -1,101 | 0,272 | 16,374 | 1 | **<,001** | 0,333 | 0,195 | 0,567 | **H1.3** |
| **RT** | 0,47 | 0,367 | 1,642 | 1 | 0,2 | 0,625 | 0,304 | 1,283 | *H1.4* |
| **Constant** | 4,157 | 0,922 | 20,307 | 1 | <,001 | 63,874 | | | |

Table 19 shows that the Reward Type variable does not have a significant impact on the success of a crowdfunding campaign (p-value=0,2). Therefore, hypothesis H1.4 is rejected.

With a p-value <0,001, the remaining independent variables contribute significantly on the success of a reward-based crowdfunding campaign. This significance is confirmed by Wald values different from 0. The Wald test is used to determine the significance of the indicators and the contribution of each one in the likelihood of achievement of the predicted variable, (Forthofer et al., 2007).

The regression coefficient (β) for Funding Target and Minimum Contribution Amount carry negative sign and are respectively equal to -3,24 and -1,10. This indicates that a negative relationship exists between the Funding Target and the probability of a campaign's success, also, between the Minimum Contribution Amount and the Success of the campaign. So, an increase in the settled Funding Target or Minimum Contribution Amount decreases the probability of success of funding the projects. Thus, hypotheses H1.1 and H1.3 are confirmed.

The β coefficient for the Bakers' Number carries a positive sign which confirms that a higher number of bakers increases the probability that a crowdfunding campaign successfully funded. Hypothesis H1.3 is confirmed.

### b. Quality dimension (H2)

Table 20 Results for Logistic Regression Analysis for Quality Dimension's indicators

| **Variables** | **B** | **S.E.** | **Wald** | **df** | **Sig.** | **Exp(B)** | **95% C.I. for EXP(B)** | | **Related Hypothesis** |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper | |
| **Videos** | 0,945 | 0,301 | 9,876 | 1 | **0,002** | 0,389 | 0,216 | 0,701 | **H2.1.a** |
| **log_Video_L** | 1,791 | 0,584 | 9,404 | 1 | **0,002** | 5,996 | 1,909 | 18,837 | **H2.1.b** |
| **Photos** | 0,131 | 0,363 | 0,129 | 1 | 0,719 | 1,14 | 0,559 | 2,323 | *H2.2.a* |
| **log_photos_N** | 1,498 | 0,278 | 29,086 | 1 | **<,001** | 4,473 | 2,595 | 7,709 | **H2.2.b** |
| **language** | 1,076 | 0,6 | 3,221 | 1 | 0,073 | 2,933 | 0,906 | 9,5 | *H2.3* |
| **Constant** | 1,99 | 0,643 | 9,588 | 1 | 0,002 | 0,136 | | | |

Looking at the p-values related to the Quality Dimension's independent variables, analyst can conclude that the Existence of Photos and the Use of English Language do not have a statistically significant impact on the likelihood of Success of the campaigns; p-values are respectively equal to 0,719 and 0,073 (p-value>0,05). According to these values hypotheses (H2.2.a) and (H2.3) are rejected. However, it's important to say that while studying the direct relation between only the Use of English Language and the Success Status of campaigns (considering that there are no interactions between variables) analyst noticed that the p-value and the Wald value are statistically significant respectively equal to 0,008 and 7,114; as shown in table 21.

Table 21 Regression of the variable “Language” on “Success Status”

| Variables | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I.for EXP(B) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| **language** | 1,528 | 0,573 | 7,114 | 1 | **0,008** | 0,217 | 0,071 | 0,667 |
| **Constant** | 0,276 | 0,084 | 10,89 | 1 | <,001 | 1,317 | | |

For the « Existence of Videos” variable, the regression coefficient equals to 0,945, associated to a p-value equal to 0,002 (lower than the significance level of 0,05) and a Wald value equals to 9,876. This shows that the existence of videos has a significant effect on the success of the project and hypothesis (H2.1.a) is confirmed.

Considering the “Videos’ Length” variable; with a positive β coefficient; equals to 1,79; and an odds ratio equals 5,996; the analysis found that a longer video has more chance to affect the success of a project Looking at the Length of Videos’ related p-value (=0,002 lower than 0,05) and the Wald value (=9,404 different from 0) it also found that the “Length of Videos” has a significant impact on the Success Status. So, hypothesis (H2.1.b) is confirmed.

Although the existence of photos has no statistically meaningful significance on the success of the campaigns, still the Photos’ Number positively increases the probability of success of the projects. As presented in table 20, Number of Photos has a positive β coefficient equals to 1,498 confirmed by a Wald value equals to 29,086 and a p-value <0,001. The hypothesis (H2.2.b) is also confirmed.

### c. Relational dimension (H3)

Table 22 Results for Logistic Regression Analysis for Relational Dimension’s indicators

| Variables | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I.for EXP(B) | | Related Hypothesis |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper | |
| **FB** | 0,898 | 1,289 | 0,485 | 1 | 0,486 | 0,408 | 0,033 | 5,093 | H3.1.a |
| **log_FB_N** | 1,022 | 0,517 | 3,906 | 1 | **0,048** | 2,78 | 1,009 | 7,662 | **H3.1.b** |
| **Twitter** | 3,685 | 1,544 | 5,698 | 1 | **0,017** | 0,025 | 0,001 | 0,517 | **H3.2.a** |
| **log_Twitter_N** | 1,214 | 0,673 | 3,253 | 1 | 0,071 | 3,368 | 0,9 | 12,599 | H3.2.b |
| **Insta** | 0,43 | 1,413 | 0,092 | 1 | 0,761 | 0,651 | 0,041 | 10,384 | H3.3.a |
| **log_Insta_N** | 0,455 | 0,473 | 0,925 | 1 | 0,336 | 1,576 | 0,623 | 3,986 | H3.3.b |
| **log_Updates** | 3,307 | 0,402 | 67,569 | 1 | **<,001** | 27,303 | 12,41 | 60,071 | **H3.4** |
| **log_Comment** | 1,618 | 0,293 | 30,394 | 1 | **<,001** | 5,043 | 2,837 | 8,964 | **H3.5** |
| **Constant** | 2,167 | 0,202 | 114,82 | 1 | <,001 | 0,115 | | | |

Table 22 represents the Logistic Regression analysis related to relational dimension's indicators. Only four of them have a significant effect on the probability of success of the projects. The use of Kickstarter's web site as a social media's platform is the most significant factor as represented by the two independent variables "Updates' Number" and "Comments' Number". Both of them have a positive regression coefficient; β (Updates) = 3,307 and β (Comments) = 1,618 and a p-value <0,001 (lower than the significance level 0,05) confirmed by high Wald values; 67,569 for the Updates and 30,394 for the Comments. Researcher concludes that a higher number of published updates and comments increases the probability of a reward-based crowdfunding campaign to succeed. The hypotheses H3.4 and H3.5 are both confirmed.

Analyzing the use of external social media's accounts, only two indicators have a significant effect on the likelihood of a project to succeed. As shown in table 22, only the Number of Followers on Facebook and the Existence of a Twitter account have p-values lower than the significant level (0,05), respectively 0,048 and 0,017. As the existence of a social media's account and the number of followers on it is highly related, a second analysis was performed considering the combined effect of each social media account and related followers' number (FB*log_FB_N; Twitter*log_Twitter_N; Insta*log_Insta_N). This technique (Model with interaction) is useful when the interpretation of the effect of one predictor is dependent on the other (Meyers et al., 2013). The results are presented in the following table (table 23)

Table 23 Results for Logistic Regression Analysis for Relational Dimension's indicators using interaction's model

| **Variables** | **B** | **S.E.** | **Wald** | **df** | **Sig.** | **Exp(B)** | **95% C.I.for EXP(B)** | | **Related hypothesis** |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper | |
| **FB*log_FB_N** | 0,882 | 0,114 | 60,13 | 1 | **<,001** | 2,416 | 1,933 | 3,019 | **H3.1** |
| **Twitter* log_Twit_N** | 0,617 | 0,155 | 15,86 | 1 | **<,001** | 1,853 | 1,368 | 2,51 | **H3.2** |
| **Insta* log_Insta_N** | 0,471 | 0,1 | 22,20 | 1 | **<,001** | 1,602 | 1,317 | 1,949 | **H3.3** |

Table 24 summarizes all the hypotheses of the research model and the results previously presented.

Table 24 Summary of the hypotheses testing by dimension

| Hypo-thesis | Description | Result |
|---|---|---|
| **H1.1** | A small funding target has a significant impact on the probability of a reward-based crowdfunding campaign's success | **Confirmed** |
| **H1.2** | The bakers' number has a significant impact on the probability of a reward-based crowdfunding campaign's success | **Confirmed** |
| **H1.3** | A small amount of minimum contribution has a significant impact on the probability of a reward-based crowdfunding campaign's success | **Confirmed** |
| **H1.4** | The type of reward proposed has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Rejected** |
| **H2.1.a** | The existence of a video presentation has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Confirmed** |
| **H2.1.b** | The length of the video presentation has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Confirmed** |
| **H2.2.a** | The existence of pictures has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Rejected** |
| **H2.2.b** | The number of published pictures has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Confirmed** |
| **H2.3** | The language used (use of English language) has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Rejected** |
| **H3.1** | The existence of a Facebook page link and the Number of Followers on it has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Confirmed** |
| **H3.2** | The existence of a Twitter account and the Number of Followers on it has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Confirmed** |
| **H3.3** | The existence of an Instagram page and the Number of Followers on it has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Confirmed** |
| **H3.4** | The number of updates on the crowdfunding platforms has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Confirmed** |
| **H3.5** | The number of comments on the crowdfunding platforms has a significant impact on the probability of a reward-based crowdfunding campaign's success. | **Confirmed** |

The existence of a link to a Facebook account combined to the Number of Followers on it has a significant positive effect on the probability of the campaign's success. It is confirmed by a regression coefficient equals to 0,882, a Wald value equals to 60,131 and a p-value <0,001. So that, hypothesis 3.1 is confirmed.

The second studied social media is Twitter. The β coefficient for the combined effect equals 0,617 with a p-value <0,001 confirmed by a Wald value equals to 15,862. As for Facebook, the existence of a link to a Twitter account combined to the number of Followers on it increases the probability of a campaign's success, and hypothesis H3.2 is confirmed as well.

Finally, the existence of a link to an Instagram account combined to the number of Followers on it has a positive and a significant effect on the probability of a campaign's success. As shown in the table the associated β coefficient equals 0,471 with a Wald value equals to 22,203 and a p-value <0,001. So, as for the other social media's platform, the related hypothesis H3.3 is confirmed.

## 2. The Binary Logistic Regression Analysis for the Overall Studied Model

In this section, the research will focus on the combined effect of the three studied dimensions on the probability of a reward-based crowdfunding campaign's success. Using such modelling strategy, the study will explore how can the interaction between independent variables affects their respective significance. Will be included in the overall model the independent variables that already have a statistically significant effects on the likelihood that a reward based crowdfunding campaign succeed. For this the logistic regression model previously proposed (Table 3) will be adapted to the results from the previous section. The theoretical model is shown in table 25. Finally, using SPSS proposed features the study aims to come up with the best model that fits the current study including only the most significant variables.

Table 25 Adapted Logistic Regression Model

| | Independent variables | | |
|---|---|---|---|
| **Dimension** | **Model 1** | **Model 2** | **Model 3** |
| **Financial& Reward Dimension** | Log_FT<br>Log_BN<br>Log_MC | Log_FT<br>Log_BN<br>Log_MC | Log_FT<br>Log_BN<br>Log_MC |
| **Quality Dimension** | | Videos<br>Log_video_L<br>Log_photos_N | Videos<br>Log_video_L<br>Log_photos_N |
| **Relational Dimension** | | | FB*log_FB_N<br>Twitter*log_Twitter_N<br>Insta*log_Insta_N<br>Updates<br>Comments |

**a. Classification table**

Chan (2004) explains that while performing the logistic regression analysis, an equation (also called model) is produced to estimate the probability of success; in this research the success of a reward-based crowdfunding campaign, using the various independent variables. Table 26 represents the Block 0 which is the null model and were no independent variable is included. It represents the case where all campaigns have the same probability of success.

Table 26 Classification Table: Block 0

| | | Predicted | | |
|---|---|---|---|---|
| | | Success Status | | Percentage Correct |
| Observed | | Failure | Success | |
| Success Status | Failure | 0 | 266 | 0 |
| | Success | 0 | 336 | 100 |
| Overall Percentage | | | | 55,8 |

In order to test the reliability of a model, a cut off value (equals to 0,5) is used to allocate each campaign to one of the predicted groups (Success or Failure groups). The campaigns with a predicted probability of success higher than 0,5 will be allocated to the Success group. The Classification Table compares the observed and

predicted results to assess the percentage of correctly classified items. Table 27 represents the full model including all the studied independent variables.

Table 27 Classification Table: Full model

| | | Predicted | | |
|---|---|---|---|---|
| | | Success Status | | Percentage Correct |
| Observed | | Failure | Success | |
| Success Status | Failure | 246 | 20 | 92,5 |
| | Success | 14 | 322 | 95,8 |
| Overall Percentage | | | | 94,4 |

Using the full model 94,4% of the campaigns were correctly classified against 55,8% of in the null model, which represents a large improvement.

**b. Omnibus tests of model coefficients**

The omnibus tests of model coefficients table allow the observation of the change in the significance (p-value) of the model while adding blocks of indicators (Chan Y.H, 2004).

Table 28 Omnibus Tests of Model Coefficients

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 599,194 | 3 | <,001 |
| | Block | 599,194 | 3 | <,001 |
| | **Model 1** | **599,194** | **3** | **<,001** |
| Step 2 | Step | 11,558 | 3 | 0,009 |
| | Block | 11,558 | 3 | 0,009 |
| | **Model 2** | **610,752** | **6** | **<,001** |
| Step 3 | Step | 19,774 | 5 | 0,003 |
| | Block | 19,774 | 5 | 0,003 |
| | **Model 3** | **630,525** | **11** | **<,001** |

Step 1 on table 28 represents the improvement on the null model when including the Financial & Reward Dimension's indicators. Model 1 is statistically significant compared to the null model, X2 (3) = 599,194 and p-value < 0,001 which is lower than the significance level (0,05).

Step 2 represents the cumulative statistics when adding the Quality Dimension's indicators to the Financial & Reward Dimension's ones. It still significant with a X2 (6) = 599,194 and a p-value < 0,001.

Step 3 represents the full model including the 10 independent variables related to the three studied dimensions. It shows that the full model is statistically significant

compared to the null model with a chi-square X2 (11) = 630,525 and p-value < 0,001.

**c. Model summary: Goodness of Fit**

Among the various values that reflect the goodness of fit of a logistic regression model, some of them are presented in table 29. The -2 Log Likelihood value is not informative, but usually used for comparisons (Chan Y.H,2004). The Cox & Snell R square and Nagelkerke R Square are adapted R2 to regression models "pseudo-R2". They both try to quantify the proportion of variation of the dependent variable explained by the indicators included in the studied model (Tranmer and Elliot, 2008; Hilbe, 2009).

Table 29 Model Summary

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| Model 1 | 227,197 | 0,63 | 0,844 |
| Model 2 | 215,639 | 0,637 | 0,854 |
| Model 3 | 195,866 | 0,649 | 0,869 |

Table 29 shows the effects of adding the independent variables related to each dimension on the variation of the success status of the published projects.

Looking at the first model, the value of Cox & Snell R square and Nagelkerke R Square is 0,63 and 0,844 respectively; suggesting that the Financial & Reward Dimension's related independent can explain at least 63% and at most 84,4% of the variability of the campaign's success status.

The effect of the Quality Dimension's variables is somehow negligible since they participate at most with 1% in the increase the variation with respective Cox & Snell R square and Nagelkerke R Square values equal to 0,637 (63,7%) and 0,854 (85,4%).

The full model, that represents the cumulative effect of all indicators from the three dimensions, have a Cox & Snell R square value equals to 0,649 and a Nagelkerke R Square value equals to 0,869. So, from 64,9% to 86,9% of the variation in the success of the reward-based crowdfunding campaigns is explained by the independent variables in the full model suggesting that predictions are reliable.

**d. Model estimation**

The developed binary logistic regression model carried out aims to assess the cumulative effect of Financial and Reward dimension, Quality dimension and Relational dimension's independent variables on the likelihood of succeeding in collecting the targeted amount through reward-based crowdfunding campaigns. Table 30 presents the followed steps and the results of the full model.

Table 30 Result of Logistic Regression Analysis

| | | B | S.E | Wald | df | Sig. | Exp (B) | 95% C.I.for EXP(B) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Lower | Upper |
| **Model 1** | log_FT | -3,1 | 0,4 | 79,4 | 1,0 | **<,001** | 0,043 | 0,02 | 0,1 |
| | log_BN | 5,4 | 0,5 | 105,6 | 1,0 | **<,001** | 224,2 | 79,86 | 629,5 |
| | log_MC | -1,2 | 0,3 | 18,7 | 1,0 | **<,001** | 0,3 | 0,18 | 0,5 |
| | **Constant** | 3,8 | 0,9 | 19,0 | 1,0 | **<,001** | 43,8 | | |
| **Model 2** | log_FT | -3,6 | 0,4 | 77,3 | 1,0 | **<,001** | 0,027 | 0,01 | 0,1 |
| | log_BN | 5,7 | 0,6 | 93,6 | 1,0 | **<,001** | 290,4 | 92,08 | 916,0 |
| | log_MC | -1,2 | 0,3 | 19,4 | 1,0 | **<,001** | 0,3 | 0,17 | 0,5 |
| | Videos | 1,2 | 0,6 | 3,3 | 1,0 | 0,068 | 3,3 | 0,92 | 11,6 |
| | log_Video_L | 0,1 | 1,2 | 0,0 | 1,0 | 0,927 | 1,1 | 0,12 | 10,8 |
| | log_photos_N | 0,3 | 0,4 | 0,5 | 1,0 | 0,469 | 1,4 | 0,59 | 3,1 |
| | **Constant** | 4,0 | 0,9 | 19,2 | 1,0 | **<,001** | 54,3 | | |
| **Model 3** | log_FT | -3,3 | 0,4 | 58,9 | 1,0 | **<,001** | 0,036 | 0,02 | 0,1 |
| | log_BN | 5,2 | 0,7 | 62,5 | 1,0 | **<,001** | 178,1 | 49,27 | 643,9 |
| | log_MC | -1,2 | 0,3 | 18,0 | 1,0 | **<,001** | 0,3 | 0,16 | 0,5 |
| | Videos | 0,7 | 0,7 | 1,3 | 1,0 | 0,259 | 2,1 | 0,58 | 7,6 |
| | log_Video_L | 0,4 | 1,1 | 0,1 | 1,0 | 0,753 | 1,4 | 0,16 | 12,9 |
| | log_photos_N | 0,2 | 0,5 | 0,2 | 1,0 | 0,672 | 1,2 | 0,48 | 3,1 |
| | FB* log_FB_N | 0,5 | 0,2 | 6,2 | 1,0 | **0,012** | 1,7 | 1,12 | 2,6 |
| | Twitter* log_Twitter_N | 4,2 | 2,0 | 4,3 | 1,0 | **0,037** | 64,5 | 1,28 | 3264,3 |
| | Insta* log_Insta_N | 0,0 | 0,2 | 0,0 | 1,0 | 0,903 | 1,0 | 0,67 | 1,4 |
| | log_Updates | 1,7 | 0,6 | 7,8 | 1,0 | **0,005** | 5,7 | 1,68 | 19,5 |
| | log_Comment | 0,1 | 0,6 | 0,0 | 1,0 | 0,890 | 1,1 | 0,37 | 3,2 |
| | **Constant** | -1,0 | 2,2 | 0,2 | 1,0 | 0,659 | 0,4 | | |

As explained previously, the overall model was statistically more significant than the null model (X2 (11) = 630,525 and p-value < 0,001) and, explained 64,9% (Cox & Snell R2) to 86,9% (Nagelkerke R2) of the variation in the success of the reward-based crowdfunding campaigns, and predicted 94,4% of cases.

However, looking at the results presented in table 30, among the previously significant independent variables, some of them do not have the same weights and become statically insignificant compared to other indicators. Only 6 independent variables over 11 remain statistically significant. Funding Target (p-value <0,001), Bakers' Number (p-value <0,001),

Minimum Contribution Amount (p-value <0,001), the Existence of Facebook Account and the Number of Followers on it (p-value = 0,012), the Existence of Twitter Account and the Number of Followers on it (p-value = 0,037), and the Number of Updates published on the platform (p-value = 0,005) are significant. However, all the indicators related to the quality dimension (Existence of Videos and their Length and, the Photos' number) become statistically insignificant. Also, the number of Comments (p-value = 0,89) and the Existence of an Instagram Account and the Number of Followers on it (p-value = 0,903) are insignificant.

**e. Model-building "The Forward Selection Method"**

One of the main purposes of this study is to suggest the best model in predicting the likelihood of a reward-based crowdfunding campaign to be successful. Among the statistical methods used in model-building, "forward stepwise logistic regression" method is widely used to select the best subset variables from a variety of studied variables (In Lee and Koval, 1997, Peng and So, 2002). SPSS software allows such construction using the Wald's statistics as a selection criterion. It represents a mean of selection based on objective mathematical criteria, without considering the researcher's selection criteria or possible biases in his choice of variables (Aljandali, 2017; Peng and So, 2002).

In order to perform this analysis, all the 14 variables to be studied were introduced in a single block without consideration of the different dimensions and interactions. The detailed analysis made by SPSS is shown in the appendix 1.

Table 31 represents the final step with the most significant independent variables and their related statistics.

Table 31 Variables in the Equation: Foreword Selection Method

| Variables | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I.for EXP(B) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| **log_FT** | -3,32 | ,428 | 60,29 | 1 | <,001 | ,036 | 0,016 | 0,083 |
| **log_BN** | 5,24 | ,629 | 69,19 | 1 | <,001 | 187,8 | 54,687 | 644,75 |
| **log_MC** | -1,23 | ,288 | 18,14 | 1 | <,001 | ,294 | 0,167 | 0,516 |
| **Videos** | ,963 | ,414 | 5,43 | 1 | ,020 | 2,62 | 1,165 | 5,895 |
| **FB* log_FB_N** | ,48 | ,195 | 6,034 | 1 | ,014 | 1,6 | 1,102 | 2,367 |
| **Twitter* log_Twitter_N** | 1,37 | ,670 | 4,155 | 1 | ,042 | ,255 | 1,054 | 14,593 |
| **logUpdates** | 1,82 | ,604 | 9,05 | 1 | ,003 | 6,15 | 1,884 | 20,097 |
| **Constant** | 3,22 | ,957 | 11,29 | 1 | <,001 | 24,9 | | |

The proposed model contains 7 independent variables and has a statistically significance shown by a chi-squared value X2 (7) = 628,085 and a p-value < 0,001. It explains 64,8% (Cox & Snell R2) to 86,8% (Nagelkerke R2) of the variation in the success of the reward-based crowdfunding campaigns and predicted 94% of cases.

Unlike the previous model, the proposed model includes the Existence of Video as a significant variable in the probability of success of a project. This indicator has a positive regression coefficient equals to 0,963, Wald = 5,43 and a p-value = 0,02.

### E. Analysis of the Turkish Campaigns

Since one of the objectives of this thesis is to raise awareness among entrepreneurs and young people, with innovative ideas but no access to traditional means of financing in Turkey, to the crowdfunding model, this section will focus on Turkish projects published in an international platform to see how well they are doing in a competitive international market.

For this, the researcher proposes to study the Turkish campaigns that have been published on the Kickstarter platform, describe them, and check to what extent the weight of the studied variables is in adequacy or not with the results previously described.

Basically, this section aims to make aware Turkish entrepreneurs who plan to engage in crowdfunding to the success criteria of the campaigns that exist on this

platform. Therefore, the study will focus on the 188 Turkish projects published on the Kickstarter platform up to 7/1/2021

## 1. Description of the Turkish Campaigns

### a. General information

The Success Ratio of the Turkish campaign fundraising is equal to 0,46, with 59 successful campaigns over 188 (31,4%) and 129 failed ones (68,6%). From the studied sample of 602 international campaign, Turkey has a successful rate (31,4%) lower than in countries where crowdfunding is popularized like the European countries where the percentage equals 50%,

58,2% in the USA and reached 65,7% in Canada.

#### i. Experience status

Table 32 Distribution of the Turkish Campaigns according to the Experience Status

| | **Failure** | | **Success** | | **Total** | |
|---|---|---|---|---|---|---|
| | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| **No Experience** | 97 | 72,4 | 37 | 27,6 | 134 | 71,3 |
| **Experienced** | 32 | 59,3 | 22 | 40,7 | 54 | 28,7 |
| **Total** | **129** | **68,6** | **59** | **31,4** | **188** | **100** |

71,3% of the entrepreneurs have no previous experience in crowdfunding projects, 27,6% of them succeeded in reaching their fundraising target. 40,7% of the experienced entrepreneurs reached their targets. Results are presented in table 32.

#### ii. Categories

Among the successful campaigns, 28,8% remains to the “Film & Video” category, 20,3% to “Technology” and 15,3% to “Games”. There is no successful campaign in the fields of Comics, Crafts, Design and Fashion. The same categories present the highest failure rates respectively 27,1%, 18,6% and 17,8%. Table 33 presents the correlated statistics.

Table 33 Distribution of the Turkish Campaigns according to the Category

| Categories | Failure | | | Success | | | Total | |
|---|---|---|---|---|---|---|---|---|
| | N | % * | %** | N | %* | %** | N | % |
| **Art** | 19 | 70,4 | 14,7 | 8 | 29,6 | 13,6 | **27** | **14,4** |
| **Comics** | 2 | 10 | 1,6 | 0 | 0,0 | 0,0 | **2** | **1,1** |
| **Crafts** | 2 | 100 | 1,6 | 0 | 0,0 | 0,0 | **2** | **1,1** |
| **Design** | 2 | 100 | 1,6 | 0 | 0,0 | 0,0 | **2** | **1,1** |
| **Fashion** | 5 | 100 | 3,9 | 0 | 0,0 | 0,0 | **5** | **2,7** |
| **Film & Video** | 35 | 67,3 | 27,1 | 17 | 32,7 | 28,8 | **52** | **27,7** |
| **Food** | 1 | 50,0 | 0,8 | 1 | 50,0 | 1,7 | **2** | **1,1** |
| **Games** | 23 | 71,9 | 17,8 | 9 | 28,1 | 15,3 | **32** | **17,0** |
| **Journalism** | 2 | 33,3 | 1,6 | 4 | 66,7 | 6,8 | **6** | **3,2** |
| **Music** | 4 | 66,7 | 3,1 | 2 | 33,3 | 3,4 | **6** | **3,2** |
| **Photography** | 7 | 70,0 | 5,4 | 3 | 30,0 | 5,1 | **10** | **5,3** |
| **Publishing** | 2 | 50,0 | 1,6 | 2 | 50,0 | 3,4 | **4** | **2,1** |
| **Technology** | 24 | 66,7 | 18,6 | 12 | 33,3 | 20,3 | **36** | **19,1** |
| **Theater** | 1 | 50,0 | 0,8 | 1 | 50,0 | 1,7 | **2** | **1,1** |
| **Total** | **129** | **68,6** | **100** | **59** | **31,4** | **100** | **188** | **100** |

* Percentage reported to the number of projects in the same category
** Percentage reported to the success status

### iii. Campaign's length

Turkish campaigns have an average duration of 35 days ranging from 5 to 90 days for the failed projects and 5 to 75 days for the successful ones. The mean duration for the successful group equals 31,95 days which is lower than the mean for the failure groups (36,38). The relative statistics are shown in table 34.

Table 34 Descriptive Statistics of Turkish Campaigns according to their Length (days)

| Success Status | N | Minimum (days) | Maximum (days) | Mean | Std. Deviation | Variance |
|---|---|---|---|---|---|---|
| **Failure** | 129 | 5 | 90 | 36,38 | 14,8 | 219,1 |
| **Success** | 59 | 5 | 75 | 31,95 | 13,785 | 190 |
| ***Total*** | ***188*** | ***5*** | ***90*** | ***34,99*** | ***14,599*** | ***213,122*** |

## 2. Descriptive statistics

### a. Financial & reward dimension

Table 35 Descriptive Statistics of the Turkish Campaigns Financial & Reward Dimension's related Indicators

| Variables | | N | Min. | Max. | Mean | Median | Std. Deviation |
|---|---|---|---|---|---|---|---|
| **Funding Target** | **Failure** | 129 | 20 | 405.731 | 25.702,57 | 8.499 | 50.328 |
| | **Success** | 59 | 1 | 85.000 | 9.418,17 | 3.900 | 17.740 |
| **Bakers' Number** | **Failure** | 129 | 0 | 513 | 22,96 | 7 | 57,8 |
| | **Success** | 59 | 2 | 1537 | 186,36 | 59 | 371,1 |
| **Minimum Contribution** | **Failure** | 129 | 1 | 1000 | 20,96 | 10 | 89,6 |
| | **Success** | 59 | 1 | 108 | 8,64 | 5 | 15,7 |

#### i. Funding target

As shown in Table 35, the funding target for the successful campaigns varies from $1 to $85.000 with a mean equal to $9.418,17. Also, 83% of the successful campaigns aims to collect less than $10.000 (table 36); 62,7% of them gathered between $1.000 and $10.000. However, the funding target for the failed projects ranges from $20 to 405.731 with a high mean equal to $25.702,57. Almost half of them (46,6%) aimed to gather more than $10.000.

Table 36 Distribution of the Turkish Campaigns according to the Funding Target Level

| | Failure | | | Success | | | Total | |
|---|---|---|---|---|---|---|---|---|
| | N | %* | %** | N | %* | %** | N | % |
| **<$1000** | 16 | 57 | 12,4 | 12 | 43 | 20,3 | 28 | 15 |
| **$1.000-$10.000** | 53 | 59 | 41,1 | 37 | 41 | 62,7 | 90 | 48 |
| **$10.001-$100.000** | 54 | 84 | 41,9 | 10 | 16 | 16,9 | 64 | 34 |
| **$100.001-1.000.000** | 6 | 100 | 4,7 | 0 | 0 | 0 | 6 | 3 |
| **Total** | **129** | **69** | **100** | **59** | **31** | **100** | **188** | **100** |

* Percentage reported to the number of projects in the same category
** Percentage reported to the success status

#### ii. Number of Bakers

The successful campaigns have a minimum bakers' number of 2 and a maximum of 1537, with a mean equal to 186,36 investors. However, failed campaigns collected at most 513 investors with a mean of 22,96.

### iii. Minimum Contribution Amount

As for the funding target, the Minimum Contribution Amount mean for successful project is lower than the one for unsuccessful ones with respectively $8,64 and $20,96. This amount ranges from $1 to $108 for the successful projects and from $1 to $1000 for the failed ones.

## b. Quality dimension

Table 37 Distribution of the Turkish campaigns according to the Existence of Videos, Photos and Use of English Language

| Variables | | Failure | | | Success | | | Total | |
|---|---|---|---|---|---|---|---|---|---|
| | | N | %* | %** | N | %* | %** | N | % |
| **Existence of Videos** | **NO** | 33 | 79 | 25,6 | 9 | 21 | 15,3 | 42 | 22,34 |
| | **YES** | 96 | 66 | 74,4 | 50 | 34 | 84,7 | 146 | 77,66 |
| | ***Total*** | ***129*** | ***69*** | ***100*** | ***59*** | ***31*** | ***100*** | ***188*** | ***100*** |
| **Existence of Photos** | **NO** | 27 | 100 | 20,9 | 0 | 0 | 0 | 27 | 14,36 |
| | **YES** | 102 | 63 | 79,1 | 59 | 37 | 100 | 161 | 85,64 |
| | ***Total*** | ***129*** | ***69*** | ***100*** | ***59*** | ***31*** | ***100*** | ***188*** | ***100*** |
| **Use Of English** | **NO** | 3 | 100 | 2,3 | 0 | 0 | 0 | 3 | 1,60 |
| | **YES** | 126 | 68 | 97,7 | 59 | 32 | 100 | 185 | 98,40 |
| | ***Total*** | ***129*** | ***69*** | ***100*** | ***59*** | ***31*** | ***100*** | ***188*** | ***100*** |

* Percentage reported to the number of projects in the same category
** Percentage reported to the success status

### i. Existence & length of videos

77,66% of the Turkish projects have published a video in their presentation page (Table 37) and, 34% of them succeeded in gathering their target, which represents 84,7% of the successful campaigns. The mean duration for both groups is almost the same, it equals 10,259 min for the success group and 9,551 min for the failure group. The detailed statistics are presented in table 38.

Table 38 Descriptive statistics of the Turkish Campaigns depending on the Videos' Length

| Videos' Length | N | Minimum | Maximum | Mean | Median | Std. Deviation |
|---|---|---|---|---|---|---|
| **Failure** | 129 | 0 | 65 | 9,5513 | 8,54 | 9,32791 |
| **Success** | 59 | 0 | 34,86 | 10,259 | 10,21 | 7,48643 |

### ii. Existence & number of photos

85,64% of the campaigns have at least one published photo (Table 37). And the successful projects have at least one photo and at most 45. However, the failed and the successful campaigns have an equal mean as shown in table 39.

Table 39 Descriptive statistics of the Turkish Campaigns depending on the Photos' number

| Photos' Number | N | Minimum | Maximum | Mean | Median | Std. Deviation |
|---|---|---|---|---|---|---|
| **Failure** | 129 | 0 | 78 | 8,6 | 4 | 12,149 |
| **Success** | 59 | 1 | 45 | 8,68 | 5 | 10,151 |

### iii. Use of English language

All the successful projects used at least the English Language as one of the languages, and only 1,6% of all projects did not use it (Table 37).

## c. Relational dimension

Table 40 Distribution of the Turkish campaigns according to the Relational Dimension related indicators

| Variables | | Failure | | | Success | | | Total | |
|---|---|---|---|---|---|---|---|---|---|
| | | N | %* | %** | N | %* | %** | N | % |
| **Existence of Facebook Account** | **NO** | 113 | 80 | 87,6 | 28 | 20 | 47,5 | 141 | 75 |
| | **YES** | 16 | 34 | 12,4 | 31 | 66 | 52,5 | 47 | 25 |
| | ***Total*** | ***129*** | ***69*** | ***100*** | ***59*** | ***31*** | ***100*** | ***188*** | ***100*** |
| **Existence of Twitter Account** | **NO** | 118 | 70 | 91,5 | 51 | 30 | 86,4 | 169 | 89,89 |
| | **YES** | 11 | 58 | 8,5 | 8 | 42 | 13,6 | 19 | 10,11 |
| | ***Total*** | ***129*** | ***69*** | ***100*** | ***59*** | ***31*** | ***100*** | ***188*** | ***100*** |
| **Existence of Social Media Account** | **NO** | 109 | 80 | 84,5 | 27 | 20 | 45,8 | 136 | 72,34 |
| | **YES** | 20 | 38 | 15,5 | 32 | 62 | 54,2 | 52 | 27,66 |
| | ***Total*** | ***129*** | ***69*** | ***100*** | ***59*** | ***31*** | ***100*** | ***188*** | ***100*** |
| **Use of Kickstarter Platform** | **NO** | 67 | 93 | 51,9 | 5 | 7 | 8,5 | 72 | 38,30 |
| | **YES** | 62 | 53 | 48,1 | 54 | 47 | 91,5 | 116 | 61,70 |
| | ***Total*** | ***129*** | ***69*** | ***100*** | ***59*** | ***31*** | ***100*** | ***188*** | ***100*** |

* Percentage reported to the number of projects in the same category
** Percentage reported to the success status

### i. Social media's accounts and number of followers

Table 40 shows that only 27,66% of the Turkish entrepreneurs (52 out of 188), associated at least one link to their project's presentation page; among them 62% succeeded in collecting the funding target.

Among the studied projects, no one has published a link to an Instagram account, while 25% have associated a Facebook Account (66% of them were successful) and only 10,11% have a Twitter account (42% of them were successful).

Table 41 shows that the number of Facebook's followers varies from 0 to 10 995 with a relatively equal mean for the successful and failed project equal to 842,51 and 832,62 respectively. The followers' number on Twitter ranges from 0 to 1 510 for the failed projects with a mean equal to 34,43. For the successful campaigns this number ranges from 0 to 9 656 with a mean equal to 276,1.

Table 41 Descriptive statistics of the Turkish Campaigns depending on the Number of followers on social media

| Variables | | N | Min. | Max. | Mean | Median | Std. Deviation |
|---|---|---|---|---|---|---|---|
| **Followers' Number on Facebook** | **failure** | 129 | 0 | 90416 | 832,62 | 0 | 7981,806 |
| | **success** | 59 | 0 | 10995 | 842,51 | 182 | 1683,825 |
| **Followers' Number on Twitter** | **failure** | 129 | 0 | 1510 | 34,43 | 0 | 196,839 |
| | **success** | 59 | 0 | 9656 | 276,1 | 0 | 1334,603 |

**ii. Comments' number**

Unlike usual social media's networks, the use of Kickstarter for direct communication with community is much more important in the Turkish projects with a rate of 61,7%; 47% of them succeeded in gathering their target; which represents 91,5% of the successful projects.

This interaction can be made through comments or updates. Table 42 presents the statistics related to the comments. The successful projects reach 576 published comments with a mean equal to 39,54, however failed one have a maximum comments' number of 98 with a mean of 3,28 comments.

Table 42 Descriptive statistics of the Turkish Campaigns depending on the Number of Comments on Kickstarter

| Comments' Number | N | Minimum | Maximum | Mean | Median | Std. Deviation |
|---|---|---|---|---|---|---|
| **Failure** | 129 | 0 | 98 | 3,28 | 0 | 13,209 |
| **Success** | 59 | 0 | 576 | 39,54 | 2 | 102,593 |

### iii. Updates' Number

As shown in table 43, the number of updates published in Kickstarter for the successful campaigns ranges from 0 to 68 with a mean equal to 9. This number decreases to a maximum of 13 updates for the failed projects with a mean equal to 1,11.

Table 43 Descriptive statistics of the Turkish Campaigns depending on the Number of Updates on Kickstarter

| Updates' Number | N | Minimum | Maximum | Mean | Median | Std. Deviation |
|---|---|---|---|---|---|---|
| **Failure** | 129 | 0 | 13 | 1,11 | 0 | 2,173 |
| **Success** | 59 | 0 | 68 | 9 | 4 | 11,947 |

## 3. Logistic regression statistics

In order to investigate the most important indicators that contribute to the probability of success of the Turkish reward-based crowdfunding campaigns and compare them to previously described results, a binary logistic regression analysis is performed.

To be as objective as possible, the research uses the forward selection method using SPSS software.

Table 44 Logistic Regression Analysis for the Turkish Campaigns

| Variables | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I.for EXP(B) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| **log_FT** | -5,9 | 1,31 | 19,97 | 1 | <,001 | 0,003 | 0,002 | 0,037 |
| **log_BN** | 9,66 | 1,88 | 26,39 | 1 | <,001 | 15672 | 393,2 | 624615 |
| **log_MC** | -2,17 | 0,8 | 7,4 | 1 | 0,006 | 8,8 | 1,84 | 41,66 |
| **logPhoto_N** | 2,7 | 0,89 | 9,5 | 1 | 0,002 | 0,065 | 0,012 | 0,37 |
| **Constant** | 6,56 | 2,37 | 7,7 | 1 | 0,006 | 708,3 | | |

Table 44 presents the last step on the forward selection process; it contains the best combination between the independent variables participating in the probability of success of a Turkish reward-based crowdfunding. The detailed analysis and the related results are presented in appendix 2.

The final model has a statistically significance shown by a chi-squared value X2 (4) = 172,120 and a p-value < 0,001. It explains 60% (Cox & Snell R2) to 84,2%

(Nagelkerke R2) of the variation in the success of the Turkish reward-based crowdfunding campaigns and predicted 92% of cases.

In accordance with the previous results of the study, the most significant independent variables are those belonging to the financial dimension with a p-value <0,001 for the funding target and the bakers' number and 0,006 for the minimum contribution amount. Also, the regression coefficients for the funding target and the minimum contribution amounts shows a negative sign indicating that the lower the amount is, the higher is the probability to succeed. Concerning the other variables, only the number of published photos does have a significant impact on the success status of the Turkish projects.

Finally, let's draw your attention that this analysis is made for information only and aims to compare Turkish campaigns with international ones. Given the small number of campaigns in particular the successful ones, these results cannot be generalized at this stage.

# V. CONCLUSIONS AND PROPOSALS

## A. Discussion of Findings and Conclusion

This section presents a summary of the research results and findings that englobes both hypothetical and analytical description. This research is concerned in both entrepreneurial and marketing fields. The aim of this study is to verify the effect of the main success factors described in the literature on the likelihood of success of a reward-based crowdfunding campaign. Many researchers described the variety of available instruments in the reward-based crowdfunding platforms in order to promote the projects (Fernandez-Blanco et al., 2020; Greenberg et al., 2013; Mollick, 2014). Within this framework, crowdfunding platforms are considered by some as social media marketing tool that acts like a two-sided market where project founders (entrepreneurs) are connected and can interact with the crowd made by potential investors (Belleflamme et al., 2015). The main concern for the entrepreneurs is what factors to pay attention to when building their marketing strategies in order to maximize the probability of success of the projects (Bernardino and Santos, 2020; Datta et al., 2018; Janku and Kucerova, 2018; McKenny et al., 2017; Short at al., 2017; Xiao et al., 2014).

The idea behind this study is to investigate the relationship, if it exists, between 17 independent variables; divided in three main dimensions namely Financial and Reward dimension, Quality Dimension and, Relational Dimension; and the probability of Success of a Reward-based Crowdfunding Campaign. In order to test the proposed hypotheses, data were collected from the international reward-based crowdfunding platform: Kickstarter.

At a second stage, the study tried to compare the Turkish campaigns launched in Kickstarter to the international ones to point the similarities and differences and so, test and improve the awareness of Turkish entrepreneurs to such financing method.

As of March 8, 2021, 602 projects were collected, 336 of them were successful which represents 56% of the campaigns. Most projects were from the United States of America (57%), and Europe (27%) with, respectively, a success rate of 58,2% and 50%. The Turkish campaigns' success rate is equal to 31,4%, for the 188 launched projects, on Kickstarter, in 10 years. This rate shows that the reward-based crowdfunding process is still either unknown or not enough used in Turkey, which is the case of most developing countries. (Amar Kinaan, 2021; Soreh, 2017; Vergara, 2015). Sırma (2019) concluded that this phenomenon still not enough studied in Turkey, however il reveals potential of emerging economies.

Most successful campaigns belong to three main categories (from 15 possible category), namely Games (23% of the successful campaigns), Technology (15%) and Film and Videos (7%), that can be grouped as "Innovative Projects". The same categories are predominant for the Turkish campaigns, 28,8%, 15,3% and 20,3% respectively for Film and Videos, Games and Technology's category. This result confirms the findings of Rodriguez-Ricardo (2018) and Sırma (2019) who associated the innovativeness of project to a high willingness to fund it by the crowd.

Among the 14 tested hypotheses, only 3 of them were rejected. One of them was related to the reward dimension which is the type of reward proposed. This is in contradiction with previous research that described the rewards as one of the success factors of reward-based crowdfunding campaigns (Du at al., 2019; Zhang and Chen, 2019). However, Gangi and Daniele (2017) also concluded that neither the number nor the type of reward proposed have any impact on the success of the Italian campaigns.

The 2 remaining rejected hypotheses belong to the quality dimension. First, the researcher found that the existence of pictures on the project page does not have a significant impact on the success of the reward-based crowdfunding campaigns. In accordance with the thesis results, Cordova (2015) and Joenssen (2014) found that multimedia contains do not have a significant effect on the crowd to finance projects. In contrary, Gangi and Daniele (2017), Koch and Sering (2015) explained that adding pictures to a crowdfunding page increases the probability of collecting the funding target.

Second, according to the studied sample, and as described by Gangi and Daniele (2017) and Lagazio (2018), the language used does not have an effect on the probability of success of the campaigns.

### 1. Financial and Reward Dimension's Significant Indicators

As shown in the correlation matrix (table 15), the results confirm the existence of a negative relationship between the funding target & the probability of success and, between the minimum contribution amount & the probability of success (Cordova et al., 2015; Gangi and Daniele (2017); Kuppuswamy and Bayus, 2017; Lagazio, 2018). Also, in line with the conclusion made by Colombo et al. (2015) and Cordova et al.(2015), a higher bakers' number is positively related with a higher chance for success.

Among the 4 studied independent variables, 3 of them have a significant impact on the likelihood of success of the reward-based crowdfunding campaigns.

First, a low funding target is associated with a higher probability of success of the financing process is confirmed. Even fir the Turkish projects, 83% of the successful ones have a target of less than $10.000, which is in line with the thesis results. This observation is described by several authors and in different context. Gangi and Daniele (2017) and Lagazio (2018), when studying the Italian market through Italian platforms, also Cordova (2015) and Kuppuswamy and Bayus (2017) published similar results. However, in newly published research, some researchers point that a high funding target can be described as a positive predictor. They justify their opinion by the fact that the crowd perceive a high funding target as a signal of a high confidence level of the entrepreneurs in their products (Chakraborty and Swinney, 2020; Pinkow and Emmerich, 2021).

Second hypothesis to be verified is the number of bakers participating in the funding process have a positive impact on the success of the campaign. This result is described in many research and explained by various motivations (Beier and Wagner, 2015; Devaraj and Patel, 2016). Relating to Stanko and Henard (2017), the high bakers' number goes beyond the funding objective, to create an early network of potential consumers who will support the product during the commercialization phase, hence the marketing interest in using crowdfunding even if this does not necessarily result in the successful funding of the project. Zvilichovsky et al. (2018),

Colistra and Duvall (2017) and, Gerber and Hui (2013) corroborate that the high number of backers related to successful projects can be explained by the need for the crowd to be part of a community and help to make a dream happen. So that, the increase in the bakers' number attracts more and more investors.

The last predictor in this dimension that shows a significant impact on the probability of success of a reward-based crowdfunding campaign is the minimum contribution amount. As for the funding target it shows a negative relationship. This can be explained by the high level of risk associated to the funding of startups, where investors do prefer to participate with small amounts to decrease the risk of loss. Also, let's remember that the targeted investors are in most cases non-professional investors with limited budget.

**2. Quality Dimension's Significant Indicators**

In accordance with previous studies (Balboni et al., 2016; Frydrych et al., 2014, Koch and Sierring, 2015; Mollick, 2014), the Spearman correlation matrix (table 16) shows a positive significant relationship between the videos' length, the existence of photos and their numbers and the probability of success of the campaign. However, it shows a weak non-significant relationship between the existence of videos and the success status. Such results can be explained by the studies that stipulates that the storytelling can be considered as a part of the marketing strategy and can't be considered by itself as a significant indicator for the success of a crowdfunding campaign (Cordova et al., 2015; Joenssen et al., 2014).

The quality dimension and multimedia contain is considered by most researchers as the first signals a potential baker will perceive when visiting a reward-based crowdfunding campaign page. That is why it has a positive significant impact on the success of the project (Mollick, 2014; Koch and Sering, 2015). This research confirmed that the existence of a video presentation of the project, its length and the number of pictures published in the campaign's page do influence the probability of success of the funding process. However, some authors pointed the fact that the existence of pictures and videos is not relevant for a project and is considered as a basic part of the marketing strategy (Cordova et al., 2015; Joenssen et al., 2014); but the most important to study is the contents. In this direction, researchers affirm that the choice of words, the beauty of pictures and the positive and optimistic language

used in videos and texts contribute to motivating the crowd to invest (Anglin et al., 2018; Gafni et al., 2019; Von Selasinsky and Isaak, 2020; Mitra and Gilbert, 2014; Yuan et al., 2016; Zhou et al., 2018)

### 3. Relational Dimension's Significant Indicators

In accordance with the findings of Datta et al. (2018) and Thies at al. (2014), the study found that the existence of an associated social media account and the number of followers on it do have a significant positive impact on the probability of success of a reward-based crowdfunding campaign. This is true for the three tested social media's platforms namely Facebook, Twitter, and Instagram. Nevertheless, most qualitative studies approve that the use of social media's link to a project increases the likelihood of the campaign to successfully reach its objective, still some authors support the idea that it has an effect only for small projects that looks for small funding target (Gangi and Daniele, 2017; Pinkow and Emmerich, 2021). Gangi and Daniele (2017) explains that the use of a social media's account might be not relevant to the project as some of the entrepreneurs associate their product page on Kickstarter to their personal social media's accounts, which do not have a significant effect on the willingness of the crowd to participate to the campaign.

For the relational dimension, the use of Kickstarter as a social media's platform to interact instantaneously with the community of the project and the potential investors, seems to be more important than the use of social media's personal accounts. This idea is supported by Pinkow and Emmerich (2021) who shows that an active community on Kickstarter's comment section and an active entrepreneur who posts regular updates on his page are important predictors for the success of the campaign. These ascertainments are described also by Beier and Wagner (2015) and Kuppuswamy and Bayus (2017).

Even if they validate that the relational and social dimension might be a key of success of crowdfunding campaign same researchers incites to better study the effect of social networking and its role in the marketing process as it still not sufficiently understood (Bartoli, 2020; Belleflamme et al., 2013; Koch and Siering, 2015).

## 4. Results of the Logistic Regression Analysis: Forward Selection Method

This method is used not to test the hypotheses but to study the weights of each independent variable and their significance when associated and studied simultaneously. It spotlights the factors that most affect the success of a reward-based crowdfunding campaign.

The findings confirm the high weight and significance of the independent variables related to the financial dimension (all the predictors have a p-value <0,001). Some of the variables lost their significance and disappeared the equation. It is the case of the length of videos, the number of photos, the use of Instagram and the comments posted on Kickstarter. This is corroborating the studies cited previously that support that the quality dimension related independent variables are not always relevant (Cordova et al., 2015; Joenssen et al., 2014), also the ones that confirm that the relational dimension still not fully understood (Bartoli, 2020; Belleflamme et al., 2013; Koch and Siering, 2015).

The final proposed model contains the 7 independent variables that have a p-value <0,05, namely the funding target, the bakers' number, the minimum contribution amount, the existence of videos, the use of a Facebook account associated au number of followers, the use of a Twitter account associated au number of followers and the number of updates published on Kickstarter.

The overall model has statistically significance shown by a chi-squared value $X^2(7)=628,085$ and a p-value <0,001. It explains 86,8% (Nagelkerke R2= 0,868) of the variation in the probability of success of a reward-based crowdfunding campaign, and finally predicted 94% of cases.

Looking at the Turkish campaigns, only the financial dimension related independent variables, and the number of photos used have a significant impact on the success of the campaigns. Such result suggests that in Turkey the crowdfunding phenomenon remains unknown to the general public and only experienced investors, who are more interested in the financial side, participate in the funding process. Like in the Italian context (Gangi and Daniele, 2017) the pragmatism and realism side of the crowdfunding financing model in Turkey exceeds the emotional, relational and storytelling components.

## B. Conclusions and Implications

Through this thesis work, the researcher wanted to attract the attention of entrepreneurs, especially in developing countries, to a relatively new phenomenon which is crowdfunding.

In Turkey for example, there is no leading generalist crowdfunding platform, only some private companies have tried to launch platforms (i.e., Turkcell, Boyner), but they remain sectoral, which may explain why local fundraisers are not enough aware and sensitive to this mode of financing. This was the academic motivation to conduct this research work. As Turkey is considered as an emerging market for the crowdfunding phenomenon, the research aims to simplify and implement the basis of the concept to encourage entrepreneurs to take advantage of this model.

The current thesis work tried to test and generalize the previous findings made in particular context, i.e., in Italy (Gangi and Daniele, 2017), Latin-American countries (Fontana and Ordóñez, 2020) or in Germany (Prasobpiboon et al., 2021). It is concerned by the marketing strategy's elaboration as it has been proved in the literature that in addition to being funded, a crowdfunding platform is a leverage for those who has good ideas and no money to meet the crowd and get noticed and gain visibility.

While reviewing the literature and through the thesis work, one point caught the researcher attention, despite a relatively low success rate, this new method of financing is very popular and attracting more and more entrepreneurs and even already established compagnies in developed countries. Hence the main conclusion is that reward-based crowdfunding must be used for its collateral marketing effects. In fact, in line with the thesis finding the relational dimension must be exploited. In fact, during a reward- based crowdfunding campaign the entrepreneur can test marketability through the community he managed to attract. When launching an idea or a prototype of the product, the fund raiser collects consumers' appreciation. It allows to receive validation and recognition from the crowd (potential consumers), promote product and even the company, acquire new customer, establish relationships, and expand networks. In fact, while using crowdfunding platforms, an entrepreneur may target people all over the word, and there is an abatement of geographical distance.

Also, the financial dimension is very important and reward-based crowdfunding platforms are a very good tool for price discrimination. It allows it gauges the interest in the product and the amount people are willing to spend to acquire it, and this even if the project does not raise the necessary funds.

The crowdfunding phenomenon still not fully understood, and the dynamics of crowdfunding market are too complex and must be studied from multivariate disciplines. The main implications of this thesis are summarized as follow:

First, analyzing connections between empirical evidence on reward-based crowdfunding success factors contributes to theory building on the fields of entrepreneurship, finance, marketing, and project marketing.

Moreover, understanding the success factors and the crowd motivations to participate in a campaign can help platform's managers and developers, especially in developing countries, to set criteria while developing their platforms or choosing projects that will be published in. This gives them an added-value to be more attractive and competitive.

Furthermore, from an entrepreneur's point of view, appreciating the crowd investment standards is fundamental when preparing the marketing strategy to meet the crowd's expectations and so promote the product and get funded.

## C. Limitations and Recommendations for Future Research

The first and obvious limitation was the global pandemic of COVID-19 and its effects. It had an effect on the choice of the research method. Because of the pandemic, travel was limited, and the possibility of contacting entrepreneurs or investors informed of the crowdfunding model of financing was reduced. The first recommendation from this, is to perform research in a developing country where data will be collected through surveys or interviews among a targeted population. In Turkey, there is a lack of research in this field and both qualitative and quantitative research must be performed. As Turkey have some specificities due to its language, society, and economic system; specific studies must be performed.

Also, further studies can be interested in studying the economic effect of pandemics in the crowdfunding phenomenon.

Second limitation is the sample size, as the data were hand collected and the timeline was limited, it had been difficult to collect a large number of observations. From this, it can result in a time bias, and a seasonality effect may have been neglected. The second recommendation is to perform research that lasts over time, and to develop a web crawler program (search robot) to avoid any biases and collect a maximum number of observations. This will also make it possible to extend the search to several platforms and make comparisons as each platform may have its specificities.

Also, only dimensions described in the literature and related independent variables were analyzed in this study to determine their impact on the success of a reward-based crowdfunding campaign. Other critical success factors probably exist and must be identified and studied. This opens up prospects for further research.

Otherwise, in this research work, only the direct effect of the independent variables on the dependent one was studied which may explain the value of the R-squared in this study. So that, studies including not only new independent variables but also the mediating effect of the variables must be conducted to better understand thisphenomenon.

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# VII. APPENDIX

Appendix 1 Logistic Regression: Forward Stepwise Selection

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 602 | 100,0 |
| | Missing Cases | 0 | ,0 |
| | Total | 602 | 100,0 |
| Unselected Cases | | 0 | ,0 |
| Total | | 602 | 100,0 |

a. If weight is in effect, see classification table for the total number of cases.

**Block 0: Beginning Block :**

**Classification Table[a,b]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | successstatus | | Percentage |
| | Observed | | failure | success | Correct |
| Step 0 | successstatus | failure | 0 | 266 | ,0 |
| | | success | 0 | 336 | 100,0 |
| | Overall Percentage | | | | 55,8 |

a. Constant is included in the model. B. The cut value is ,500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | ,234 | ,082 | 8,103 | 1 | ,004 | 1,263 |

**Block 1: Method = Forward Stepwise (Wald)**

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 408,549 | 1 | <,001 |
| | Block | 408,549 | 1 | <,001 |
| | Model | 408,549 | 1 | <,001 |
| Step 2 | Step | 169,770 | 1 | <,001 |
| | Block | 578,318 | 2 | <,001 |
| | Model | 578,318 | 2 | <,001 |
| Step 3 | Step | 20,876 | 1 | <,001 |
| | Block | 599,194 | 3 | <,001 |
| | Model | 599,194 | 3 | <,001 |
| Step 4 | Step | 13,033 | 1 | <,001 |
| | Block | 612,227 | 4 | <,001 |
| | Model | 612,227 | 4 | <,001 |
| Step 5 | Step | 7,601 | 1 | ,006 |
| | Block | 619,828 | 5 | <,001 |
| | Model | 619,828 | 5 | <,001 |
| Step 6 | Step | 4,202 | 1 | ,040 |
| | Block | 624,030 | 6 | <,001 |
| | Model | 624,030 | 6 | <,001 |
| Step 7 | Step | 4,055 | 1 | ,044 |
| | Block | 628,085 | 7 | <,001 |

| | | | |
|---|---|---|---|
| Model | 628,085 | 7 | <,001 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 417,842[a] | ,493 | ,660 |
| 2 | 248,073[b] | ,617 | ,827 |
| 3 | 227,197[b] | ,630 | ,844 |
| 4 | 214,164[c] | ,638 | ,855 |
| 5 | 206,563[c] | ,643 | ,861 |
| 6 | 202,362[c] | ,645 | ,864 |
| 7 | 198,306[c] | ,648 | ,868 |

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than ,001.
b. Estimation terminated at iteration number 7 because parameter estimates changed by less than ,001.
c. Estimation terminated at iteration number 8 because parameter estimates changed by less than ,001.

**Classification Table**

| Observed | | | Predicted successstatus failure | Predicted successstatus success | Percentage Correct |
|---|---|---|---|---|---|
| Step 1 | successstatus | failure | 218 | 48 | 82,0 |
| | | success | 41 | 295 | 87,8 |
| | Overall Percentage | | | | 85,2 |
| Step 2 | successstatus | failure | 239 | 27 | 89,8 |
| | | success | 23 | 313 | 93,2 |
| | Overall Percentage | | | | 91,7 |
| Step 3 | successstatus | failure | 241 | 25 | 90,6 |
| | | success | 23 | 313 | 93,2 |
| | Overall Percentage | | | | 92,0 |
| Step 4 | successstatus | failure | 244 | 22 | 91,7 |
| | | success | 19 | 317 | 94,3 |
| | Overall Percentage | | | | 93,2 |
| Step 5 | successstatus | failure | 243 | 23 | 91,4 |
| | | success | 16 | 320 | 95,2 |
| | Overall Percentage | | | | 93,5 |
| Step 6 | successstatus | failure | 243 | 23 | 91,4 |
| | | success | 14 | 322 | 95,8 |
| | Overall Percentage | | | | 93,9 |
| Step 7 | successstatus | failure | 244 | 22 | 91,7 |
| | | success | 14 | 322 | 95,8 |
| | Overall Percentage | | | | 94,0 |

a. The cut value is ,500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | log_BN | 3,56 | ,283 | 157,9 | 1 | <,001 | 35,13 |
| | Constant | -4,7 | ,401 | 137,4 | 1 | <,001 | ,009 |
| Step 2[b] | log_FT | -3,1 | ,341 | 82,7 | 1 | <,001 | ,045 |
| | log_BN | 5,51 | ,513 | 115,2 | 1 | <,001 | 247 |
| | Constant | 2,7 | ,769 | 12,3 | 1 | <,001 | 14,8 |
| Step 3[c] | log_FT | -3,1 | ,353 | 79,4 | 1 | <,001 | ,043 |
| | log_BN | 5,4 | ,527 | 105,6 | 1 | <,001 | 224,2 |
| | log_MC | -1,2 | ,270 | 18,8 | 1 | <,001 | ,311 |
| | Constant | 3,78 | ,866 | 19,04 | 1 | <,001 | 43,8 |
| Step 4[d] | log_FT | -2,9 | ,358 | 67,2 | 1 | <,001 | ,053 |
| | log_BN | 4,8 | ,547 | 77,2 | 1 | <,001 | 122,5 |
| | log_MC | -1,2 | ,279 | 19,6 | 1 | <,001 | ,291 |
| | logUpdates | 2,0 | ,570 | 12,3 | 1 | <,001 | 7,392 |
| | Constant | 3,12 | ,894 | 12,2 | 1 | <,001 | 22,67 |
| Step 5[e] | log_FT | -3,3 | ,413 | 64,99 | 1 | <,001 | ,036 |
| | log_BN | 5,1 | ,596 | 74,0 | 1 | <,001 | 169,2 |
| | log_MC | -1,25 | ,282 | 19,57 | 1 | <,001 | ,287 |
| | Videos | 1,09 | ,409 | 7,12 | 1 | ,008 | 2,97 |
| | logUpdates | 1,76 | ,582 | 9,16 | 1 | ,002 | 5,82 |
| | Constant | 3,46 | ,925 | 13,96 | 1 | <,001 | 31,69 |
| Step 6[f] | log_FT | -3,23 | ,415 | 60,49 | 1 | <,001 | ,040 |
| | log_BN | 5,09 | ,608 | 70,05 | 1 | <,001 | 162,6 |
| | log_MC | -1,22 | ,284 | 18,49 | 1 | <,001 | ,295 |
| | Videos | 1,05 | ,410 | 6,59 | 1 | ,010 | 2,867 |
| | FB by log_FB_N | ,356 | ,181 | 3,84 | 1 | ,050 | 1,427 |
| | logUpdates | 1,67 | ,590 | 8,03 | 1 | ,005 | 5,322 |
| | Constant | 3,05 | ,945 | 10,43 | 1 | ,001 | 21,1 |
| Step 7[g] | log_FT | -3,32 | ,428 | 60,29 | 1 | <,001 | ,036 |
| | log_BN | 5,24 | ,629 | 69,19 | 1 | <,001 | 187,8 |
| | log_MC | -1,23 | ,288 | 18,14 | 1 | <,001 | ,294 |
| | Videos | ,963 | ,414 | 5,43 | 1 | ,020 | 2,62 |
| | FB by log_FB_N | ,48 | ,195 | 6,034 | 1 | ,014 | 1,6 |
| | Twitter by log_Twitter_N | -1,37 | ,670 | 4,155 | 1 | ,042 | ,255 |
| | logUpdates | 1,82 | ,604 | 9,05 | 1 | ,003 | 6,15 |
| | Constant | 3,22 | ,957 | 11,29 | 1 | <,001 | 24,9 |

a. Variable(s) entered on step 1: log_BN.
b. Variable(s) entered on step 2: log_FT.
c. Variable(s) entered on step 3: log_MC.
d. Variable(s) entered on step 4: logUpdates.
e. Variable(s) entered on step 5: Videos.
f. Variable(s) entered on step 6: FB * log_FB_N .
g. Variable(s) entered on step 7: Twitter*log_Twitter_N

**Appendix 2 : Logistic Regression for the Turkish Campaigns**

**Case Processing Summary**

| Unweighted Cases[a] | | N | Percent |
|---|---|---|---|
| Selected Cases | Included in Analysis | 188 | 100,0 |
| | Missing Cases | 0 | ,0 |
| | Total | 188 | 100,0 |
| Unselected Cases | | 0 | ,0 |
| Total | | 188 | 100,0 |

a. If weight is in effect, see classification table for the total number of cases.

**Block 0: Beginning Block**

**Classification Table[a,b]**

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | success status | | Percentage |
| | Observed | | failure | success | Correct |
| Step 0 | success status | failure | 129 | 0 | 100,0 |
| | | success | 59 | 0 | ,0 |
| | Overall Percentage | | | | 68,6 |

a. Constant is included in the model. b. The cut value is .500

**Variables in the Equation**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 0 | Constant | -,782 | ,157 | 24,774 | 1 | <,001 | ,457 |

**Block 1: Method = Forward Stepwise (Wald)**

**Omnibus Tests of Model Coefficients**

| | | Chi-square | df | Sig. |
|---|---|---|---|---|
| Step 1 | Step | 80,120 | 1 | <,001 |
| | Block | 80,120 | 1 | <,001 |
| | Model | 80,120 | 1 | <,001 |
| Step 2 | Step | 71,402 | 1 | <,001 |
| | Block | 151,521 | 2 | <,001 |
| | Model | 151,521 | 2 | <,001 |
| Step 3 | Step | 11,217 | 1 | <,001 |
| | Block | 162,738 | 3 | <,001 |
| | Model | 162,738 | 3 | <,001 |
| Step 4 | Step | 9,382 | 1 | ,002 |
| | Block | 172,120 | 4 | <,001 |
| | Model | 172,120 | 4 | <,001 |

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 153,801[a] | ,347 | ,487 |
| 2 | 82,400[b] | ,553 | ,777 |
| 3 | 71,183[b] | ,579 | ,814 |
| 4 | 61,801[c] | ,600 | ,842 |

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

b. Estimation terminated at iteration number 8 because parameter estimates changed by less than .001.
c. Estimation terminated at iteration number 9 because parameter estimates changed by less than .001.

**Hosmer and Lemeshow Test**

| Step | Chi-square | df | Sig. |
|---|---|---|---|
| 1 | 7,192 | 8 | ,516 |
| 2 | 8,703 | 8 | ,368 |
| 3 | 8,827 | 8 | ,357 |
| 4 | 1,971 | 8 | ,982 |

**Classification Table**[a]

| | | | Predicted | | |
|---|---|---|---|---|---|
| | | | successstatus | | Percentage |
| | Observed | | failure | success | Correct |
| Step 1 | successstatus | failure | 115 | 14 | 89,1 |
| | | success | 20 | 39 | 66,1 |
| | Overall Percentage | | | | 81,9 |
| Step 2 | successstatus | failure | 121 | 8 | 93,8 |
| | | success | 8 | 51 | 86,4 |
| | Overall Percentage | | | | 91,5 |
| Step 3 | successstatus | failure | 120 | 9 | 93,0 |
| | | success | 6 | 53 | 89,8 |
| | Overall Percentage | | | | 92,0 |
| Step 4 | successstatus | failure | 120 | 9 | 93,0 |
| | | success | 6 | 53 | 89,8 |
| | Overall Percentage | | | | 92,0 |

a. The cut value is .500

**Variables in the Equation**[e]

| | | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I.for EXP(B) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Lower | Upper |
| Step 1[a] | log_BN | 2,707 | ,423 | 40,9 | 1 | <,001 | 14,99 | 6,54 | 34,357 |
| | Constant | -4,503 | ,661 | 46,4 | 1 | <,001 | ,011 | | |
| Step 2[b] | log_FT | -4,413 | ,881 | 25,1 | 1 | <,001 | ,012 | ,002 | ,068 |
| | log_BN | 6,255 | 1,074 | 33,9 | 1 | <,001 | 520,6 | 63,45 | 4271,1 |
| | Constant | 6,037 | 2,056 | 8,6 | 1 | ,003 | 418,8 | | |
| Step 3[c] | log_FT | -4,431 | ,913 | 23,55 | 1 | <,001 | ,012 | ,002 | ,071 |
| | log_BN | 7,557 | 1,323 | 32,63 | 1 | <,001 | 1914,5 | 143,2 | 25597 |
| | logPhoto_N | 2,408 | ,791 | 9,3 | 1 | ,002 | ,09 | ,019 | ,424 |
| | Constant | 5,915 | 2,069 | 8,2 | 1 | ,004 | 370,6 | | |
| Step 4[d] | log_FT | -5,859 | 1,311 | 19,97 | 1 | <,001 | ,003 | ,002 | ,037 |
| | log_BN | 9,660 | 1,880 | 26,39 | 1 | <,001 | 15672 | 393,2 | 624615 |
| | log_MC | -2,168 | ,796 | 7,4 | 1 | ,006 | 8,8 | 1,84 | 41,66 |
| | logPhoto_N | 2,730 | ,885 | 9,5 | 1 | ,002 | ,065 | ,012 | ,370 |
| | Constant | 6,563 | 2,368 | 7,7 | 1 | ,006 | 708,3 | | |

a. Variable(s) entered on step 1: log_BN
b. Variable(s) entered on step 2: log_FT
c. Variable(s) entered on step 3: logPhoto_N.
d. Variable(s) entered on step 4: log_MC.
Stepwise procedure stopped because removing the least significant variable results in a previously fitted model.

# RESUME

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## Education :

- Istanbul Aydin University - Master in “Business Administration” (2018 - 2022)
- Medicine University, Monastir - Medicine Doctorate (2006 - 2013)
- Fattouma Bourguiba Middle School Monastir – Baccalaureate ; (2006)

## Professional experience :

- **FERCHIOU Fatma’s Pharmacy**

Process and Quality Consultant 36 months [2016 - 2018]

- **Private Medico-Surgical Center**

Quality Project Manager 48 months [2015 - 2018]

Management Controller 18 months [2013 - 2014]

Junior Management Analyst 6 months [2013]

## Skills :

- **Languages:**

Arabic: C2

French: C2

English: B2

Turkish: B1

- **Computer Softwares**

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