

**T.C.**  
**ISTANBUL OKAN UNIVERSITY**  
**INSTITUTE OF SOCIAL SCIENCES**

**CROWDFUNDING AND FACTORS THAT AFFECT  
FUNDERS' INTENTION TO PARTICIPATE IN: TURKEY**

**Fatma Sebla UZUNTEPE**

**DOCTORAL DISSERTATION**  
**DEPARTMENT OF BUSINESS ADMINISTRATION**  
**PROGRAM OF BUSINESS ADMINISTRATION**

**ADVISOR**  
**Assoc.Prof. Ezgi YILDIRIM SAATÇI**

**ISTANBUL, AUGUST 2018**

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Fatma Sebla UZUNTEPE

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# ÖZET

## KİTLESEL FONLAMA VE FON SAĞLAYANLARIN KATILIM NİYETİNE ETKİ EDEN FAKTÖRLER: TÜRKİYE ÖRNEĞİ

Bilgi ve telekomünikasyon devriminin tüm dünyaya yayılması; fon sağlayan, fon talep eden, finansal araçlar, finansal araçlar ve yasal düzenlemeler gibi unsurlardan oluşan finansal sistemi çok karmaşık bir yapıya dönüştürmüştür. Finansal sistemin geleneksel yapısından kaynaklanan zorluklar, ‘Kitle Fonlaması’ olarak adlandırılan yeni bir alternatif finansman modelinin ortaya çıkmasına neden olmuştur. İnternet ve sosyal ağların yaygın kullanımıyla birlikte girişimciler, bu modeli kullanarak, kitlesel fonlama platformları aracılığıyla projelerini geniş kitlelere sunarak, yaratıcı iş fikirleri için finansal kaynaklara doğrudan ulaşma fırsatı elde etmektedirler. ‘Kitlesel Fonlama’ yenilikçi bir iş fikrine sahip olan ve bu fikri hayata geçirmek üzere maddi desteğe ihtiyaç duyan girişimciler için; çok sayıda insandan, küçük miktarlarda toplanan paralarla, gerekli fonu yaratmanın bir yolu olarak ifade edilebilir. Kitle fonlaması sadece girişimcilerin ihtiyaç duyduğu fonları temin etmekle kalmamakta, aynı zamanda insanların yeni ürünlerin sunulduğu bu projelere olan ilgisini araştırma olanağı da sağlamaktadır. Girişimcilerin projelerini gerçekleştirmek adına ihtiyaç duydukları sermayeyi başarıyla temin edebilmeleri için, yatırımcıların nasıl finansal destekte bulunmaya karar verdiklerini ve motive olduklarını anlamak çok önemlidir.

Bu çalışmada, Türkiye'deki kitlesel fonlama yöntemiyle gerçekleştirilen faaliyetlerde, destekçilerin kararlarında etkili olan faktörlerin ve motivasyonlarının anlaşılmasına katkı sağlanması amaçlanmıştır. Tümdengelim araştırma yaklaşımının benimsendiği bu çalışmada, projelere destek veren kişilerin karar verme kriterlerine açıklık getirmeye çalışan kavramsal model, ilgili literatür incelenerek geliştirilmiştir. Araştırma Türkiye’de faaliyet gösteren kitlesel fonlama platformlarına üye olan örneklem üzerinde gerçekleştirilmiştir. Bu modelde geliştirilen faktörler, online anket kullanılarak araştırılmıştır. Bu amaç doğrultusunda ölçeğe ilk olarak açıklayıcı faktör analizi uygulanarak faktörler belirlenmiş, sonra yapısal eşitlik modeli çerçevesinde doğrulayıcı faktör analizi ile modelin uygunluğu test edilerek yol analizi uygulanmıştır.

Bu çalışmada bir çok faktörün, katılımcıların kitlesel fonlamaya katılma niyeti ile ilgili olacağını varsaymakla beraber, bu faktörlerin kişilerin katılım için güçlü motivasyonlara sahip olduğu durumlarda daha belirgin olacağı öne sürülmüştür. Öz belirleme Kuramına göre içsel motivasyon ile kişiler ilginç buldukları görevleri, dışsal motivasyon ile ise bireyin somut ya da sözlü ödüllere ulaşmak için görevleri yerine getirme eğilimine işaret eder. Girişimciler, kitle fonlama platformlarının yöneticileri ve politika yapıcılar, yatırımcıların yatırım kararlarını etkileyen motivasyonları doğru anladıklarında, bu faktörleri kitle fonlaması kampanyalarında başarıyla kaynak yaratmak için kullanabilirler. Böylece yaratıcı ve yenilikçi projeler için gerekli finansmanın başarılı bir şekilde elde etmelerini sağlayabilir.

**Anahtar Kelimeler:** Kitlesel Fonlama, Girişimcilik Finansmanı, Çevrimiçi Platform, Ödül Bazlı Kitlesel Fonlama, Yatırımcı motivasyonu

**Tarih:** Ağustos, 2018

# **SUMMARY**

## **CROWDFUNDING AND FACTORS THAT AFFECT FUNDERS’ INTENTION TO PARTICIPATE IN: TURKEY**

The worldwide spreading information and telecommunications revolution have transformed the financial system, which consists of funders, fund demanders, financial intermediaries, financial instruments and legal regulations into a very complex structure. The difficulties arising from the traditional structure of the Financial System have led to a new alternative financing model, in which individuals are defined as “crowdfunding”. With the widespread use of the Internet and social networks, entrepreneurs have gained the opportunity to provide financial resources directly to their projects by presenting their creative business ideas to large populations through crowdfunding platforms using this method. “Crowdfunding” can be expressed as a way of generating resources from a small amount of money collected from many people for the entrepreneurs who have an innovative business idea and who need financial support to pass that idea to life. The crowdfunding does not only provide the funds needed by entrepreneurs but also allows the public to investigate the relevance of the projects during the introduction of new products. It is very important for entrepreneurs to understand how investors are motivated and how they decide to invest so that they can succeed in finding the necessary financing they need for their projects or initiatives.

In this study, it is aimed to contribute to understanding the factors and motivations that effective in the promoters’ decisions in the activities carried out under the crowdfunding in Turkey. In this study, a deductive investigation approach is applied; the related literature is looked over in order to improve a conceptual model which targets to clarify the criterions of the deciding of the crowd investors. This study is conducted with a sample of crowdfunding platforms’ members that operates in Turkey. The factors which improved in that model are researched by using online questionnaire. For this purpose, factors were determined first by explanatory factor analysis. Later, the validity of the model was verified by confirmatory factor analysis and path analysis was applied in the framework of the structural equation model.

Although we hypothesized that the various factors would be related to intention to support crowdfunding campaigns, we also hypothesized that these factors link would be more pronounced when people have strong motivation to participation. According to self determination theory with intrinsic motivation, individuals engage in tasks because they find them interesting and extrinsic motivation indicates to the individual's tendency to perform tasks in order to obtain tangible or verbal rewards.

In the present research study, while the moderator effect of motivational factors influences on crowdfunding are investigated, the study is structured on "self-determination theory". In this respect, this study is one of the first study in crowdfunding field and also promising future topic. The findings obtained from the study shows that when the participants get the expected satisfaction from motivations (e.g.helping others, enjoyment, peer pressure and reward), it might extend strengthen their perceptions of strenghten their perceptions of neutral information, self-presentation, and network.

When the entrepreneurs, managers of crowdfunding platforms and policy makers understand the motivations affecting the decisions for the investment of the investors, they can use these factors for encouraging in crowdfunding campaigns. This may provide them to get the necessary funding for their projects.

**Keywords:** Crowdfunding, Entrepreneurial Finance, Online Platform, Reward-based Crowdfunding, Investor motivation.

**Date:** August, 2018

## **ABBREVIATIONS**

<b>AGFI:</b>	Adjusted Goodness of Fit Index
<b>AON:</b>	All or Nothing
<b>CFA:</b>	Confirmatory Factor Analysis
<b>CFI:</b>	Comparative Fit Index
<b>CMB:</b>	Capital Markets Board
<b>GFI:</b>	Goodness of Fit Index
<b>KIA:</b>	Keep it All
<b>KMO:</b>	Kaiser-Meyer-Olkin
<b>P2P:</b>	Peer to Peer
<b>RMSEA:</b>	Root Mean Square Error of Approximation
<b>SDT:</b>	Self Determination Theory
<b>SEC:</b>	Securities and Exchange Commission
<b>SMEs:</b>	Small and Medium Sized Enterprises
<b>SRMR:</b>	Standardized Root Mean Square Residual
<b>VC:</b>	Venture Capital

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# 1 INTRODUCTION

## 1.1 BACKGROUND

It is well recognized that one of the biggest challenges for entrepreneurs is to attract external capital for their projects during their initial stage. Many entrepreneurial ventures have not been successful partly due to insufficient funds from investors (Belleflamme et al. 2014). Crowdfunding has become an alternative model of financing for new ventures that have limited access to traditional finance sources. In recent years the advent of crowdfunding has made it easier for the entrepreneurs to gather funds from different sources at minimal cost than traditional ways of acquiring funds (Crosetto and Regner, 2014).

The purpose of the crowdfunding is to collect money for investment via online social networks (Belleflamme et al. 2014). The financial crisis of 2008 and technological innovation are two main factors that contribute to rise of crowdfunding (Kirby and Worner, 2014). The financial crisis of 2008 changed the rules of the game for all actors in the market and after the crisis accessing traditional monetary resources, such as bank loans, angels or venture capital became more difficult for early stage entrepreneurs as the so called 'funding gap' has been occurred in all around the world. This existing situation has led to fundamental arrangement not only lending-borrowing but also in investing conditions for society.

As a result of the above and with the development of Web 2.0 technologies strengthen firms to outsource their internal activities to the crowd. In addition to give feedback or to offer solutions, the crowd can invest in projects or business ideas. This type of raising small to medium-size money from a large number of individuals via an online web-based platform is called crowdfunding (Dushnitsky et al., 2016).

In the literature, crowdfunding is divided into four main categories: Donation based, reward based, equity based and lending based. This is shown in Figure 1.

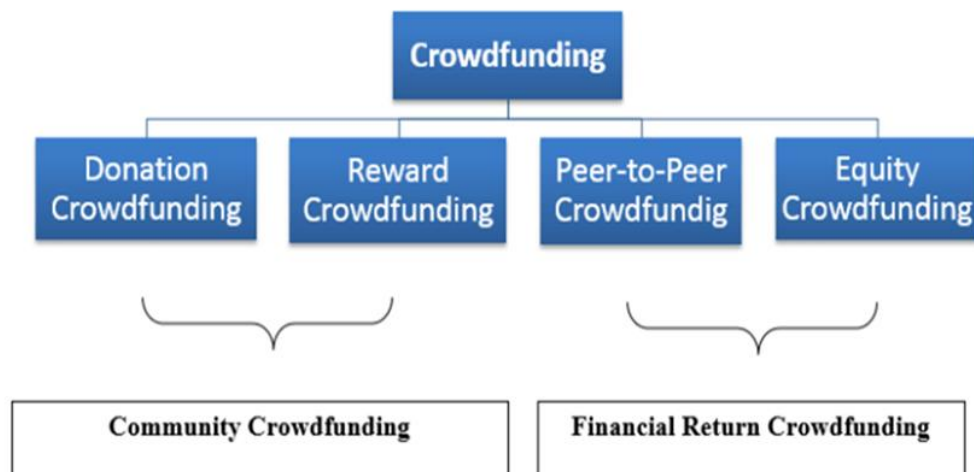


Figure 1 -1: Types of Crowdfunding (Kirby and Worner, 2014)

Donation and Reward based Crowdfunding models are different from the other two models, because they do not provide any financial return in the form of a yield or return on investment (Kirby and Worner, 2014). Among different types of crowdfunding models, reward-based crowdfunding has gained increased attention to both investors and entrepreneurs. As sub-categories of crowdfunding reward-based crowdfunding is a model creating new possibilities for start-ups and individuals to invest in via online crowdfunding platforms without any intermediary institution. Reward-based crowdfunding campaigns are designed in such a way through which investors make investment in a project or idea without anticipating any financial return from the initiators. The initiators, in return of donation, provide some rewards such as a personal thank-you card, a book or a delivery of the first produced set of the product to its investors.

Crowdfunding has been implemented by many countries, such as the U.S., the U.K., Australia, Italy and Netherlands. However, reward-based crowdfunding in Turkey is relatively new phenomenon but its popularity has been increasing because of its accessibility and effective business model. Despite increased interest by founders, funders, academics and also regulators, however crowdfunding in general reward based crowdfunding in particular, are poorly understood. Although project owners' motivation factors for participation in crowdfunding have a relatively clear understanding, the factors that drive to participate of investors are not explicit. Additionally, crowdfunding

investor motivations might be very different from the motivations of investors using the traditional investment techniques. One of the most important elements in the development of the crowdfunding industry is connected with understanding the behaviour of the participants and exploring the factors driving the supporters' decision making process for participation in crowdfunding campaigns and platforms. Researchers investigating supporters' motivation in crowdfunding are considering that funders are egoistically motivated and they do not consider prosocial motives.

Existing literature and ongoing studies to analyze backers' motivation for participation in crowdfunding are inadequate. In this framework, this research aims to empirically investigate the motivation of the crowdfunders.

We developed a model that includes both self-interested and prosocial motivation, and even suggested extrinsic and intrinsic motivation factors as moderating effects that strengthens supporters' participation intention. Furthermore, at the moment there is almost no extensive academic research has been done on the subject of funders' motivation factors to intention to participate in crowdfunding especially in Turkey, so leading to a research gap in this field. This research study is narrowed to analyse the reward based crowdfunding industry development opportunities from the investors' point of view in Turkey. While crowdfunding is in limited use in Turkey, it only involves reward-based or donation- based crowdfunding, due to the lack of legislation regulating equity-based crowdfunding activities. The study has focused on the investment side of reward based crowdfunding business model. To better understand the phenomenon, the research question for the study has been identified as follows:

Which factors determine the decision of investors to invest in crowdfunding in Turkey?

The objective of this study is by researching and answering the research question to obtain new and related information and consciousness on crowdfunding investor motivation to intention to participate in crowdfunding campaigns in Turkey. From the factors identified, how project owners and crowdfunding platforms should utilize the identified drivers to increase the probability of succeeding in crowdfunding could be more explicit.

## **1.2 THESIS OUTLINE**

This study is divided into four main parts. After the introduction part, the second chapter involves a review of literature about crowdfunding with regard to scientific areas in general. Following this, the hypotheses are structured. In section two, the theoretical framework is based on self determination theory and investment decision making process are presented and also additional hypotheses are introduced a step by step at the end of the second section. In the third chapter methodological approach of this thesis, data collection and analyses are explained in detail and then the surveys results are presented individually. Afterwards the hypotheses tested and the results are critically discussed. This study is ended with the conclusion part which is trying to answer the research question.

## **1.3 RESEARCH PURPOSE**

The aim of this research study was to use a theoretical framework in the reward-based crowdfunding to investigate investor motivation in the area of crowdfunding to understand what is driving the behaviors of contributors, taking into accounts success and risk factors in crowd funding campaigns. The decision making process of the people who participate in crowdfunding is the key point of the present study. This study can be seen as an amplification of previous exploratory researches therefore it can be categorized as descriptive, earlier theories have been used because the goal is to elaborate and expand existing knowledge about motivation of crowdfunding contributors. An important characteristic of descriptive study is to help understand the characteristics of a population that is also the objective of this study since it researches factors that what drives people to contribute reward based crowdfunding campaigns.

## **1.4 LIMITATIONS**

It is very important to point out that while conducting the study some limitations were imposed on both in sense of research scope and in methodological approach. First of all, it is obvious that ideally disposable income level is affected by many major factors such as; the cultural effects on investing and donations, the tendency of investing in a traditional structure, being inclined to “Web 2.0” applications. Additionally, deciding to investment is a quite complex process for the individuals. Certainly, there are many factors affecting this period. Nevertheless, considering the time to write this thesis was very limited, it has not been possible to study all of these factors. When the response rates of the studies and the quality of the research were taken into consideration, it would not have been possible to control all of these factors and they can not all be covered within the scope of this research study.

This research study focuses on reward based crowdfunding model, other crowdfunding models are not the subject of this thesis. Therefore, the analyses and the theoretical framework are made within this context.

## **2 LITERATURE REVIEW**

In this chapter, literature on reward-based crowdfunding based on empirical literature has been critically discussed to develop a conceptual model for this study. This chapter includes especially benefits and risks of reward-based crowdfunding model in addition to regulatory framework for reward-based crowdfunding in Turkey. Furthermore, the success drivers of reward-based crowdfunding have been critically discussed in light of empirical studies from cultural points of view as well. Finally, both Turkish literature and international literature on reward-based crowdfunding has been discussed at the end of this chapter.

### **2.1 DEFINITION OF CROWDFUNDING**

The phenomenon of crowdfunding has been emerged from concepts such as crowdsourcing which refers to obtain feedback, ideas and solutions to develop firms' activities from the crowd and micro-finance like the initiatives of Gramen Bank (Wechsler, 2013), however, it is characterized by some unique fund raising activities that are facilitated by an increasing number of internet websites dedicated to raise funds through crowdfunding (Mollick, 2014). The definition of crowdfunding is difficult to provide as it is currently in the state of evolutionary flux that limits the complete definition of crowdfunding very challenging though academics and scholars have provided some arbitrary definitions. In order to receive financial resources, an open call through the internet that urges funds in exchange for some rewards or financial benefits or voting rights to support specific purposes or initiatives undertaken by some entrepreneurs is defined as crowdfunding according to Lambert and Schwienbacher (2010). Nevertheless, though this definition of crowdfunding is comprehensive, many scholars excluded this definition of crowdfunding as, according to their argument, this definition does not make consideration for terminologies such as "peer-to-peer lending" and "absence of standard financial intermediaries" (Mollick, 2014).

Broader definition of the term "crowdfunding" has become elusive because this term covers, across other disciplines, several current uses (Mollick, 2014). As crowdfunding became popular, the need for a clear definition of the term intensified; several

definitions came into place though all those were narrower in scope. However, the term crowdfunding has been defined as an effort by an individual or a group of entrepreneurs or founders through which they draw attention of investors to make small investment or contribution, without using traditional financial intermediaries, from a larger group of investors or funders via the internet (Mollick, 2014).

Some scholars argued that this definition of crowdfunding provides the room for specificity and future development of the term. On the other hand, the definition of crowdfunding requires consideration for the goal of the funders and the goal of the crowdfunding initiative. Consideration for both types of goals is important, but due to on-going development of crowdfunding, it would be imprudent to limit both these goals into formal definitions. Therefore, it is rather better to discuss both these goals from different point of views of funders and founders. However, in a crowdfunding project, there might be wide variety of goals unlike any other standard forms of venture financing.

In entrepreneurial finance sources can be divided into two main categories as equity and debt in general (Schwienbacher and Larralde, 2010). Table 2-1 presents a list of investors, classified by debt and equity claims (Lehner, 2013). Accessing financial sources is likely the most crucial step in the entrepreneurship journey, the primary sources in the first stages are usually restricted to three Fs (Friends, Family members, fools). When an entrepreneur starts a new company, the other option is to attract investment from foundations and also Venture Capitals (VCs) and Business angels. Crowdfunding is an online version and new form of financing by Friends, family members. An entrepreneur should consider several factors, when choosing how to finance the venture. Some of these funding sources can be used with crowdfunding model.



Table 2-1: Different Types of Investors

Equity Claims	
Investor Types	Description
Entrepreneur	Investing founder's own money
Family- Friends	Borrowed money from family members or friends
Social Target Group	Many people involve with small contributions
Business Angels	Wealthy individuals who fund start-ups
Venture Capitalists	Private investors who provide their fund investors' money to promising business ventures for a longer period of time
Other Companies	Firms can invest in projects that have strategic assets
Stock Markets	The stock issued by a company is offered to the public
Debt Claims	
Types	Description
Banks	Loans
Leasing Companies	Providing a physical asset for use in return for regular lease payments
Customers	Selling future goods or services/ prepayment
Suppliers	Vendor credit/Trade credit
Bootstrapping	Use of trade credit, credit card and other methods, including working capital management
Donations	
Government Agencies	Subsidies, Grants, Credits to help entrepreneurs to grow

Source: (Lehner, 2013).

## 2.1.1 Crowdfunding Ecosystem

It is important to understand who the actors are in the crowdfunding system in order to better understand how it works. Basically, the major participants in the crowdfunding mechanism consist of three stakeholders: The first player is the crowdfunding platform that works as a mediator of the relationship between who wants to deliver the new initiatives and who wants to support such initiatives through their funds. The second player is the project owner, initiator, entrepreneur or individual who proposes the project to be funded. Then there is the crowd of people (funders, investors, donors, lenders, backers) who decide to financially support dedicated initiatives, taking risks and

expecting some types of rewards (Ordanini et al., 2011).

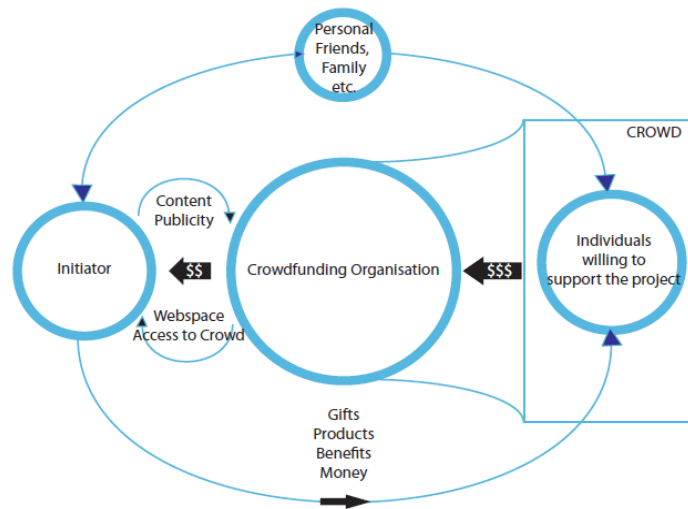


Figure -2-1: Actors in the Crowdfunding System, Wechsler (2013)

### 2.1.1.1 Crowdfunding Platforms

Financial intermediaries enable to make payments for the exchange of goods and services, additionally mechanisms for pooling funds to transfer economic resources through time, geographies and industries. In crowdfunding, financial seeker and financial provider are interacting on a crowdfunding platform. Today crowdfunding activities occur on intermediary online market place where the entrepreneur and the funder bring together (Dehling, 2013). The website providers play critical role in the crowdfunding ecosystem. Because the crowdfunding platforms provide more than a stage for the project, they enable supporters and founders to communicate with each other through some features for example comment, project update, email exchanges sections. The web site providers integrate third party payment systems to ensure secure payments (Beaulieu et al., 2014). Unlike other traditional financial intermediaries, crowdfunding platforms are not involved in actual financing process. Generally crowdfunding platforms do not invest their money but these platforms fulfil a number of functions to prevent information asymmetry and reduce transaction costs (Li, 2016). The standardization of the structure of crowdfunding platforms offers significant advantages in terms of comparability among projects (Cumming et al., 2015). The

project owners are usually charged a fee by platforms if the campaign has been successful. In return, crowdfunding platforms provide a secure and easy to use service. Entrepreneurs may create a project profile on such a crowdfunding platform which generally involves a title, project details, video, funding goal, duration of campaign and reward description and also they can introduce the team and explain project goal, how the money will be used (Gerber et al., 2012). There were 1250 active crowdfunding platforms worldwide are operating in 2015 (Vassallo, W., 2017).

### **2.1.1.2 Project Owners**

Various terms used in the literature such as ‘founder’, ‘project owner’, ‘creator’, ‘entrepreneur’ represents individuals who present their idea on a crowdfunding platform to receive capital. Most of the crowdfunding projects pledge small amount of money or investment to start off a long-term or one-time project (Mollick 2014). In such crowdfunding projects, usually, funds are mostly generated from family or friends. Gradually, crowdfunding have become an important and viable source of venture capital to initiate a project that allows entrepreneurs to have access to their required financial resources while starting new ventures or initiatives (Mollick 2014). Entrepreneurs aim to attract initial capital from amateurs or affinity based consumers for a product or service, rather than professional investors (Frydrych et al., 2014). Due to its viability and low-cost feature, more entrepreneurs are interested in raising funds for their projects through crowdfunding platforms. Entrepreneurs present their project on the crowdfunding platform and individuals can get information themselves about the projects (Crosetto and Regner, 2014). Mollick (2014) have reported that of the fifty highest funded projects in Kickstarter, one of the leading and premier crowdfunding platforms, forty five projects have turned into on-going entrepreneurial ventures. Raising funds through crowdfunding cannot be the only goal for an entrepreneur rather it might be a platform to let people know about innovative ideas that might contribute in the real world through ensuring social benefits. In addition, from an entrepreneurial context, crowdfunding can be considered as a platform that demonstrates the demand for a product or service that might be financed in either way (Mollick, 2014). Crowdfunding is a very convenient tool to measure demand for a new innovation. For instance, Pebble “smartwatch” failed to attract venture capitalists at its first attempt but

its primary success in a crowdfunding platform helped attracting substantial amount of venture capital (Dingman, 2013), according to the guardian web site Pebble had 78.471 backers and \$20,338,986 in Kickstarter funding. Conversely, when an entrepreneur launches a project idea in a crowdfunding platform and gets less attention from public, it helps the entrepreneur to judge the viability of its project without investing further capital behind it (Mollick, 2014). Another goal of crowdfunding from an entrepreneurial context can be marketing of projects to the mass. Crowdfunding is a very important tool in market research. Throwing projects into crowdfunding platforms allows entrepreneurs to market its project and build competitive advantage even before initiating the project in reality (Mollick, 2014). Crowdfunding provides an opportunity for entrepreneurs to create and develop online reputation and community by using social- psychological motivations (Lehner, 2013). Therefore, crowdfunding has the potential to provide substantial benefits to the entrepreneurs beyond raising funds to initiate projects. In summary, crowdfunding helps the entrepreneur by providing the followings: Research to confirm demand, funding, launch a plan and the customers' invaluable feedback.

### **2.1.1.3 Backers**

On the other hand, there are some goals of funders or individuals who make investment in crowdfunding projects. The nature of funding efforts in case of crowdfunding is different from other forms of investment as the relationship between funders and entrepreneurs vary significantly (Bellaflame et al., 2012). It has been empirically argued that there are four funding models that an investor might chase for in a crowdfunding project though goals might overlap as some projects can allow funders to achieve multiple goals simultaneously (Mollick, 2014). The first model, donation model serves as funders' philanthropists who do not expect material return for their contribution (Giudici et al., 2012). In this model, crowdfunding can take the form of donations where the investors give money to humanitarian projects without expecting direct benefits from its investment (Kang et al., 2016). Donation-based model usually does not supply any material financial benefit (Ebert T. and Schöndorfer S. 2014). Monetary funds are provided without direct return, for philanthropic or sponsorship model (Giudici et al., 2012). The most popular project example for donation based

model is Barack Obama's 2008 presidential campaign. The campaign raised \$ 600 million from 3 million people through crowdfunding (Dushnitsky et al., 2016). The second model, lending model, this specific category of crowdfunding has also been known as credit based crowdfunding, peer to peer lending, crowd lending or debt crowdfunding which consists of repaid loans. Individuals lend small sums of money to projects that require funding and offer some financial benefits. The investor is more interested in promoting social good through having some financial benefits like in the case of micro-financing (Everett, 2014). Crowd lending platforms bring together investors want to make a profit with borrowers seeking finance. Platforms link borrowers to lenders faster and cheaper than banks. In the third model, the investors make investment in crowdfunding projects in return for some rewards. It is commonly known as reward-based crowdfunding where entrepreneurs treat investors as its first customers through providing them rewards or products that the project might deliver to end customers (Mollick, 2014).

This study focuses specifically on reward based crowdfunding model and presents its complex theoretical framework. In the final model, equity based model, crowdfunding projects can consider funders as "formal investors" who will get either equity stake in the project or similar financial benefits in return for their investment. In the case of equity based model, non-financial incentives are not used and investors are driven by financial return (Kuti, 2017). The concept of equity-based crowdfunding is legalized in many countries including the United States through passing *Jumpstart Our Business Startup Act* in 2012 (Mollick, 2014). This type of crowdfunding is often termed as "equity crowdfunding" though this model of crowdfunding accounts for only 7% of all crowdfunding investment according to the Massolution Crowdfunding Industry Report (2015).

However, the goal of the funders can be heterogeneous, and incentives and the motivations among different individuals for making investment might be very complex as well.

## **2.2 DEFINITION OF REWARD-BASED CROWDFUNDING**

In the previous section, definition of crowdfunding has been provided based on empirical arguments though none of those are universal definitions. In this section, reward-based crowdfunding has been defined based on empirical arguments. Four models of crowdfunding rely on the mechanism to raise capital from the crowd who provide the initial capital in exchange for monetary or non-monetary returns. Frydrych (2014) argues that the differences between these models come from the aims of the founders and funders. The funders' actual goals are highly heterogeneous and their motivations are very complex. Reward based model is considered to be the third model of crowdfunding mechanism where entrepreneurs treat investors as its first customers through providing them rewards or products that the project might deliver to end customers (Mollick, 2014). The most popular model by now is the reward based crowdfunding model that offers both material as well as immaterial incentives (Kraus et al., 2016). Kunz et al. (2016) defined reward-based crowdfunding as the way of investing or donating in crowdfunding projects in exchange for non-financial reward (e.g. an early version of product). Belleflamme (2014) defined reward-based crowdfunding as the process through which individuals or a group of investors contributes to a project that is socially viable and generate benefit for the society with the expectation of receiving non-financial reward in exchange for their contribution. Reward based model exists when supporters make donations to projects with the expectation of a return which can be material (e.g. a product pre-order; invest US\$10 to a music project and receive the recorded music album once it is completed) or non-material (e.g. a thank you card) (Castrataro, 2012). Reward-based crowdfunding provides additional challenges to the traditional venture finance model because it generates 'pre-production sales', it causes to fall or remove the early stage working capital deficit (Frydryhc et al., 2014). When reward based model is used the creator of the project can begin with a creative idea or they may have a simple prototype. The project founder posts project details on a crowdfunding website with the goal of collecting enough capital to produce their idea. Project owner offers a reward in return for a backers contribution, backers do not receive any equity or debt, therefore backers' expectation is completion of the project as soon as possible (Beaulieu et al., 2014).

The crowdfunding platforms of reward based model generally work based on an ‘all or nothing’ (AON) or ‘keep it all’ (KIA) model. In the AON model, initiators set a capital-raising goal below which the entrepreneurial firm does not keep any of the pledged funds, and the supporters can not get any reward. If the targeted money exceeds the goal, project owner keeps the all money. This model protects the investors from some risks such as running out the capital before project is completed. Unlike AON model, in the KIA model, the project creators can keep the entire pledged amount, regardless of whether or not the stated fundraising goal is reached (Cumming et al., 2015). Kickstarter and Indiegogo are the most popular reward based crowdfunding platforms. Kickstarter uses an “AON” model and does not allow projects to be financed if not they do not achieve their targeted financing goals. IndieGoGo allows founders to draw on pledged funds instantly, whether or not the funding goal is achieved, but the fee charged depends on whether the targeted amount is met (Bradford, 2012).

In 2014, reward-based crowdfunding has received enormous popularity as it grew globally by 85% (Massolution, 2015). According to Massolution crowdfunding report 2015, the worldwide crowdfunding industry grew considerably in 2014, extended by 167% to reach \$16 billion. In 2015, the industry has grown more than double and attained to \$34.4 billion. By 2025, the worldwide crowdfunding industry is expected to reach US\$ 100 billion and fast becoming the leading capital source for Small and Medium Sized Enterprises (SMEs) (UNDP, 2017). It was lending-based crowdfunding model that dominated the market by fundraising more than \$11billion in 2014, \$25billion in 2015, globally (Massolution, 2015). The distribution of market share is as follows: P2P (Peer to peer) lending based model (US\$25 billion), donation based model (US\$2.9), reward- based model (US\$2.7 billion) and equity based crowdfunding model (US\$2.5 billion) (Massolution, 2015).

Reward based model and donation based model had the largest market share in the previous period but recently, they were overtaken by lending model (UNDP, 2017). Reward-based crowdfunding received such appeal among businesses, entrepreneurs, and investors because it offers several advantages compared to other crowdfunding and traditional funding models though it is in the hands of the initiator to decide if it is the best alternative for individual needs (Samara and Torheiden, 2015). World Bank report (2013) on reward-based crowdfunding indicated that involvement of low-risk in such

crowdfunding as its major advantage. The risk is minimal for both entrepreneur and investor because if a project or campaign does not offer substantial response from the investor group it is not likely to be financed; therefore, the scope of fraud is limited to some extent in this case. Furthermore, reward-based crowdfunding does not require a long term commitment with regular interest or dividend payment with the investors like it requires in case of crowd lending and equity-based crowdfunding (World Bank, 2013).

In reward-based crowdfunding, the most important thing is, investors are offered with such rewards that “cannot be refused” and these offers act as very important motivator to the participating individuals in a crowdfunding community (de Witt, 2012). Before supporters make any contribution to a project or idea the initiator has to present the worth and feasibility of its project or idea in front of the investors so that they can make the right decision regarding crowdfunding (Samara and Torheiden, 2015). In addition, reward-based crowdfunding is evaluated in the initial phase of the funding lifecycle of a project or idea which acts as a proof of concept and solution prototype during the first stages of adoption since investor community decides which projects or ideas are worth financing. Therefore, reward-based crowdfunding is considered as most suitable type of crowdfunding models compared to other crowdfunding models as it provides flexibility not only to the project initiator but also to the investors (Samara and Torheiden, 2015).

Reward-based crowdfunding has several features that are worth discussing. Infodev Report (2013) has opined that one of the biggest benefits of reward-based crowdfunding is funds contributed in a project are not necessarily be repaid by the entrepreneur or project owner; rather, the entrepreneur delivers the promised reward to the contributor within the specified time. Generally projects have pre-order system combined into their reward structure (e.g. supporter invests US\$10 to a music project and receives the music album when the project is accomplished successfully). This provides a zero-cost financial management strategy to stimulate strengthening the company by organic growth (Frydrych, 2014). Another feature of reward-based crowdfunding according to Agrawal, Catalini, and Goldfarb (2015) is that, before launching the project in the market, it helps the entrepreneur to build new customer-base at the same time raising funds for the project. Reward-based crowdfunding has another benefit for the



entrepreneurs as it serves the marketing interest of founders because people come know about the project before it actually hits the market. It also helps entrepreneurs to conduct a feasibility study about the product or service whether the project will be liked by mass people (Bradford, 2012). Further benefit of reward-based crowdfunding is argued to be the fact that it is particularly suitable for innovative project ideas or projects that require high level of consumer attention (Dehling, 2013).

In Reward based crowdfunding model, initiators are considered as ‘creators’ or ‘project founders’ and project supporters are characterized as early customers or co-creators rather than investors. (Frydrych, 2016). On the other hand backers sometimes act like investors because they invest in an enterprise whose outcome is uncertain, supporters hope that promised reward meet their expectations (Wechsler, 2013). Bradford (2012) argued that on his work, investors on reward-based crowdfunding platforms are not offered any financial return such as capital appreciation, securities or fixed rate of interest. Accordingly, no investment contract is submitted to funders and federal securities law does not implement.

## **2.3 DEVELOPMENT OF CROWDFUNDING INDUSTRY**

The concept of crowdfunding is not really a new phenomenon. Since humankind endeavoured to pool their available resources together for the purpose of achieving a common goal, the idea of crowdfunding probably began during that time (Ebert and Schöndorfer, 2014). Initiators have been funding their projects through friends and family for centuries. In 1885, the construction of the pedestal of the Statue of Liberty has been stopped unexpectedly because of insufficient state monetary funds and the readers of the New York World newspaper saw an extraordinary offer. Joseph Pulitzer who was the newspaper’s publisher, asked the community to grant money to help finance of the pedestal of the statue and he made a commitment to announce the name of every supporter in the newspaper. As a result, the campaign raised about \$100.000 from 120.000 people. This is a well-documented and one of the most popular examples of reward-based crowdfunding (Dapp and Laskawi, 2014).

In today's our modern world crowdfunding has become an incredible force for business. Through crowdfunding, it is very exciting to see the international start-ups community grow (Schroter W., 2014). Two main factors behind the rapid rise of crowdfunding are technological innovation; and the financial crisis of 2008 (Kirby and Worner, 2014).

### **2.3.1 Technological Advancement and Crowdfunding**

However, now-a-days, when crowdfunding is talked about it generally refers to a relatively young industry that's emergence occurred through a series of developments in information technology. Several authors determine the progress of Web 2.0 technologies as a prerequisite to crowdfunding. For instance, today's crowdfunding industry requires the use of internet, social media, and web 2.0 through which provide technical foundations to facilitate fast and cost efficient transactions and peer-to-peer communication network (Ebert and Schöndorfer, 2014). Web 2.0 is a term that describes the changing in technology that allowed users of the internet to create and share online information in the hosted on stable websites (Kirby and Worner, 2014). According to the Lee et al. (2008) Web 2.0 has three main characteristics; openness, collaboration and participation. Openness allows individuals to make contribution to projects independently, collaboration makes possible to combine individual's knowledge and resources. Lastly easy access and use of computers and internet has increased participation. This technological leap and use of the internet network has allowed entrepreneurs to communicate with larger group of investors or donators in different crowdfunding websites. This style of website contributes user participation by allowing project initiators to set up a profile; add pictures and describe how they will use the money (Kirby and Worner, 2014). With the emergence of *ArtistShare* the whole new era of crowdfunding began in 2001. ArtistShare.com was one of the earliest successful crowdfunding platforms which later opened the door for many of today's crowdfunding platforms such as KickStarter, Indiegogo, Crowdcube, and GoFundMe. ArtistShare offered music fans the opportunity to contribute funds in their favourite bands or artists in exchange for the revenue generated after releasing an album or song (Freedman M. and Nutting R., 2015). ArtistShare uses the internet technology to finance music and other cultural projects in an innovative way. The success of the

platform showed path to other crowdfunding platforms. Due to insufficient funds, artists or bands or producers face problems in releasing new albums or songs to the public while general people wants more participation role through web 2.0 (Ebert and Schöndorfer, 2014). The facilitating role and environment of modern technology and the increasing will to participate in the process of alternative access to financial resources pushed the rapid development of crowdfunding. As a result, the concept crowdfunding spread rapidly around the world.

### 2.3.2 The Financial Crisis of 2008 and Crowdfunding

The financial crisis of 2008 also known as the global financial crisis contributed in the development of this new form of capital formation. During the period of financial crisis, entrepreneurs and founders of new and innovative projects faced by several difficulties in generating funding. Banks and other formal financial intermediaries, at that time, showed reduced willingness in providing funds to entrepreneurs and project founders to initiate their projects (Infodev, 2013). Figure 2.2 shows how a serious decline the amount of bank loans made in Europe and the USA at the beginning of the crisis (IOSCO, 2014). This was due to loss of trust as several large financial institutions went bankrupt and could not survive the crisis. In this climate, the need for alternative financing platform intensified and crowdfunding has developed.

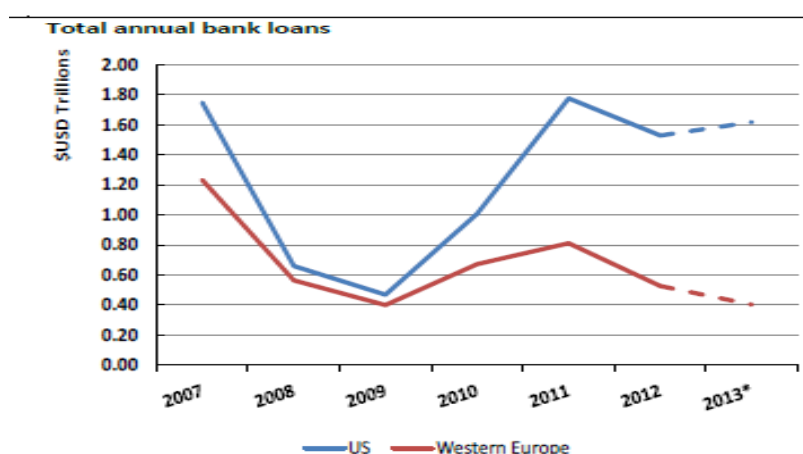


Figure 2-2: The amount of Bank Loans (Source: IOSCO Risk Outlook 2013-2014)

The crowdfunding mechanism has started in developed countries, after the 2008 financial crisis and due to rapid expansion of Internet it soon has spread to developing countries. In addition, it expanded from funding charities into venture finance and rapidly surpassed the angel investment model thus it has become one of the largest financing sources for SMEs (UNDP, 2017).

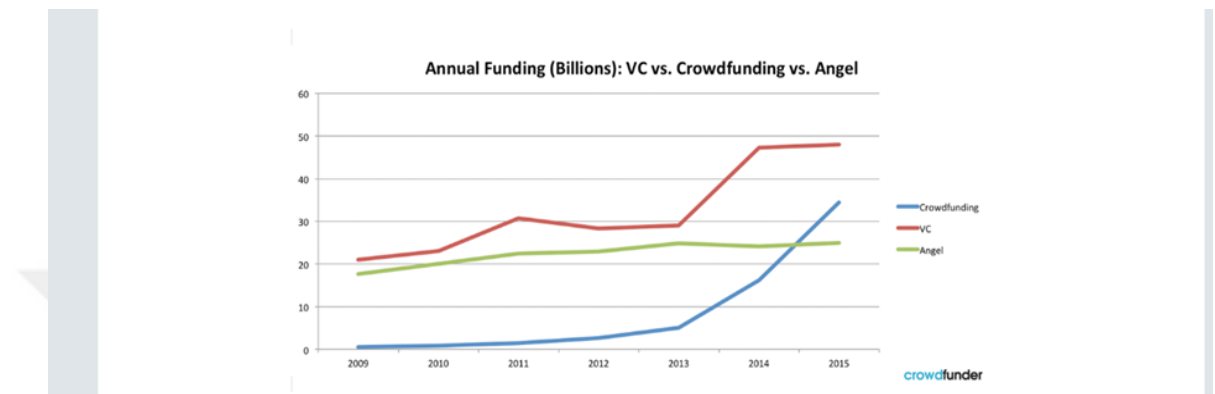


Figure 2-3: Trends Vc vs Crowdfunding vs Angel Source: Chance Barnett, Forbes.com (2015)

As a result, growth in the crowdfunding has been exponential and the Massolution study specifies crowdfunding industry volume at \$35 Billion globally in 2015, and a World Bank study estimates that global crowdfunding could grow to \$96 Billion by 2020.

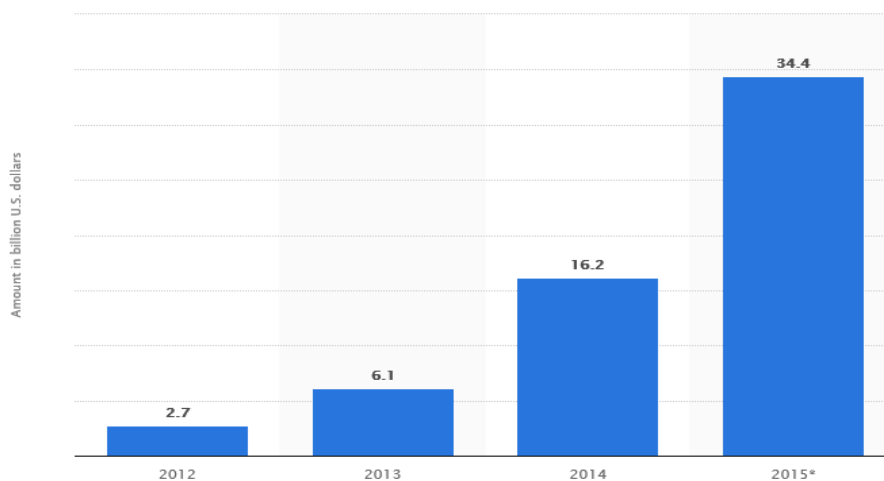


Figure 2-4: Total Crowdfunding Volume Worldwide (Source: Massolution 2015 Industry Report)

Kickstarter which was launched in 2009 is arguably the market leader and it is the largest funding platform in crowdfunding industry. Through the platform nearly 390.000 projects have been launched, more than 138.000 projects have been successfully funded, 14 million people have backed the project and \$3.5 billion has been pledged (kickstarter.com). Most of the crowdfunding platforms that are currently available around the world are located in North America and European region (Crowdsourcing, 2016). As of 2016, there are more than 1,150 active crowdfunding platforms across the world of which 77% are from the North America and European region (Crowdsourcing, 2016). The value of total funds raised through different crowdfunding platforms around the world accounts for more than US\$ 7 billion in 2016 (Crowdsourcing, 2016) and the industry projections indicated that the numbers are expected to increase substantially in the coming years. Crowdfunding has spread worldwide and Turkey is not an exception to this as the country has experienced substantial growth in crowdfunding industry.

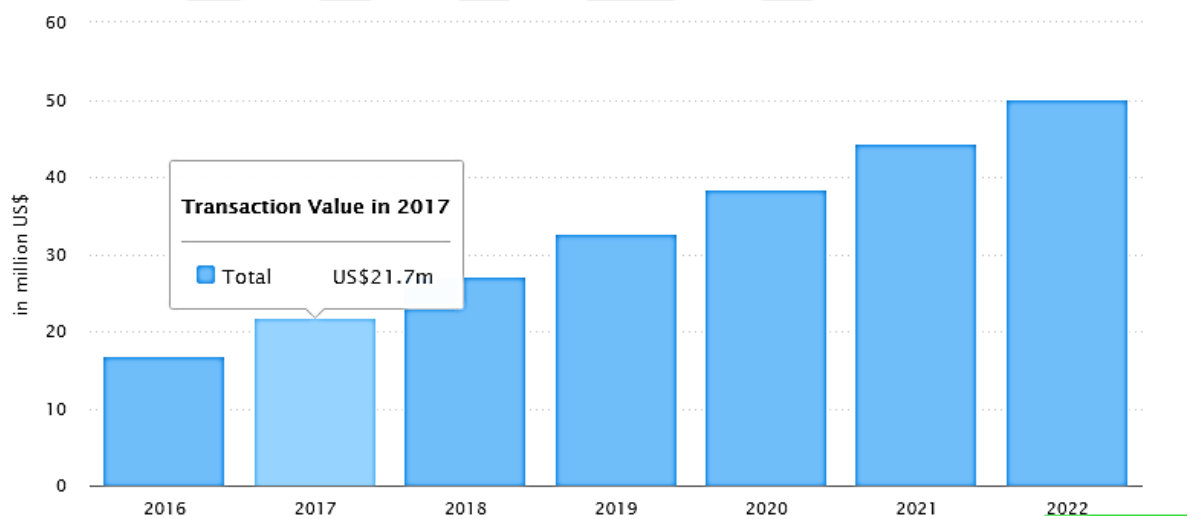


Figure 2-5: Transaction Value of Crowdfunding Platforms in Turkey in 2017 (Statista, 2017)

The figure presented above indicates that, in Turkey, the total transaction value made through crowdfunding in 2017 was US\$ 21.7 million (Statista, 2017). Projection for 2022 indicates that the transaction value made through crowdfunding platforms will become US\$ 50.1 million and the transaction value growth is estimated to reach 13.1% in 2022 (Statista, 2017). The transaction value growth was 29.4% in 2017, which was quite an amazing rate to mention. It is also observed that the number of crowdfunding

campaign in Turkey in 2017 has increased, which was 21,920 in 2017 while it was 17,748 in 2016 (Statista, 2017). The projection for number of crowdfunding campaign in 2022 is expected to be 40,108 (Statista, 2017).

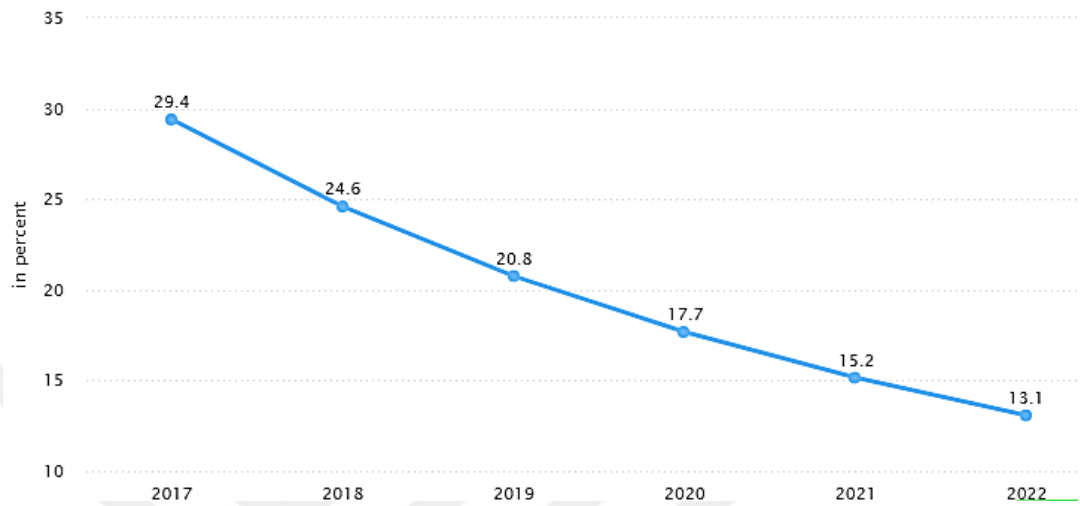


Figure 2-6: Transaction Value Growth of Crowdfunding Platforms in Turkey in 2017 (Statista, 2017)

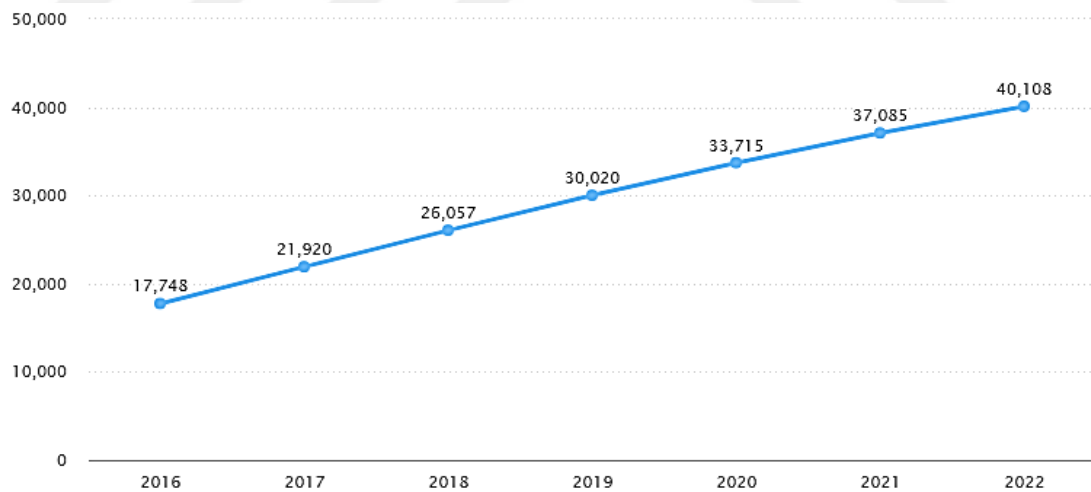


Figure 2-7: Number of Crowdfunding Campaigns in Turkey in 2017 (Statista, 2017)

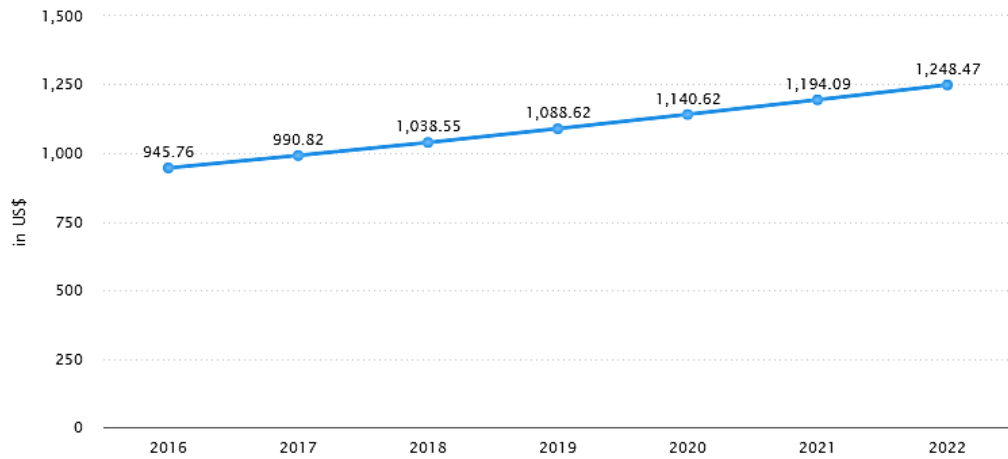


Figure 2-8: Average Funding Per Campaign in Turkey in 2017 (Statista, 2017)

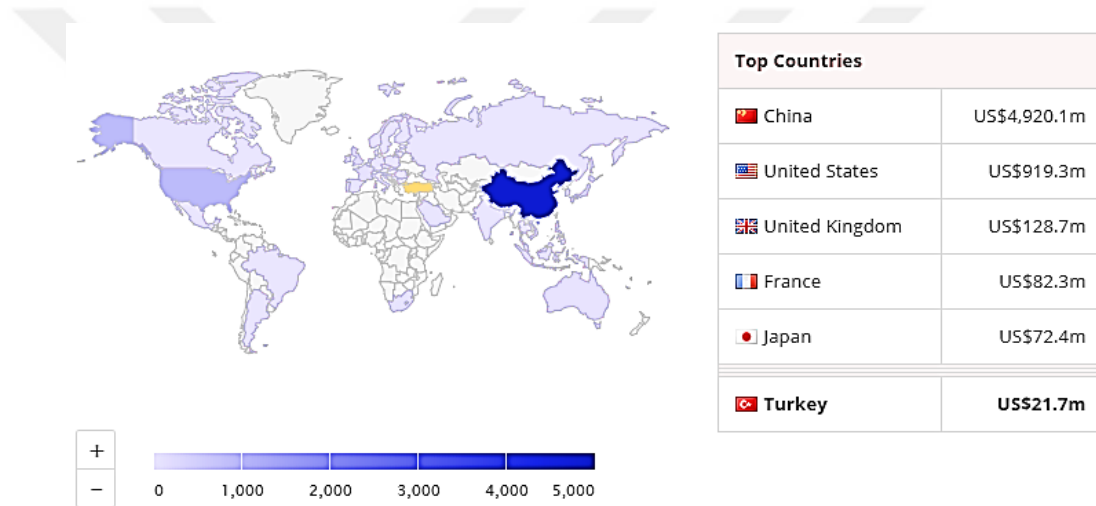


Figure 2-9: Global Comparison of Transaction Value (Statista, 2017)

In 2016, average funding per campaign was US\$ 945.76 while it was US\$ 990.82 in 2017 (Statista, 2017). The value of funding per campaign is estimated to increase steadily and is expected to reach US\$ 1,248.47 in 2022. Global comparison of transaction value around the world is depicted in Figure 5 where it can be seen that China ranks first in transaction value for funds raised through crowdfunding websites (Statista, 2017). Turkey is growing steadily in this index and expected to increase over time. However, the Turkish crowdfunding market is increasing day by day and the need for regulation has also increased. The Turkish Government recently drafted a bill, which was submitted to the parliament to seek authorization from the Capital Markets Board (CMB) for the purpose of regulating the flourishing industry of crowdfunding within the laws of Turkish capital markets (Ablak, 2017). On December 5, changes made to the

Capital Markets Law to regulate crowdfunding in Turkey was published in the Official Gazette of Turkish Government, which means CMB has the authoritative power to pass secondary regulations to regulate crowdfunding in Turkey (Ablak, 2017).

### **2.3.3 Stages of Crowdfunding Industry Development**

The beginning of crowdfunding as an industry can be dated around 2006 though the acceptance of this industry by media, science, and society is still in its inception (Ebert and Schöndorfer, 2014). In the beginning, Crowdfunding based on donation model, it eventually emerged as a global industry of billions of dollars. By directing capital to individuals or organization, it creates funds for seed financing, product development and social causes. Empirical studies have argued that there are several stages of development in case of crowdfunding industry. These studies have further argued that before discussing the stage of development of crowdfunding industry, the lifecycle of crowdfunding ventures need to be understood first. The classic five-stage model was constructed by Churchill and Lewis in a 1983 Harvard Business Review article. Crowdfunding is appropriate many types of venture especially start-ups with high growth potential. The lifecycle of a new venture is demonstrated in following figure where each stage has particular material or non- material resources requirements. For each stage, main resource needs are marked in outline as well as the crowdfunding type most appropriate to meet these needs (Paschen, 2016). It can be seen that the first phase of a project's lifecycle is idea generation or inception where an idea is being generated. In this stage founder has an idea and analyse the feasibility of setting up a business (Majoran, 2014). The capital requirements in the pre-startup stage are necessary for research and development activities, product testing, creating the business plan, and constructing to initiation of the venture. Donation or reward based crowdfunding model is the most convenient type to fulfill these needs. Because these type of models provide the capital needed to move the enterprise to the next stage thus founders can consider again raising finance methods (Paschen, 2016). After this phase the entrepreneurs launch their project into a crowdfunding platform/ website to seek funds from funders or investors. But, there remains the problem of funding gap and here comes the effective role of crowdfunding platforms. Crowdfunding platforms establish bridge between



funding requirements of funders and founders or entrepreneurs. Lending or equity based crowdfunding model are more suitable for enterprise in this stage (Infodev, 2013). After fulfilling the funding gap through crowdfunding platforms the entrepreneurs initiates the project in reality that might be referred to the third stage named as “start-up”. In the second stage, the entrepreneurs test the idea or project for real-life proof to make sure that the project will be a success. In the start- up stage the venture confirmed the feasibility and reliability of the business model (Majoran, 2014). In this stage resources are required to hire workers, manage the organization, and place the product on the market.

In conclusion the startup stage has need considerably more fundraising than the pre-startup stage (Hofstrand, 2013). In this stage, the entrepreneurs initiate the project after acquiring sufficient funding requirements. In this phase of a project’s lifecycle the start-up grows faster because the entrepreneur has already judged the viability of the project through crowdfunding platform. In the next phase of a new venture lifecycle early growth is experienced due to sufficient funding and competitive advantage. In this phase, start-ups attract substantial mainstream financing because it has already proven its idea and its feasibility in the real world competitive environment. Moreover, increasing interest of customers for the products or services of the start-up and it helps attracting mainstream financing for further development. Nevertheless, in this phase, the concept of crowdfunding stops working and formal investment procedures come into place. In the final phase, start-ups start to expand its operations in prospective markets and can be able to attract funding from investment banks (Kuppuswamy and Bayus, 2015).

As a result, enterprises are able to determine the most appropriate crowdfunding model by regarding particular lifecycle phase and need for finance. Following figure summarises the discussion presented in previous paragraphs:

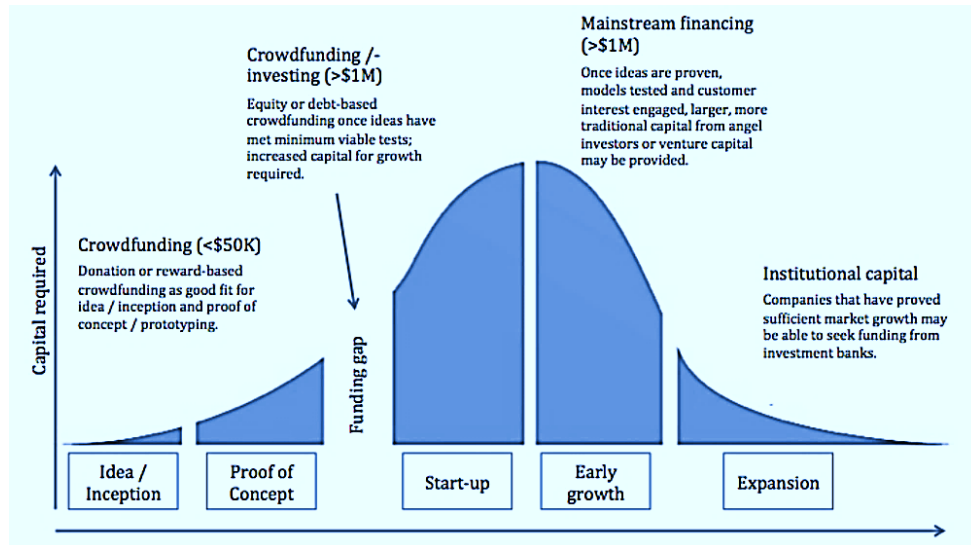


Figure 2-10: Lifecycle of New Ventures (Modelled on Infodev, 2013)

The examples of highly successful crowdfunding campaigns are readily available because there are number of crowdfunding projects that have become successful in real world namely Pebble Watch is the most popular start up crowdfunding project that raised more than US\$ 10 million in 37 days. The project was a tremendous success because it was one of the reasonably priced smart watches in the marketplace. After this success the second campaign which launched one year later, broke a record by collecting US\$ 1 million within only 49 minutes (Forbes.com, 2014). Whether crowdfunding appears to be a viable alternative to traditional financing is remaining a debatable issue but it has provided the flexibility that traditional financing models fail to offer. For these reasons, crowdfunding industry, around the world, is experiencing huge following and its development stages are discussed in following paragraphs.

Crowdfunding industry is studied based on the industry lifecycle model, the position of this industry in the lifecycle will be at the very beginning stages. Other models, such as the Dynamic Model of Innovation developed by Utterback and Abernathy (1975), also provided the same conclusion regarding the position of crowdfunding in the lifecycle models. Using the Innovation Life Cycle Model, it can be said that crowdfunding phenomenon is at the stage of beginning because of the characteristic of fluid phase such as high level of participation, non- standard process (Ebert and Schöndorfer, 2014).

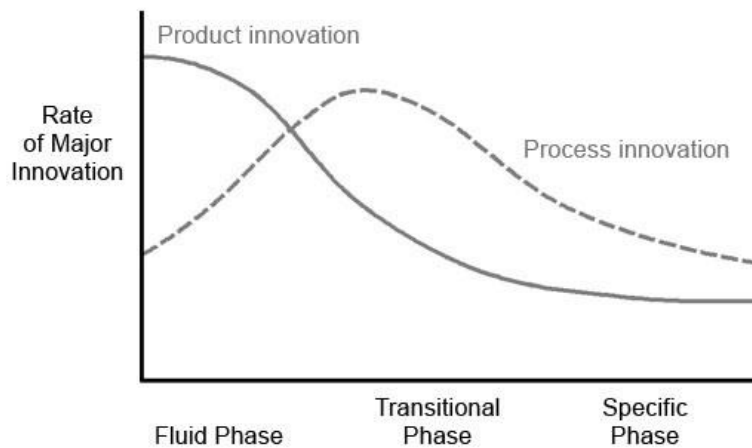


Figure 2-11: Innovation Life Cycle (adapted from Utterback and Abernathy 1975)

The development stage where crowdfunding industry currently belong can be best explained by using the Hype Cycle developed by Gartner Inc., an American research, advisory, and information technology research firm, to graphically represent the model of maturity, adoption, and social application of specific technologies. Unlike any other lifecycle models for technologies, the Hype Cycle takes into account for a technology that is not in actual reality, which demonstrates public interest or technologies that are still to be developed. For instance, artificial intelligence, 4D printing are listed in the Hype Cycle of 2017 though the concept is not implemented in reality as it still remains in laboratories. The Hype Cycle clearly points that the concept of crowdfunding has received enormous enthusiasm among people that it came into the top of the expectations list (Gartner, 2013). The Hype Cycle is created by assuming the next big thing that may appear in the coming years and the technologies that have come into existence. This cycle also portrays different stages of development that a technology might go through. The Hype Cycle divides the development stages of a technology or idea into five phases where the first phase shows the technology trigger, the second phase demonstrates the technologies that reached at the peak of inflated expectations, the third phase demonstrates the technologies that are trough of disillusionment, the fourth phase lists technologies that are in the slope of enlightenment, and the fifth phase lists technologies that are at the plateau of productivity (Gartner, 2013).

Similar to this instance, crowdfunding is listed at the peak of inflated expectations phase of the Hype Cycle. , After peaking a few years back, Crowdfunding is now in the Sliding into the trough "disillusionment" phase of the Gartner hype cycle (forbes.com).

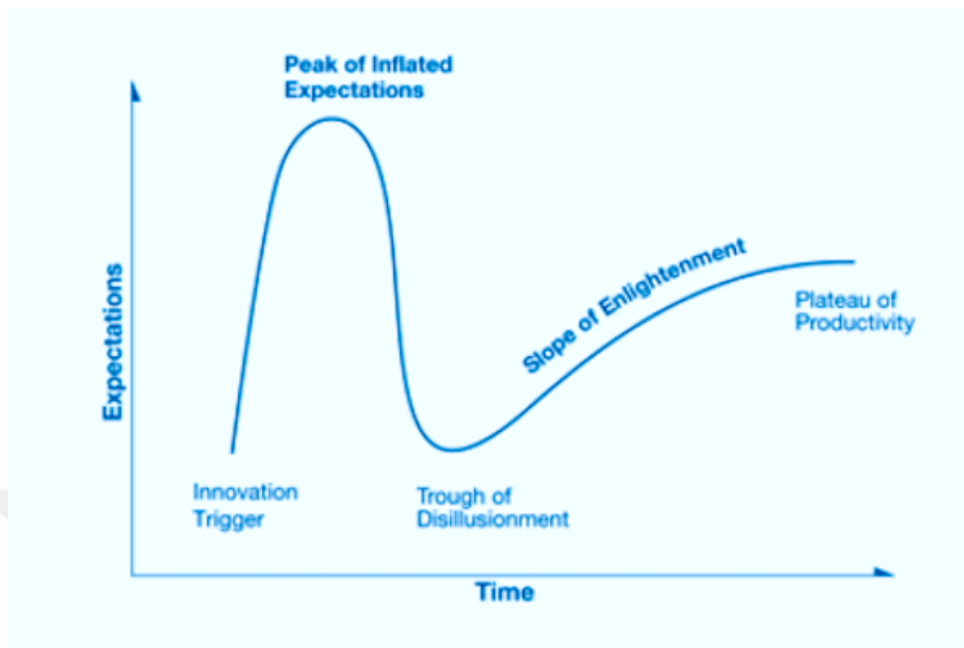


Figure 2-12: The Position of Crowdfunding in the Hype Cycle (Gartner, 2013)

The ideas or technologies that can make through to this phase, it is generally assumed that the technology is relevant and can be well-understood by people for further adoption.

The impression that the crowdfunding industry is still in its infancy is, therefore, clearly supported by the Gartner's Hype Cycle. Hence, it can be considered that the crowdfunding industry is a recent development and its position in the early stages of the Hype Cycle represents the need for further development of the concept (Bradley, 2014).

If crowdfunding is discussed in the light of above mentioned theories and models, the industry might be placed into the first stages. Nonetheless, the projects that are funded through crowdfunding platforms are in the different stages of product/ industry lifecycle. It is also argued that the emergence of new crowdfunding platforms is opening new possibilities for entrepreneurs while, at the same time, the quality concern is on the rise have stated that the entrance of new players in the industry makes it difficult for the investors to judge the viability and credibility of crowdfunding projects.

Empirical discussion regarding crowdfunding and the way the industry is developing demonstrates different viewpoints that are discussed in previous paragraphs of this

section. It is quite evident that the crowdfunding platforms are changing their business models and even their functionality though the concept remains pretty easy to understand (Agrawal, Catalini, and Goldfarb, 2014). Nevertheless, it is arguably true that the crowdfunding industry is still in its first stages of development and requires substantial legal and technological developments to further advance and provide entrepreneurs the opportunity to showcase their ideas and get funding at a cost-efficient way compared to traditional funding alternatives (Agrawal, Catalini, and Goldfarb, 2014). Thus, it can be said that the crowdfunding industry is still in its early stages of development; and in Turkey, the industry is in its very beginning stages.

## **2.4 BENEFITS AND RISKS OF REWARD-BASED CROWDFUNDING**

Reward-based crowdfunding model does not require any financial benefits to be offered by the entrepreneur to the investors or donors. In addition, anyone can make contribution in a project or idea to be implemented. However, reward-based crowdfunding has benefits as well as risks. Some empirical studies considers reward-based crowdfunding as a form of market-based financing that could help trigger funding to SMEs while some other empirical studies considered reward-based crowdfunding as donation model. Reward-based crowdfunding aids in acquiring capital from investors efficiently and effectively. Every organization or individual entrepreneur can raise funds by using reward-based crowdfunding; for this reason, many jurisdictions have already sought to encourage this market through different regulatory means. However, reward-based crowdfunding is not a risk-free investment for the investors or donors because everyone wants to invest in something that is worthy and beneficial for the people.

### **2.4.1 Benefits of Reward Based Crowdfunding**

Reward based crowd funding is innovative and new phenomenon that links funders and entrepreneurs. This fund raising method is drawing attention to founders because it not only provides opportunity to access capital for enterprises with very limited financing possibilities (Sigar, 2012) but also it is tool for marketableness. In the literature, many scholars analyse benefits of Crowdfunding mechanism such as Bechter

et al., 2011; Sigar, 2012; Ramsey, 2012; Kitchens & Torrence, 2012 and etc. This section of the current study tried to summarize evaluations of these authors. Reward-based crowdfunding helps fostering economic growth through facilitating flows of funds to small and medium enterprises (SMEs) and new entrepreneurs in the real economy (Kitchens & Torrence, 2012). Therefore governments appreciate this alternative financing model because of positive effects on economy. Crowdfunding helps create job opportunity and grow enterprises and it means more tax revenue for the governments.

Reward-based crowdfunding is actually market-based financial model which facilitates credit to the real economy. In many empirical studies, SMEs and new entrepreneurial ventures are considered major players in an economy as it creates employment opportunities and helps achieving financial benefits for associated parties (IOSCO, 2014). According to Bechter et al., (2011) today's technology is able to overcome geographical barriers and reach to finance worldwide and most entrepreneurs focus on a project within their geographical community but try to raise funds globally. Reward-based crowdfunding is based on an online platform which is convenient for both entrepreneurs and investors. Online platforms can be easily accessed and many investors may find it more convenient than other models and online platforms can be accessed at any time. Therefore, access to finance globally through crowd funding system has become very easy. It is widely argued that banking channel often require lengthy process to be granted for loans or capital for SMEs and new entrepreneurial ventures. In this case, reward-based crowdfunding act as an intermediary between entrepreneurs and investors to make the investment deal without any formal requirements. Therefore, reward-based crowdfunding can be an alternative to bank financing. Reward-based crowdfunding fills the gap left by the banking industry (Sigar, 2012).

On the other hand angel investors and VCs which are among the important financial resources gain the right to control companies decisions they invest in. If the initiators collects money through the reward crowdfunding sysytem, entrepreneurs will not have to share its rights in this way (Valanciene and Jegeleviciute, 2013).

Reward-based crowdfunding is also a cost effective medium of raising funds; it leverages off a lower cost basis. Traditional funding channels often charge higher rates

from entrepreneurs and require guarantees against the loan provided. On the contrary, reward-based crowdfunding does not require any additional requirements to be fulfilled rather it subscribes venture or seed capital requests. In addition, reward-based crowdfunding provides affordable and attainable alternatives to SMEs and new entrepreneurs for raising funds. Besides, reward-based crowdfunding provides a new product for portfolio diversification (Mollick, 2014). In the form of un-collateralized debt, reward-based peer-to-peer lending platforms help entrepreneurs attain brand new assets (Kuppuswamy and Bayus, 2014). Such innovation benefits investors to diversify their investment portfolio and reduce the systematic risk of their investment.

In addition to all these advantages, the most importantly entrepreneurs who want to raise capital through crowdfunding approach, have opportunity to test marketability. Because, the system of crowdfunding is based on attracting lots of people, who think the idea is unusual and worth investing (Valanciene and Jegeleviciute, 2013). In reality, it has been observed that new ideas and projects go in vein because of not having enough funding opportunities. The emergence of reward-based crowdfunding helped entrepreneurs to acquire new capital for their projects at ease and put pressure on the traditional financing models. Therefore, reward-based crowdfunding not only created opportunities for new entrepreneurs to attain required funding but also increased competition in this market challenging traditional funding models.

### **2.4.2 Risks of Reward Based Crowdfunding**

According to the IOSCO research study the key risks of crowdfunding method are default risk, platform closure risk, fraud risk, cyber-attack possibilities. One of the major risks of crowdfunding is default risk. It has been observed in many empirical studies that entrepreneurs often default on their capital. Statistically, Start-ups have a 50% chance of failure in the first 5 years (IOSCO, 2014). As reward-based crowdfunding does not offer additional benefits or returns for the investors therefore there is nothing to be worried about for them regarding default risk. However, reward based crowdfunding is based on supporters receiving rewards; the risk here may not be able to reach rewards. In reality, the job of keeping records of supports and posting rewards is difficult task. When there are a large number of supporters, venture may face administrative and accounting difficulties (Sigar, 2012). Therefore, it is important to

ensure that the entrepreneurs are credible and efficient enough to handle their capital and make the project a success.

Another risk in reward-based crowdfunding is platform risk. Platform risk is associated to the closure of the crowdfunding platform at any time. Closure of a crowdfunding platform may risk both entrepreneurs and investors because platforms are responsible for the collection of repayment and funding for the associated parties. Some crowdfunding platforms, also lack in credibility which creates more problem for the funders in giving financial support.

Risk of fraud is another risk that both investors and entrepreneurs face in reward-based crowdfunding. Money laundering, consumer privacy, identity theft, terrorism financing, and data protection violations are some of the risks that reward-based crowdfunding can suffer from. As reward-based crowdfunding is less costly and it can easily raise funds; therefore, platforms may take this advantage and operate solely through an internet portal. As a result, chance of higher risk of fraud increases significantly because of system's dependency on the internet. This dependency on the internet may cause another risk like cyber-attack. This can be in many ways, such as targeting the platform's infrastructure, to confusing accounts and personal information theft. The platform's authorities need to ensure to provide technical infrastructure to prevent such cyber-attacks problems (Tendulkar, 2013).

Because of the characteristic of crowdfunding system, reporting project and business model on the crowdfunding platform Bechter et al. (2011) indicate that founders who want to collect capital through crowdfunding meet the risk of their ideas being stolen by better financed investors or large corporations. Another risk associated in reward-based crowdfunding is information asymmetry and quality regarding projects or ideas. Investors may often be provided with false or inaccurate information by the crowdfunding platforms or entrepreneurs. Also, entrepreneurs may not be informed about the funding by the platforms. Consequently, the risk of information asymmetry and quality of projects may be increased (Freeman and Jin, 2009).



## 2.5 CROWDFUNDING REGULATION

In this section, legal issues about reward based crowdfunding in the world and Turkey have been analysed. The national legislative regulations have big importance in the development of the crowdfunding industry.

### 2.5.1 Crowdfunding Regulation in the World

There are crowdfunding models developed in key regimes, depending on the changing legal requirements across countries. These legal requirements can be burdensome for the reasons like; the crowdfunding model used (i.e the most demanding is equity-based crowdfunding), if an international transaction is necessary, the location of crowdfunding platform, and beneficiary of the business.

The Cambridge Centre for Alternative Finance determines these main regulatory regimes as follows;

- Lack of regulation: In some cases, general legal provisions can be applied if the investors are protected by these provisions.
- Intermediary/platform regulation: For some type of crowdfunding registration, administration and reporting are requested to get under control.
- Banking regulations: Banks are known to be the equity & lending units which should have a banking license for crowdfunding operations.
- Two-staged regulation– Both the country (federal) level organizations like the Securities and Exchange Commission (SEC) in the USA and state-level agencies monitors crowdfunding platforms.

Some forms of crowdfunding are placed bans (i.e. equity) by some US States but some States may supply exemptions. Some countries, like the UK, the Netherlands, Germany, and the USA have more supporter regulations. Many countries are improving their legislations and in order to enable crowdfunding, more countries have updated their framework of law and rules. Sweden and The UK have completed several reforms. The short summary of existing regulations is as follows;

Europe: Member states have legal provisions varying from country to country with limited harmonization. The European Commission evaluates national frameworks and

determines the best applications for help purpose. The reports of “The Current State of Crowdfunding in Europe” and “Sustaining Momentum” give detailed information.

The Alternative Finance Act entered into force on 1 September 2015 in Austria. Since then, the sector is growing quickly. The reward based crowdfunding market is estimated to reach €2, 5 million for 2015. Some large scale Austrian banks have their own reward based crowdfunding platforms. This new act has great importance in terms of regulations in European region. With this law, the requirement to issue a full market capital prospectus will begin with a volume of € 5 million and if the investor has € 2.500 net income monthly, he/she can invest € 5.000. Platforms are expected to provide information on issuers, the features of their business, how they are preferred, and fee to be paid from issuers or investors. In Belgium, the regulation is administered by the Financial Services and Markets Authority. However, P2P lending crowdfunding model is the most important model in terms of volume in Europe and in the world, is not allowed currently by the Belgian authorities. France is among the first countries to implement crowdfunding, reward based crowdfunding volume reached to € 41.9 million in 2015. Since 1st October 2014 France has made arrangements in the field of crowd lending and crowd investing, but has not made any specific arrangements about reward-based or donation based crowdfunding.

UK is a country that applies the crowdfunding model with all its forms and embraces this new financing model. In the UK, Reward based model volume reached £42 million in 2015. The UK has started implementing effective regulations in equity and P2P lending models in 2014. The regulatory and responsible agency is Financial Conduct Authority.

Firstly, reward based crowdfunding started in 2010 and one year later equity based crowdfunding started in Germany. The first law to regulate equity crowdfunding came into force in 2015. In Italy, Spain and the Netherlands, there are no regulations on donation and reward based crowdfunding but strict regulations on lending based and equity based crowdfunding models. Especially, in the Netherlands crowdfunding is a not new phenomenon, reward based started with emergence of Sellaband in 2006. There are no specific laws on crowdfunding in Finland, Czech Republic, Ireland, Switzerland (Crowdfunding Hub, 2016).

The European Commission has shown a real interest in this new funding model. The commission newly carried on a study about European crowdfunding market. The study found that crowdfunding has the capacity to be a substantial source of funding for entrepreneurs in the long term. It emphasized that the proportion of crowdfunding market in the total financing of European funds has increased rapidly but it is still a national phenomenon and has not reached the cross border dimensions. The commission accentuates the need to follow the advancement of the sector and the efficiency of national regulatory structure (European Union, 2017).

United States: The crowdfunding of donation and/or reward based are widely recognized. In case a founder offers equity model, SEC supervision rules are applied. The congress of the United States signed the Jumpstart Our Business Start-ups (Jobs Act) on April 5, 2012, which provides a legal framework for crowdfunding. One of the first researchers to analyse the legal framework and legal obstacles to crowdfunding in the United States, before the JOBS ACT was signed by President Obama, is Bradford (2012). To accelerate crowdfunded opportunities, the Securities and Exchange Commission required adjusting an exception that balance between investor protection and seamless raising capital. A similar view has been presented by Martin (2012), who emphasized the need for balance between the overwhelming arrangements and requirements to protect integrity and financial market stability.

Asia: The environment of legislation in Asia is changing very fastly. Some countries like Malaysia, New Zealand, and South Korea have preferred to form tailor-made regulations to rule dept-based operations whereas the other countries like Singapore and Thailand have acted more conservative, preferred to regulate alternative finance by using pre-existing regulatory frameworks (UNDP,2017).

Latin America and the Caribbean: The two-thirds of surveyed platforms in Breaking New Ground show that there are not any regulations or the crowdfunding is illegal. Consequently, this points the Latin American and the Caribbean countries fall behind of the other countries. The regulations in Mexico are inadequate and not supportive for crowdfunding. But some countries such as Brazil are still discussing the reforms (UNDP, 2017).

Middle East and Africa: The most developed regulatory environment exists in Israel and UAE. Even though the regulations in Africa, South Africa, and Kenya for crowdfunding are the most advanced, the operations are not regulated unambiguously.

Crowdfunding platforms can also work among countries. In this case, the items of the international provisions, especially those related to fighting against terrorism and Money laundering are applied. Kickstarter, Indiegogo, and Rocket Hub are the largest crowdfunding platforms and they are completely compliant with the international anti-money laundering laws (UNDP, 2017).

The success of the reliable crowdfunding systems depends on many solid foundation factors. They need to provide convenience regulations. But for a sustainable success, they should be supported by some other key factors as well; forward-looking legislations which balance the investor protection need with the capital formation, efficient technological keys (safety broadband Internet or mobile data networks etc.), the Support services to funders supplied by state or private institutions (training, mentoring etc.) (UNDP, 2017) According to research conducted by Infodev (2013), crowdfunding phenomenon is a significant accelerator in the global innovation ecosystem. The current regulations have not been established for today's ecosystem.

## **2.5.2 Crowdfunding Regulation in Turkey**

The crowdfunding market is in its beginning in Turkey, but the capacity of market is promising. It should be closely monitored by the regulatory and supervisory agencies in order to minimize the disadvantages and risks associated with it, as it is a new and unregulated financial instrument. Crowdfunding is a new phenomenon for Turkey, "Projemefon" was the first platform of crowdfunding in Turkey founded in 2011. Afterward, it is re-structured with another name as "CrowdFON". The other platforms followed this as; "fonlabeni" which is founded in 2013, "bi'ayda" and "fongogo" founded in 2014. The platform "Bi'ayda" was closed in late 2015's. The other platforms have still been active in Turkish market. By the time of July 2016, it was stated that the total funds invested in these crowdfunding platforms were a little bit over 1 billions of Turkish Liras (Yeniova 2016). The other platform joined to the system which named as "Arikovani" was founded by late 2016's. "Arikovani" platform having different aspects from the other previous platforms was introduced by a telecommunication firm very

well known in Turkey. This telecommunication firm announced the “Arikovani” platform to the Turkish market as the social enterprise project. While the other platforms supported different types of projects (education, art, environmentalism, agriculture, etc.), the "Arikovani" platform chose to become expert at technology-based projects. In the last period, some institutional regulations have been started to develop the Turkish crowdfunding system. An association is founded in order to improve the infrastructure and environment for the future platforms and in addition to this, for giving support to the public authorities about the preparation of necessary legislative arrangements for crowdfunding. Also, the Capital Markets Board is working on crowdfunding by means of preparing a new law ( which is an amendment to actual financial regulation). The new regulation got great support from many powerful and effective business people with its positive and open to improvement features. This new regulation allows the platforms to be built to protect small investors and at the same time to prevent the abuse of malicious people. It also supports start-ups by reducing the bureaucratic procedures, encourages confidence and transparency and on the other side takes necessary legal measurements concerning money laundering.

Consequently, it is aimed to regulate the new legislation so that it can provide many possibilities for new platforms to be established.(Start-up Hukuku 2017). Present platforms perform on a donation based, pre-order and reward-based structure. Other types of crowdfunding templates cannot be applicable in Turkey for the moment because of the legal issues concerning invoicing and trade law (Oba, 2016). (Oba, Atakan, Kirezli, 2018). However, once the legislation are completed by Capital Markets Board, equity-based model can be implemented in the Turkish Market (The Crowdfunding Conference, 2018).

In Turkey, as far as it could be determined according to the date of this study realized, eight crowdfunding platforms exist and they operate due to the principles outlined below (Dünya.com, 2017) ;

Donation activities or social responsibility projects will not draw advantage from funding but projects that can produce solid outcomes will be subject to funding.

- The approval of the related terms of use by the project owner

- Continue the promotion of the project for a certain period and collecting the supports

-When necessary support is provided, platform service fee should be deducted from the collected amount and the balance should be transferred to project owner. If the necessary support for the project can't be supplied or the supporter breakdowns in the related period, the fund should be turned back in a designated date without making any deduction.

Table 2-2: Crowdfunding platforms in Turkey

Arikovani	Arikovani.com	Reward based
Buluşum	Bulusum.biz	Reward based
Crowdfon	Crowdfon.com	Reward based
Fonbulucu	Fonbulucu.com	Reward based
Fongogo	Fongogo.com	Reward based
Ideanest	Ideanest.org	Donation based
Startupfon	Startupfon.com	Equity based
Fongogo Pro	Fongogopro.com	Equity based

(Source: Own draft)

Considerable interest has been drawn in Turkey by reward-based crowdfunding as it is in all over the world and it has been anticipated that this market is going to be a multi-billion-dollar industry. Generally, crowdfunding is known to be an alternative financing model for new entrepreneurs and SMEs to raise funds for their projects. In the sense of alternative financing opportunity, reward-based crowdfunding can be a value to the Turkish economy. In Turkey, charity-based crowdfunding has been evident for a while but it is yet to be implemented in the capital market of Turkey due to a lack of appropriate regulatory framework. However, the Draft Law as to the amendment of the Capital Market Law has been submitted to the Turkish Grand National Assembly of 26<sup>th</sup> December, 2016. The Draft Law aims at regulating crowdfunding activities and campaigns in Turkey with a view to meeting the deficiency of regulatory framework.

In the “General Preamble” of the Draft Law defines crowdfunding as a new generation financial instrument which aims at empowering number of individual entrepreneurs who could not have considerable impact individually per se through providing funding opportunity in the form of small accounts and donate via the internet platforms. The aim of the Draft Law is to develop an investment environment in which individual entrepreneurs can communicate with and access to the crowd and vice versa to raise its funds through a regulated online platform. Due to the cost effective nature of crowdfunding and the importance of early stage financing at low cost, the regulation of

crowdfunding in the Draft Law has been exempted from several number of provisions in order to create a cost effective investment environment.

The general framework of crowdfunding has been set in the Draft Law and it confers power to the Capital Markets Board of Turkey (CMB). CMB is responsible for the introduction of secondary legislation for the details of the crowdfunding system in Turkey. The activity of the crowdfunding platforms is regulated by the Article 1 of the Draft Law which states that *“the fundraising activity of crowdfunding platforms will never be considered publicly-held corporation or an issuer”*. In addition, Article 3 defines crowdfunding as the form of fundraising activity from the general public by using crowdfunding platforms according to the rules set by the CMB without being subject to the provision related to the investor compensation schemes of the CMB. Furthermore, in the Draft Law, funds raised by crowdfunding are exempted from the costs and bureaucracy that publicly-held corporations and general issuers are subjected to. Investor compensation provisions of the CML are also exempted in case of crowdfunding.

Article 2 of the Draft Law clearly explains that *“the fundraising activity through crowdfunding must be carried out by the licensed platforms of CMB and is not subject to the provisions of CML which requires preparation of prospectus and issue document”*. Furthermore, the preamble of the article also states that fundraising through crowdfunding will not require issue of prospectus or any other documents. However, it has been argued that introduction to rules and mechanisms through the secondary legislations against any fraud or presentation of misleading and inaccurate information to the public is essential. In Article 3 of the Draft Law it is stated that if any corporation raises its funds through crowdfunding, if the number of shareholder exceeds five hundred, their shares will not be deemed to be offered public.

The main rules and principles of crowdfunding activities are controlled and regulated by the Article 4 of the Draft Law which argues that crowdfunding platforms are considered as institutions that are intermediaries as to crowdfunding and alternative funding service providers through the internet (Sancak, 2016). Before setting up, crowdfunding platforms are required to be approved by the CMB and it must be operated under the guidelines set by CMB. Through secondary legislation, CMB will regulate the share transfers, conditions of establishment, shareholders, employees, and

any limitations in funding or donations can be made by an individual investor (Sancak, 2016). It is expected by the regulators that these secondary regulations will ensure and develop the mechanisms and rules that can protect the interest of the investors. Furthermore, Article 4 of the Draft Law regulates the illegal activities in the crowdfunding activities including money laundering, consumer privacy, identity theft, terrorism financing, and data protection violations.

Article 4 also regulates the crowdfunding transactions that are associated to the crowdfunding platforms. Article 4 states that crowdfunding platforms will not be considered within the scope of investment activities and services and ancillary services. Therefore, it can be argued that this approach paves the way for individuals to establish and operate crowdfunding platforms. There is no clear indication whether investment institutions can be able to open a crowdfunding platform. Under current regulatory framework, CMB has no authority to deny the investment of investment institutions into crowdfunding platforms. The same article also regulates the relationship between crowdfunding platforms and investors and fund-raisers. However, it is also stated that these relationships will be subject to general provisions of the Draft Law. Though, these relationships will not be regulated by the Draft Law intentionally but the aim of this regulation is to subjecting these relationships to the Turkish Commercial Code and Turkish Code of Obligations in addition to other general provisions (Sancak, 2016). The Capital Markets Law No: 6362 is amended to pave the way for the financial tool “crowdfunding” in Turkey with the Omnibus Bill No: 7061 in Official Gazette published on 5th December 2017. Due to the changes Articles 3, 4, 16, 35/A and 99 of the Law, Turkey is presently one of the countries that rule crowdfunding with local regulations. Although this Law will be a huge step, the issues like -determination of crowdfunding system, the possible requests of the committee to obtain approval, determining who can be the funding bodies ( criteria, forms, private /state bodies etc.), whether there will be any limits restrictions on funding – are the confronted key issues that should be arranged in details. Therefore, collateral regulatory needs to be prepared to fill these gaps and published as soon as possible. As a result, with this Law containing flexible arrangements, the crowdfunding system is included to the scope of Capital market regulations but excluded the crowdfunding platforms and fundraisers from the "open to public" and "issuers" concepts. Therefore, an important convenience



and support have provided to platforms by not asking any procedures like doing explanations and preparing issue certificates. Thus, the costs and legal liabilities that entrepreneur might be exposed to have been reduced. The crowdfunding sites in Turkish system operate as reward based or donation based funding. The funding against equity shares or borrowing was not legally executable in Turkey currently for the reasons based on the regulations of Capital Markets and Turkish Trade Law. But now, together with including the crowdfunding system to Capital Market regulations, the legal legislation will also be established on this matter as well. Yet, as drawn attention above, the collateral regulatory needs to be arranged to fill the gaps and published as soon as possible.

## **2.6 DRIVERS TO CROWDFUNDING SUCCESS**

The definition of success in case of reward-based crowdfunding is a multilateral concept. Previous empirical studies have identified several contributing factors that define the success of reward-based crowdfunding based on whether a project is fully funded, speed of investment, how many investors were attracted, how much funding was raised, and some other criterions. In addition, the risk factors associated to reward-based crowdfunding have also been discussed in previous empirical studies. Besides the success and risk factors of reward-based crowdfunding, there are cultural aspects that influence the decision making capability of the entrepreneur and the success of the project. In this section, the success factors, risk factors, and cultural factors that play significant role in reward-based crowdfunding success have been discussed in light of previous empirical studies.

### **2.6.1 Success Factors**

Empirical studies have identified several success factors in case of reward-based crowdfunding and most of these factors have significant impact on the success of a project or idea. For instance, the research conducted by Ahlers et al. (2015) focused on venture quality in terms of human, social and intellectual capital and its effect on the funding success. Results of this study indicated that when entrepreneurs fail to prove the quality of its project or idea it becomes very difficult to attain anticipated target of

funding or success. On the other hand, human capital requirement while implementing the project is being considered an important driver of funding success by Unger et al. (2009). Investors invest in such projects that can bring benefits to the general people. Therefore it is essential to define the human resource requirements during project presentation and make the project a funding success. In addition, social capital is considered to be a significant driver of success in case of reward-based crowdfunding (Samara and Torheiden, 2015). Number of people in the society supporting the project or the anticipated benefits that a project may bring to the society determines the degree of success of a reward-based crowdfunding project (de Witt, 2012). Furthermore, intellectual capital, level of uncertainty, reward structure, project presentation, communication with the crowd, and financial projections are considered to be major factors of success of a reward-based crowdfunding project or idea (Crosetto et al., 2015).

#### **2.6.1.1 Venture Quality**

Venture quality is an important determinant of reward-based crowdfunding success. It is very important for the entrepreneur to present the worth of the project in order to get financed by the investors. Baum & Silverman (2004) have argued that projects that are in the start-up phase must be a quality in order to get increased financing from the investors as projects without quality will never get sustainable financing from the investors. Furthermore, projects those are missing unambiguous performance measures fail attracting investors as they seek alternative indicators of future performance. Besides, Josefy et al. (2016) has assessed the importance of start-up quality and its relationship with project financing. Result of this study demonstrated a significantly positive effect of start-up quality on financing opportunities. Therefore, it is important to ensure the quality of the project in order to get financed and become a success.

However, empirical studies further pointed out that venture quality can be explained by four underlying concepts namely management quality, product/ service quality, financial considerations, and competitive market environment (Agrawal, Catalini, and Goldfarb, 2011). It is argued by Agrawal, Catalini, and Goldfarb (2011) that venture quality represents different aspects of a venture that requires further explanation based on the understanding of underlying variables. Another major determinant of a venture's

quality is its financial strength because financial position of ventures is so important that it might not survive the competition without having sufficient funds for its survival (Ward and Ramachandran, 2010). Apart from survival, financial projections of a venture is also important because investors, regardless equity or reward-based investors, invest only in those projects that have the possibility to deliver better outputs to its stakeholders and society (Zheng et al., 2016). In addition, there are some project ideas that might get some tax benefits and the opportunity to merge with large organizations, which are arguably pose a better development opportunity for start-ups. Thus, start-ups should have the ability to deliver high absolute return to the investors so that it can attract further investment from investment banks and other financial intermediaries. Therefore, crowdfunding projects having diversified funding potential might get better development opportunities within a short period of time.

For a crowdfunding project, it is important to consider that the product or service ideas might not have competition because projects that are funded through crowdfunding are innovative (Ahlers et al., 2015). However, intensity of competition to provide better products or services has increased substantially along with the emergence of crowdfunding. That is, the probability of offering better products or services in the near future is very high and it can be considered as one of the competitive pressures in the market. Therefore, it is important for the crowdfunding projects to make sure that they continue developing and providing bet possible products or services, which will define the quality of a venture.

### **2.6.1.2 Human Capital**

Human capital is considered to one of the major success drivers of a reward-based crowdfunding project. The meta-analysis conducted by Unger et al. (2011) has considered the measurement of the effect of human capital on the success of reward-based crowdfunding projects. This study has found robust association between human capital and venture success. Though robust association between human capital and venture capital has been found, the relative importance and magnitude of this association remains debatable. On the other hand, Ahlers et al. (2015) has considered higher human capital as higher capability and skill with regard to various aspects of entrepreneurial success. In addition, sufficient human capital helps identifying business

opportunities and realizes the potential of the business for greater benefits to the society. Their study stated that human capital has positive effect on raising capital on crowdfunding campaign. Similarly, Giudici et al. (2012) have found that experience and management skills provide start-ups with valuable insights regarding the market and how to achieve the expected objectives of the project. Therefore, human capital is one of the major success drivers of crowdfunding projects.

Empirical studies that have applied the concept of entrepreneurship have shown the interest on studying the importance of human capital. Traditionally, investors put significant emphasis on the entrepreneurial experience to understand and assess the potential of a project. The analysis of Ahlers et al. (2015) reported that, in case of a reward-crowdfunding project, the investors always look for such aspects that best describes the social interest. If crowdfunding projects exhibit social benefits and entrepreneurial competency to make it a success, investors make investment in that project in exchange for some rewards

### **2.6.1.3 Social Capital**

Social Capital implies the real and potential sources that person gains from knowing other people, from being involved in a social network, being recognized to them, from having a well-respected (Nahapiet and Ghoshal, 1998). In the literature social capital is examined by separating it into various sections: social integration, social trust, collective efficacy, involvement of voluntary organizations (Harpham et al., 2002). One of the influential articles of entrepreneurship by Baron and Markman (2003) argued that there are several factors and processes through which an entrepreneurial venture or project might become successful. Following this argument, the study indicated that the personality traits of an entrepreneur has moderate contributions in a project's success while Belleflamme, Lambert, and Schwienbacher (2013) have argued that some personal characteristics of entrepreneurs (e.g. self-efficacy and productivity) may indeed play a substantial role in the success of a project. Another research conducted on this aspect argued that the cognitive factors and processes followed by an entrepreneur (e.g. the way an entrepreneur think, reason about an idea, and reach into a decision) might have an effective influence on project's success (Belleflamme, Lambert, and Schwienbacher, 2013).

However, Giudici et al. (2013) have differentiated social capital from social competence as they defined social capital as the sum of resources (both actual and potential) that an entrepreneur obtains from its relationship with others. On the contrary, social competence is defined by Thornton, Ribeiro-Soriano, and Urbano (2011) as an entrepreneur's overall effectiveness in making interaction with others in a society. Thornton, Ribeiro-Soriano, and Urbano (2011) have employed the term "social capital" to describe an entrepreneur's ability to obtain potential and actual resources from its interaction with others living in a society. In a crowdfunding project, an entrepreneur has to do the same thing, which makes this term an important consideration for this study. Thornton, Ribeiro-Soriano, and Urbano (2011) have also argued that an entrepreneur has to make a very good first impression regarding its project among people or persuade them in such ways that will make people change their behaviour or views regarding the project.

The complementary role between social capital and social competence in achieving success of a project is acknowledged by some scholars while social capital is given priority over social competence (Ward and Ramachandran, 2010). There are growing numbers of empirical studies that have argued that entrepreneur's social capital can have significant impact on the success of a project. Precisely, an entrepreneur that has access to higher social capital increases the opportunity to have enhanced access to information and social trust and cooperation from others (Ward and Ramachandran, 2010). Besides, entrepreneurs who possess high social networks, personal ties, status, and referrals are highly likely to attract more investors than those entrepreneurs that have lower aspects on this dimension (Zheng et al. 2014).

However, the empirical investigation conducted by Zheng et al. (2015) identified some social skills that are argued to have influence over the success of a project. Social skills that are argued to have influence over project's success include social perceptions, impression management, persuasion and social influence, and social adaptability. Empirical researches on entrepreneurship have reported that the numbers of projects that are initiated by single entrepreneur are decreasing while projects undertaken by teams of entrepreneurs are increasing significantly (Belleflamme, Lambert, and Schwienbacher, 2010). To validate this claim, the market survey conducted by Inc. magazine in the USA reported that 57% (sample was 500 companies) of the high-

growth private companies were initiated by at least two entrepreneurs. Belleflamme, Lambert, and Schwienbacher (2010) opined that the reason for such entrepreneurial behaviour is because it is very difficult for an entrepreneur to possess all required characteristics to make a project successful. That is, some might possess excellent social skills while some others might have exceptional technical skills, which in turn, may have significant contribution to the success of their project (Belleflamme, Lambert, and Schwienbacher, 2010).

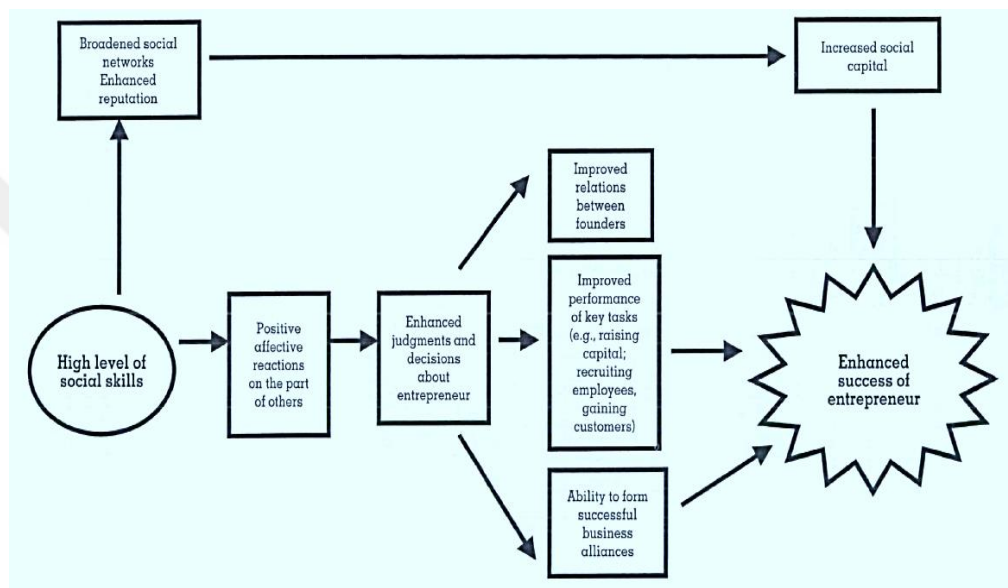


Figure 2-13: Social Skills and Entrepreneur's Success (Baron and Markman, 2000)

The empirical study conducted by Lin and Viswanathan (2015) pointed out another important context of social capital that can contribute in the success of an entrepreneurial project, which is formation of business alliance. For emerging firms, business alliances are an important growth strategy that can also help achieving competitive advantage. However, recent findings regarding the contribution of business alliance on entrepreneurial project's success indicates that a positive relationship between the partners in business alliances has significant impact on project's success (Lin and Viswanathan, 2015). Figure 2-13 demonstrates if entrepreneurs have broadened social networks and enhanced reputation, social capital of an entrepreneur increases substantially that increases the likelihood of enhanced success of an entrepreneur. Furthermore, high level of social skills creates positive affective reactions on the part of others which enhances judgment and decision making ability of an

entrepreneur (Baron and Markman, 2000). As a consequence, the relationship between founders, performance of key tasks, and the entrepreneurial ability to form successful business alliances improves substantially that, on the other hand, ensures enhanced success of an entrepreneurial venture.

#### **2.6.1.4 Intellectual Capital**

The millennium we are living in is characterised by technological innovations and, consequently, the rate of physical activity has decreased and people are working more and more brain works; which can alternatively be called as intellectual capital (Akpınar and Akdemir, 1999). The value of intellectual capital for an organization cannot be expressed in some numerical figures; though it is not reported in the financial statements of an organization, the value of intellectual capital is substantially higher than the physical assets. Production or manufacturing process is driven by physical assets while strong economic wealth or resource of an organization can only be achieved through driving more information and knowledge. The study conducted by Bayburina and Golovko (2009) linked intellectual capital with knowledge management where it has been argued that if an entrepreneurial venture facilitates knowledge management, it is highly likely that the venture intends developing intellectual capital. However, the development and management of intellectual capital is very difficult because it is characterised by process capital, network capital, innovation capital, and human capital (Bayburina and Golovko, 2009). Combination of these capitals into single framework of intellectual capital is not only complex but also challenging for every entrepreneurial venture.

Intellectual capital is something that cannot be easily acquired by entrepreneurs or start-up firms or competitors. For this reason, innovation is argued to be one of the vital determinants of the success of a project or start-up organization. Intellectual capital not only allows a start-up organization to enter into new markets as well as establish competitive positions for the survival for the organization (Hashim et al., 2015). Hashim et al. (2015) has argued that innovation is an important determinant of project's success but it is more important for the entrepreneur to protect the idea through patents so that the idea cannot be copied or easily picked by its competitors. Furthermore, intellectual

capital helps businesses achieve competitive advantage over the competitors which, on the other hand, ensures sustainability of the business.

In today's competitive business environment, the importance of intangible assets or intellectual capital has increased extensively for the survival of businesses (Hashim et al., 2015). As the importance of intellectual capital has increased, the opportunity of studying its contribution or effect on the success of a business has also increased comprehensively. As a result, many researches have been carried out to investigate the role of intellectual capital in achieving organizational success. Scholars have argued that intellectual capital allows entrepreneurs to create value and achieve competitive advantage. Furthermore, it has been reported in empirical studies that the companies are increasingly investing in building intellectual capital to ensure sustainability of their operation.

According to Mollick (2014), the rate of intellectual capital disclosure by companies has increased significantly in last few years to let the competitors and stakeholders know how well the company is performing and planning to go further in the future. In case of reward-based crowdfunding, entrepreneurs come up with innovative ideas to deliver the highest social benefits. In this case, it is up to investors who decide whether to make investment in that project or not. That is, funders or investors make investment in such projects that have the potential or calibre to provide higher social benefits to the people.

As a result, it has also become important for entrepreneurs to manage its intellectual capital or innovation to attract more investors for future growth. It is pointed out by Cumming, Leboeuf, and Schwiendbacher (2014) that entrepreneurial projects in a reward-based crowdfunding model it is important to showcase the potentiality and viability of a project in front of the investors so that they can understand if the project is sustainable and has the scope of improvement in the future. Therefore, intellectual capital has been regarded as an important aspect for entrepreneurial success.

#### **2.6.1.5 Level of Uncertainty**

According to Ellsberg paradox theory (Elsberg, 1961) before investing in a project, investors look for the uncertainty attached with a project; if the level of uncertainty is high they become reluctant to invest in that project. Therefore, level of uncertainty is a



major determinant of a project's success. In case of reward-based crowdfunding investors invest in projects without anticipating any future benefits; therefore, investors remain very cautious about making their investment decisions especially when it is reward-based crowdfunding. Entrepreneurs often provide ambiguous information to the investors to get the benefit of reward-based crowdfunding; for this reason many good projects fail to attract investors. However, uncertainty attached with a business project is a major construct of a project's success especially in a reward-based crowdfunding model (Ahlers et al., 2015). Having a low risk exposure is arguably an important aspect for an entrepreneurial project's success (Ahlers et al. 2015). Low risk exposure in case of a reward-based crowdfunding project refers to its ability to provide the anticipated benefits in exchange for the pledged amount. The study piloted by Frydrych, Bock, and Kinder (2016) focused on the ability of an entrepreneur to manage the risks that might come during project implementation phase. It has been argued that the plan or description that an entrepreneur has to provide regarding the project should include contingency plan for any unexpected or anticipated events. By doing so an entrepreneur lets the investors know about the prospect of the project as contingency plans are also there to manage risks (Frydrych, Bock, and Kinder, 2016). On the other hand, products or services that have available substitutes or high degree of likelihood of developing a substitute might not get attention of the investors as it is considered as a risk for the project. Furthermore, there must not be any ambiguous information in the project details because it makes the project vulnerable to failure as investors prefer investment in projects that are socially worth (Ahlers et al. 2015). Therefore, it is important for the entrepreneurs to ensure that there is no ambiguity in provided information and a contingency plan to manage any anticipated risk. In case of a reward-based crowdfunding project, the investors always look at the feasibility and viability of a project to make any sense and make contribution in the society for longer period of time. If investors sense higher degree of uncertainty of bringing success, they might want to walk away to look for other projects.

As a result, the idea or project must be something that is appealing and can be implemented in real world scenario. For instance, the analysis carried out by Ahlers et al. (2015) indicated that the relationship between entrepreneurial success and level of uncertainty has negative coefficient. That is, if a project has higher level of uncertainty,

there will be lower possibility of becoming successful (Ahlers et al., 2015). Therefore, while developing projects the entrepreneurs should consider the reliability and viability of the projects before launching in any crowdfunding platform.

## **2.6.2 Risk Factors**

The industry of crowdfunding or raising funds through online medium is relatively new and there is a lack of formal rules and regulations for this rising industry, which makes it more risky to many investors (Belleflamme, Lambert, and Schwienbacher, 2013). In addition, clear definition of crowdfunding and its regulatory aspects are not available; as a result, barely enough regulation makes crowdfunding a risky platform to use by many investors. Several empirical studies have covered different risk attributes of crowdfunding that includes the risk of fraud, crowding out other forms of investment, information asymmetry, risk of fraudulent transaction, risk of stealing property rights, limited follow-up mechanisms, default risk, platform risk, and risk of low quality (Belleflamme, Lambert, and Schwienbacher, 2013). There might be some other concerns over crowdfunding; they remain undisclosed in empirical studies.

In a reward-based crowdfunding model, the risk of investing is high because if the project fails there is nothing to be paid back by the entrepreneur to the investors. Therefore, neither party gains any benefit in either form; that is, investment becomes worthless. For this reason, investors always look for the risk factors associated with a reward-based crowdfunding project before making investment or donation. Empirical studies have identified several risk factors of a reward-based crowdfunding model including default risk, platform risk, risk of fraud, and information asymmetry and quality (Lukkarinen et al., 2016; Dushnitsky et al., 2016; Richter, Alwis, and Jötten, 2014). Apart from these risks, several other empirical studies have identified financial risk, liquidity risk, operational risk, consumer privacy, identity theft, terrorism financing, and data protection violations as some other risks of reward-based crowdfunding (Dushnitsky et al., 2016; Richter, Alwis, and Jötten, 2014; Frydrych et al., 2014). In this section, major risk factors associated to reward-based crowdfunding has been discussed.

### **2.6.2.1 Default Risk**

Default risk is defined as the risk of defaulting on the funds provided to the entrepreneur or business. Investors in a reward-based crowdfunding expect nothing from the entrepreneurs but in return of their donations the entrepreneur is bound to provide societal benefits through its idea. When the entrepreneur fails to do so, it is considered as default on the project (Massolution, 2015). As reward-based crowdfunding does not offer additional benefits or returns for the investors therefore there is nothing to be worried about for them regarding default risk (Massolution, 2015). Though the concern remains as investors invests in projects that have potential to offer something better for the future and they will never appreciate default. Therefore, it is important to ensure that the entrepreneurs are credible and efficient enough to handle their capital and make the project a success.

In case of a reward-based crowdfunding model, it is very difficult for reward-based crowdfunding investors to hold entrepreneurs liable for the failure of its project unlike investors of equity crowdfunding. In equity crowdfunding, the investors hold a place in the project and they might often influence the decisions of the entrepreneur to bring out the best output. Conversely, in a reward-based crowdfunding model, there is a very little possibility for an investor to monitor the activities of an entrepreneur. As a result, the likelihood of defaulting on the pledged amount becomes higher for an entrepreneur if there is no opportunity for the investors to track its investment. On the other hand, the empirical finding reported by Gerber, Hui, and Kuo (2012) stated that investors should make investment in such projects that have future prospect. That is, projects that do not exhibit future prospect and reduced social value, investors should avoid such projects in case of a reward-based crowdfunding model. Moreover, reward-based crowdfunding projects mainly aim at providing social benefits by undergoing into a project that can help bring value for the society. Thus, projects that exhibit low social value might have higher possibility of defaulting on the pledged amount.

### **2.6.2.2 Platform Risk**

Reward-based crowdfunding project ideas are primarily submitted to an online platform from where the investors can look for projects to make investment. Not all platforms offer same level of credibility or authenticity and in some cases the platforms are involved in fraudulent activities. The risk that is associated with the crowdfunding platforms is called as platform risk (Zheng et al., 2014). Platform risk is associated to the closure of the crowdfunding platform at any time (Zheng et al., 2014). Furthermore, closure of a crowdfunding platform may risk both entrepreneurs and investors because platforms are responsible for the collection of repayment and funding for the associated parties (Zheng et al., 2014). Therefore, platform risk is one of the major risk factors in case of a reward-based crowdfunding model.

Crowdfunding platforms are increasing at an astounding rate because of its effectiveness in raising funds through online. Crowdfunding platforms work as a medium to establish a link between entrepreneurs and investors (Agrawal, Catalini, and Goldfarb, 2015). As more and more crowdfunding platforms emerge, the likelihood of fraudulent activities might increase as well because people have less opportunity to verify if the platform is not engaged in any fraudulent activities with the entrepreneurs. There is a growing perception that if the entrepreneurs are really investing behind the projects to bring social values, especially in a reward-based crowdfunding models. This claim is further validated by Agrawal, Catalini, and Goldfarb (2015) by arguing that there have been many projects that have been reported by the investors for suspicious activities after attaining the pledged amount. Besides, Agrawal, Catalini, and Goldfarb (2015) have reported that some reward-based crowdfunding projects have been found to be involved in fraudulent activities after having the pledged amount. To prevent such fraudulent activities, Wechsler (2013) suggested that there should be formal regulations to monitor the activities of the crowdfunding platforms, the entrepreneurs, and the investors as well to make crowdfunding more secure and reliable alternative to traditional financing models. Therefore, the platforms can play a significant role in ensuring the quality of projects and monitoring the behaviour of entrepreneurs to ensure that the pledged amount is actually invested to make the project successful.

### **2.6.2.3 Risk of Fraud**

There are similarities between default risk and the risk of fraud; in a study, Zheng et al. (2014) reported that risk of fraud and default risk are strongly associated. However, risk of fraud can be assessed by some entrepreneurial and project characteristics; for instance, the past records of an entrepreneur provides a brief idea about the entrepreneur whether the project would be initiated or not (Zheng et al., 2014). The viability of a project also signals about the authenticity and reliability of a project. When entrepreneurs launches a project into crowdfunding platform, if the project has the potential to create value for the society, investors make their investment by judging its potential. Lambert and Schwienbacher (2010) raised a concern regarding risk of fraud by stating that the way more and more crowdfunding platforms are coming out, it is high time to set standards and regulations to control this new-born industry.

Similar to the platform risk, risk of fraud is associated to both platforms and entrepreneurs (Tomczak and Brem, 2013). There are some entrepreneurs who do not really want to implement the project rather to get the financial benefits of reward-based crowdfunding. On the other hand, some platforms might not want to provide the investors appropriate information regarding projects and its entrepreneurs which may lead the investors to make wrong decisions. These activities are all categorized under the risk of fraud. Some other risk of fraud includes money laundering, consumer privacy, identity theft, terrorism financing, and data protection violations (Mollick, 2014). Reward-based crowdfunding is less costly and it can easily raise funds, therefore, platforms may take this advantage and operate solely through an internet portal. As a result, chance of higher risk of fraud increases significantly.

### **2.6.2.4 Information Asymmetry**

Information plays significant role in determining the success and failure of a reward-based crowdfunding project. When all the parties (entrepreneurs and investors) have access to all the information regarding the projects, it becomes easy to make decisions. When there is asymmetry of information between parties, informed decision making becomes challenging and some other party can take unfair advantage of such situations. Investors may often be provided with false or inaccurate information by the

crowdfunding platforms or entrepreneurs. Also, entrepreneurs may not be informed about the funding by the platforms. Consequently, the risk of information asymmetry and quality of projects may be increased (Schwienbacher and Larralde, 2010). Therefore, asymmetry of information is considered as important risk factors in a reward-based crowdfunding. Information is something that has enormous importance in every industry, especially in the reward-based crowdfunding industry. Asymmetric information creates “lemons” or “information differences” problem that can stimulate conflicting interest between investors and entrepreneurs. Higher degree of information asymmetry can have potential impact on the breakdown in the functioning of the crowdfunding platform (Heminway and Hoffman, 2010). This situation has been explained by Stemler (2013) by depicting a simple example. If it is considered that half of the crowdfunding projects are “good” and the other half are “bad”, this situation makes both entrepreneurs and investors rational and they start to value their investment conditional on their own information. In this case, if the investors fail to distinguish between good and bad projects, entrepreneurs of bad project might persuade investors to think that their project is as good as the good ones. As a consequence, the investor starts to value both bad and good projects at an average level; which means that if the lemons problem is not entirely sorted out, the crowdfunding market will start overvaluing or undervaluing some projects based on investor’s rational choice (Heminway and Hoffman, 2010). Thus, information asymmetry does not bring anything good for either an investor or an entrepreneur.

## **2.7 EMPIRICAL REVIEW OF TURKISH LITERATURE**

In Turkey, the concept of crowdfunding is relatively new and many of the entrepreneurs and businesses are not so familiar with this way of fund-raising. However, crowdfunding has made its mark in Turkey and, immediately, it became one of the interesting areas for research. As consequence, several researches have been conducted in Turkey regarding crowdfunding. Oba et al. (2018), have investigated signals that affect supporters’ decisions. Their findings indicate that the values that the projects offer, the reputation of the platform and the qualifications of the project owners have a positive effect on the decisions of the supporters and the successful funding of

the project. Ercan (2017) tried to discover the motivations factors that influence backers who financially give supports crowdfunding projects in Turkey.

As a result of the qualitative analysis made, four categories of motivating factors have been reached as prize hunting, cooperation, social responsibility and emotional commitment. The institutional reports from Sancak (2016) and Samara and Torheiden (2015) have summarized the Turkish literature on crowdfunding. The research conducted by Sancak (2016) not only addressed a method for researchers on crowdfunding but also drew a perimeter for researching crowdfunding for different countries. On the other hand, Samara and Torheiden (2015) have provided a holistic approach in evaluating crowdfunding under the umbrella of global standard setter in the capital market named IOSCO. From the Turkish regulatory perspective, Kiran (2013) has evaluated the regulatory aspects of crowdfunding. This study further compared the regulatory aspects of crowdfunding between Turkish regulations and rules and recent developments in rules and regulations regarding crowdfunding in the United States. Kiran (2013) further asserted that under the current regulations for crowdfunding in Turkey, any form of crowdfunding activity should be categorised as public offering and regulatory authorities should authorise its approval. Furthermore, Kiran (2013) proposed a crowdfunding applications model and how it can be efficiently handled and popularized among investors and entrepreneurs in Turkey. Büyükpılavcı (2014), in his study, has emphasized the following matters which the crowdfunding system provides the benefits;

- Getting the idea about product/service requests,
- Revising the project if necessary before starting to production,
- Making presales which supply the part or the total of the capital,
- Formation of customer mass,
- Increasing the entrepreneurship, Atsan and Erdoğan (2015) have stated that the crowdfunding system has great importance and it might enable the investors to have the chance of reaching potential investors all over the world. Karaaslan and Altuntaş (2015) have indicated the reasons of low number of crowdfunding companies established for financial purposes as follows;
- Not known adequately by the entrepreneurs and public,
- Low confidence level,

- Containing tax and legal issues,

Koçer (2015) has mooted that crowdfunding has to be discussed in social, historical and political context, and in this scope a campaign is chosen as the subject of study. Sancak (2016) has indicated in his study that Turkey is not ready yet for crowdfunding system when the present laws and investor culture are taken into consideration. According to the findings of these researches in Turkey it can be inferred that a significant association between entrepreneurship and innovations in addition to crowdfunding in Turkey is respectively low and requires further investigation.

## **2.8 LITERATURE ON UNDERLYING FACTORS**

Crowdfunding has emerged as a new concept of raising funds for the entrepreneurs and businesses. Its increased popularity has drawn the attention of academic and professional researchers. Several empirical studies have been conducted with respect to reward-based crowdfunding.

The reward-based crowdfunding has been investigated by several researchers; most of these studies have analysed the success and risk factors of reward-based crowdfunding while quite a few studies have studied the effect of cultural factors on entrepreneurial success in a reward-based crowdfunding platform. Scholars have reported different drivers of success and risk in a reward-based crowdfunding platform. In the analysis of Agrawal (2011), the effect of geography, timing, and location on project accomplishments has been critically examined. The study indicates that if entrepreneur uses crowdfunding system, distance does not play important role. Lin and Viswanathan (2013) pointed out that home bias in online financial investments. Mollick (2014) was one of the first researchers to explain in a descriptive way the factors that affect the success of a crowdfunding project. The findings reported in his study argued that whether the success and failures of the crowdfunding are driven by the same basic dynamics as other entrepreneurial investments. Mollick (2014) chose to work with a large set of independent variables such as the amount of funds requested, the presence of the video, the number of comments and news updates, the presence of misspellings, and the number of supporters. Lukkarinen et al. (2016) has studied the success drivers of online equity-based crowdfunding campaigns where they argued that the success of



equity-based crowdfunding project related to project's funding target, campaign duration, and the projection of financial situation of project, individual networks, and social media networks. Text length, campaign duration, recommendation of project, image number, blog screening, and campaign type are some of the major determinants of factors that influence project performance (Crosetto and Regner, 2014). In addition to that Frydrych et al. (2014) added reward level and project team features. On the other hand Frydrych et al. (2014) pointed out that emotional and social factors are more significant than financial criteria. In addition, Kunz et al. (2016) argued that reward-based crowdfunding may not always work but it can be efficiently utilized if it can be used in-line with technology and innovation. This study has identified the including a video, an influential communication with financial backer, a history in supporting projects and the diversity of rewards presented can considerably increase the probability of project success. However, the analysis of Samara and Torheiden (2015) focused on the success drivers of reward-based crowdfunding in context of creative industry. It has been argued that, in the creative industry, the success of reward-based crowdfunding is dependent on the knowledge and efficiency of the project's initiator or the entrepreneur (Samara and Torheiden, 2015). On the other hand, Josefy et al. (2016) have analyzed the role of community in the success of crowdfunding with a view to find evidence on cultural attributes in funding campaigns.

This research has indicated that cultural norms within a society or country have significant impact on the success of reward-based crowdfunding campaigns. In addition, Wang and Lin (2015) have argued that quality of project is both a success and a risk factor in reward-based crowdfunding because investors will demand higher quality. According to the study, user friendly web design, highlighting the projects is unique and interesting, developing user's satisfaction, and satisfying rewards are the success strategy of crowdfunding campaigns. Projects that are in the start-up phase must be a quality in order to get increased financing from the investors as projects without quality will never get sustainable financing from the investors

According to Frydrych, Bock, and Kinder (2014), is an important determinant of venture quality because financial position of ventures is important for its survival in intense competition. Some project ideas that might be entitled to some tax benefits and the opportunity to merge with large organizations are attractive for investment to the

investors. However, the study conducted by Greenberg et al. (2013) stated that financial strength of an entrepreneurial venture in case of a reward-based crowdfunding does not make any sense because if these entrepreneurial ventures had sufficient financial health they must not have come to the reward-based crowdfunding platforms to pledge for funds. Though this argument was supported by Kuppuswamy and Bayus (2015) and Hazen (2011), they also have pointed out that the ability to manage pledged funds is definitely important for an entrepreneurial venture to be successful. Conversely, Giudici et al. (2013) suggests that financial strength of an entrepreneurial venture cannot be assumed by an investor because, in case of reward-based crowdfunding, there is a very limited amount of information available to an investor before making investment. Moreover, the quality of project has found to have strong link with the success of crowdfunding as projects signalling higher quality and potential are likely to be funded by the investors (Mollick, 2013) Lin and Viswanathan (2013) have opined that projects those are missing unambiguous performance measures fail attracting investors as they seek alternative indicators of future performance. In addition, the assessment of the importance of start-up quality and its relationship with project financing demonstrated a significantly positive effect of start-up quality on financing opportunities management quality is argued to be one of the most important determinants of venture quality because it takes into account for management skills required for efficient operation of a venture as well as the ability of entrepreneurs or founders to influence the start-up in a positive way. Lin and Viswanathan (2015) also found that management quality has significant effect on the performance of ventures or organizations. Moreover, it has been argued by Harrison (2013) that management quality ensures the consistency of services or products offered by the venture and it resembles the entrepreneur's desire for success and good knowledge of the future prospect of the venture. . Competition is important for the customers because it helps bringing the best out of the organizations as each organization endeavour to achieve competitive advantage over its competitors by delivering best products and services (Unger et al., 2009). It is important to consider that, in a crowdfunding project, the product or service ideas might not have competition for a certain period of time because projects that are funded through crowdfunding are innovative. The probability of offering better products or services in the near future is very high and it can be considered as one of the competitive pressures in the market.

Competitive market environment in relation to reward-based crowdfunding has been studied by Kaartemo (2017) where it has been shown that competition during the project initiation period remains very low though it increases along with the passage of time as new ideas emerge. In this instance, Kaartemo (2017) have put emphasis on the entrepreneurs to continue their innovation so that they can remain in the competition. Kaartemo (2017) also stated that if an entrepreneur successfully accomplishes its projects and come with new product ideas it is highly likely that investors will make investment in that project as they will be aware of the success of the entrepreneur.

Agrawal, Catalini, and Goldfarb (2015) have considered product and service quality as one of the significant drivers of venture quality because it is argued that the success or failure of a venture is largely dependent on the quality of products or services offered. Products or services having unique and inimitable characteristics offer sustained advantage to the start-up (Agrawal, Catalini, and Goldfarb, 2015). It also helps achieving competitive advantage over the competitors. Achieving competitive advantage over the competitors is considered to be a logical output if high quality or socially acceptable products or services are offered by a project. However, Emadzadeh et al. (2013) contradicted that in a reward-based crowdfunding project investors prefer social benefits rather than product or service quality while making investment in a project. This argument is argued to be less important by Pelizzon, Riedel, and Tasca (2016) because products or services having social acceptance can be considered as of high quality. Therefore, product or service quality has been considered as an important predictor of success or failure of an entrepreneurial venture in empirical literature.

The importance of knowledge management as an important determinant of project's success has been studied by Thornton, Ribeiro-Soriano, and Urbano (2011), Hashim, Osman, and Alhabshi (2015), and Zheng et al. (2016). Changes in the way people think and explore knowledge made knowledge management an important topic of empirical research. Though there are differences in the conceptualisation of knowledge management, in case of an entrepreneurial venture, management of knowledge is arguably very important (Hashim, Osman, and Alhabshi, 2015). Thornton, Ribeiro-Soriano, and Urbano (2011) conducted a meta-analytical study where it has been argued that the application of knowledge management is key to achieve success. Sufficient scope for knowledge management within a project ensures better management of

project activities. Changes in the competitive behaviour and in the perception of general people towards entrepreneurial ventures have transformed the aspects of knowledge management (Thornton, Ribeiro-Soriano, and Urbano, 2011). However, the measurement of knowledge management in case of reward-based crowdfunding remains challenging because it is very difficult for an investor to understand if the entrepreneur has sufficient calibre to manage knowledge efficiently. For this reason, the measurement or assessment of knowledge management is very difficult though it can be assumed (Zheng et al., 2016). There are several attributes of human capital including education, experience, skills and knowledge and these attributes make human capital an important success driver of an entrepreneurial project (Unger et al. 2009).

Significant emphasis on the entrepreneurial experience has been put to understand and assess the potential of a project by the investors, which makes entrepreneurial competence an important aspect from an investor's perspective. Unger et al. (2009) argued that exhibiting substandard entrepreneurial competency is less likely to attract investors. According to the study there is a significant but small relationship between human capital and success. Investors always look at the future prospects of a project and makes assessment regarding its success or failure based on that judgment. A behavioural study on the traditional investors conducted by Mitra (2012) to understand investor's behavioural aspects before making investment in a project concluded that investors prefer very realistic and potential projects that can bring substantial social and financial value in exchange for their pledged amount. It is also reported that the investors always look for such aspects that best describes the social interest, especially in reward-based crowdfunding (Aitamurto, 2011). Commitment of an entrepreneur is often argued to be one of the major determinants of a project's success. Empirical studies have further argued that entrepreneur's commitment to make a project successful can play larger role in the future as it significantly contributes in enriching activities that are knowledge-intensive (Cholakova and Clarysse, 2015). The role of entrepreneurial commitment on the success of a venture has been studied by Cholakova and Clarysse (2015) where significant effect of entrepreneurial commitment on the success of a project has been reported. Cholakova and Clarysse (2015) concluded that the effect of entrepreneurial commitment on project's success is expected to be positive. Lambert and Schwienbacher (2010) opined that an entrepreneur's commitment towards

its initiated project can be understood from the project plan and video uploaded in the crowdfunding platform. Though the measurement of an entrepreneur's commitment by an investor is subjective, it can have substantial influence over the investment decision making process (Lambert and Schwienbacher, 2010). The importance of intellectual capital in crowdfunding has been demonstrated in Ahlers et al. (2015). A link between intellectual capital and knowledge management has been established by Kappel (2008) where it has been argued that if an entrepreneurial venture facilitates knowledge management, it is highly likely that the venture intends developing intellectual capital. According to Wheat et al. (2013), process capital, network capital, innovation capital, and human capital characterises the development of intellectual capital. Lukkarinen et al. (2016) stated that intellectual capital not only allows a start-up organization to enter into new markets but also to establish competitive positions and achieve first mover advantage over its competitors.

There are some studies such as Dehling (2013) and Baron and Markman (2000) that discussed about the role of intellectual capital in attracting investors in crowdfunding projects. Baron and Markman (2000) have studied the perception of investors regarding innovative projects that show implications for intellectual capital. This study reported that investors showed positive intent of making investment in innovative projects. On the other hand, Healy and Palepu (2001) measured the impact of intellectual capital on crowdfunding project's success where moderate association has been reported. Intellectual capital also helps ensuring sustainability of a business through creating and adding value to the society (Josefy et al., 2016). Empirical studies such as Rau (2017) and Lehner (2013) also reported that the companies are increasingly investing in building intellectual capital to ensure sustainability of their operations. Increasing rate of intellectual capital disclosure by companies during recent times necessitates the importance of this phenomenon for the success of a business (Lehner, 2013). It is important for entrepreneurial projects to showcase the potentiality and viability of a project so that the value and sustainability of the project is well understood by the investors (Rau, 2017).

Some personal characteristics of entrepreneurs (e.g. self-efficacy and productivity) may indeed play a substantial role in the success of a project. In another study, it is argued that the cognitive factors and processes followed by an entrepreneur (e.g. the

way an entrepreneur think, reason about an idea, and reach into a decision) might have an effective influence on project's success (Belleflamme, Lambert, and Schwienbacher, 2010). Social capital and social competence are considered to be complementary by Zheng et al. (2014) in achieving success of a project. They found that entrepreneur's social capital that involves structural, relational, and cognitive dimensions such as entrepreneur's social network ties, necessity to fund other founders, and the shared meaning of the project between the project owners and backers had significant effects on crowdfunding campaign success. It is also argued in empirical studies such as Belleflamme, Lambert, and Schwienbacher (2010), Allison et al. (2015), Ahlers et al., (2015), and Cumming, Leboeuf, and Schwienbacher (2014) that entrepreneurs who possess high social networks, personal ties, status, and referrals are highly likely to attract more investors than those entrepreneurs that have lower aspects on this dimension. Projects undertaken by teams of entrepreneurs rather than individual entrepreneurs are increasing significantly due to increased opportunity of acquiring multi-dimensional skills within single framework (Cumming, Leboeuf, and Schwienbacher, 2014). It is very difficult for an entrepreneur to possess all required characteristics to make a project successful, which makes entrepreneurial groups an important driver of a project's success (Gerber, Hui, and Kuo, 2012). Another important context of social capital that can contribute in the success of an entrepreneurial project is formation of business alliance (Gerber, Hui, and Kuo, 2012). Nevertheless, the concept of social skills of an entrepreneur can be assessed by the investors through reading the description of a project and how the entrepreneur intends to implement the project (Gerber, Hui, and Kuo, 2012). However, Lin and Viswanathan (2015) have reported that the measurement or assessment of an entrepreneur's social skill by an investor might either be subjective or based on historical information regarding an entrepreneur. Nevertheless, the investigation of Heminway and Hoffman (2010) found that high level of social skills creates positive affective reactions on the part of others which enhances judgment and decision making ability of an entrepreneur. Regardless of any platform of medium, every project has uncertainty or risk exposure.

That is, entrepreneurs have to assume some challenges while developing the project and how they are going to handle that challenge (Heminway and Hoffman, 2010). Once the process of risk assessment is complete, the entrepreneurs develop their project

details and upload it into crowdfunding platform. It is important for an entrepreneur to ensure that the project is developed for the best interest of the society, especially in reward-based crowdfunding (Greenberg et al., 2013). As a result, low risk exposure is arguably an important aspect for an entrepreneurial project's success (Greenberg et al., 2013). A pilot study conducted by Wechsler (2013) focused on the ability of an entrepreneur to manage the risks that might come during project implementation phase. In this study it has been reported that investors use their intuition to assess the feasibility of a project that forced some crowdfunding platforms to reconsider projects if they fail to collect required fund (Wechsler, 2013). Therefore, it is very important for entrepreneurs to ensure that the project has low risk exposure, especially in reward-based crowdfunding. Rao and Monroe (1989) posit that products or services that have available substitutes or high degree of likelihood of developing a substitute might not get attention of the investors as it is considered as a risk for the project. In case of reward-based crowdfunding investors invest in projects without anticipating any future benefits; therefore, investors remain very cautious about making their investment decisions especially when it is reward-based crowdfunding (Rao and Monroe, 1989). The analysis carried out by Greenberg et al. (2013) indicated that the relationship between entrepreneurial success and level of uncertainty has negative coefficient.

Empirical studies have argued that socio-cultural dynamics of an entrepreneur plays an important role in achieving project's success. Socio-cultural factors of an entrepreneur impact the success or failure of a venture because it helps establishing efficient communication network with the other members of a society (Gerber and Hui, 2013). It is reportedly argued that entrepreneur's education, social organization, reference group and family, and role and status in society play significant role in determining the acceptability of an entrepreneur's project by the society (Belleflamme et al., 2013). An entrepreneur's social status has significant influence over the success or failure of an entrepreneurial venture (Mollick, 2014). The importance of having sound education to operate an entrepreneurial venture successfully has been necessitated by Stemler (2013). If an entrepreneur's socio-cultural dynamics are strong likelihood of achieving success increases (Stemler, 2013).

In order to achieve success in reward-based crowdfunding, empirical studies have emphasised on having strong cultural capital for an entrepreneur. Cultural capital is

arguably has significant influence on the entrepreneurial development of a society (Kuppuswamy and Bayus, 2015). Previous studies have also reported that family tradition or societal tradition of fostering entrepreneurship is considered as crucial cultural capital of an entrepreneur (Kuppuswamy and Bayus, 2015). On the other hand, the differences in investment culture and environment must be considered in case of reward-based crowdfunding because in an uncertain investment it is less likely to get enough financing from the investors (Kirby and Worner, 2014).

Investment culture within a specified region defines its entrepreneurial success or failure as it has been observed that many countries having rigid investment culture do not foster entrepreneurial development while countries having effective and liberal investment culture have higher rate of entrepreneurial development (Cumming, Leboeuf, and Schwienbacher, 2014). Investment culture and environment play vital role in the development of entrepreneurial ventures within a society (Cumming, Leboeuf, and Schwienbacher, 2014). Cholakova and Clarysse (2015), Belleflamme, Lambert, and Schwienbacher (2013), and Emadzadeh et al. (2013) have agreed upon the fact that effective regulation on investment behaviour develops an effective investment culture while rigid regulatory framework might discourage investment in an economy. It is also reported in previous studies that better investment environment reduces complexities in making investment through different channels, which also provides efficiency to the overall financial structure of a society or community (Emadzadeh et al., 2013).

The risk factors of reward-based crowdfunding have also been critically analysed in many empirical studies including Healy and Palepu (2001), Thornton, Ribeiro-Soriano, and Urbano (2011), Wheat et al. (2013), Kaartemo (2017), and Bradford (2012). The risk factors of reward-based crowdfunding already discussed in Section 1.7.2 and these factors have been discussed in several empirical studies. For instance, Bradford (2012) has discussed about the default risk and platform risk associated in a crowdfunding project while Thornton, Ribeiro-Soriano, and Urbano (2011) have assessed the impact of information asymmetry on a project's success. However, Kaartemo (2017) opined that investors often look at the past records of an entrepreneur to obtain a brief idea about the entrepreneur. Nevertheless, concern over risk of fraud remains as Healy and Palepu (2001) stated that along with the increase in crowdfunding platforms it has



become important to set standards and regulations to control risks associated with either platforms or projects.

According to Wheat et al. (2013), both entrepreneurs and platforms might be subject to risk of fraud. It has been reported by Wheat et al. (2013) that 7 Europe-based crowdfunding platforms are being investigated by the regulatory authorities for the accusation of risk of fraud. Money laundering, terrorism financing, identity theft, data protection violations, and consumer privacy are also classified under risk of fraud by Mollick (2014). It is argued by Tomczak and Brem (2013) that platforms may take the low-cost advantage of reward-based crowdfunding. One of the major risk factors of crowdfunding is the risk associated to platforms because this industry is mostly unregulated, especially in Turkey, which makes the risk high (Belleflamme, Lambert, and Schvienbacher, 2010). Empirical investigation conducted by Belleflamme, Lambert, and Schvienbacher (2010) argued that there is a growing perception that if the entrepreneurs are really investing behind the projects to bring social values, especially in a reward-based crowdfunding models.

There have been many projects that are reported by the investors for suspicious activities after attaining the pledged amount (Baron and Markman, 2000). Moreover, some reward-based crowdfunding projects have been found to be involved in fraudulent activities (Baron and Markman, 2000). Several suggestions have been provided to prevent such fraudulent activities including formal regulatory authority for the surveillance of the crowdfunding platforms, the entrepreneurs, and the investors as well (Bradford, 2012). On the other hand, default risk associated to reward-based crowdfunding has been assessed by Colombo, Franzoni, and Rossi-Lamastra (2015) where it is stated that when the entrepreneur fails to accomplish the stated obligations of its project it is considered default on the project. This phenomenon is considered very unique by Colombo, Franzoni, and Rossi-Lamastra (2015) as most of the crowdfunding platforms do not let projects initiate if 100% of the pledged amount is not received or collected. Conversely, there is a very little possibility for an investor, in a reward-based crowdfunding, to monitor the activities of an entrepreneur. Alternatively, the risk of asymmetry in information remains one of the major challenges in reward-based crowdfunding (Lambert and Schvienbacher, 2010). Lambert and Schvienbacher (2010) studied the impact of information asymmetry on investment behaviour of crowdfunding

investors. It is found that investors make rational decisions regarding making an investment in crowdfunding projects (Ward and Ramachandran, 2010). However, Ward and Ramachandran (2010) pointed out that rational decision making is assisted by appropriate information. Ward and Ramachandran (2010) reported that there is significantly negative impact on the success of a project. Therefore asymmetry of information creates complexity in the decision making process of investors.

### **2.8.1 Participant Motivations**

People are one of the crucial factors influence the success of crowdfunding. It is important to know participatory motivations of the backers involved in crowdfunding in order to understand the success and risk factors of the crowdfunding model. When the motivation of traditional investors is compared with the motivation of the people, it can be understood that people's motivation is different in many respects (Dehling). If it is considered that this thesis focuses on investigating the propulsive forces regarding motivation & behavior of crowdfunders, it is necessary to start with defining the intrinsic and extrinsic motivations. Intrinsic motivations and immaterial rewards are dominant motivator sources which also confirmed by Scholars (Harms-2007, Hemer-2011). Intrinsic motivation is described as the act of making an activity for its internal satisfactions rather than for some separable outcome. When an individual is motivated internally, it takes action for entertainment or challenge, not for external pressures or rewards (Ryan and Deci, 2000).

Extrinsic motivation is opposite to Intrinsic Motivation, this means to make a simple activity, rather than just its own instrumental value, to take advantage of the activity itself. In Self Determination Theory which was developed by Ryan and Deci (1985), the differences between intrinsic and extrinsic motivations have been distinguished.

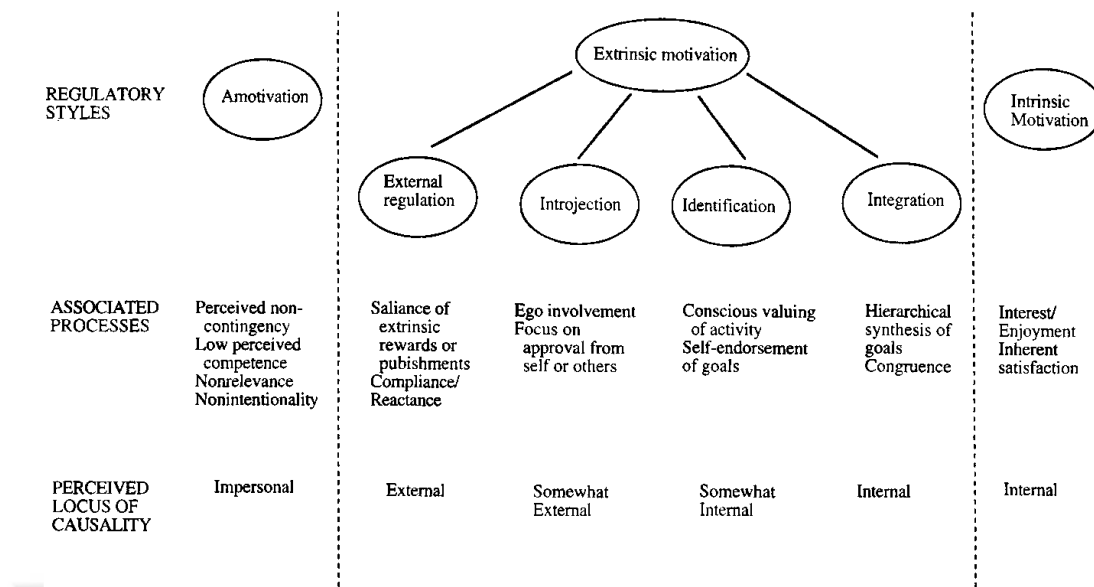


Figure 2-14: Self Determination Theory, Ryan and Deci (2000)

In this regard, the same idea is also shared by Brabham (2008). Brabham explored for motivation reasons to join the iStockphoto which is a Canadian crowdsourcing platform. The study found out that the financial reward is the propulsive force for joining the campaign. The other points like opportunity to learn new things, having fun, networking and peer recognition are just the second degree motivations.

Few scholars have researched the entrepreneurs' and the investors' motivations to join the crowdfunding system. It has seen that it is generally easier to understand the motivation of entrepreneur. The factors influences an investor's enthusiasm to invest are the investor motivations. According to "The Self-Determination Theory", while the authors discussing the motivation concept; they have drawn on intrinsic-extrinsic dichotomy (Deci and Ryan-1985, Ryan and Deci 2000). Kleeman, Voss and Rieder (2008) implemented this dichotomy on the theories related with the crowdsourcing & the crowdfunding motivations as well as user engagements, yet still their studies are considered as the early steps. After deliberating over motivations about collaborative studies above, the definitions of intrinsic and extrinsic motivations will be given. Intrinsic motivation is a naturally existing motivation in an individual, which enables to act with the person's own interests. On the contrary of intrinsic motivation, extrinsic motivation is created externally. The investor who fights for reaching targets that will provide external rewards, acts with extrinsic motivations. Both internal motivations and

external motivations can affect a person at the same time. Meaning, one does not have to exclude the other (Hermer 2011). When it comes to researches on motivations The Self-Determination Theory is widely used as pattern. Internal and external motivations have been taken as the basis for many researches. The researches done on investor motivations in crowdfunding and crowdsourcing have enabled making progress. Most recently, these developments are performed on reward-based crowdfunding. “Motivation in Reward-Based Crowdfunding” is the theoretical framework of these developments. The research performing in this article constitutes the basis for this theoretical framework.

## **2.8.2 Motivation Developments in Reward Based Crowdfunding**

In order to direct the investors to invest reward-based crowdfunding, eight subcategories of motivational factors have been defined under intrinsic and extrinsic motivations headings. The framework is used on reward-based crowdfunding, but the factors which were the most motivational progressed on general crowdfunding and crowdsourcing. Crowdsourcing and crowdfunding are similar concepts. For this reason it is very important to investigate those motivational factors for crowdsourcing contributors as similar drivers can be found crowdfunding supporters.

When the results of their studies pointed out the support for enjoyment motivation and community motivation, which are the subcategories of intrinsic motivation, Lakhani and Wolf (2005) made the first progress on “Self Determination Theory”. They examined extrinsic motivation as well, and their study found strong support in crowdsourcing. Nevertheless, no particular factor is progressed to extrinsic motivation by them. Based on the support from the study previously done by Lakhani and Wolf (2005), Kaufmann et al. (2011) researched the theory on crowdsourcing projects. He recommended adding “immediate payoff” and “delayed payoff” factors to the framework. With the support taken from previous research on investor motivation (Deci and Ryan1985; Ryan and Deci 2000), Kaufman et al. (2011) also added social motivation factor as an extrinsic subcategory. The framework is used by Wechsler

(2013) on general crowdfunding. In this study, he focused on successfully completed crowdfunding campaigns and aimed to find out the motivational factors which influence the investors. The results of this study showed that philanthropic motivation was included to intrinsic motivation as an altruistic factor which is one of the factors of investor motivations. Eriksson and Göransson (2015) carried out their studies' by applying Wechsler's (2013) framework. They specifically focused on athletes and investigated investor motivations in equity based crowdfunding. They were the first who worked on this subject. They draw the attention to relation motivation and add it to intrinsic motivation as the forth subcategory. Huynh and Ugander (2015), who performed the latest progress, investigated the investor motivations in equity-based crowdfunding in the Swedish Market. Their results approved for the extrinsic motivational factor classified as "personal need". Therefore, the presented theoretical framework Motivation in Reward-Based Crowdfunding is a short summary of designated all of the progressed factors of motivations. In order to point out of this investigation movement that has higher potential, it is possible to declare that the scientific studies on motivation of crowd funders are still very limited, specifically quantitative research. Therefore, the reason of our contribution willingness is to close the gap between the investigations with our thesis. We also want to learn more about investor related details like, their profiles, types, and the factors influencing their decisions to take part in crowd investing.

### **2.8.2.1 Intrinsic Motivational Factors**

Intrinsic motivation is a factor and want rising from the individuals themselves which do not affect by any factors outside. For this reason, reaching the targets is powerfully affiliated to reinforce personal wealth as it progresses in individuals and individuals' own desires (Deci& Ryan-2000). The four of the existing intrinsic motivation types which are the motivation factors mentioned as below.

#### **2.8.2.1.1 Enjoyment Motivation**

In his study carried on about crowdsourcing, Brabham (2008) found out that the investors generally made investments for the reasons of being creative and being fun.

This study also confirmed later by other scholar as an important factor of motivation for general crowdfunding (Bretschneider et al., 2014; Van Wingerden & Ryan, 2011). Further, Harms (2007) supported this study. He researched the reasons of investors contributing financially to crowdfunding system. He found out that the investors are motivated by satisfaction sense and enjoyment factors. Later, it is discovered that enjoyment is the most effective intrinsic factor of motivation for investors in equity crowdfunding (Eriksson & Göransson, 2015; Huynh & Ugander, 2015). Investing in crowdfunding might be self-motivating for an investor which enables to send away botheration (Organisciak, 2008). In order to get curiosity sensation, pleasure and thrill can also be considered as enjoyment factor (Kaufmann et al., 2011). Gerber et al. (2012) made a study on general crowdfunding which he pointed out that the investors may enjoy from the social relations within the venture. Ordanini et al. (2011) asserts that the crowdfunding investors strongly want to adapt the creative and innovative mentality they like the novelty as using the technological platforms. In the other context, Harms (2007) highlighted the importance of the passion of consumers for novelty searching. He claims that making something new and gaining experiences from these new things are generally the reasons of organizing crowdfunding campaigns. So, for many investors, it has high importance to get involved in the real procedure (Van Wingerden & Ryan, 2011). The motivation based on enjoyment involves factors considered as pleasure and exciting experienced by the supporter which has become functional with the enjoyment and novelty structures. The intrinsic motivations in connection with enjoyment are accepted as important driver to take part in crowdfunding activities (Van Wingerden& Ryan, 2011; Harms, 2007). It is hypothesized that the enjoyment feelings of with regard to taking part in a crowdfunding activity has a positive effect on the funder's intention to support.

#### 2.8.2.1.2 Community Motivation

The investor motivated by community factors, invests in a crowdfunding venture aiming to build a better society in his environment (Wechsler, 2013). It has been found that the investor's strong emotional bond built with the community, affects the level of involvement in the ventures (Brabham, 2008; Wechsler, 2013). In addition, the people having the similar interests who live in the in the same society influence each other to

make investments (Van Wingerden & Ryan, 2011; Organisciak, 2008). This is also confirmed by Gerber et.al. (2012) He added that doing local changes may affect the investors to make investments. Some factors ensure that people have a sense of belonging. These factors might be emotional belonging to society, confronting with people sharing similar /same interests and taking part in a change. These will also increase the possibility to invest in local ventures (Wechsler, 2013). Therefore, the other effect that increase the investor's feeling for the ventures is living / working in close distances, meaning affecting each other to share the desire for investing (Bretschneider et al., 2014; Lin & Viswanathan, 2013). Because of the reasons for being insufficient and being hard to obtain, funding via traditional financial sources might be unsuccessful. On the contrary of this, crowdfunding provides the opportunity to promote regional ventures. (Dapp & Laskawi, 2014).

#### 2.8.2.1.3 Philanthropic Motivation

Philanthropy comes from an individual who totally acts from goodwill. The individual contributes supports as financial resources, time and/or effort without being forced or expected by any other one (Bretschneider et al., 2014). The person makes investment without having any expectation in return because the feeling of being helpful to someone is the motivation itself. Consequently, the meaning of philanthropic factors is giving something for somebody else's benefit (Organisciak, 2008; Wechsler, 2013). It is claimed by Hermer (2011) that the active involvement to socially helpful ventures is also a strong motivation itself. This is also confirmed by Gerber et.al.(2012), who indicates that contributing to a venture by giving support, builds the senses of generosity and meaningfulness. Eriksson and Göransson (2015) got a strong support when tested the philanthropic motivation in equity crowdfunding. He found out that the philanthropic motivation is the most important factor influences the investors' to make an investment. It has been stated that the Philanthropic factors found to be the great importance for general crowdfunding (Gerber et al., 2012; Bretschneider et al., 2014). In the structure of "Helping Others" includes the motivation of the supporter depending on his/her own personal belief that making promises for a financial aid to others or for a reason.

#### 2.8.2.1.4 Relationship Motivation

The chance of making investment increases if a potential investor has a personal relationship with the entrepreneur (Bretschneider et al., 2014; Hermer, 2011). The groups having the very close relationship with each other such as family and friends constitutes the important investment segment in the first levels of the crowdfunding campaign (Bretschneider et al., 2014; Hermer, 2011; Dapp & Laskawi, 2014; Wechsler, 2013). Regarding the relationship motivation, another study pointed out the important factor for investing. While researching the framework on equity crowdfunding, it was recognized that admiration feelings for the entrepreneurs or the ventures had an effective factor in investing (Eriksson & Göransson, 2015). So, the investor may decide to invest for the feelings of admiration or sympathy for the entrepreneur (Gerber et al., 2012; Hermer, 2011).

#### 2.8.2.2 Extrinsic Motivation

Even though extrinsic motivation is based on financial rewards, it may also be related to non-financial motivators such as being recognized by the people or feeling of success (Deci & Ryan, 2000). Extrinsic motivation mainly takes its sources from the environment which means the investor has been externally affected to reach to a target (Deci & Ryan, 1985; Kaufmann et al., 2011; Lakhani & Wolf, 2005). There are four types of extrinsic motivational factors which are immediate payoff, delayed payoff, social motivation and personal need.

##### 2.8.2.2.1 Immediate Payoff

In immediate payoffs, the investors get their pay-back in a very short time after making their investment. According to the researchers who took place in reward-based crowdfunding, the most widespread immediate payoff is "paying back as product" that the investor receives in a short time after the investment (Leimeister, Huber, Bretschneider & Krcmar, 2009; Gerber, et al., 2012). On the other hand, some paybacks can be tangible or intangible such as a product, or taking place or being indicated on the website of crowdfunding ventures or in an activity (Gerber et al., 2012; Wechsler, 2013). When an investor invests in an equity-crowdfunding venture, that investor may



find the possibility of reaching other investors in the same venture (Eriksson & Göransson, 2015; Gerber et al., 2012). This could be a very big opportunity and a very supporting key for the investors which enable to develop their communication networks for the future business; so, it could be a very strong motivation for investment (Gerber et al., 2012). But Eriksson and Göransson (2015) found out that establishing a strong communication network should belong to delayed payoff rather than immediate payoff. They claim that establishing a communication network takes time and it is carried out during the process so, the investors cannot establish this network immediately after the investment is realized.

#### 2.8.2.2.2 Delayed Payoff

Kaufmann et al. (2011), explains that the delayed payoffs might relate to anything obtained during the whole period of investment which can show its value in the future. So, on the contrary of immediate payoffs, to obtain the value of these factors as a payback depends on the time. Financial pay back in equity-based crowdfunding compose the most important factor for motivation to investors. (Eriksson & Göransson, 2015; Huynh & Ugander, 2015). There are many different ways to obtain the financial returns, either by dividends (Cholakova & Clarysse, 2014; Pierrakis & Collins, 2013) or by selling shares with their future profit (Eriksson & Göransson, 2015).

Delayed payoffs can be non-financial as well. Non-financial profits like learning experiences obtained during the whole investment and/or project period may be an example of delayed payoff (Leimeister et al., 2009; Brabham, 2008). By being included in the crowdfunding ventures, investors may invest for the purpose of improving their creativity skills (Schwienbacher & Larralde, 2010; Gerber et al., 2012). In order to get investment payback from other entrepreneurs, it would be a smart decision for an entrepreneur to invest other ventures (Hermer 2011). Moreover, due diligence might have high importance for the investors there fore, getting access to information might be an important point of view of delayed payoff (Wilson & Testoni, 2014; Wiltbank & Boeker, 2007).

#### 2.8.2.2.3 Social Motivation

Social motivation in crowdsourcing is added by Kaufmann et al. (2011), which defines investor's environment. They claim that if an investor wants to participate in a certain social group, he/she should obey some significant social norms and perform the necessities expected by other people in that group. The desire of to be recognized by the society might be another social motivation for the investors. The investor might build a stand or he/she might have pressure from his/her social environment to express himself to the society (Harms, 2007). Deci and Ryan (2000) contribute by reinforcing these arguments. If an individual agrees with the rules of the third party in order to keep away from enforcement, it can be mentioned here the existence of social motivation. Consequently, as social motivation is a way of presenting himself/herself to the environment or being known by the others, it might be an incentive to invest (Kaufmann et al., 2011).

#### 2.8.2.2.4 Personal Need

The personal need which is one of the motivation factors of investing in equity crowdfunding has been defined by Huynh and Ugander (2015) who constructed their claim on the argument of by Bretschneider et al. (2014). They defined a need for motivation effect while the product function is in center. So, if a product meets the needs of an individual, meaning if it can be developed and be reachable in the market then it might become a factor for investment. The products having the potential of saving money or increasing profitability is an encouraging factor for many investors (Fuller, 2006). Huynh and Ugander (2015) pointed out that in case a specific product provides high level of satisfaction for the personal needs then it also has the potential to satisfy the investor's needs. As a result, the investor's desire for the investing in the venture will be high if the need of that product in the market is high. (Harms, 2007; Huynh & Ugander, 2015).

## 2.9 THEORETICAL FRAMEWORK DEVELOPMENT

This section includes a collection of concepts that lead this study and identified the measured items that are applied in the survey. The theoretical framework has been progressed based on Deci and Ryan's (1985) "Self Determination Theory".

According to the self-determination theory, this study is based on two basic types of motivation that influence the participant; intrinsic and extrinsic motivations. Mostly, it is difficult to distinguish between intrinsic motivation and extrinsic motivation. When the person is motivated by the satisfaction created by his/her own activity, it is assumed that this is an intrinsic motivation. However, when external motivation is the case, action is a just a means to reach a specific desired result that comes with the completion of the task (Wechsler, 2013).

Although these hypotheses suggest the main reasons for people being involved in crowd funding, there are additional modifiers and control criteria that, depending on the proposed conceptual model, can affect investment decisions and need to be analyzed. It is a very complex matter to understand an investor's decision-making period. In order to cope with this complication, academic works use surveys including varied factors and presenting these to funder to get their opinion.

As shown in Figure 2-15, Nagy and Obenberger (1994) identified 34 items for the purpose of searching the relative importance of factors such as economic, behavioral and psychological and these 34 factors are grouped into seven classification as Neutral Information, Accounting Information, Self-Image/Firm-Image Coincidence, Classic, Social Relevance, Advocate Recommendation and Personal Financial Needs. This general framework about investors' decision making is also used by several scholars.

In order to research the different investment decisions the wide implementation potentials of the framework which is created by Nagy and Obenberger (1994) is taken as the base and it has been used as a basic theoretical model for this study. This theoretical model is adapted to an applied theoretical framework that fits the structure of crowdfunding.

The crowdfunders may act differently throughout their decision period. It is thought to be that most of the factors which affect the traditional financial investors, affect the crowd funders as well. Depending on the crowdfunding literature and expert interviews,

it is understood that there are some other key factors for crowd investors. Therefore, the next chapter mentions about the procedure of adaptation the framework from Nagy and Obenberger (1994) to crowdfunding structure. We have developed a theoretical model which will serve our questionnaire that addresses the investigation questions of this thesis by applying the original framework.

In this study, in addition to Self Determination Theory, the theoretical framework developed by Nagy and Obenberger (1994) was used as described below. Initially, related literature has been studied to find out the key factors affecting crowdfunding throughout the decision-making procedure.

In this research study, the decision-making process is accepted as the two-phased approach. The first phase is related to the funder's decision; whether the funder decides to contribute to crowdfunding or not. The second phase is related to the choice of specific startup. Therefore, we can state that the decision-making process consists of a primary and a secondary phases that affected by different factors. This research project specifically concentrates on the first phase; tries to find out the answers to the questions like "whether or not participating in crowdfunding" and also "what are the important factors affecting this phase?". The certain variables of start-up affecting the funding decisions among various ventures submitted on a platform are not taken into consideration. It is estimated that in order to understand better the decision-making process of an investor, the framework which is developed by Nagy and Obenberger (1994) is applied.

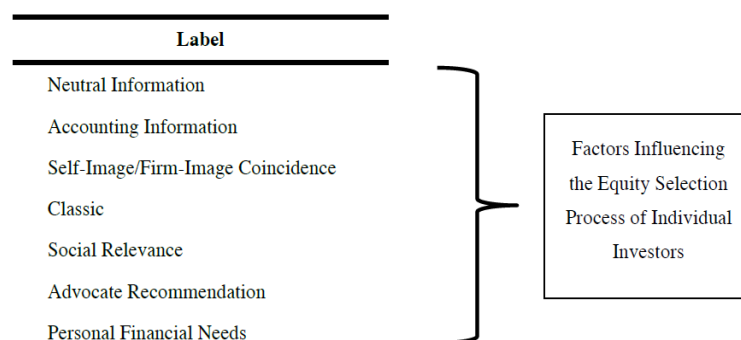


Figure 2-15: Factor labels according to Nagy and Obenberger (1994).

Eber and Schöndorfer (2014) added “Innovative Investment” and “Personal Utility” to the original model. Innovative Investment category is related with the new investment choices and innovative features affecting the investors. In the investment world quite new choices presented via crowdfunding. Its innovative features can affect the decision-making mechanism of funders. The funders who want to discover new opportunities, who are visionary and deal with new technologies might be attracted by this kind of investments (Hemer, 2011; Bretschneider et al.). Emotional and personal benefits have big importance in crowdfunding (Belleflamme et al., 2011). Therefore, Eber and Schöndorfer (2014) included the label "Personal Utility" to the theoretical model. The following section describes the formation of the main variables in every label and also the associated hypotheses.

### **2.9.1 Social Relevance**

Getting the feel of being supportive by supplying the initial capital for start-ups is the first sub-dimension. This is a critical factor which separates crowdfunding investors from other traditional financing methods investors as well. This situation is especially true for the ventures when the financing gap between at the very early stages and at the later stages is considered. Because, at very early stages, individual and informal funds are adequate whereas at later stages the venture becomes appealing to conventional financing foundations. Due to the inadequate access to capital, the start-ups urgently need finance. Therefore, the crowd investors might feel enforced to help to these start-ups. Insufficient capital at early stages carries a risk of bankruptcy for start-ups therefore this financial need of start-ups might be interpreted as vitally important by the investors. Larger companies generally have more chance of reaching financial sources (Ley & Weaven, 2011). In addition to this, social relevance is not only connected with the fact of providing important finance by crowd investors to close the financial gap. Many funders consider crowdfunding as a chance to support the entrepreneurship so the innovativeness of an economy supplies many benefits to the community. According to the research results, some investors take into account not only their personal interests gained by returns but also the widespread effect of the investment. For a typical

investor, the financial return of an investment is preferential whereas crowd investors might be more altruistically motivated and when investing in this asset class they may look for some kind of psychic returns (Beal et al., 2005). In this case, supportiveness is described as a feeling that was born from the behavior of helping others. Helping behaviors can be described as any behavior which aims to raise people's level of welfare (Bendapudi et al., 1996). This seems to have happened in the sense of crowdfunding. It is seen that altruistic factors are related to the investments in crowdfunding projects. Participating a crowdfunding campaign can be driven the good feeling of being supportive. This altruistic approach can be done to help the project creators and to support the project returns to transmit to society.

Depending on the researches from open source societies Bretschneider et al. (2014) states that altruism might also play major role in crowdfunding. During a study about decision-making in crowdfunding, Burtch, Ghose and Wattal (2013) have found that crowd funders are primarily motivated by altruism. According to Hemer (2011) along with the other factors, being contributed to a "socially important mission" may be an intrinsic motivation for the investors and financial backers. Therefore, we hypothesize that as per funders' point of view crowdfunding is a significant method to create a social impact. It is hypothesised that supporting a person by supplying money for the purpose of "doing something good" carries an emotional value and this causes an important motive for investment.

H1: Regarding crowdfunding as a convenient instrument to create impact economically and socially has a positive effect on the intention to invest in crowdfunding projects.

H2: The sense of being supportive has a positive effect on the intention to invest in crowdfunding projects.

## **2.9.2 Innovative Investment**

This category is a phenomenon which based on the fact that crowdfunding creates an innovative and different model of financing in the entrepreneurial finance field and these features might be influential on the investors' participation intention. This characteristic of crowdfunding might be specifically attractive to investors who want

newest things, are so excited about new technologies, and are eager to try new ideas. (Bretschneider et al., 2014; Hemer, 2011).

### 2.9.2.1 Early Adopters

It is hypothesized that the investors who have a specific feeling of curiosity and like to explore new events particularly the new possibilities emerging from the internet are presently willing to take part in this type of funding mechanism. These types of investors are generally accepted to be as “early adaptors or innovators” (Oren & Schwartz, 1988). On the contrary to followers, early adopters choose to be the pioneers to participate for getting the benefits of new investment ideas and to take advantage new investment opportunities (Bretschneider et al., 2014; Hemer, 2011).

H3: The willingness of investors to use a new product or technology has a positive effect on invest in crowdfunding projects positively.

### 2.9.2.2 Missing Trust in Online Platforms

The word of trust has many meanings. ‘Trust’ in this work has been narrowed by the relationship between a supporter and the crowdfunding platform. By using this form of investment, supporters use online platforms instead of a bank or other financial institutions.

The reality that investments are made through certain online platforms is a new side of crowdfunding. In order to be able to invest to a start-up, it is necessary to register for a crowdfunding platform. In order to raise funds, a specific start-up can decide which platform will be used. This means that for financing the start-up she/he interested in the investor has to register for the different crowd investment platforms. This turns the investment process into a more complex status and needs more efforts. Another aspect that the investors may approach cautiously as most crowdfunding platforms are still quite new (Duarte et al., 2012). For this reason, it is hypothesized that the decision of whether to participate in crowdfunding or not is affected by the trust matter concerning the online platforms. It is assumed that the lack of trust affects the participation in crowdfunding negatively. The investors are reluctant to participate in crowdfunding as they generally approach more cautiously towards online platforms.

H4: Investors' unwillingness to use online crowdfunding platform has a negative effect on their intention to participate in crowdfunding projects.

### **2.9.3 Personal Utility**

The personal utility can be defined as the level between the operational profits and/or advantages of the project return that meet to an operational need of the consumer. In other words, when mentioning the meet of an operational need of a customer, it is underlined that either any product or any kind of service supplying the utmost benefit of that customer. That is, the customers prefer the services/products that gives the highest benefit to them (Ligas, 2000). Moreover, the results from the studies of innovations in industrial and industrial procedures points out a very important detail. If a company planning to provide functional benefit from the innovations that it needs, it has to invest much more in order to get a solution from that expectation (Mansfield, 1968). This situation is also thought to have been implemented in crowdfunding. In case an individual has the great personal benefit expectations from the project results, then that person will be more eager to make an investment in the project as he/she will focus on having the benefits of that project results. The behavior and/or decision to benefit from the project outcomes in order to meet the needs and expectations of the individual is called triggering motivation. Consequently, it is assumed that the reason for investing in the project is the perception that the project results supply great personal benefit. Based on the study of Eber and Schöndorfer (2014), in the current research study the Personal Utility category includes the factors self-representation and network.

#### **2.9.3.1 Self Representation**

According to Eber and Schönborn study, during the interviews with several crowd investors they confirmed that crowd investors like to talk about their investments and specifically the products, services of the enterprises they invest in. Consequently, it is hypothesized that the opportunities for reaching to sources and expressing themselves to others are the reasons of investors' motivations to participate in crowdfunding. This statement can be performed in many various ways like talking about the topic with friends, giving information about a new investment to colleagues or sharing investment



details in social media. It may provide an unusual conversation topic in some different environment. Currently, crowd investing is considered to be an exciting new alternative. It is sometimes defined as a "leisure activity" (Eber and Schönborn, 2014) and some investors are fond of talking about crowd investing with friends and colleagues.

H5: Enjoying to share about their new investments has a positive effect on the intention to invest in crowdfunding projects.

### 2.9.3.2 Network

By making an investment in enterprise, an individual might have an opportunity to expand his/her network which enables to get personal benefit. Gerber et al. (2012) describes the motivation factor for participating in crowdfunding as taking part in a society with similar mentalities. According to Moritz and Block (2013) the enthusiasm to communicate with other people is a significant motivation factor for crowd funders. Hemer (2011) state that, the possibility of "Being engaged in and interacting with the project's team" and from (...) the chance of expanding one's own personal network" supply a specific satisfaction and enjoyment to investors. It is hypothesized that the opportunity to have a large network so getting benefit from the investment will lead to increase possibility of participating in crowdfunding.

H6: Having strong interest in building a broad network has a positive effect on the intention to invest in crowdfunding projects.

## 2.9.4 Advocate Recommendation

When it is considered that the crowdfunding is a rather recent development, the decision of starting to invest in start-ups is positively affected by the personal recommendations from his/her close environment. The advocate recommendation is an information source supplied by the investor's environment which has the similar dimensions with Neutral Information. In addition to this, in opposition to media coverage, advocate recommendation is trust-based which means the information is sourced by directly from investor's network not from an unnamed source. In the study of Nagy and Obenberger (1994), they found suggestions from the individual stock brokers,

who are accepted as experts in this area and reached to the friends who affects positively on the investment decision in an equity selection period.

H7: The recommendation by an expert, friends and family members has a positive effect on the intention to invest in crowdfunding projects.

#### 2.9.4.1 Herding

If people have insufficient information or accessing the information is costly, then these people use others' actions as a guide to be able to make a decision. This approach can be defined as a making decisions based upon the actions of others. According to the study of Wingerden and Ryan (2011), a rapid rise in the amount of funds invested or increase in the number of investors may cause an acceleration which causes people to ignore their knowledge in favor of herding them. These herd effects have also been encountered on reward based crowdfunding campaign. The studies conducted in the related literature claims that the behavior of others has an important influence on the decision of individuals to invest (Ward and Ramachandran, 2010; Burtch et al., 2013; Smith et al., 2013). In addition to this, the similar influence was encountered in the sense of crowd lending. Hildebrand et al. (2013) and Kim and Viswanathan (2013) showed the positive influences of initial investors on next investors on crowdlending. In this research study, it is assumed that the participants know and observe the actions of other investors who have previously invested in a particular initiative and are affected by their decisions.

H8: Herding behavior has a positive effect on the intention to invest in crowdfunding projects.

### **2.9.5 Neutral Information**

Nagy and Obenberger (1994), claims that the stock purchasing decisions are highly influenced by the Neutral Information. Neutral information is an outsourced information perceived as unbiased (Nagy & Obenberger, 1994,). Mostly, different types of publications are referred by the authors considering that crowdfunding is a new opportunity of raising capital, most probably the financial press might play a fundamental role alongside the service area supplied by the general press. Generally it is estimated that before making an investment, the investors tend to informed from the

financial press. When Nagy and Obenberger (1994) compared the coverage of financial press with the general press, they found that the financial press is slightly higher than the other this is especially important when considered the stock taking decision process.

Nevertheless, it is emphasized that publications such as articles, interviews, news and reports to be published on the crowdfunding will increase the interest significantly in this regard when it is thought that the general press can reach the wide mass. Moreover, just as impressive and positive publications in the financial press play an important role in persuading investors to invest in start-ups, such positive and impressive publications in the general press also have the same influence on investors. Consequently, it is believed that positive and effective publications on crowdfunding (eg news, reports, articles, interviews, etc.) will have a positive impact on the decision to participate in crowdfunding, even if the masses and scopes addressed by both presses are different.

H9: The positive general and/or financial press report about crowdfunding has a positive effect on investment intention in the crowdfunding projects.

## **2.10 CONCEPTUAL FRAMEWORK**

The review of empirical literature demonstrates several success, risk, and cultural drivers of reward-based crowdfunding. The empirical literature review indicated that major success drivers of a reward-based crowdfunding project includes venture quality, human capital, social capital, intellectual capital, and level of uncertainty. On the other hand, major risk factors of a reward-based crowdfunding project include default risk, platform risk, risk of fraud, level of uncertainty. In addition, major cultural determinants of a reward-based crowdfunding project are social capital, entrepreneur's socio-cultural dynamics, and investment culture and environment. However, these factors play significant role in determining the success and failure of a reward-based crowdfunding project, discovering the factors which lead the people to participate crowdfunding is the main purpose of this study. Based on the examinations in previous empirical studies a conceptual framework has been improved for further investigation. The suggested model consists of motivation factors that are categorized as intrinsic and extrinsic factors. These factors are affected by several structures and also affect the whole motivations of the backers. The distinction between internal and external motivation is

only a theoretical classification. In addition, decision-making theories were first adjusted to study the "emotional and materialistic values of the rewards", a concept suggested by Nagy and Obenberger. As a result, various views have been transformed into a new model. In the scope of the research, direct effects on the investment intention were investigated by calculating the variables that would affect the intention of crowdfunding as the main model. In addition, the effect of these variables on the investment intention was also included in the moderator effect of the motivation variable. As sub-models, four sub-dimensions of the motivation concept were also modeled separately to see if there are moderator effects or not. The illustration below shows a conspectus of the main variables and the relevant hypotheses as conceptual framework for this study.

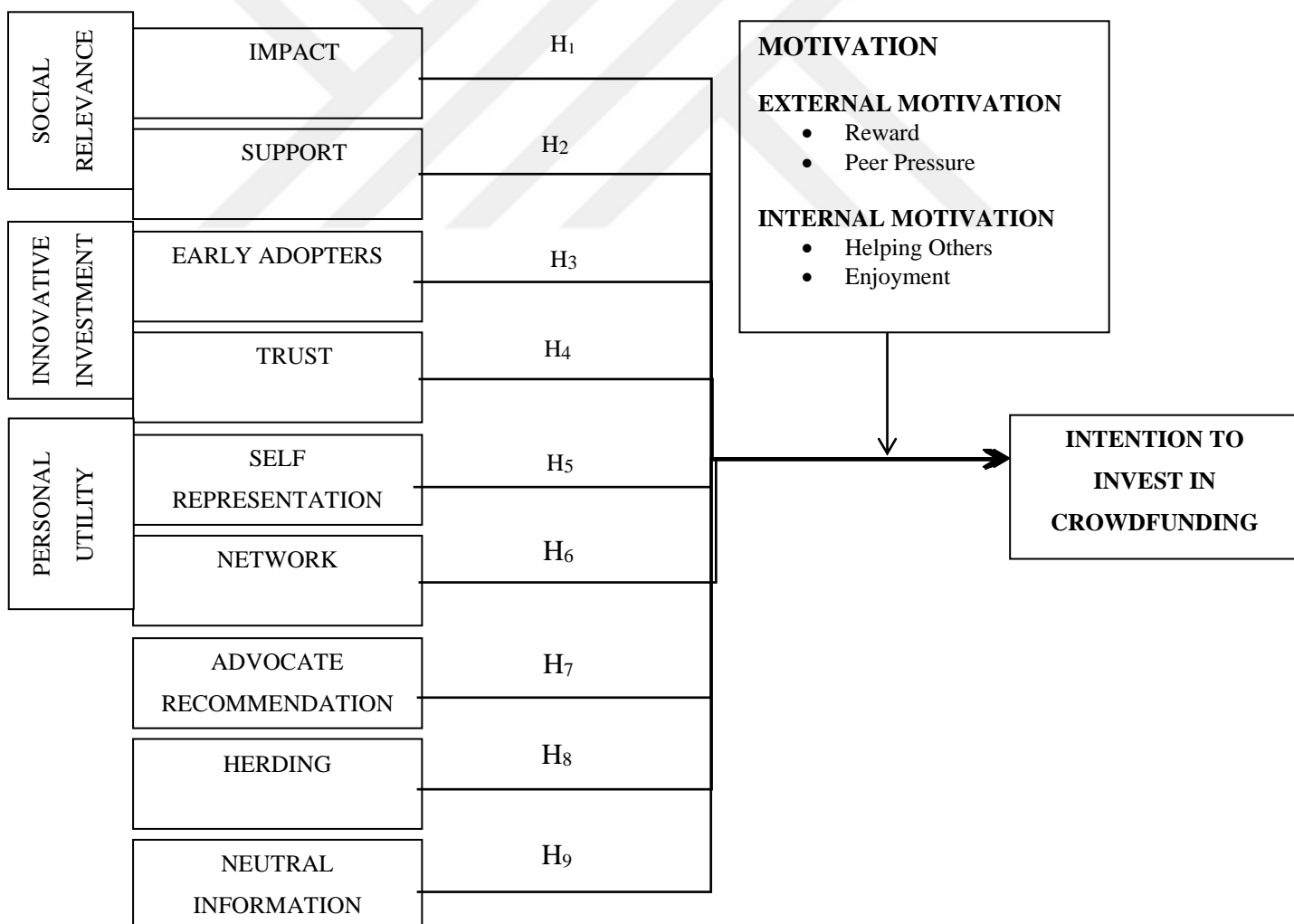


Figure 2-16: Conceptual Framework of the Study

The dependent, independent and moderator variables characterized by their indicators in Figure 2-16. The conceptual framework presented in related figure, has been developed after thorough analysis of previous studies on motivation factors of supporters, risk, success, and cultural drivers of entrepreneurial success in a reward-based crowdfunding network. Several empirical studies have been conducted to study the effect of different factors on the success and failure of a reward-based crowdfunding project. Most of these studies have analysed the issue from different perspectives, which makes it difficult for the scholars to provide a conclusive judgement regarding the success of a reward-based crowdfunding project. This framework is a sum of the studies conducted by Wechsler and Ebert &Schöndorfer where different aspects of success, cultural, and risk factors of entrepreneurial ventures in a reward-based crowdfunding have been critically analysed. The framework of current study demonstrates the relationship between the success, risk, and cultural factors of reward-based crowdfunding. Within the research model, hypotheses of research can be expressed as follows:

**H1:** Regarding crowdfunding as a convenient instrument to create impact economically and socially has a positive effect on the intention to invest in crowdfunding projects.

**H1a:** Economic /Societal Impact Perception has effect on Crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically.

**H1b:** Economic /Societal Impact Perception has effect on Crowdfunders' intention to participate when funders are motivated through 'Reward'.

**H1c:** Economic /Societal Impact Perception has effect on Crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'.

**H1d:** Economic /Societal Impact Perception has effect on Crowdfunders' intention to participate when funders are motivated through 'Helping Others'.

**H1e:** Economic /Societal Impact Perception has effect on Crowdfunders' intention to participate when funders are motivated through 'Enjoyment'.

**H2:** The sense of being supportive has a positive effect on the intention to invest in crowdfunding projects.

**H2a:** The sense of being supportive has effect on Crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically.

**H2b:** The sense of being supportive has effect on Crowdfunders' intention to participate when funders are motivated through 'Reward'.

**H2c:** The sense of being supportive has effect on Crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'.

**H2a:** The sense of being supportive has effect on Crowdfunders' intention to participate when funders are motivated through 'Helping Others'.

**H2e:** The sense of being supportive has effect on Crowdfunders' intention to participate when funders are motivated through 'Enjoyment'.

**H3:** The willingness of investors to use a new product or technology has a positive effect on invest in crowdfunding projects positively.

**H3a:** The sense of being early adopters has effect on Crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically.

**H3b:** The sense of being early adopters has effect on Crowdfunders' intention to participate when funders are motivated through 'Reward'.

**H3c:** The sense of being early adopters has effect on Crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'.

**H3a:** The sense of being early adopters has effect on Crowdfunders' intention to participate when funders are motivated through 'Helping Others'.

**H3e:** The sense of being early adopters has effect on Crowdfunders' intention to participate when funders are motivated through 'Enjoyment'.

**H4:** Investors' unwillingness to use online crowdfunding platform has a negative effect on their intention to participate in crowdfunding projects.

**H4a:** 'Reluctance to Trust platforms' has effect on Crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically.

**H4b:** 'Reluctance to Trust platforms' has effect on Crowdfunders' intention to participate when funders are motivated through 'Reward'.

**H4c:** 'Reluctance to Trust platforms' has effect on Crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'.

**H4d:** 'Reluctance to Trust platforms' has effect on Crowdfunders' intention to participate when funders are motivated through 'Helping Others'.

**H4e:** 'Reluctance to Trust platforms' has effect on Crowdfunders' intention to participate when funders are motivated through 'Enjoyment'.

**H5:** Enjoying to share about their new investments has a positive effect on the intention to invest in crowdfunding projects.

**H5a:** Self Representation has effect on Crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically.

**H5b:** Self Representation has effect on Crowdfunders' intention to participate when funders are motivated through 'Reward'.

**H5c:** Self Representation has effect on Crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'.

**H5d:** Self Representation has effect on Crowdfunders' intention to participate when funders are motivated through 'Helping Others'.

**H5e:** Self Representation has effect on Crowdfunders' intention to participate when funders are motivated through 'Enjoyment'.

**H6:** Having strong interest in building a broad network has a positive effect on the intention to invest in crowdfunding projects.

**H6a:** 'Creating Networks' has effect on Crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically.

**H6b:** 'Creating Networks' has effect on Crowdfunders' intention to participate when funders are motivated through 'Reward'.

**H6c:** 'Creating Networks' has effect on Crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'.

**H6d:** 'Creating Networks' has effect on Crowdfunders' intention to participate when funders are motivated through 'Helping Others'.

**H6e:** 'Creating Networks' has effect on Crowdfunders' intention to participate when funders are motivated through 'Enjoyment'.

**H7:** The recommendation by an expert, friends and family members has a positive effect on the intention to invest in crowdfunding projects.

**H7a:** Advocate Recommendation has effect on Crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically.

**H7b:** Advocate Recommendation has effect on Crowdfunders' intention to participate when funders are motivated through 'Reward'.

**H7c:** Advocate Recommendation has effect on Crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'.

**H7a:** Advocate Recommendation has effect on Crowdfunders' intention to participate when funders are motivated through 'Helping Others'.

**H7e:** Advocate Recommendation has effect on Crowdfunders' intention to participate when funders are motivated through 'Enjoyment'.

**H8:** Herding behavior has a positive effect on the intention to invest in crowdfunding projects.

**H8a:** Herding has effect on Crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically.

**H8b:** Herding has effect on Crowdfunders' intention to participate when funders are motivated through 'Reward'.

**H8c:** Herding has effect on Crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'.

**H8d:** Herding has effect on Crowdfunders' intention to participate when funders are motivated through 'Helping Others'.

**H8e:** Herding has effect on Crowdfunders' intention to participate when funders are motivated through 'Enjoyment'.

**H9:** The positive general and/or financial press report about crowdfunding has a positive effect on the intention to invest in crowdfunding projects.

**H9a:** Neutral Information has effect on Crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically.

**H9b:** Neutral Information has effect on Crowdfunders' intention to participate when funders are motivated through 'Reward'.

**H9c:** Neutral Information has effect on Crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'.

**H9d:** Neutral Information has effect on Crowdfunders' intention to participate when funders are motivated through 'Helping Others'.

**H9e:** Neutral Information has effect on Crowdfunders' intention to participate when funders are motivated through 'Enjoyment'.



### **3 RESEARCH METHODOLOGY**

In order to investigate factors that affect crowdfunders' intention to participate in reward-based crowdfunding in Turkey, it is important to outline the research methods that have been used in this study. In this chapter, the methodology that has been used to answer the research questions is outlined with appropriate justifications. However, this chapter covers discussion on research methods used to investigate the risk, success, cultural and investors' motivational factors of reward-based crowdfunding. In addition, theoretical considerations made during the development of research methodology have also been discussed alongside a brief review of research methodologies outlined in previous empirical literature. Moreover, the nature of survey design followed in this study is explained in details and conduction of questionnaire. The procedures of the descriptive, reliability and factor analysis that are being implemented in this study are explained in details. Nevertheless, this chapter discussed about the potential biases that might arise while conducting this study has also been discussed in addition to ethical issues surrounding this study.

#### **3.1 CONSIDERATIONS FOR THEORETICAL DIMENSION**

The process of building new theory comprises of four essential elements and these four elements play significant role in legitimizing a newly developed theory (Whetten, 2015). Developing new theory is a challenge for most of the scholars because of different complexities and applicability in the business arena; instead most of these scholars build their study upon existing theories or work. Whetten (2015) explained why it is difficult to develop new theory; it is all about judgement about what is enough for a theory to be considered a theory. Some scholar might add new variables to an existing theory and consider it a new theory but it does not necessarily mean adding new variables to an existing model make another new theory; instead relationship between variables determines the appropriateness and validity of a theory. Therefore, the relationship between variables makes a theory strong.

Consequently, when an emerging theoretical framework is vague, broader understanding of existing theories and greater amount of terms are needed to be

considered for constructing a new theory (Piele, Tyson, and Sheffey, 1980). In case of current study, many scholars considered reward-based crowdfunding as embryonic and emerging field of study. Belleflamme (2016), one of the pioneering scholars in the field of crowdfunding, considered reward-based crowdfunding as nascent and the other scholars including Agrawal et al. (2011), Crosetto and Regner (2014) in the field of crowdfunding research pointed out about the growing importance of studying reward-based crowdfunding. Considering these theoretical underpinnings, there are two methodological considerations for current study. First, as the theories in this field are rather small, therefore the researcher can take concepts and ideas from other relevant fields of crowdfunding. According to Gummesson (2000), researches are divided into several dimensions and consultants combine different theories to make contribution in real life practice. For instance, Ordanini et al. (2011) utilized several theoretical fields in their research such as crowdsourcing literature, service marketing literature, user theory and open innovation, and brand community literature.

Consequently, theories related to behavioural finance perspective can be considered for current study. Behavioural Finance draws upon psychology to understand investor decision making process (Ackert and Deaves, 2010). Current study, therefore, is suitable for explaining a field which is rather small through making theoretical contributions. Accordingly, the concept of web 2.0 and the process of investor decision making are considered as explanatory additions to explain reward-based crowdfunding in current study. Second, two areas of development are being considered while developing theories; one is when theories are already matured while the other one is at the stage of definition. Edmondson and Mcmanus (2007) proposes that in management research the theory falls into a research process from mature to nascent stage. The nascent theory, presents indefinite answers to novel questions, suggesting new connections among phenomena. The Mature theory, in contrast, offers advanced constructs and models worked over time with increasing attention by many scholars and extensive research. It consists of broad agreement that represent collective information gained (Edmondson and Mcmanus, 2007). Studying theories with broader concepts and conducting a quantitative research is considered to be a straightforward process. In this instance, mature theories are being considered at small scale so that it can be considered for the second type of area for theory that is reflected as nascent. Therefore, studying a

nascent theory or concept requires interactive process and the researcher must be aware of explaining the outcome as the process of understanding the concept of reward-based crowdfunding.

### **3.2 RESEARCH PHILOSOPHY**

The starting point of the research process requires specifying the philosophical perspective using the research paradigm. The process through which required knowledge for a research is developed and the nature of such knowledge is explained is called as research philosophy (Saunders, Lewis, and Thornhill, 2009). Research philosophy is interested in the creation, the development and the nature of knowledge. The different philosophies used when conducting a scientific study require the acceptance of different assumptions (Inanç, O. 2009). These assumptions play a significant role in determining the research strategy and methodology. A philosophy of research can also be seen as consideration about the methods of collection, techniques, analysis and use of data about a phenomenon. Essentially, research philosophy in the study comprises being aware and formulating the researcher belief, values and hypothesis (Bajpai, 2011). More precisely, research philosophy is what the researcher does during embarking on the study i.e. develop knowledge. There are three major considerations to explain different philosophical positions; epistemology, ontology and axiology (Gürbüz and Şahin, 2017). Guba and Lincoln (1994) propose that the fundamental beliefs that explain a particular research philosophy can be outlined by the answers given to four basic questions:

- 1) What is the nature of reality? (Ontological Question.)
- 2) What is the nature of ethics? (Axiological Question.)
- 3) What is the nature of knowledge? (Epistemological Question.)
- 4) How can the researcher go about discovering all that he or she thinks and expects can be known? (Methodological Question.)

The assumptions that a researcher make regarding the way in which the world works are explained by ontology (Jha, 2008). That is, ontology deals with the nature of reality and there are two aspects of ontology; objectivism and subjectivism. Objectivism portrays the existence of social entities external to social actors concerned with their

existence while subjectivism holds that perceptions of individuals and their consequent actions create social phenomena concerned with their existence (Jha, 2008). What constitutes acceptable knowledge is explained by epistemology; the researcher who requires “data” for the analysis is likely to be in the position of natural scientist while the researcher who requires collection and analysis of “facts” is likely to be in the position of interpretivist philosophy. On the other hand, the researcher who requires reality to be represented by “real” objects is likely to take the position of a realist philosophy while the researcher who requires both “data” and “facts” in its investigation is likely to take the position of pragmatist philosophy (Saunders, Lewis, and Thornhill, 2009).

A methodology that is specifically suited to community based research is collaborative research. Collaborative research is a participatory action methodology that researches with individuals. In addition to the three main research philosophies proposed by Guba and Lincoln, Heron and Reason (1997) suggested that axiology also must take into consideration as a fourth research paradigm. Axiology concerns with the nature of value and reveals "values of being, about what human states are to be valued simply because of what they are" (Heron & Reason, 1997). Following table outlines different ontological, epistemological, and axiological viewpoints of these three research philosophies.

Table 3-1: List of Research Philosophies

	Positivism	Realism	Interpretivism	Pragmatism
<b>Ontology: the researcher's view of the nature of reality or being</b>	External, objective and independent of social actors	Is objective. Exists independently of human thoughts and beliefs or knowledge of their existence (realist), but is interpreted through social conditioning (critical realist)	Socially constructed, subjective, may change, multiple	External, multiple, view chosen to best enable answering of research question
<b>Epistemology: the researcher's view regarding what constitutes acceptable knowledge</b>	Only observable phenomena can provide credible data, facts. Focus on causality and law like generalisations, reducing phenomena to simplest elements	Observable phenomena provide credible data, facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively, phenomena create sensations which are open to misinterpretation (critical realism). Focus on explaining within a context or contexts	Subjective meanings and social phenomena. Focus upon the details of situation, a reality behind these details, subjective Meanings motivating actions	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspectives to help interpret the data
<b>Axiology: the researcher's view of the role of values in research</b>	Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance	Research is value laden; the researcher is biased by world views, cultural experiences and upbringing. These will impact on the research	Research is value bound, the researcher is part of what is being researched, cannot be separated and so will be subjective	Values play a large role in interpreting results, the researcher adopting both objective and subjective points of view
<b>Data collection techniques most often used</b>	Highly structured, large samples, measurement, quantitative, but can use qualitative	Methods chosen must fit the subject matter, quantitative or qualitative	Small samples, in-depth investigations, qualitative	Mixed or multiple method designs, quantitative and qualitative

Source: (Bryman and Bell, 2007)

Philosophy of the research reflects the researcher’s substantial assumptions and they serve as the basis for the research strategy. In most cases, philosophy of the research has numerous categories related to expansive range of disciplines. Particularly, in the field of business studies there are four main research philosophies: positivism, realism, interpretivism, and pragmatism are the research philosophies that are explained by previous empirical studies. As it is shown in figure below, the determination of the research philosophy is placed at the top; therefore it is the prior issue to be enlightened in this research.

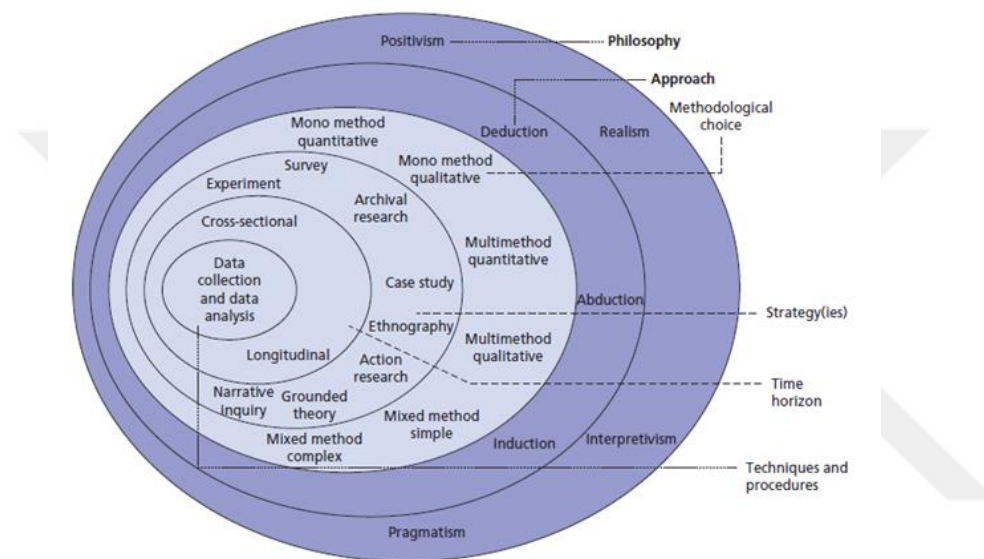


Figure 3-1: Research Philosophy in The Research Onion, Source: Saunders, M., Lewis, P. & Thornhill, A. (2012)

Under the context of current study, in the light of risk, success, cultural factors, the investigation of the drivers of investors in reward-based crowdfunding in Turkey require both “facts” and “data” to make the understanding procedure socially desirable and theoretically viable. From this point of view current study requires to be a pragmatist view of research philosophy. In addition, the nature of reality for current study must be external and free from social actors so that the risk, success, and cultural factors of reward-based crowdfunding can be explained without the influence of external factors. Moreover, the researcher believes that both observable and subjective facts can constitute acceptable knowledge and values play an important role in a research. Therefore, the philosophical stance of current study is pragmatism as it explains all the philosophical underpinnings of current study. As a research philosophy,

pragmatism centers upon the executable results of the research and refuses the forced choice among the research paradigms (Ragab and Arisha 2018). According to Tashakkori and Teddlie (1998) pragmatism is becoming more popular because it gives an opportunity the utilization of mixed method approaches. Consequently, in this article, a pragmatic philosophy has been adopted which is much closer to positivism than interpretivism.

### **3.3 RESEARCH APPROACH**

At the beginning of the study, while the researcher is setting up the research, the information used can be regarded as raw information to a certain extent. This information may not be clear enough during the designing phase. However, the information improved by the researcher during the research may become comprehensible when the research results and outputs are presented (Ketchen and Bergh, 2006). The method by which an investigator prepares to design the theoretical understructure of the study and also which improves and tests the presently existing and/or any new theories; is identified as "the research approach" (Balsley and Clover, 1988). In order to develop a new theory could be used two research approaches: deduction or induction. Deduction approach of research tests theories while induction approach of research develops theories (Balsley and Clover, 1988). Deductive reasoning is the process in which one starts from the more general to the more specific and arguments based on laws, rules and widely accepted principles (Ary et al., 2018). Inductive reasoning is the reverse of deductive reasoning so this approach reaches a theory or conclusion by generalizing from specific observations and examples of the whole category (Ary et al., 2018). Most scholars get together on utilizing the existent theories in order to formulate the hypotheses. These hypotheses which are based on the existent findings (Ketchen and Bergh, 2006) are tested by applying the deductive approach. During testing the existent theories, the deductive approach is used and a rectilinear procedure is followed. So, the researcher here also implements the same method in this research and follows the rectilinear procedure. (Shown in the following figure). For this reason, to be able to improve the hypotheses with regard to the basic

findings mentioned in former studies, the concept of the nascent theory is taken into consideration in this study.



Figure 3-2: The Deductive Research Approach (Bryman and Bell, 2007)

The above figure shows the related procedure followed with the deductive approach of the investigation. It also shows that the deductive approach in an investigation, bridge over between the theoretical issues and previous empirical studies in that investigation. This points out that the hypotheses are formed from the theoretical structure of the former empirical works. So, the researcher aims to improve hypotheses which are structured on former empirical works. By doing so, the investigator plans to test the related hypotheses to match the theoretical study of the research which is at the designing stage (Bryman and Bell, 2007). While running the investigation with the deductive approach, the investigator acts the role of a natural scientist and both the ontological and the epistemological situation of the present research is rationalized. According to the Crotty (1998) there is an association between ontology and epistemology therefore it is difficult to separate from a conceptual perspective. He proposes that ontology should be considered with epistemology. Briefly stated, the view of reality should not be considered separately from the way of knowing about reality (Ragab and Arisha 2017).

### **3.4 RESEARCH STRATEGY**

This section of this chapter discusses about research strategy that this study is going to employ. According to Saunders (2009), the research strategy is general plan that provides the researcher to answer the research question in systematic way. Some of the research strategies truly belong to deductive research approach while some others belong to inductive research approach (Collis and Hussey, 2003). Among different research strategies, experiment, action research, survey, grounded theory, analysis of literature of review, case study analysis, and ethnography are widely used research strategies. Survey is one of the important research strategies that deal with the examination of causative variables between different types of data. ‘The collection of information from a sample of individuals through their responses to questions’ is defined as survey (Check and Schutt, 2012). Survey can use quantitative (e.g. questionnaire), qualitative (e.g. open-ended questions) or mixed strategies. Though, survey is widely used in psychology and social science research (Singleton and Straits, 2009). Primarily, surveys aims at determining the causal relationship between variables i.e. measuring the outcome when changes in one variable affect the other variable. Survey can not only examine the relationship between variables but also measures the magnitude and strength of association between variables. Survey allows the researcher to collect data from the participants at low cost and within a limited time period. Furthermore, survey can be effectively used in exploratory and descriptive researches through facilitating large amount of data from a sizeable population. In addition to that, survey enables a researcher to collect quantitative data that can be analysed by using inferential and descriptive statistics (Check and Schutt, 2012). Survey as a research strategy is generally associated with the deductive approach. Survey allows the collection of data to evaluate hypotheses developed from previous theories (Ebert and Schöndorfer, 2014). Therefore, the strategy of current study has been survey, in order to investigate and explain the causal relationship between decisions to support reward-based crowdfunding projects in Turkey.



### **3.5 RESEARCH METHOD**

Research methods that involves the techniques used for conduction of survey including data collection and analysis is the procedure the investigator structures relation between the investigation methodology and data analysis. There are three kinds of investigation method, qualitative, quantitative and mixed investigation method (Kothari, C. R., 2004). In accordance with the research philosophy, approach, and purpose, researchers have to determine one of quantitative, qualitative or mixed methods. The phenomena is researched by using quantitative methods in which statistical techniques are applied for the collection of countable data and implemented to mathematical models and for data analysis (Creswell,2002). In social sciences, in order to query the connections between the variables obtained outcomes which are estimative, descriptor or confirming, quantitative research is frequently used (Williams 2011). This helps to aim to work on making generalized findings in theory and formula form (Bryman 2012). Quantitative research methods involves surveys, structured observations, experiments and interviews.

On the contrary, the qualitative research is mostly based on words, it is not numerical. For this reason, qualitative research can be defined as the research of findings that are not generated through quantification (Strauss & Corbin 1990). The qualitative research accepts a holistic perspective which aims to make discovery from participating in the real experiences. The main target here is to investigate, discover and commenting the collected data (Williams 2011). The qualitative data consist of text forms which include the descriptive statements with words (Gulati 2009). In order to analyze and reveal the models and motifs appearing from within the data, thematic analysis and content analysis methods are used (Taylor-Power and Renner,2003; Braun and Clarke,2006). Along with the other methods, case studies, grounded theories, content analysis, ethnography, and phenomenological studies are also included in qualitative research methods. In this study's content, the implementation of quantitative investigation has been chosen as the method, because the investigation planned to conduct this study through a survey. Therefore, the researcher anticipated quantitative data could be collected from the desired participants so an online based standardized questionnaire has been conducted. As a result, the researcher planned for applying

quantitative research method to examine the research questions and to make the data analysis.

This study, which follows the flow chart given in Figure 3-3, aims to demonstrate the factors affecting the support of the providers in the crowd funding. First of all, the research subject has been identified, and then the research problem related to subject has been developed. The theoretical model and variables to be used in the research have been identified by a literature review. Next, hypotheses related to the variables have been determined. Later, the universe and sample of those who can support the projects through crowd funding platforms have been identified. In the next step of the research process, the structures related to the measuring instrument to be used in the study have been defined, an item pool has been created and an expert panel has been carried out. Pilot practice has been conducted to test the validity and reliability of the identified structures. After the necessary corrections have been made in the questionnaire form, the process of data collection has started. After that, the collected data is analyzed and the result of analysis results have been interpreted and reported.

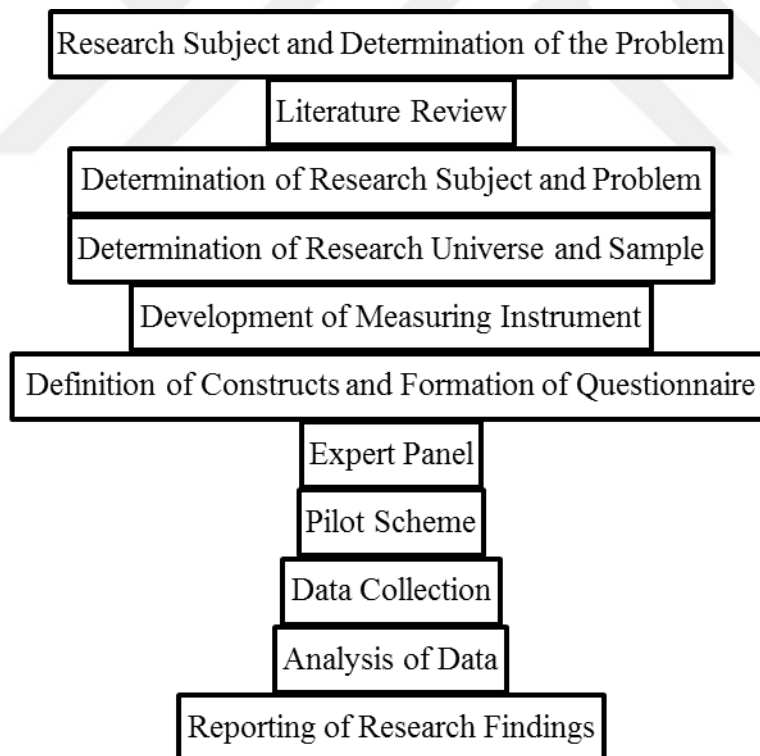


Figure 3-3: The Research Process of the Study

## **3.6 DATA COLLECTION AND ANALYSIS**

### **3.6.1 Primary Data**

Data for this study has been collected from the investors who have invested in through the most popular crowdfunding platforms. However, in this study, only primary data have been collected for the analytical procedure because secondary data on reward-based crowdfunding in the Turkish context was very difficult to obtain. For this reason, the researcher only collected primary data from the investors. In addition, the researcher collected the demographic and socio-economic information of the investors to identify the better understand certain background characteristics of participants, such as their age, income, work situation, marital status, etc. By asking demographic questions, researcher aimed to analyze demographic information about current and potential investors at scale.

### **3.6.2 Questionnaire Design**

In order to research for the relationship between dependent and independent variables, questionnaires are suitable method for data collection (Saunders, 2009). The researcher conducted survey on the investors to collect different data on reward-based crowdfunding from the investors so that the risk, success, and cultural attributes of reward-based crowdfunding could be identified. It has been conducted on the investors from crowdfunding platforms in Turkey. Collaboration has been made with crowd funding platforms during the data collection process of the research. Permission from platform administrators to ensure the participation to the questionnaire by their members has been obtained as a result of talks. The company is in online communication with its members. For this reason, it has been decided to conduct the data collection process in this research via e-mail. The questionnaire is conducted in two different ways via e-mail. The first one is to send the questionnaire in writing in e-mails; the second one is to write down an explanation text regarding the research and questionnaire and to share a separate website link in which the questionnaire is conducted (Lacobucci and Churchill, 2010: 191). In this research, the data collection tool has been transferred to the site of google forms, one of the online sites to prepare a

questionnaire. A text in Appendix 1 has been designed to ensure that the questionnaire link created afterwards has been sent to the members who had submitted comments to the projects published in the web sites that make up the research universe. The introductory part of the questionnaire is an important visual element designed to encourage participants to cooperate. Especially in the questionnaire sent by e-mail, the introduction part is described as the section explaining the questionnaire (Lacobucci and Churchill, 2010: 221). For this reason, the importance and coverage of the research has been explained in the questionnaire and members have been asked to participate. The first questionnaire has been submitted via the Crowd funding platforms' e-mail system to the addresses of the members on 18 January 2018. The number of members who answered the initial form is 121. The second delivery has been carried out on 27 March 2018. Following this reminder the number of members who responded has reached to 210. Data collection instruments have also been sent to the followers via the social media accounts of the Crowd funding platforms. With this, the number of participant has risen to 392. The researcher collected the questionnaire via the same medium. Firstly, the questionnaire was prepared in English then translated into Turkish because participants were members of the crowdfunding platform in Turkey. The general possibility of the respondents to participate in crowdfunding was in the first part of the questionnaire. The intention of the respondent to invest in crowdfunding project is the dependent variable of the analysis. The questions in the second part of questionnaire were related to whether the respondents have participated in crowdfunding previously. The third part of the questionnaire centred upon the key variables of the research. Each variable consisted of various items and participants were expected to rank by signifying degrees of their opinion on a five point Likert scale. Several socio-demographic characteristics of respondents such as age, gender, residence, occupation and education background have been addressed in the last part of the questionnaire. The participants were given the information to complete the survey within 15 minutes.

### **3.6.3 Measurement Development**

The list of the scales used to measure the variables of the conceptual model is given in the table below. All scales used in this study have been used by other researchers previously. Opinion variables based surveys are used for this investigation. The statements here were related to the answerers' feelings about specifically crowdfunding. All of the questions improved here were closed-ended, meaning that those who answered the questions had to choose one of the answers offered to them. In this survey, all items were measured with five-point Likert scale, ranging from 'definitely agree' to 'definitely disagree' or from 'likely' to 'unlikely'. The points in between were not specifically named. Likert scale has been one of the most widely used approach to measure opinions of the participants in the survey and is appropriate way to assess how strongly participants (dis)agrees with a statement. In our survey, such statements were used for independent variables in the model. Dependent variable and independent variables were measured together within a questionnaire. Besides using evaluating and list statements, another type of questions were also used which are named as 'category questions'. This sort of questions is mostly needed for behavioral questions, therefore mainly implemented in the socio-demographic part of this survey. As the examples of category queries, the participators' genders, age, occupation, education, and income were asked.

Table 3-2: Variables of the Conceptual Model

VARIABLE	ADAPTED FROM	ITEMS
<b>INTRINSIC MOTIVATION</b>		
HELPING  OTHERS	Wechsler (2013) based on Gerberm Hui & Kuo (2012)	I want to make a meaningful impact with my contribution. I like to help (creative) people that I feel have authentically good ideas and maybe would not get mainstream support from the public.
ENJOYMENT	Wechsler (2013) based on Harms (2007), Mathwick et al. (2001)	I enjoy supporting crowdfunding projects, not just for the things I receive in return I invest in crowdfunding projects for the pure enjoyment of it
NOVELTY	Wechsler (2013)	One reason why I supported my last project is because I was curious to find out about crowdfunding The project(s) I supported intrigued me because it was something different and new for me.
<b>EXTRINSIC MOTIVATION</b>		
REWARD	Wechsler (2013) based on Gerber, Hui & Kuo (2012), White&Pelozza (2009)  Wechsler (2013)	I have chosen my reward carefully Getting a reward as an outcome of such a project is important to me I only contribute to a crowdfunding project if I get something in return When I fund a project I tend to view it more as a donation than as a way of receiving a reward My contribution entitles me to receive a reward I anticipate my reward to be delivered in a timely manner
PEER PRESSURE	Wechsler (2013) based on White&Pelozza (2009)	If the creator of a project is a friend or acquaintance I would prioritize to support his project When a friend of mine asks me to support her crowdfunding campaign, I would do so because of our friendship I kind of feel obliged to support a project of a friend or acquaintance
<b>SOCIAL RELEVANCE based on Nagy and Obenberger (1994)</b>		
SUPPORT	Ebert and Schöndorfer (2014)	Crowdfunding is a great possibility to support new ventures. I like the idea of opening possibilities for start-ups by supporting them financially via crowdfunding. Crowdfunding is a great opportunity to support an entrepreneurial culture.
CLOSE FINANCING GAP	Ebert and Schöndorfer (2014)	I think it is very difficult for start-ups to get early-stage funding. I support a new venture if I like the idea even though I may not be convinced about the economic success. I like the idea of making it easier for start-ups to receive funding by supporting them with my investment.
ECONOMIC,  SOCIETAL  IMPACT	Ebert and Schöndorfer (2014)	Crowdfunding gives me the possibility to support innovation. I think innovation and entrepreneurship are very important for an economy. Crowdfunding offers the opportunity to support the society, e.g. by creating new jobs.
<b>INNOVATIVE INVESTMENT</b>		

EARLY ADOPTERS	Ebert and Schöndorfer (2014)	I (would) enjoy being involved in the start-up I invested in.
		If I invest(ed) in a new start-up, I (would) want to be one of the first investors
		Among my friends, I'm often the first to try out new things.
		I like to explore new technologies that emerge from the internet
		When I consider making investments, I like to look for new and innovative options.
TRUST	Ebert and Schöndorfer (2014)	It feels safer to invest via my bank instead of using an online platform
		I feel more comfortable investing through my online banking portal than using another online platform.
<b>PERSONAL UTILITY</b>		
SELF-REPRESENTATION	Ebert and Schöndorfer (2014)	I like to talk about my investments.
		I (would) enjoy talking about the start-ups I support financially.
		I (would) enjoy participating in crowdfunding because it provides an interesting conversation topic.
		I (would) share my investments in start-ups online (social media, blogs etc.).
NETWORK	Ebert and Schöndorfer (2014)	I have a strong interest in start-ups / new ventures.
		An investment on a crowdfunding platform would increase /increases my own network.
		I (would) enjoy interacting with the project teams (start-ups).
		I (would) like to interact with other crowdfunders.
<b>ADVOCATE RECOMMENDATION</b> based on Nagy and Obenberger (1994)		
ADVOCATE RECOMMENDATION	Ebert and Schöndorfer (2014)	I would be more likely to invest in a crowdfunding project if it was recommended by friends / family.
		I generally trust investments more if they are recommended by experts.
		I would be more likely to invest in a crowdfunding project if it was recommended by an expert.
HERDING	Ebert and Schöndorfer (2014)	Generally, I first wait to see how other people decide.
		I tend to follow new movements only if a certain amount of people participates.
		I take some time to observe the behavior of others before making a decision.
		I am more likely to participate in crowdfunding if many people participate.
<b>NEUTRAL INFORMATION</b> based on Nagy and Obenberger (1994)		
COVERAGE IN FINANCIAL PRESS	Ebert and Schöndorfer (2014))	It is important for me what the financial press writes about particular investments
COVERAGE IN GENERAL PRESS		Before making an investment decision, I get informed in the financial press.
		It is important to me what the general press publishes about investments
		If the general press published a positive article about crowdfunding, I would be more likely to invest.

(Source: Own Draft)

### **3.6.4 Expert Panel**

In order to measure the variables of the research the relationship between the developed scale and what is intended to be measured needs to be consistent. For this reason, the scales used in similar applications and models in the literature have been scanned and an item pool has been created with the ones that are appropriate for the purpose of the research. Expert panel has been conducted to test the scale that has been deemed to be composed of appropriate items, to test if it covers the features intended to be measured (content validity), and to test the robustness of the item (construct validity) (Yurdagül, 2005). Content validity can be explained as the level of the representation by the items used in the scale of the variables that make up the models. It is argued that expert opinion should be used to identify the appropriateness of the items in order to ensure content validity (De Vellis, 2003).

Expert panel has been organized for the measurement of the content and construct validity of the research which handles the attitudes of the supporters in crowd funding. The main purpose of the research is to demonstrate the variables that affect decision making process and to group these expressions under factor topics. For this reason, the structures used in the context of behavioral finance, investors' decision making process and of the relevant literature have been examined in detail and possible scale items have been written. In the questionnaire form there are expressions of the factors that are deemed to affect the behaviors of the supporters (adapting the prepared scale items developed within the framework of behavioral finance theory to the purposes of the study). A panel has been organized on the date of 8 January 2018 with the participation of three experts from the fields of Entrepreneurship and Finance, in order to get their views on the appropriateness of these scales for the structures and the meaningfulness and clarity of them. During the panel, experts' evaluations, suggestions and opinions have been received. In accordance with the expert opinions and suggestions, adjustments have been made on the items of the scale which are not suitable for the structure, difficult to understand and have close meanings.



### **3.6.5 Pilot Study**

The questionnaire form prepared after the conclusion of works of the expert panel has been subjected to pilot scheme so that the preliminary tests of the items included in the questionnaire instrument can be carried out. Pilot scheme has been conducted with the sample selected from members of arikovani.com and fongogo.com, which constitute the research universe. A questionnaire has been sent via e-mail to some members who had commented on the support calls to the projects previously published on the website. As a result of the 1-month data collection process, 121 returns were received, but 1 of respondents' answers has been excluded due to inappropriate remarks and the feedbacks from 120 respondents have been included to the assessment. Measuring of reliability and validity of the variables was the main objective of conducting the pretest. In the current study, Cronbach's Alpha was used to assess the internal consistency. Cronbach's alpha, developed by Lee Cronbach in 1951, is a coefficient of reliability (Saunders et al., 2009).

In addition to reliability test, exploratory factor analysis has been used for the pre-evaluation of the items. The factor analysis is a convenient tool to bring inter correlated items together so the researcher could gain clear data (Rietveld & Van Hout 1993). In accordance with the analyses which has its results shared in Appendix 2, it has been identified that some items in the measurement instrument do not function and they have been removed from measurement instrument. The main purpose of Factor Analysis is to reach to simplified conceptual model of a set of measured variables (Fabrigar et al.1999). After the pre-test factor analysis, 4 items were excluded from the questionnaire, because of single items loaded on an individual factor or the combination of different items to one factor did not seem feasible from a content viewpoint. The factor analysis has pointed out that most items are often loaded with the targeted factors. This result indicates that the factors are consistent with the variables proposed in the conceptual framework. The summary of Cronbach's alpha values and the results of the factor analysis for all items in subscales used right after the pretest are presented in Appendix 2.

### 3.6.6 Sampling

The sampling is an important influence on the estimation of the quantity of confirmatory factor analysis to give the accurate results, but there is no clear consensus about how many sampling numbers should be (Waltz, Strickland and Lenz, 2010). If multivariate analyses are to be applied in the research, the specific conditions required by these analyses should be taken into account in terms of sampling size. In addition to the recommendations given in the literature, it is necessary to consider criteria such as the distribution of the data for the number of samples, number of items, and complexity of the model. The researcher planned to collect data from the investors of Crowdfunding Platforms in Turkey. The population of this study was open and might be any number. The population of the research forms of people who are the members of crowdfunding platforms in Turkey and who comment on the announced projects. There are different approaches to determining the number of samplings to represent the population. Acceptable limits for the number of sampling sufficient for Comfrey and Lee (1992: 217) are as follows; 50- very weak; 100-weak; 200- acceptable; 300-good; 500 - very good and 1000 is excellent. Also, it is known that the minimum number of observations in the study is proportional to the number of items. In the related literature, various ratios are accepted as appropriate. According to Gorsuch (1983), 5: 1 ratio, that is to say, observations per item, is required. On the other hand, Pedhazur (1997) argues that this ratio should be 15: 1 or 30: 1 according to the hypothesis of normality in the analyses (Yurdagul, 2005). Nunnally (1978) and Everitt (1975) stated that there is an acceptable ratio of 10: 1. (Osborne and Costello, 2004; Kline, 2011:12). Besides, it is argued that the effect of the size of the model on the number of samplings should also be taken into consideration (Hair et al., 2010). For this reason, the number of observed variables and the complexity of the model are paid regard to the calculation of the sampling size. According to the 5:1 rule 50 items in the model indicates that 250 surveys should be collected. It was not possible for research to reach the entire population during the data collection process. Therefore, the data collection tool has not been sent to the entire population. In this research, as many members as possible were tried to be reached and only could be able to receive feedback from 392 members.

### **3.7 STATISTICAL TECHNIQUES USED IN DATA ANALYSIS**

The survey responses collected in the study were analyzed and interpreted by using SPSS for Windows 22.00 and AMOS 22.0 programs. Confirmatory factor analyzes of the scales used in the research were made in the AMOS program and cronbach's alpha values were calculated. In addition, structural equality modeling and moderator models have been investigated by the analysis applied in the AMOS program. Structural Equation Modeling has been used as a data analysis method in order to reveal the causality relationship between variables built in the research model. The structural equation model, which can be considered as a whole of multivariate analysis techniques, enables that the predictive structural relationship between the variables in the regression analysis and the factor structures obtained in factor analysis to be obtained in a single analysis. (Cokluk, Sekercioğlu and Buyukozturk, 2012). Structural equation modeling is a powerful statistical technique that also incorporates measurement errors into the model, taking into account measurement errors that are correlated with each other, and revealing the relationship between dependent and independent variables (Taskin and Akat, 2010). Structural equality modeling aims to determine the power and the direction of the possible relationship between the theoretical frameworks established by the researcher based on the literature and the variables involved in the model. Structural equation modeling is used to determine whether the hypotheses formed by the predicted relations in the model are confirmed by the obtained data (Simsek, 2007). In multivariate analyzes, the relationship between dependent and independent variables can be revealed. In the structural equation model, it is possible to carry out analyzes related to this relationship as well as the relationship between different but related dependent variables (Hair, Black, Babin and Anderson, 2010). Therefore, in this research, it is aimed to test the whole of the relations between the variables thought to exist theoretically by structural equation modeling. However, it is difficult to understand whether the variables discussed in the model are dependent or independent variables. For this reason, when the model is examined, the concepts of internal and external variables are utilized. External variables are variables that can not be predicted by other variables in the model. Internal variables are the variables predicted by other variables

in the model. The important point here to pay attention is that external variables can be predicted by some variables not covered in the model (Simsek, 2007).

Structural equality modeling allows for more reliable statistical estimation by enabling analysis with implicit variables. In particular, it allows the identification of the relationships between dependent and independent variables that are theoretically established by the inclusion of measurement errors in the estimation process on a model. Relationships between variables are usually analyzed without regard to the reliability of the variables or the measurement errors. It is assumed that a zero error has occurred in the measurement. However, in the structural equation model, the relationships between variables are described by taking measurement errors into consideration (Cokluk et al., 2012). Implicit variables are variables that are described by some observable and measurable variables, which are not directly observable theoretical constructs (Hair et al., 2010). Implicit variables can be measured by the observed variables that make up the items used in the measurement tools (Şimşek, 2007). Observed variables generated in this study are given in detail. Structural equality models are considered in two parts. The first one, named as measurement model, includes the used analysis, which connects the observed variables to implicit variables with explanatory factor analysis. This model is a model where implicit variables and all non-directional relations are calculated. The structural equality model is the beginning of the analysis. The second is the structural model. The structural model is a model applied where the implicit variables are connected to each other with simultaneous equality systems. (Cokluk et al., 2012)

### **3.7.1 Testing the Measurement Model**

Each structure created in the structural model must be measured reliably and effectively. For this purpose, the measurement model was tested and it was researched whether the materials included in the measurement tool were reliable and valid. In the study, an internal consistency analysis was performed first and then the measurement model was tested by performing exploratory and confirmatory factor analysis.

### 3.7.2 Internal Consistency

Validity and reliability of the scale used in an investigation are important in terms of research results. A scale should be tested for reliability and validity before use. The reliability of a scale shows the degree of giving the same results of that scale when the same sampling is applied at different times. In this sense reliability is an indicator to what extent consciously answered the questions to measure a variable (Ozdoğan and Tuzun, 2007). In this study, Cronbach's Alpha model will be used when reliability analysis is performed. Cronbach's alpha is the value of compliance with correlations between questions. Cronbach's alpha indicates in the total level of reliability of the questions under the value factor. When Cronbach's Alpha value is 0.60 or greater, the scale is considered to be reliable. However, when the number of questions is small, this limit can be regarded as 0.60 or more. Table 3-3 gives the Cronbach alpha coefficients of the scale items related with the structures used in the research model. When Table 3-3 is evaluated;

**Table 3-3: Cronbach's Alpha Internal Consistency Range**

<b>Cronbach's Alpha</b>	<b>Interpretation</b>
0,80-1.00	Highly Reliable
0,60-0,80	Reliable
0,40-0,60	Slightly Reliable
0,20-0,40	Unreliable
0,01-0,20	Unacceptable

Source: (Kalaycı, 2006)

After the pre-test analysis, factor analysis was applied 50 items. The 3 items were removed from the questionnaire, because the factor load was low ( $FL < 0.50$ ). Reliability value calculated from the 47 items which remained from the analysis is found as (0.951). With this value, the complete of the scale takes part in "high reliability" value. It is important that the participants express the scale items are understood with the meaning it is intended. The reliability values of all the sub-dimensions included in the scale are also calculated separately. According to this;

- It is understood that the reliability of the scale (0.813) of social relevance which takes part in factor analysis with 9 items is at the "high level of reliability" category. The values obtained from the sub-dimensions of this scale are, (0.768) for impact dimension

and (0.771) for support dimension. Both sub-dimensions appear to be in the "quite reliable" level.

- Innovation investment scale with 5 items has reliability (0.803) at "quite level of reliability". The values obtained from the sub-dimension of this scale are, (0.712) for the early adopters sub-dimension and (0.656) for the trust sub-dimension. It is understood that both sub-dimensions appear to be in the "quite reliable" level.
- The personal utility scale which takes place in factor analysis with 8 items has the rank of "quite level of reliability" in Cronbach's Alpha coefficient with (0.832) value. The values obtained from the sub-dimensions of this scale are, (0.707) for the self-presentation sub-dimension and (0.761) for the network sub-dimension. It is seen that both sub-dimensions are in the "quite reliable" level.
- The advocate recommendation scale which takes place in analysis with 7 items has the rank of "high level" of reliability with (0.808) value. The values obtained from the sub-dimensions of this scale are, (0.701) for the advocate recommendation sub-dimension and (0.711) for the herding sub-dimension. It is seen that both sub-dimensions are in the "quite reliable" level.
- It is understood that in the analysis, the neutral information scale with 4 items was found to have a Cronbach's Alpha coefficient (0.741) at "quite reliable" level.
- Intrinsic motivation scale with 6 items in the analysis shows that Cronbach's Alpha coefficient (0.845) takes place at the level of "high level reliability". The values obtained from the sub-dimensions of this scale are, (0.651) for the helping others sub-dimension and (0.661) for the enjoyment sub-dimension. It is seen that both sub-dimensions are in the "quite reliable" level.
- It is understood that the extrinsic motivation scale with 8 items was found to be at Cronbach's Alpha coefficient (0.887) at the "high level of reliability" level. The values obtained from the sub-dimensions of this scale are, (0.819) for the reward sub-dimension with "high reliable" level and (0.602) for the peer pressure sub-dimension with "quite reliable" level.

Table 3-4: Cronbach's Alpha Values of the Every Item

Scale	Number of Items	Cronbach's Alpha
<b>TOTAL</b>	<b>47</b>	<b>0.951</b>
<b>Social Relevance (SR)</b>	<b>9</b>	<b>0.813</b>
Impact (IMP)	3	0.768
Support (SPR)	6	0.771
<b>Innovation Investment (II)</b>	<b>5</b>	<b>0.803</b>
Early Adopters (EA)	3	0.712
Missing Trust (TR)	2	0.656
<b>Personel Utility (PU)</b>	<b>8</b>	<b>0.832</b>
Self Representation (SR)	4	0.707
Network (NW)	4	0.761
<b>Advocate Recommendation (AR)</b>	<b>7</b>	<b>0.808</b>
Advocate Recommendation (ADR)	3	0.701
Herding (HR)	4	0.711
<b>Neutral Information (NI)</b>	<b>4</b>	<b>0.741</b>
<b>Intrinsic Motivation (IM)</b>	<b>6</b>	<b>0.845</b>
Helping Others (HO)	2	0.651
Enjoyment (EJ)	4	0.661
<b>External Motivation (EM)</b>	<b>8</b>	<b>0.887</b>
Reward (RW)	5	0.819
Peer Pressure (PP)	3	0.602

### 3.7.2.1 The Exploratory Factor Analysis Results of the Scale

Factor analysis is a multivariate method used for data reduction purposes and it is used to determine the number of independent variables that contribute by describing a variable connected to more than one variable and the factor loads of these independent variables. One of the most important aims of this analysis is to investigate the source of dependence between variables. In these analyzes, the relations between all variables are examined. Based on these relations, it is ensured that the data are presented in a more meaningful manner and in summary. (Turgut and Baykul, 1992)

Factor analysis has four stages:

1. Bartlett's test of sphericity is calculated. This test is used to check that the original variables are sufficiently correlated and examines the hypothesis that "the correlation matrix equals identity matrices". This test should be significant ( $p < 0.05$ ), the rejection of the hypothesis means that there is a correlation between the variables, and the factor analysis can be applied to the variables.

2. The value of KMO (Kaiser-Meyer-Olkin) must be calculated. Because the KMO is the statistic that gives information about whether the sample is sufficient for analysis. KMO returns get values between 0 and 1. The closer to 1 the sample is the more suitable for factor analysis. Small KMO values give the result that the application of factor analysis is not appropriate. In other words, the correlation between two variable pairs cannot be explained by other variables so the results of the factor analysis probably may not be meaningful. The classification in Table 3-1 has been introduced for these values.

Table3-5: Interpretations of KMO Measure

<b>KMO VALUE</b>	<b>INTERPRETATION</b>
0,9 and above	Marvelous
0,8-0,9	Meritorious
0,7-0,8	Middling
0,6-0,7	Mediocre
0,5-0,6	Miserable
Under 0,5	Unacceptable

Source: (Turgut and Baykul 1992)

3. The number of factors that best represent the data is determined by the percentage of total variance explained by each factor. The total variance is the sum of the variances of each variable. The total variance explained by each factor is the eigenvalues. Since variable variances are equal to each other, factors with lower variance are not considered. Shortly, the number of factors to be modeled is the number of factors whose eigenvalues are more than one.

4. The final step of factor analysis is the calculation of factor loads. The factor loads must be at least 30. While developing the scale, the factor load was accepted at least 50 and above. The consistency of the items with each other was also examined while developing the scale. (Semerci C., 2004)



Table 3-6: Sample Size Requirements

LOADING FACTOR	MINIMUM SAMPLE SIZE
,75	50
,70	60
,65	70
,60	85
,55	100
,50	120
,45	150
,40	200
,35	250
,30	350

Source: (Comfrey and Lee, 1992)

Table 3-7: The Result of Exploratory Factor Analysis

C	F	ITEMS	FL	VE	
EXTRINSIC MOTIVATION	REWARD	My contribution entitles me to receive a reward.	,824	6,263	
		I only contribute to a crowdfunding project if I get something in return	,808		
		I anticipate my reward to be delivered in a timely manner.	,696		
		Getting a reward as an outcome of such a project is important to me	,671		
		I have chosen my reward carefully.	,637		
EXTRINSIC MOTIVATION	PEER PRESSURE	If the creator of a project is a friend or acquaintance I would prioritize to support his project.	,862	5,083	
		I kind of feel obliged to support a project of a friend or acquaintance.	,800		
		When a friend of mine asks me to support her crowdfunding campaign,I would do so because of our friendship	,698		
INTRINSIC MOTIVATION	HELPING OTHERS	I want to make a meaningful impact with my contribution	,736	2,198	
		I like to help (creative) people that I feel have authentically good ideas and maybe would not get mainstream support from the public	,661		
	ENJOYMENT	One reason why I supported my last project is because I was curious to find out about crowdfunding	,731	4,135	
		I invest in Crowdfunding projects for the pure enjoyment of it.	,638		
PERSONAL UTILITY	SELF REPRESENTATION	I enjoy supporting Crowdfunding Projects not just for the things I receive in return	,574	6,717	
		The project(s) I supported intrigued me because it was something different and new for me.	,545		
		I (would) enjoy participating in crowdinvesting because it provides an interesting conversation topic.	,696		
		I (would) share my investments in start-ups online (social media, blogs etc.).	,698		
	NETWORK	SELF REPRESENTATION	I (would) enjoy talking about the start-ups I support financially.	,620	6,470
			I like to talk about my investments.	,594	
		NETWORK	An investment on a crowdinvesting platform would increase /increases my own network.	,724	
			I (would) like to interact with other crowdinvestors	,717	
			I (would) enjoy interacting with the project teams (start-ups).	,677	

		I have a strong interest in start-ups / new ventures.	,632			
SOCIAL RELEVANCE	SUPPORT	I like the idea of making it easier for start-ups to receive funding by supporting them with my investment.	,811	7,843		
		I like the idea of opening possibilities for start-ups by supporting them financially via crowdfunding.	,810			
		Crowdfunding gives me the possibility to support innovation.	,807			
		Crowdfunding is a great possibility to support new ventures.	,706			
		I support a new venture if I like the idea even though I may not	,612			
		I (would) enjoy being involved in the start-up I invested in.				
	IMPACT	Crowdfunding is a great opportunity to support an entrepreneurial culture.	,692	14,14		
		I think innovation and entrepreneurship are very important for an economy	,609			
		Crowdfunding offers the opportunity to support the society, e.g. by creating new jobs.	,503			
NEUTRAL INFORMATION		It is important for me what the financial press writes about particular investments	,845	5,369		
		It is important to me what the general press publishes about investments	,826			
		If the general press published a positive article about crowdfunding, I would be more likely to invest.	,629			
		Before making an investment decision, I get informed in the financial press	,599			
INNOVATIVE INVESTMENT	Early adopters	Among my friends, I'm often the first to try out new things.	,802	3,409		
		I like to explore new technologies that emerge from the internet.	,731			
		When I consider making investments, I like to look for new and innovative options.	,552			
	Trust in online Platforms	I feel more comfortable investing through my online banking portal than using another online platform.	,794	3,379		
		It feels safer to invest via my bank instead of using an online platform.	,738			
ADVOCATE RECOMMENDATION	ADVOCATE RECOMMENDATION	I generally trust investments more if they are recommended by experts.	,813	5,764		
		I would be more likely to invest in a crowdfunding project if it was recommended by an expert.	,781			
		I would be more likely to invest in a crowdfunding project if it was recommended by friends / family.	,607			
	HERDING	I tend to follow new movements only if a certain amount of people participates.	,873			
		I take some time to observe the behaviour of others before making a decision.	,816			
		Generally, I first wait to see how other people decide	,791			
		I am more likely to participate in crowdfunding if many people participate.	,673			
	TOTAL					70,77

Kmo : ,850 Bartlett's Test Of Sphericity:  $P < 0.05$  C:Component FL: Factor Loading Ve: Variance Explained Extraction Method: Principal Component Analysis.

Factor Analysis were made by applying a single factor analysis to 7 number of scales used in the research. The data set is suitable to the factor analysis on “perfect” level since the KMO value of the factor analysis is (.850) and the probability value of the Bartlett’s test is  $p < 0,05$ . The total explanatoriness obtained in the applied factor analysis was found to be 70.77 %. In some dimensions, it appears that 1 or 2 items are placed in the other dimension which is very close to itself. For example, the item of “I (would) enjoy being involved in the start-up I invested in.” which should actually take place in early adaptors dimension, has taken place in “Support” dimension that is very close to early adaptors dimension.

The category of extrinsic motivation in factor analysis formed reward dimension with 5 items. The factor loading values are in the range (.637; .824). It is understood that the explanatory ratio of the reward dimension is 6,263 %. The peer pressure dimension containing 3 items has the factor loading value (.698; .862), the explanatory rate is 5,083 %.

The intrinsic motivation scale created 2 dimension in this study with 6 expressions. The enjoyment dimension’s factor loading value is in the range of (.545; .731), Helping others dimension’s factor loading value is in the range of (.661; .736) the explanatory rate is % 6,333.

The first dimension existing in the analysis is the Self-Representation dimension of the personal utility scale. The self representation dimension consists of 4 items and is in the range of factor load values (.594; .696). It is understood that the explanatory ratio of this dimension is 6.717 %. The second dimension in factor analysis is the network dimension of the scale. This dimension composed of 4 items and the factor loading values are in the range of (.632; .724). It is understood that the explanatory ratio of this dimension is 6.470 % .

Although the social relevance scale was composed of 9 items in the questionnaire survey which was done in the adapted study, an expression was made because of the fact that this study alone formed 2 dimension in total. The 6 items of this scale form support dimension and 3 items form economic and social impact dimension. The support dimension is in the range of factor load values (.612; .811). Its explanatory ratio is % 7.843. The factor loading value of impact dimension is in the range of (.503; .692), explanatory ratio is % 14.14.

The Neutral Information scale also forms a single dimension with 4 items. It exist in factor loading value (,599; 845) range, and has an explanatory ratio of 5.369% .

In the early adaptors dimension which consist of 4 items under innovative investment scale, an expression has been removed differently from the adopted scale. The factor loading value of the dimension exist in (,552; ,802) range, explanatory ratio is 3.409 % . The factor loading value of trust in online platform dimension exists in (,738; 794) range, explanatory ratio is 3.379 % .

The advocate recommendation scale consist of 3 items forming advocate recommendation dimension. Factor Loading value exists in (,607; ,813) range, explanatory ratio is 4,148 % . Herding dimension consisting of 4 statements and lies in factor loading value (,673; ,873) range. The scale explanatory ratio is 5.764 %

The questionnaire has been rearranged with the changes made after the factor analysis. The final version of the questionnaire is included in Table 3-7. The research model has been reconstructed with the factor structures obtained after the exploratory factor analysis. In line with this model, it has been decided to remove the scale items which do not constitute the factor structures and to examine the influence of other factors.

### 3.7.2.2 The Confirmatory Factor Analysis Results of the Scale

Confirmatory factor analysis (CFA) is a powerful method used to evaluate construct validity. Confirmatory factor analysis scope is explained as; “Confirmatory factor analysis is used to test for which factors are in high relation to the variable groups that is obtained by the explanatory factor analysis. It is also used to determine whether the variable groups contributing to the specified number of "k" factors are adequately represented by these factors” (Ozdamar, 2004). In the confirmatory factor analysis which is a kind of hypothesis test, it is tried to prove that there is a relation between the observed variables that has a theoretical basis and implicit variables and also there is a relation of the implicit variables with each other (Cokluk, et al. 2012). In the exploratory factor analysis, the researcher has no role in determining the factors. The factor loadings of the variables are automatically calculated by the statistical programs used. In confirmatory factor analysis, researchers have a chance to predict in advance which factors will be formed by the factors. In this way, it is ensured that whether the

factor loadings are formed by the predicted variables (Simsek, 2007). Confirmatory factor analysis is a technique in which factor relations and the measurement model are verified (Hair et al., 2010). For this reason, it was tested whether the factors obtained from the exploratory factor analysis were confirmed with the constructs formed with theoretical bases. The factors forming the measurement model to be used in the confirmatory factor analysis were determined and analysis is done. The observed variables and implicit variables used in the measurement model are given in Table 3-8. Whether the individual measurement models for each scale were meaningful with the Confirmatory Factor Analysis was investigated by using the AMOS 22.0 package program. When the results are examined, the measurement models were seen to be acceptable. Afterwards, the suitability of the full model is evaluated by the assistance of good fit measures. As the sample size increases, chi-square value gets higher specifically in the samples bigger than 200 and the statistical significance level of chi-square test gets lower (Meydan, C., 2011). In the evaluation of the confirmatory factor analysis of the scales used for the research and whether the general tested models are suitable, it was decided due to the investigation results of;

- a-) chi-square ( $\chi^2$ ), (chi-square value/freedom degree) which is corrected by the degree of freedom
- b-) other goodness of fit indexes and
- c-) the values in the standardized residual covariance matrix.

**Table 3-8: Fitness Indexes for Confirmatory Factor Analysis**

<b>Name of Index</b>	<b>Good Fit</b>	<b>Acceptable</b>
$\chi^2 / df$	$0 \leq \chi^2/df \leq 2$	$2 < \chi^2/df \leq 3$
GFI	$\geq 0,90$	0,85-0,89
CFI	$\geq 0,97$	$\geq 0,95$
SRMR	$\leq 0,05$	$,06 \leq SRMR \leq ,08$
RMSEA	$\leq 0,05$	$,06 \leq RMSEA \leq ,08$

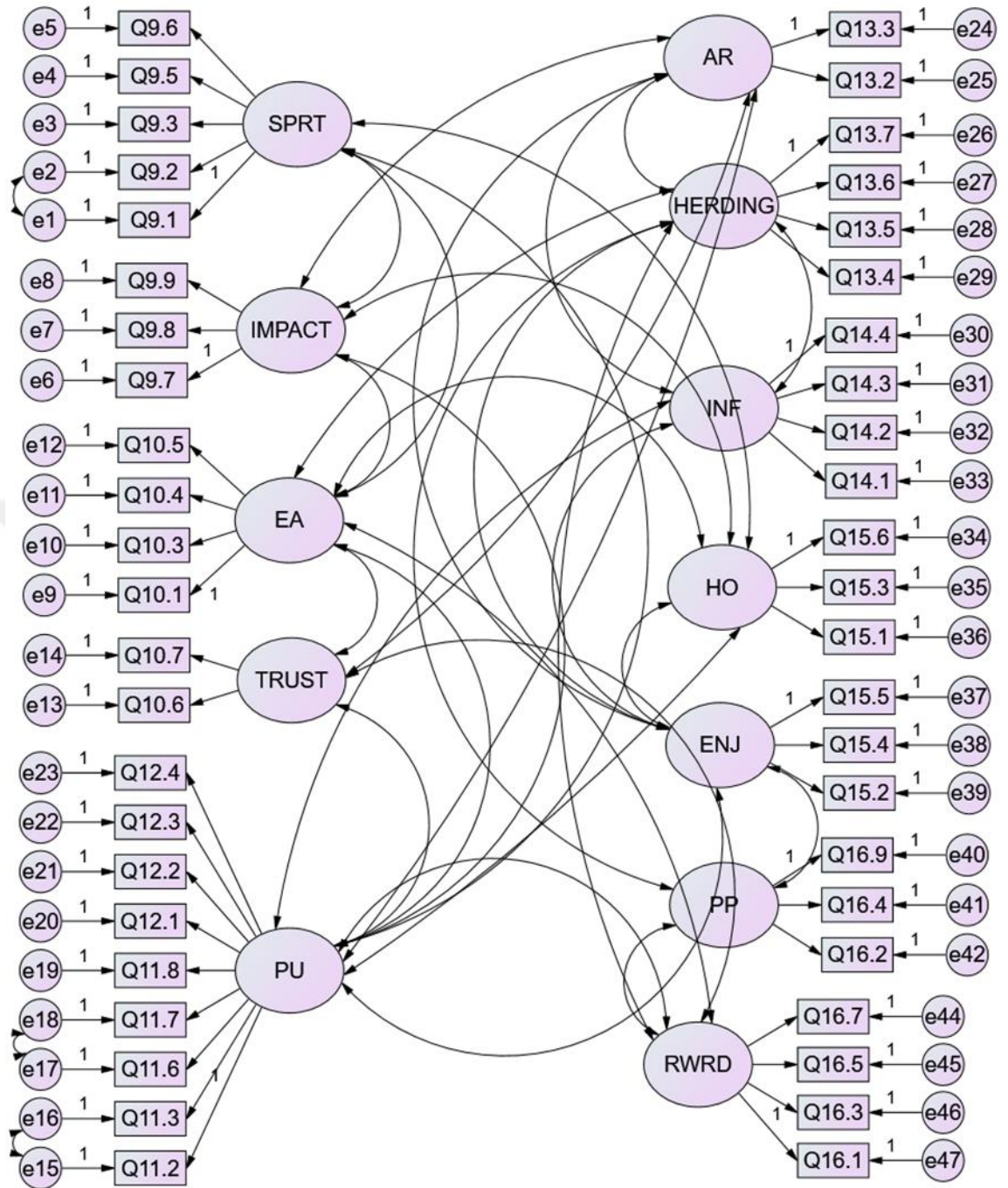


Figure 3-4: The Confirmatory Factor Analysis used in the Study.

In the Confirmatory Factor Analysis (CFA) done with remaining 47 items, the factor load values are in (0.50; 0.87) range. It is understood that CFA is meaningful since in the Confirmatory factor analysis the model test values are found to be  $\chi^2$  (3641, 800),  $\chi^2/df$  (3.878). It is understood that the Confirmatory Factor analysis of the scale used in the survey is valid because the model's compliance index values are within the acceptable limits of GFI (.909), CFI (.951), SRMR (.063), RMSEA (.077). Factor loadings and covariance values obtained from the analysis are examined in detail in the following tables:

Table 3-9: Regression Coefficients and P-values

Items	Effect	Factor	Estimate	Std	P
Q9.1	<---	SPRT	1,000	,599	***
Q9.2	<---	SPRT	1,307	,754	***
Q9.3	<---	SPRT	1,019	,490	***
Q9.5	<---	SPRT	1,247	,772	***
Q9.6	<---	SPRT	1,293	,769	***
Q9.7	<---	IMPACT	1,000	,727	***
Q9.8	<---	IMPACT	1,003	,752	***
Q9.9	<---	IMPACT	1,130	,840	***
Q10.1	<---	EA	1,000	,473	***
Q10.3	<---	EA	1,590	,609	***
Q10.4	<---	EA	1,760	,733	***
Q10.5	<---	EA	1,506	,681	***
Q10.6	<---	TRUST	,546	,579	***
Q10.7	<---	TRUST	1,000	,930	***
Q11.2	<---	PU	1,000	,591	***
Q11.3	<---	PU	,916	,597	***
Q11.6	<---	PU	1,013	,499	***
Q11.7	<---	PU	1,240	,655	***
Q11.8	<---	PU	1,312	,546	***
Q12.1	<---	PU	1,397	,822	***
Q12.2	<---	PU	1,298	,721	***
Q12.3	<---	PU	1,211	,778	***
Q12.4	<---	PU	1,267	,749	***
Q13.3	<---	AR	1,000	,932	***
Q13.2	<---	AR	,946	,904	***
Q13.7	<---	HERDING	1,000	,723	***
Q13.6	<---	HERDING	1,212	,864	***
Q13.5	<---	HERDING	1,196	,827	***
Q13.4	<---	HERDING	,991	,746	***
Q14.4	<---	INF	1,000	,715	***
Q14.3	<---	INF	1,196	,926	***
Q14.2	<---	INF	1,019	,781	***
Q14.1	<---	INF	,834	,629	***
Q15.6	<---	HO	1,000	,695	***
Q15.3	<---	HO	,980	,623	***
Q15.1	<---	HO	1,083	,694	***

Q15.5	<---	ENJ	1,000	,680	***
Q15.4	<---	ENJ	,979	,662	***
Q15.2	<---	ENJ	,690	,454	***
Q16.9	<---	PP	1,000	,765	***
Q16.4	<---	PP	,903	,724	***
Q16.2	<---	PP	1,094	,844	***
Q16.7	<---	RWRD	1,448	,665	***
Q16.5	<---	RWRD	1,260	,627	***
Q16.3	<---	RWRD	1,339	,691	***
Q16.1	<---	RWRD	1,000	,593	***

The covariance values and correlation values between the sub-dimensions are in the table 3-10. As the probability values which are calculated in all of these values found to be ( $p < 0.05$ ), they are statistically significant. It is understood that the highest correlation value among the correlation values is between support and helping others (0.834). This indicates that there is a strong correlation between support and helping others. Again in the same direction and significant relationships were found according to the relation degrees; in order, (0.774) between support and impact, (0.718) between Impact and helping others, (0.713) between personal utility and helping others, (0.648) between impact and helping others, (0.634) between personal utility and early adopters, (0.553) between early adopters and helping others, (0.515) between support and early adopters.

Table 3-10: Inter-dimensional covariance and correlation values obtained from confirmatory factor analysis.

Componenet		component	Estimate Cov	Estimate Cor.	P
SPRT	<-->	IMPACT	,255	,774	***
EA	<-->	TRUST	,134	,251	***
AR	<-->	HERDING	,307	,360	***
HO	<-->	ENJ	,156	,354	***
PP	<-->	RWRD	,240	,441	***
IMPACT	<-->	EA	,132	,498	***
TRUST	<-->	PU	,064	,090	,004
HERDING	<-->	INF	,335	,469	***
ENJ	<-->	PP	,197	,279	***
EA	<-->	PU	,147	,634	***
AR	<-->	INF	,369	,437	***
EA	<-->	HERDING	-,084	-,237	***
PU	<-->	HO	,230	,713	***
EA	<-->	HO	,134	,553	***
AR	<-->	ENJ	,319	,420	***
PU	<-->	ENJ	,040	,095	,013
SPRT	<-->	HO	,251	,834	***
IMPACT	<-->	HO	,265	,718	***
IMPACT	<-->	AR	,069	,109	,003



HERDING	<-->	ENJ	,218	,339	***
IMPACT	<-->	PU	,229	,648	***
SPRT	<-->	PU	,210	,728	***
PU	<-->	INF	,059	,126	***
PU	<-->	AR	,055	,099	,003
PU	<-->	RWRD	,043	,133	***
EA	<-->	RWRD	,075	,308	***
TRUST	<-->	RWRD	,160	,213	***
HERDING	<-->	PP	,186	,235	***
SPRT	<-->	EA	,111	,515	***
INF	<-->	ENJ	,186	,292	***
TRUST	<-->	AR	,190	,148	***
HERDING	<-->	RWRD	,090	,181	,001

### 3.7.3 The Path Analysis

For the study model, four path analyzes were applied with the variables calculated for moderator effects to be seen and tested. As the main model, the variables calculated as the sub-dimensions obtained from the scales used in the research were used. In the main model, the effects of nine independent variables on the dependent variable which is intention were examined. While the motivation variables were taken as the moderator in the first of the model, helping others, enjoyment, reward and peer pressure variables, which are the sub-dimensions of the motivation variable, were taken as moderator in the other path analyzes. In the models in which moderator relations are examined, standard conversion values of all variables are calculated and all parameters are calculated on these values in the model.

#### 3.7.3.1 The Main Model Used in Research

The model that expresses the direct effects of the independent variables likely to affect the investment intention in the research on the investment intent will be tested as the principal model. In the later models, the variables that will be effective with the motivation variable and the moderating role of the sub-dimensions will be tried to be determined. Path analysis models are applied where observed variables are used. Path analysis models are used to modeling of more complex correlations of observed variables using correlation coefficients and regression method. However, the model may contain multiple independent observed variables and multiple dependent observed

variables. For this reason, path analysis models can test more complex models than regression models. Path analysis theoretically involves solutions of simultaneous regression hypotheses based on the relations positioned among observed variables within the path model (Raykov and Marcoulides, 2006).

**The desired number of the sample size ( $n > 150$ );** this requirement is replied when the sample size in the data set is ( $n = 392$ ).

**Linearity, not having multiple linear connections.** It is assumed that there are linear relationships among the variables in the model and that there is no multiple linear dependence between the variables.

**No extreme values in the data set;** the observed variables do not have extreme value since the Likert type measurement model is used.

**Observed and latent variables have multivariate normal distribution;** According to the analysis result, the multivariate kurtosis value was calculated as  $19,138 > 10$  and the critical ratio (c.r.) as  $12,229 > 1,96$ , and it was determined that the data set does not satisfy the assumption of multivariate normality. The multivariate normality condition could not be provided in the observed variables but it is assumed that this condition is supplied as it was seen that the skewness and the kurtosis values calculated for each variable ranks between  $(-2; +2)$ .

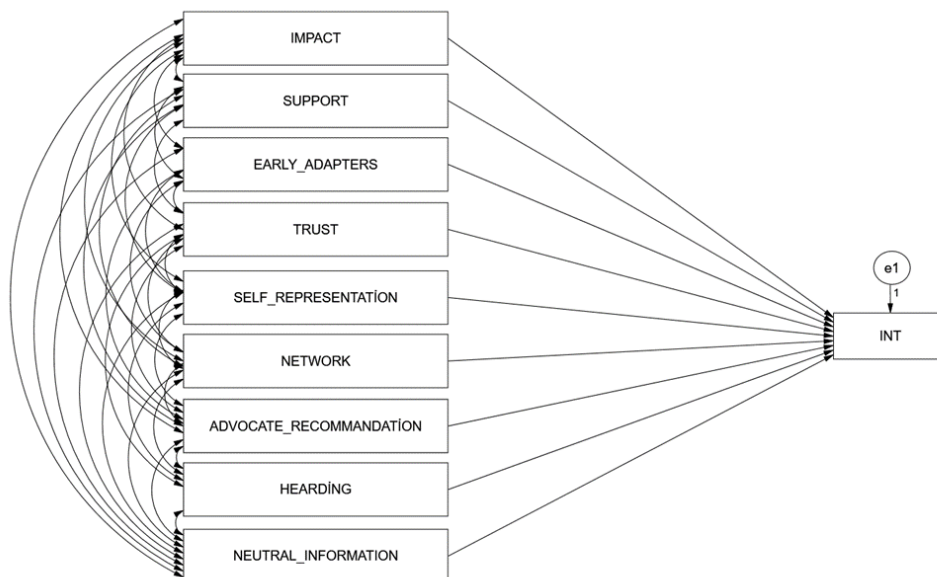


Figure 3-5: Basic Path Analysis Model

When the model test values obtained from the model are  $\chi^2$  (1.710),  $\chi^2/df$  (.570) it is understood that the model is meaningful. It was found that the compliance index values of the model, GFI (, 980), CFI (, 986), SRMR (, 0078), RMSEA (, 000) factors in the good compliance limits. Details of the parameters obtained from the model are given in the table below.

Table 3-11: Details of the parameters obtained from the model

Dependent	Effect	Independent	Estimate	Std. Est	C.R.	P
INT	<---	IMPACT	,215	,198	3,831	***
INT	<---	SUPPORT	,533	,464	8,306	***
INT	<---	EARLY_ADOPTERS	,241	,224	4,381	***
INT	<---	TRUST	,008	,011	,246	,806
INT	<---	SELF_REP.	,082	,091	1,720	,085
INT	<---	NETWORK	,098	,097	1,547	,122
INT	<---	ADV._RECOM.	,095	,105	2,274	,023*
INT	<---	HERDING	-,149	-,182	-4,012	***
INT	<---	NEUTRAL_INFOR.	-,090	-,103	-2,122	,034*
The structural equation obtained from the model			Explanation Ratio (R <sup>2</sup> )			
INT= 0.533*SPRT + 0.241*EA+ 0.215*IMP + 0.095*AR-0.149*HERDING - 0.090*NI			%45			

\*\*\* $p < 0.001$  \*\* $p < 0.01$  \* $p < 0.05$

In the model, it is found that Impact ( $\beta = .213$  \*\*\*), Support ( $\beta = .533$  \*\*\*), early adopters ( $\beta = .241$  \*\*) and advocate recommendation ( $\beta = .095$  \*) are the parameters which effect the Intention dependent variable in the same direction, whereas herding ( $\beta = -.149$  \*\*\*) and neutral information ( $\beta = -0.0$  \*\*\*) are the parameters effecting the Intention dependent variable in the reverse direction. It is understood that the equation obtained by this path analysis model and the change in the investment intention (INT) variable can be explained by 45%.

### 3.7.3.2 Moderation Effect of Motivation

The total motivation variable has been taken as a moderator and it has been tried to determine with this model whether the independent variables have an effect on the investment intention variable through the motivation total variables.

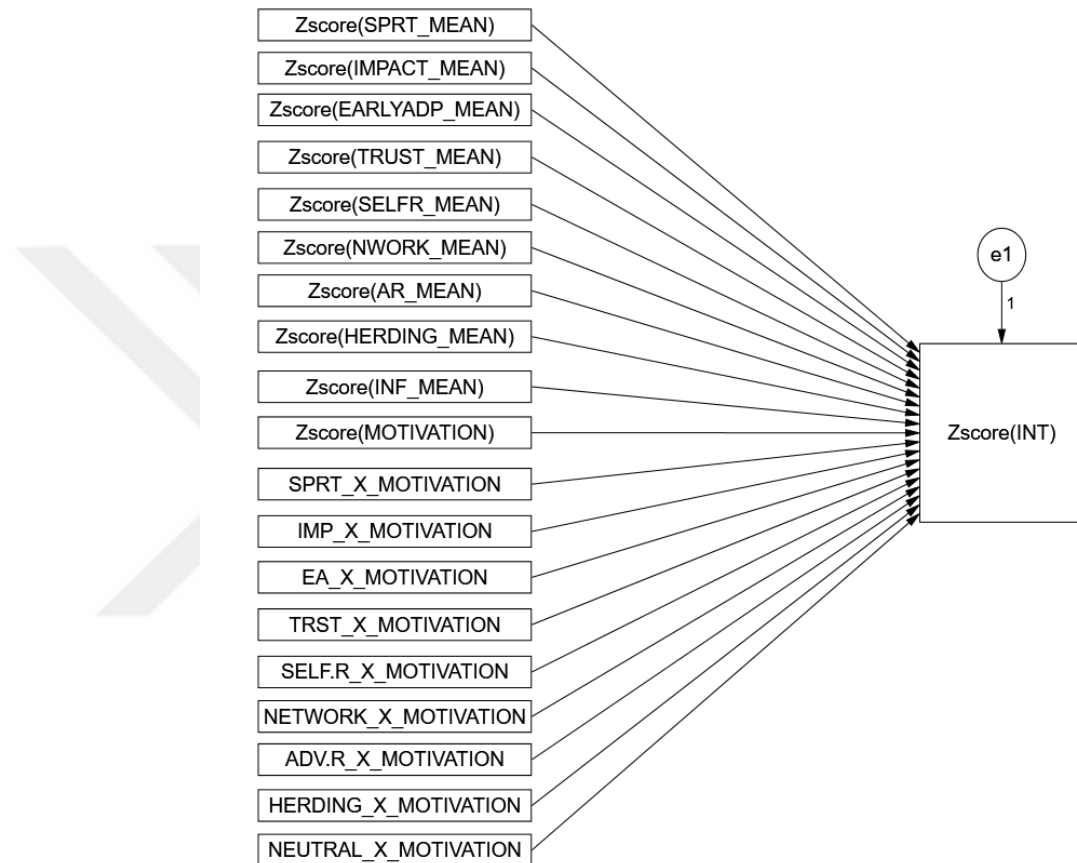


Figure 3-6: Moderator test of the motivation variable path analysis model

It is understood that the model is significant when the model test values obtained from the model are  $\chi^2$  (426.953),  $\chi^2/df$  (4.591). The model fit indices values GFI (.908), CFI (.951), SRMR (.083), RMSEA (.087) of the model are found to be close to acceptable limits. It is understood that this is an expected result when there are many meaningless regression parameters in the model that the structure of the moderator model is required. When the nonsensical parameters are deleted from the model, it is understood that all parameters of the model are involved in acceptable limits. The

regression coefficients and significance values obtained from the analysis are examined in detail in the following tables.

Table 3-12: Testing moderation effects of Motivation

Dependent	Effect	Independent	Estimate	Std. Est	C.R.	P
INT	←	ZIMPACT	,167	,213	4,168	***
INT	←	ZSUPPORT	,317	,383	7,129	***
INT	←	ZEARLY_ADOPTERS	,124	,161	3,078	**
INT	←	ZTRUST	,006	,008	,189	,850
INT	←	ZSELF_REPRESENTATION	-,001	-,001	-,022	,982
INT	←	ZNETWORK	,125	,163	2,594	***
INT	←	ZADV._RECOM.	,036	,047	1,006	,314
INT	←	ZHERDING	-,192	-,241	-5,375	***
INT	←	ZNEUTRAL_INF.	-,066	-,086	-1,684	,092
INT	←	ZMOTIVATION	,215	,278	6,319	***
INT	←	IMP_X_MOTIVATION	-,016	-,028	-,397	,691
INT	←	SPRT_X_MOTIVATION	-,060	-,106	-1,484	,138
INT	←	EA_X_MOTIVATION	,033	,056	,842	,400
INT	←	TRST_X_MOTIVATION	-,034	-,051	-,879	,379
INT	←	SELF.R_X_MOTIVATION	,112	,171	2,624	**
INT	←	NW_X_MOTIVATION	,005	,009	,107	,915
INT	←	ADV.R_X_MOTIVATION	-,039	-,054	-1,038	,299
INT	←	HERDING_X_MOTIVATION	,168	,247	3,592	***
INT	←	NEUTRAL_X_MOTIVATION	-,096	-,141	-2,244	*

\*\*\* $p < 0.001$  \*\* $p < 0.01$  \* $p < 0.05$

It is understood that the parameters effecting the Intention dependent variable in the model are; Impact ( $\beta = .167^{***}$ ), Support ( $\beta = .317^{***}$ ), early adapters ( $\beta = .124^{**}$ ), network ( $\beta = .125^{***}$ ), herding ( $\beta = -.197^{***}$ ), motivation ( $\beta = .215^{***}$ ). The independent variables that the motivation variable has moderator effect are;

Since the self representation regression coefficient ( $\beta = -.01$ ) is meaningless and the coefficient of Self Representation\_X\_Motivation is significant ( $\beta = .112^{**}$ ), the motivation variable moderates the Self Representation variable on the effect of Intention variable. Since the neutral information regression coefficient ( $\beta = -.066$ ) is meaningless and the coefficient of Neutral Information\_X\_Motivation multiplication is significant ( $\beta = -.096^{*}$ ), the motivation variable moderates the neutral information variable on the effect of the intention variable. Since the herding regression coefficient ( $\beta = -.192^{***}$ ) is significant on the negative direction and Herding\_X\_Motivation multiplication coefficient ( $\beta = .168^{***}$ ) is significant, the motivation variable moderates the herding variable on the effect of intention variable.

### 3.7.3.3 Moderation Effect of Helping Others Variable

The Helping Others which is the sub-dimension of the motivation is taken as moderator and by this model, it has been tried to determine whether the independent variables have an influence on the investment intention variable through the helping others variable.

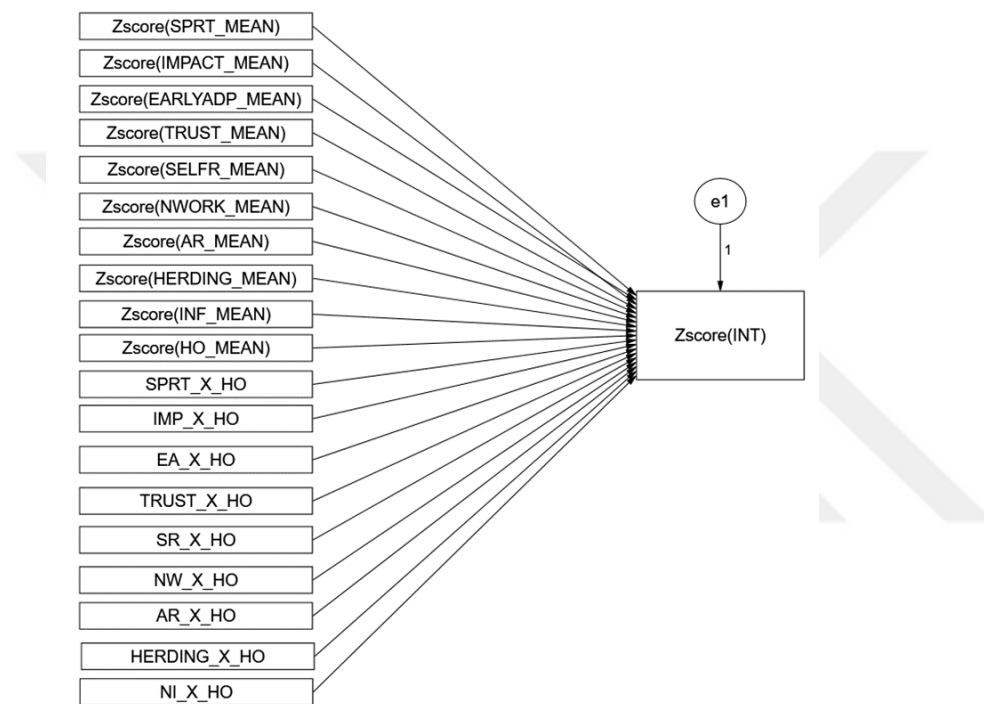


Figure 3-7: Moderator test of the Helping Others variable path analysis model

It is understood that the model is significant when the model test values obtained from the model are  $\chi^2$  (434.12),  $\chi^2/df$  (4.781). It is understood that the coefficients **GFI** (.912), **CFI** (.941), **SRMR** (.085), **RMSEA** (.083) which are the compliance fit indices values of the model, are very close to the acceptable limits. It is understood that this is an expected result when there are many meaningless regression parameters in the model due to the structure of the moderator model. When the nonsensical parameters are deleted from the Self Representation\_X\_Helping Others model, it is seen that all parameters of the model are involved in the acceptable limits. The regression

coefficients and significance values obtained from the analysis are examined in detail in the following tables.

Table 3-13: Testing Moderation Effect of Helping Others Variable

Dependent	Effect	Independent	Estimate	Std. Est	C.R.	P
ZINT	<---	ZEARLYADP_MEAN	,126	,126	3,443	***
ZINT	<---	ZTRUST_MEAN	,021	,021	,569	,569
ZINT	<---	ZSEIFR_MEAN	,079	,079	2,152	,031*
ZINT	<---	ZNWORK_MEAN	,067	,067	1,825	,068
ZINT	<---	ZAR_MEAN	,085	,086	2,343	,019*
ZINT	<---	ZHEARDING_MEAN	-,175	-,176	-4,786	***
ZINT	<---	ZINF_MEAN	,070	,073	1,978	,048*
ZINT	<---	ZIMPACT_MEAN	,213	,214	5,847	***
ZINT	<---	ZSPRT_MEAN	,499	,502	13,683	***
ZINT	<---	ZHO_MEAN	,203	,204	5,557	***
ZINT	<---	SPRT_X_HO	,082	,134	3,659	,002**
ZINT	<---	IMP_X_HO	-,024	-,037	-1,021	,307
ZINT	<---	EA_X_HO	,092	,113	3,083	,002**
ZINT	<---	TRUST_X_HO	-,028	-,032	-,859	,391
ZINT	<---	SR_X_HO	,067	,077	2,107	,035*
ZINT	<---	NW_X_HO	,079	,109	2,967	,003**
ZINT	<---	AR_X_HO	,017	,019	,523	,601
ZINT	<---	HERDING_X_HO	,074	,078	2,114	,035*
ZINT	<---	NL_X_HO	,078	,079	2,149	,032*

\*\*\* $p < 0.001$  \*\* $p < 0.01$  \* $p < 0.05$

All independent variables except the Missing Trust and Network variables significantly affect the Intention dependent variable in the model. It is understood that the coefficients are; impact ( $\beta = .213^{***}$ ), support ( $\beta = .499^{***}$ ), early adopters ( $\beta = .126^{***}$ ), herding ( $\beta = -.175^{***}$ ), helping others ( $\beta = .203^{***}$ ), advocate recommendation ( $\beta = .085^*$ ). The independent variables of which the helping others variable make moderator effect are; While the network regression coefficient ( $\beta = .067$ ) is meaningless, Network\_Helping Others multiplication coefficient ( $\beta = .079^{**}$ ) is significant; helping others variable moderates the network variable on the effect of the intention variable.

While the neutral regression coefficient ( $\beta = .070^*$ ) is significant at low-level, Neutral Information\_X\_Helping Others multiplication coefficient ( $\beta = .079^*$ ) is significant because of the rising significancy, helping other variable moderates the neutral information variable on the effect of the Intention variable.

### 3.7.3.4 Moderation Effect of Enjoyment

The Enjoyment variable, which is the sub-dimension of the motivation variable, is taken as the moderator and tried to determine through this model whether independent variables have an influence on the investment intention variable through the enjoyment variable.

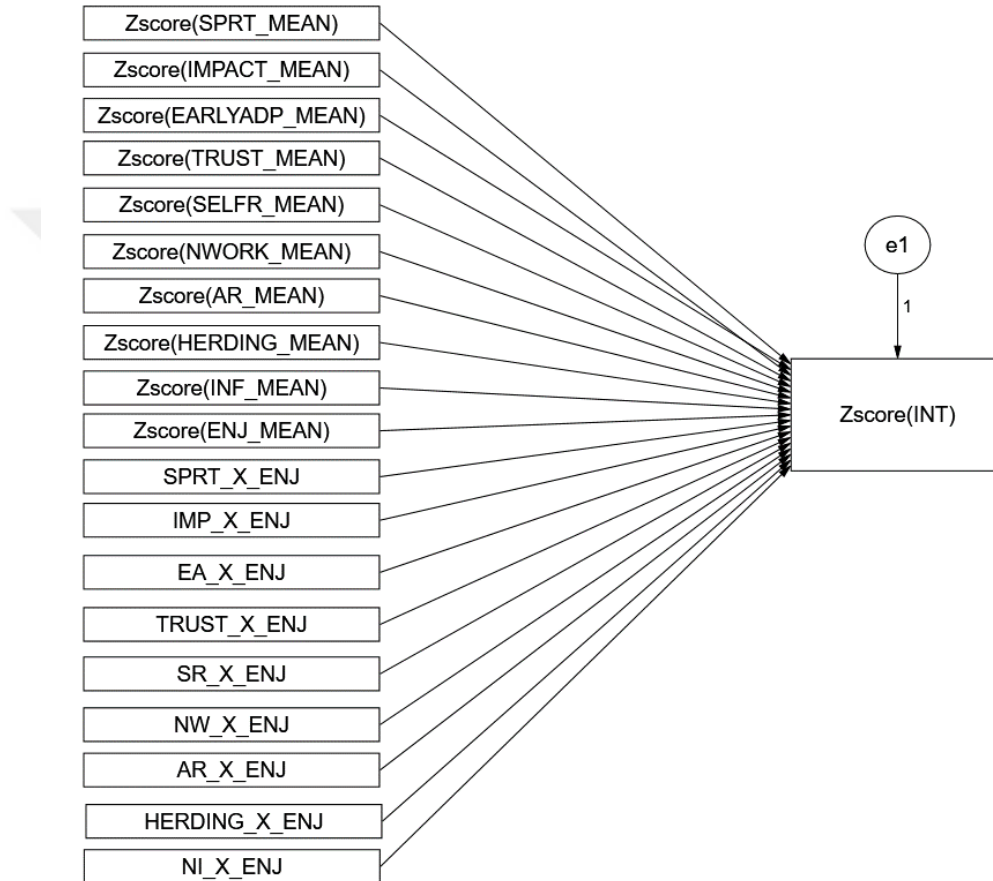


Figure 3-8: Moderator test of the Enjoyment variable path analysis model

It is understood that the model is significant when the model test values obtained from the model are  $\chi^2 (451,02) \chi^2/df (4.5121)$ . It is understood that the fit index values of model GFI (, 902), CFI (, 945), SRMR (, 075), RMSEA (, 081) are very close to acceptable limits. It is understood that this is an expected result when there are many meaningless regression parameters in the model according to the structure of the moderator model. When the nonsensical parameters are deleted from the model, it is seen that all parameters of the model are involved in the acceptable limits. The



regression coefficients and significance values obtained from the analysis are examined in detail in the following tables. All independent variables except the missing trust, self representation, and information variables, significantly affect the intention dependent variable in the model. It is understood that the coefficients are; impact ( $\beta=.202^{***}$ ), support ( $\beta=.470^{***}$ ), early adopters ( $\beta=.141^{**}$ ), network ( $\beta=.141^{**}$ ), herding ( $\beta=-2.38$ ), helping others ( $\beta=.116^*$ ), advocate recommendation ( $\beta=.101^*$ ). The independent variables moderated by the enjoyment variable are; While the self representation regression coefficient ( $\beta=.016$ ) is meaningless, the Self Representation\_X\_Enjoyment multiplication coefficient ( $\beta=.175^{**}$ ) is significant; enjoyment variable moderates the intention variable on the influence of self representation variable.

**Table3-14: Testing moderation effects of Enjoyment variable**

Dependent	Effect	Independent	Estimate	Std. Est	C.R.	P
ZINT	<---	ZEARLYADP_MEAN	,141	,144	3,118	,002**
ZINT	<---	ZTRUST_MEAN	,049	,050	1,108	,268
ZINT	<---	ZSELEFR_MEAN	,016	,016	,310	,757
ZINT	<---	ZNWORK_MEAN	,141	,144	2,312	,021*
ZINT	<---	ZAR_MEAN	,101	,104	2,257	,024*
ZINT	<---	ZHEARDING_MEAN	-,238	-,244	-5,402	***
ZINT	<---	ZINF_MEAN	-,083	-,085	-1,744	,081
ZINT	<---	ZENJ_MEAN	,116	,119	3,173	,002*
ZINT	<---	ZIMPACT_MEAN	,202	,207	4,009	***
ZINT	<---	ZSPRT_MEAN	,470	,481	8,447	***
ZINT	<---	SPRT_X_ENJ	-,061	-,079	-1,197	,231
ZINT	<---	IMP_X_ENJ	,005	,006	,097	,923
ZINT	<---	EA_X_ENJ	-,095	-,106	-2,133	,033*
ZINT	<---	TRUST_X_ENJ	,010	,012	,237	,813
ZINT	<---	SR_X_ENJ	,175	,187	3,306	***
ZINT	<---	NW_X_ENJ	-,011	-,012	-,172	,864
ZINT	<---	AR_X_ENJ	,064	,074	1,431	,153
ZINT	<---	HERDING_X_ENJ	,027	,030	,554	,580
ZINT	<---	NI_X_ENJ	-,033	-,039	-,682	,495

\*\*\* $p<0.001$  \*\* $p<0.01$  \* $p<0.05$

### 3.7.3.5 Moderation Effect of Reward Variable

The Reward variable, which is the sub-dimension of the motivation variable, is taken as the moderator and tried to be determined by using this model whether the independent variables have an effect on the investment intention variable through the reward variable.

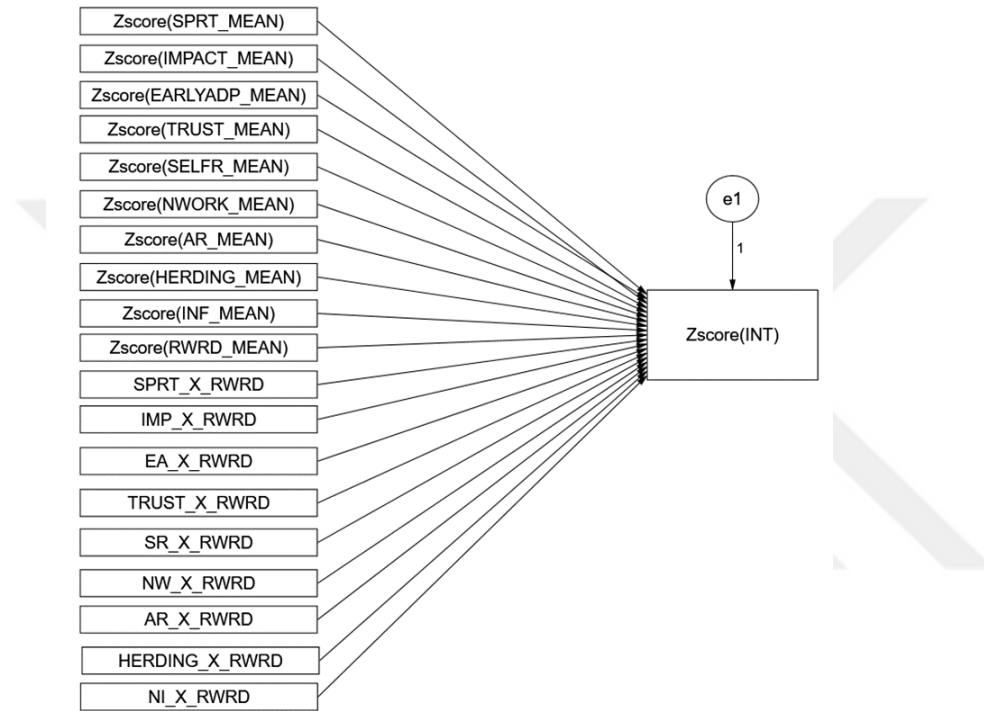


Figure 3-9 : Moderator test of the Reward variable path analysis model

It is understood that the model is significant since the model test values obtained from the model are found to be  $\chi^2$  (315,656),  $\chi^2/df$  (3.188). It is understood that the coefficients  $GFI$  (, 932),  $CFI$  (, 948),  $SRMR$  (, 072),  $RMSEA$  (, 075) of the fit index of the model are in the acceptable limits. As there are many meaningless regression parameters in the model due to the structure of the moderator model, it has been seen that when the nonsensical parameters are deleted from the model, the parameters are improved in order to better match with all parameters of the model. Regression coefficients and significance values obtained from the analysis are examined in detail in the following tables. All independent variables except the missing trust and the self representation variables significantly affect the intention dependent variable in the

model. The coefficients obtained from the model are; impact ( $\beta = .214^{***}$ ), support ( $\beta = .526^{***}$ ), early adopters ( $\beta = .096^{**}$ ), network ( $\beta = .148^{***}$ ), herding ( $\beta = -.217^{***}$ ), reward ( $\beta = .168^{***}$ ). Some of the variables which the reward variable has moderator influence on are; since the regression coefficient ( $\beta = .049$ ) of the self representation variable is meaningless, multiplication coefficient ( $\beta = .081^*$ ) of the Self Representation\_X\_Reward is significant, the reward variable moderates the self representation variable on the influence of intention variable. While the regression coefficient in herding ( $\beta = -.217^{***}$ ) variable is negatively meaningful since the multiplication coefficient of Herding\_X\_Reward ( $\beta = .126^{***}$ ) is positively meaningful, the reward variables moderates herding variables on the influence of the intention variable. While the regression coefficient in early adopters ( $\beta = .096^{**}$ ) variable is significant, the multiplication coefficient of Early Adopters\_X\_Reward ( $\beta = .103^{**}$ ) is effective on a higher level, the reward variable moderates the early adopters variable on the influence of intention variable

**Table3-15: Testing moderation effects of Reward variable**

Dependent	Effect	Independent	Estimate	Std. Est	C.R.	P
ZINT	<---	ZEARLYADP_MEAN	,096	,094	2,653	,008**
ZINT	<---	ZTRUST_MEAN	,003	,003	,076	,939
ZINT	<---	ZSELFR_MEAN	,049	,048	1,353	,176
ZINT	<---	ZNWORK_MEAN	,148	,146	4,098	***
ZINT	<---	ZAR_MEAN	,104	,102	2,876	,004**
ZINT	<---	ZHERDING_MEAN	-,217	-,213	-5,995	***
ZINT	<---	ZINF_MEAN	-,084	-,082	-2,306	,021*
ZINT	<---	ZIMPACT_MEAN	,214	-,210	5,913	***
ZINT	<---	ZSPRT_MEAN	,526	,517	14,524	***
ZINT	<---	ZRWRD_MEAN	,168	,165	4,639	***
ZINT	<---	SPRT_X_RWRD	-,029	-,032	-,911	,362
ZINT	<---	IMP_X_RWRD	-,095	-,101	-2,841	,005**
ZINT	<---	EA_X_RWRD	,103	,107	2,998	,003**
ZINT	<---	TRUST_X_RWRD	,000	,000	-,001	,999
ZINT	<---	SR_X_RWRD	,081	,092	2,589	,010*
ZINT	<---	NW_X_RWRD	,055	,059	1,657	,097
ZINT	<---	AR_X_RWRD	-,088	-,090	-2,527	,012*
ZINT	<---	HERDING_X_RWRD	,126	,143	4,022	***
ZINT	<---	NI_X_RWRD	-,087	-,094	-2,641	,008**

\*\*\* $p < 0.001$  \*\* $p < 0.01$  \* $p < 0.05$

### 3.7.3.6 Moderation Effect of Peer Pressure Variable

The Peer Pressure variable which is the sub-dimension of motivation variable, taken as the moderator and it has been tried to determine whether the Independent variables have influence through peer pressure variable by using this model.

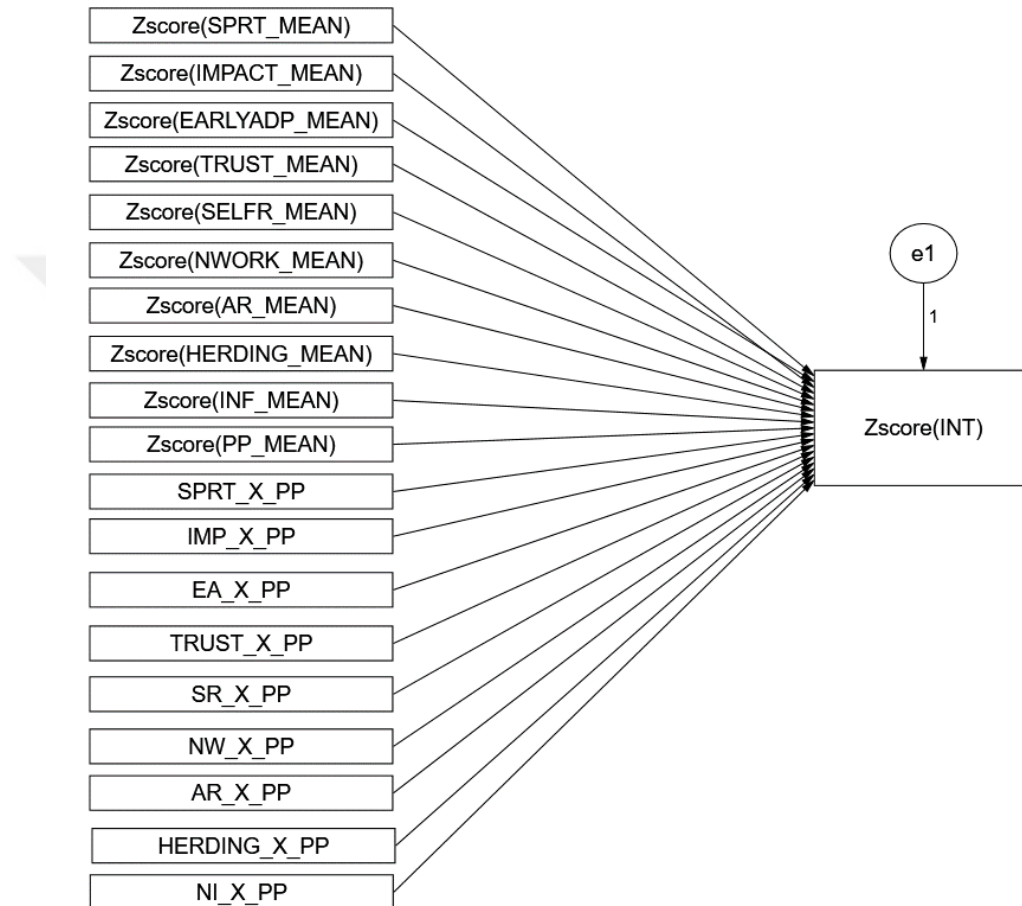


Figure 3-10: Moderator test of the Peer Pressure variable path analysis model

It is understood that the model is significant since the model test values obtained from the model are  $\chi^2$  (236.122),  $\chi^2/df$  (2.539). It is understood that the coefficients GFI (.947), CFI (.958), SRMR (.0639), and RMSEA (.0651) of the compliance index of the model are in the acceptable limits. The regression coefficients and significance values obtained from the analysis are examined in detail in the following tables.

All independent variables except the missing trust, self representation, and advocate recommendation variables significantly affect the intention dependent variable in the

model. The coefficients obtained from the model are; impact ( $\beta = .161^{***}$ ), support ( $\beta = .355^{***}$ ), early adopters ( $\beta = .176^{***}$ ), network ( $\beta = .098^*$ ), herding ( $\beta = -.165^{***}$ ), peer pressure ( $\beta = .117^{***}$ ). The independent variables moderated by the peer pressure variable are; While the regression coefficient of self representation ( $\beta = .059$ ) is meaningless, the multiplication coefficient of Self Representation\_X\_Peer Pressure ( $\beta = .084^*$ ) is significant, the peer pressure variables moderates the self presentation variable on the influence of intention variable. While the regression coefficient of neutral information ( $\beta = .046$ ) is meaningless, the multiplication coefficient of Neutral Information\_X\_Peer Pressure ( $\beta = -.083^*$ ) is significant, it is understood that the peer pressure moderates the neutral information variable on the influence of intention variable.

Table 3-16: Testing moderation effects of Peer Pressure variable

Dependent	Effect	Independent	Estimate	Std. Est	C.R.	P
INT	<---	ZIMPACT	,161	,201	3,974	***
INT	<---	ZSUPPORT	,355	,438	8,025	***
INT	<---	ZEARLY_ADOPTERS	,176	,221	4,278	***
INT	<---	ZTRUST	,003	,003	,075	,940
INT	<---	ZSELF_REPRESENTATION	,059	,073	1,421	,155
INT	<---	ZNETWORK	,098	,122	1,996	,046*
INT	<---	ZADVOCATE_RECOM	,046	,057	1,270	,204
INT	<---	ZHERDING	-,165	-,203	-4,594	***
INT	<---	ZNEUTRAL_INFORMATION	-,044	-,055	-1,100	,271
INT	<---	ZPP_MEAN	,117	,146	3,805	***
INT	<---	SPRT_X_PP	-,040	-,056	-,863	,388
INT	<---	IMP_X_PP	,055	,073	1,220	,222
INT	<---	EA_X_PP	-,032	-,041	-,836	,403
INT	<---	TRUST_X_PP	-,022	-,030	-,581	,561
INT	<---	SR_X_PP	,084	,095	1,695	,040*
INT	<---	NW_X_PP	,004	,006	,091	,927
INT	<---	AR_X_PP	-,030	-,041	-,929	,353
INT	<---	HERDING_X_PP	,128	,187	3,683	***
INT	<---	NI_X_PP	,083	,097	1,838	,045*

\*\*\* $p < 0.001$  \*\* $p < 0.01$  \* $p < 0.05$

## 3.8 RESULTS

This chapter presents the findings derived from the analysis obtained through the questionnaire. Accordingly, the demographic characteristics of all respondents who are members of the crowdfunding platforms and who participate in the survey are presented firstly and then the answers followed from the questionnaire are summarized. Then the results of the analysis of the model of the factors affecting participation behavior are interpreted.

### 3.8.1 Demographic Characteristics

According to figure 3-11 it is clear that the majority of the respondents are very young investors. From the 392 participants, whose answers were used for the analysis in the sample, 59.90 % are between 20 and 25 years old and 17.30% of the respondents are between 26 and 35 years old. Only 15% of the participants are in the age group of 36 and above, which might have to do with the fact that the survey was conducted online. It seems reasonable as young people in their twenties are probably familiar with online surveys and are also likely to discuss topics of their interest on the Internet. Some interesting feature of this data is that very young respondents might be most active in crowdfunding investments.

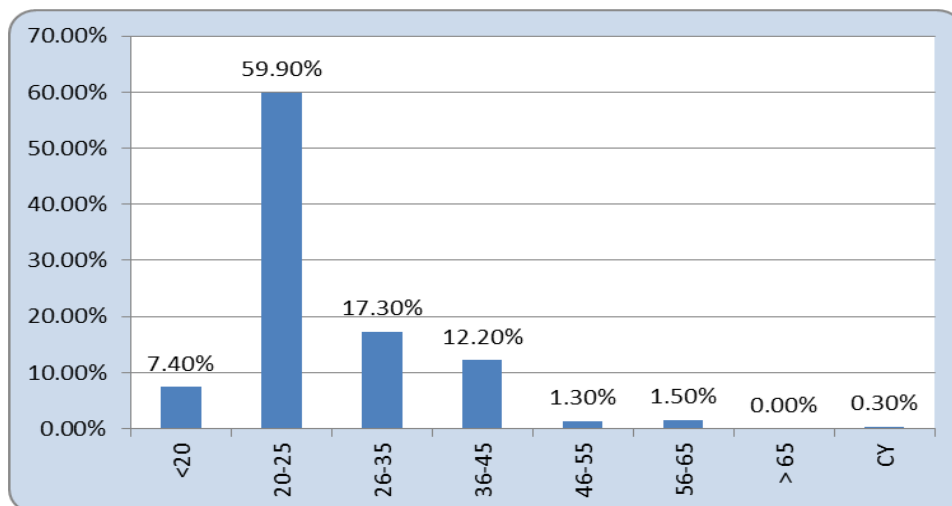


Figure 3-11: Age Distribution of the Respondents.

Data related to gender and marital status of the respondents is presented in the Figure 27. The gender distribution of the respondents presents a picture that can be expected in this kind of topic. It can be deduced that men have more participation in crowdfunding. Accordingly, the distribution of 64% men and 36% women who took part in the survey seems to be representative for the topic of the research. It is quite clear that majority (82%) of the respondents were unmarried whereas about 18% were married. Further, it should be noted that the sample consisted mostly (72%) of respondents from Istanbul.

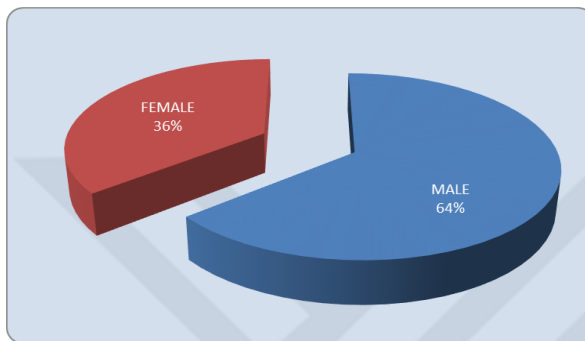


Figure 3-12: Gender Distributions of the Respondents

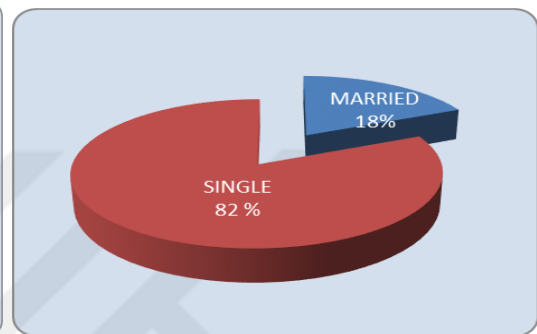


Figure 3-13: Marital Status Distributions of the Respondents

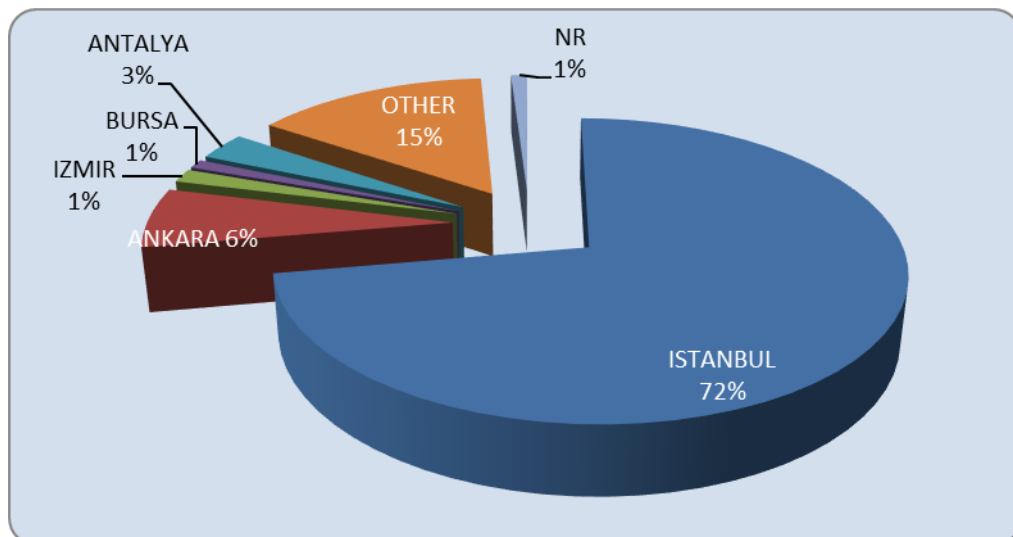


Figure 3-14: The City Distribution Where Respondents Live

In terms of occupation, most respondents are student (62%) and employed (19.90%) or self-employed (12%), with most of them holding a university degree (79 %). Almost 11,70 % of the respondents have a master’s degree and another 1% have a doctorate degree.

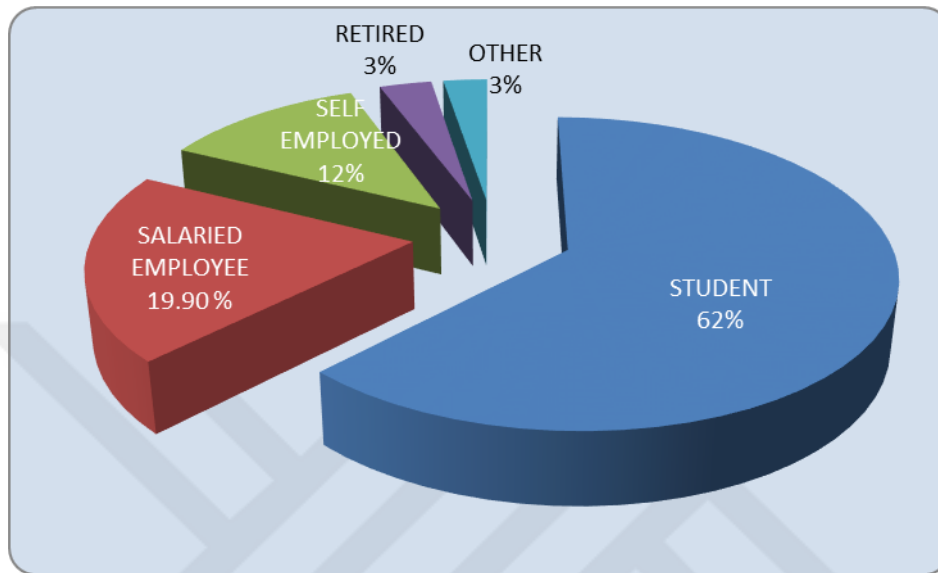


Figure 3-15: Professional Status

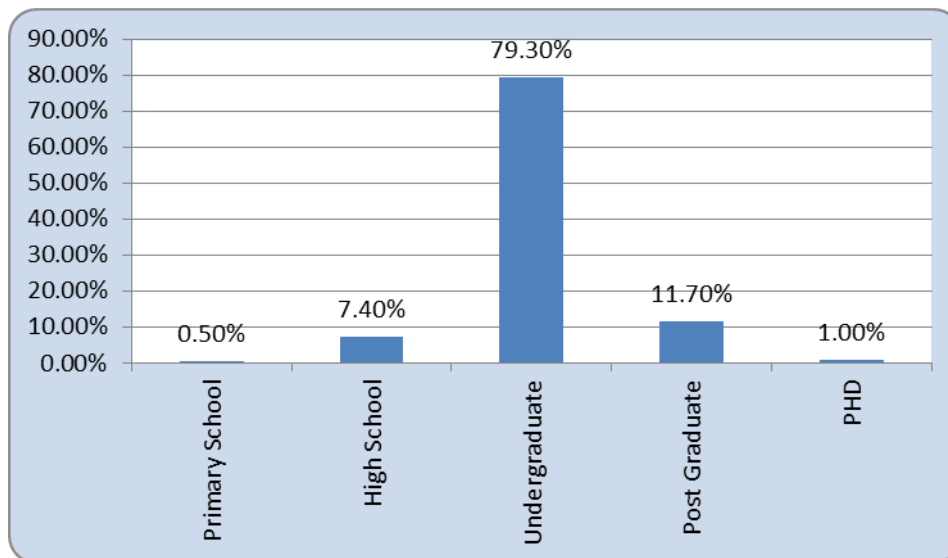


Figure 3-16: Survey participants’ occupation and highest education.



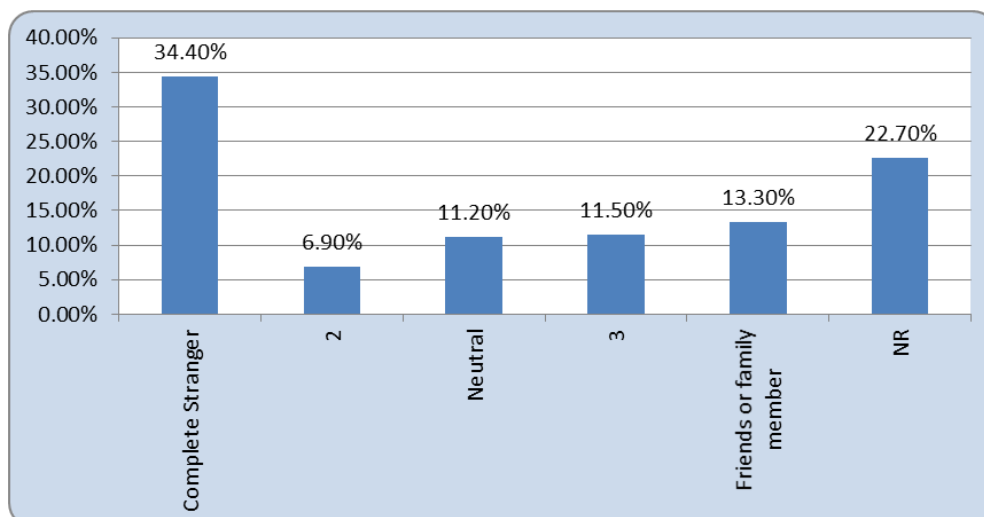


Figure 3-17: Level of Familiarity

As can be seen in above figure, among the participants in the questionnaire, those to who supported the projects, were asked if they knew the project owners or not and 22.7% of the respondents did not answer. On the other hand, it is striking that the vast majority do not recognize the project investor, that they are totally foreign.

As summarized in the table below, 71% of the members of the intermediary platforms on which the survey is applied did not yet provide financial support for a project. The reason for this, they have reported that they do not have enough information about the crowdfunding. The majority of the respondents consist of the members of Arikovani and Fongogo.

Table 3-17: Demographic Characteristics

		Count	Column N %
Level of Familiarity	Complete Stranger	135	34,4%
	2	27	6,9%
	3	44	11,2%
	Neutral	45	11,5%
	Friend or Family	52	13,3%
	NR	89	22,7%
	Total	392	100,0%
Financial / Non-Financial Contribution	Product	72	18,4%
	Service	35	8,9%
	Experience	64	16,3%
	Thank you Reward	78	19,9%
	Other	17	4,3%
	NR	126	32,1%
	Total	392	100,0%
Age Groups	<20	29	7,4%
	20-25	235	59,9%
	26-35	68	17,3%
	36-45	48	12,2%
	46-55	5	1,3%
	56-65	6	1,5%
	> 65	0	0,0%
	CY	1	0,3%
	Total	392	100,0%
Gender	Female	251	64,0%
	Male	141	36,0%
	Total	392	100,0%
Marital Status	Married	72	18,4%
	Single	320	81,6%
	Total	392	100,0%
Residence Status	ISTANBUL	283	72,2%
	ANKARA	26	6,6%
	IZMIR	6	1,5%
	BURSA	4	1,0%
	ANTALYA	12	3,1%
	OTHER	57	14,5%
	NR	4	1,0%
	Total	392	100,0%
Education Level	Primary School	2	0,5%
	High School	29	7,4%
	Undergraduate	311	79,3%
	Postgraduate	46	11,7%
	PHD	4	1,0%
	Total	392	100,0%
Professional Status	Student	245	62,5%
	Active Worker	78	19,9%
	Self Employed	47	12,0%
	Retired	12	3,1%
	Other	10	2,6%
	Total	392	100,0%

Table 3-18: Responses given by participants about crowdfunding

		n	%
Have you ever financially supported a crowdfunding project?	YES	113	28,8%
	NO	279	71,2%
Why have you not participated in crowdfunding so far?	I am not familiar with crowdfunding	226	61,4%
	I have invested in start-ups, but not by using an online platform.	46	12,5%
	The conditions are not attractive	35	9,5%
	I do not trust online platforms	12	3,3%
	Other	47	12,8%
Have you ever created your own project?	YES	41	10,5%
	NO	351	89,5%
Which crowdfunding platform/platforms do you use to support crowdfunding projects?	Arikovani	77	47,5%
	Buluşum	4	2,5%
	Crowdfon	9	5,6%
	Fongogo	53	32,7%
	Fonlabeni	1	0,6%
	Fonbulucu.com	0	0,0%
	Ideanest	7	4,3%
	Other	9	5,6%
The number of project you have supported.	1	81	60,0%
	2	29	21,5%
	3	3	2,2%
	4	8	5,9%
	5 and more	13	9,6%
What was the overall sum of your investments?	0-99 TL	49	35,0%
	100-499 TL	48	34,3%
	500-999 TL	25	17,9%
	1000-4999 TL	15	10,7%
	5000 TL and more	3	2,1%

### 3.8.2 Findings on the Hypotheses

**H<sub>10</sub>: ‘Regarding crowdfunding as a convenient instrument to create impact economically and socially does not have a positive effect on the intention to invest in crowdfunding projects’**

**H<sub>11</sub>: ‘Regarding crowdfunding as a convenient instrument to create impact economically and socially has a positive effect on the intention to invest in crowdfunding projects’**

The null hypothesis was rejected because items in the impact variable have significance level of  $p < 0.001$  according to the information in Table 3-11.

**‘H1a:** Economic /Societal Impact Perception has effect on crowdfunders’ intention to participate when funders are motivated extrinsically and intrinsically’.

As shown in Table 3-12, according to the path analysis results where the hypothesis is applied, the multiplication of Impact\_X\_Motivation on the investment intention is found as  $p>0.05$ , so the null hypothesis cannot be rejected.

**‘H1b:** Economic /Societal Impact perception has effect on crowdfunders’ intention to participate when funders are motivated through ‘Reward’. As shown in Table 3-15, according to the path analysis results where the hypothesis is applied, even though the multiplication of Impact\_X\_Reward on the investment intention is found as  $p<0.05$ , it is rejected as ZIMPACT\_MEAN variables influence on the investment intention is found  $p<0.001$ (higher significancy level).

**H1c:** Economic /Societal Impact perception has effect on crowdfunders’ intention to participate when funders are motivated through ‘Peer Pressure’. As shown in Table 3-16, according to the path analysis results where the hypothesis is applied the multiplication of Impact\_X\_Peer Pressure on the investment intention is found as  $p>0.05$ , so the null hypothesis cannot be rejected.

**H1d:** Economic /Societal Impact perception has effect on crowdfunders’ intention to participate when funders are motivated through ‘Helping Others’. According to the path analysis results where the hypothesis is applied the multiplication of Impact\_X\_Helping Others on the investment intention is found as  $p>0.05$ , so the null hypothesis cannot be rejected.

**H1e:** Economic /Societal Impact perception has effect on crowdfunders’ intention to participate when funders are motivated through ‘Enjoyment’. According to the path analysis results where the hypothesis is applied the multiplication of Impact\_X\_Enjoyment on the investment intention is found as  $p>0.05$ , so the null hypothesis cannot be rejected.

**‘H2o: The sense of being supportive does not have a positive effect on the intention to invest in crowdfunding projects’.**

**‘H2i: The sense of being supportive has a positive effect on the intention to invest in crowdfunding projects’.**

The null hypothesis was rejected because items in the impact variable have significance level of  $p<0.001$  according to the information in Table 3-11.

**H<sub>2a</sub>:** The sense of being supportive has effect on crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically. As shown in Table 3-12, according to the path analysis results where the hypothesis is applied the multiplication of Support\_X\_Motivation on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>2b</sub>:** The sense of being supportive has effect on crowdfunders' intention to participate when funders are motivated through 'Reward'. According to the path analysis results where the hypothesis is applied the multiplication of Support\_X\_Reward on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>2c</sub>:** The sense of being supportive has effect on crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'. As shown in Table 3-16, according to the path analysis results where the hypothesis is applied the multiplication of Support\_X\_Peer Pressure on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>2d</sub>:** The sense of being supportive has effect on crowdfunders' intention to participate when funders are motivated through 'Helping Others'. As shown in Table 3-13, according to the path analysis results where the hypothesis is applied, even though the multiplication of Support\_X\_Helping Others on the investment intention is found as  $p < 0.01$ , it is rejected as ZSPRT\_MEAN variables influence on the investment intention is found  $p < 0.001$  (higher significancy level).

**H<sub>2e</sub>:** The sense of being supportive has effect on crowdfunders' intention to participate when funders are motivated through 'Enjoyment'. According to the path analysis results where the hypothesis is applied the multiplication of Support\_X\_Enjoyment on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>30</sub>: The willingness of investors to use a new product or technology does not have a positive effect on invest in crowdfunding projects positively'.**

**'H<sub>31</sub>: The willingness of investors to use a new product or technology has a positive effect on invest in crowdfunding projects positively'.**

The null hypothesis was rejected because items in the impact variable have significance level of  $p < 0.001$  according to the information in Table 3-11.

**H<sub>3a</sub>:** The sense of being an early adopter has effect on crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically. As shown in Table 3-12, according to the path analysis results where the hypothesis is applied the multiplication of Early Adopters\_X\_Motivation on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>3b</sub>:** The sense of being an early adopter has effect on crowdfunders' intention to participate when funders are motivated through 'Reward'. As shown in Table 3-15, according to the path analysis results where the hypothesis is applied, even though the multiplication of Early Adopters\_X\_Reward on the investment intention is found as  $p < 0.05$ , it is rejected as early adopters variables influence on the investment intention is found  $p < 0.001$ .

**H<sub>3c</sub>:** The sense of being an early adopter has effect on crowdfunders' intention to participate when funders are motivated through 'peer pressure'. As shown in Table 3-16, according to the path analysis results where the hypothesis is applied the multiplication of Early Adopters\_X\_Peer Pressure on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>3d</sub>:** The sense of being an early adopter has effect on crowdfunders' intention to participate when funders are motivated through 'Helping Others'. As shown in Table 3-13, according to the path analysis results where the hypothesis is applied, even though the multiplication of Early Adopters\_X\_Helping Others on the investment intention is found as  $p < 0.01$ , it is rejected as early adopters variables influence on the investment intention is found  $p < 0.001$  (higher significance level).

**H<sub>3e</sub>:** The sense of being an early adopter has effect on crowdfunders' intention to participate when funders are motivated through 'Enjoyment'. As shown in Table 3-14, according to the path analysis results where the hypothesis is applied, even though the multiplication of Early Adopters\_X\_Enjoyment on the investment intention is found as  $p < 0.05$ , it is rejected as early adopters variables influence on the investment intention is found  $p < 0.001$  (higher significance level).

**H<sub>40</sub>: Investors' unwillingness to use online crowdfunding platform does not have a negative effect on their intention to participate in crowdfunding projects'.**

**'H<sub>41</sub>: Investors' unwillingness to use online crowdfunding platform has a negative effect on their intention to participate in crowdfunding projects'.**

The null hypothesis can not be rejected because items in the trust variable have significance level of  $p > 0.05$  according to the information in Table 3-11.

**H4a:** ‘Trust in platform’ has effect on crowdfunders’ intention to participate when funders are motivated extrinsically and intrinsically. As shown in Table 3-12, according to the path analysis results where the hypothesis is applied the multiplication of Trust\_X\_Motivation on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H4b:** ‘Trust in platform’ has effect on crowdfunders’ intention to participate when funders are motivated through ‘Reward’. As shown in Table 3-15, according to the path analysis results where the hypothesis is applied the multiplication of Trust\_X\_Reward on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H4c:** ‘Trust in platform’ has effect on crowdfunders’ intention to participate when funders are motivated through ‘Peer Pressure’. According to the path analysis results where the hypothesis is applied the multiplication of Trust\_X\_Peer Pressure on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H4d:** ‘Trust in platform’ has effect on crowdfunders’ intention to participate when funders are motivated through ‘Helping Others’. According to the path analysis results where the hypothesis is applied the multiplication of Trust\_X\_Helping Others on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H4e:** ‘Trust in platform’ has effect on crowdfunders’ intention to participate when funders are motivated through ‘Enjoyment’. According to the path analysis results where the hypothesis is applied the multiplication of Trust\_X\_Enjoyment on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**‘H50: Enjoying to share about their new investments does not have a positive effect on the intention to invest in crowdfunding projects’.**

**‘H51: Enjoying to share about their new investments has a positive effect on the intention to invest in crowdfunding projects’.**

The null hypothesis can not be rejected because items in the self representation variable have significance level of  $p > 0.05$  according to the information in Table 3-11.

**H<sub>5a</sub>:** Self Representation has effect on crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically. As shown in Table 3-12, according to the path analysis results where the hypothesis is applied, the multiplication of Self Representation\_X\_Motivation on the investment intention is found as  $p < 0.01$ , so the null hypothesis was rejected.

**H<sub>5b</sub>:** Self Representation has effect on crowdfunders' intention to participate when funders are motivated through 'Reward'. As shown in Table 3-15, according to the path analysis results where the hypothesis is applied, the multiplication of Self Representation\_X\_Reward on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**H<sub>5c</sub>:** Self Representation has effect on crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'. As shown in Table 3-16, according to the path analysis results where the hypothesis is applied, the multiplication of Self Representation\_X\_Peer Pressure on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**H<sub>5d</sub>:** Self Representation has effect on crowdfunders' intention to participate when funders are motivated through 'Helping Others'. As shown in Table 3-13, according to the path analysis results where the hypothesis is applied, the multiplication of Self Representation\_X\_Helping Others on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**H<sub>5e</sub>:** Self Representation has effect on crowdfunders' intention to participate when funders are motivated through 'Enjoyment'. As shown in Table 3-14, according to the path analysis results where the hypothesis is applied, the multiplication of Self Representation X Enjoyment on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**'H<sub>60</sub>: Having strong interest in building a broad network does not have a positive effect on the intention to invest in crowdfunding projects'.**

**'H<sub>61</sub>: Having strong interest in building a broad network has a positive effect on the intention to invest in crowdfunding projects'.**

The null hypothesis can not be rejected because items in the network variable have significance level of  $p > 0.05$  according to the information in Table 3-11.



**H<sub>6a</sub>:** ‘Creating Networks’ has effect on crowdfunders’ intention to participate when funders are motivated extrinsically and intrinsically. As shown in Table 3-12, according to the path analysis results where the hypothesis is applied the multiplication of Network\_X\_Motivation on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>6b</sub>:** ‘Creating Networks’ has effect on crowdfunders’ intention to participate when funders are motivated through ‘Reward’. As shown in Table 3-15, according to the path analysis results where the hypothesis is applied the multiplication of Network\_x\_Reward on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>6c</sub>:** ‘Creating Networks’ has effect on crowdfunders’ intention to participate when funders are motivated through ‘Peer Pressure’. According to the path analysis results where the hypothesis is applied the multiplication of Network\_X\_Peer Pressure on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>6d</sub>:** ‘Creating Networks’ has effect on crowdfunders’ intention to participate when funders are motivated through ‘Helping Others’. As shown in Table 3-13, according to the path analysis results where the hypothesis is applied, the multiplication of Network\_X\_Helping Others on the investment intention is found as  $p < 0.01$ , so the null hypothesis was rejected.

**H<sub>6e</sub>:** ‘Creating Networks’ has effect on crowdfunders’ intention to participate when funders are motivated through ‘Enjoyment’. According to the path analysis results where the hypothesis is applied the multiplication of Network\_X\_Enjoyment on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**‘H<sub>70</sub>: The recommendation by an expert, friends and family members does not have a positive effect on the intention to invest in crowdfunding projects’.**

**‘H<sub>71</sub>: The recommendation by an expert, friends and family members has a positive effect on the intention to invest in crowdfunding projects’.**

The null hypothesis was rejected because items in the advocate recommendation variable have significance level of  $p < 0.05$  according to the information in Table 3-11.

**H<sub>7a</sub>:** Advocate Recommendation has effect on crowdfunders’ intention to participate when funders are motivated extrinsically and intrinsically. As shown in Table 3-12,

according to the path analysis results where the hypothesis is applied the multiplication of Advocate Recommendation\_X\_Motivation on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>7b</sub>:** Advocate Recommendation has effect on crowdfunders' intention to participate when funders are motivated through 'Reward'. As shown in Table 3-15, according to the path analysis results where the hypothesis is applied, even though the multiplication of Advocate Recommendation\_X\_Reward on the investment intention is found as  $p < 0.05$ , it is rejected as ZAR\_MEAN variable influence on the investment intention is found  $p < 0.01$ .

**H<sub>7c</sub>:** Advocate Recommendation has effect on crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'. According to the path analysis results where the hypothesis is applied the multiplication of Advocate Recommendation\_X\_Peer Pressure on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>7d</sub>:** Advocate Recommendation has effect on crowdfunders' intention to participate when funders are motivated through 'Helping Others'. According to the path analysis results where the hypothesis is applied the multiplication of Advocate Recommendation\_X\_Helping Others on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**H<sub>7e</sub>:** Advocate Recommendation has effect on crowdfunders' intention to participate when funders are motivated through 'Enjoyment'. According to the path analysis results where the hypothesis is applied the multiplication of Advocate Recommendation\_X\_Enjoyment on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**'H<sub>80</sub>: Herding behavior does not have a positive effect on the intention to invest in crowdfunding projects'.**

**'H<sub>81</sub>: Herding behavior has a positive effect on the intention to invest in crowdfunding projects'.** The null hypothesis was rejected because items in the herding variable have significance level of  $p < 0.001$  according to the information in Table 3-11.

**H<sub>8a</sub>:** Herding has effect on crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically. As shown in Table 3-12, according to the path analysis results where the hypothesis is applied, the multiplication of

Herding\_X\_Motivation on the investment intention is found as  $p < 0.001$ , so the null hypothesis was rejected.

**H<sub>8b</sub>:** Herding has effect on crowdfunders' intention to participate when funders are motivated through 'Reward'. As shown in Table 3-15, according to the path analysis results where the hypothesis is applied, the multiplication of Herding\_X\_Reward on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**H<sub>8c</sub>:** Herding has effect on crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'. As shown in Table 3-16, according to the path analysis results where the hypothesis is applied, the multiplication of Herding\_X\_Peer Pressure on the investment intention is found as  $p < 0.001$ , so the null hypothesis was rejected.

**H<sub>8d</sub>:** Herding has effect on crowdfunders' intention to participate when funders are motivated through 'Helping Others'. As shown in Table 3- 13, according to the path analysis results where the hypothesis is applied, the multiplication of Herding\_X\_Helping Others on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**H<sub>8e</sub>:** Herding has effect on crowdfunders' intention to participate when funders are motivated through 'Enjoyment'. According to the path analysis results where the hypothesis is applied the multiplication of Herding\_X\_Enjoyment on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected.

**'H<sub>90</sub>: The positive general and/or financial press report about crowdfunding does not have a positive effect on the intention to invest in crowdfunding projects'.**

**'H<sub>91</sub>: The positive general and/or financial press report about crowdfunding has a positive effect on the intention to invest in crowdfunding projects'.**

The null hypothesis was rejected because items in the neutral information variable have significance level of  $p < 0.05$  according to the information in Table 3-11.

**H<sub>9a</sub>:** Neutral Information has effect on crowdfunders' intention to participate when funders are motivated extrinsically and intrinsically. As shown in Table 3-12, according to the path analysis results where the hypothesis is applied, the multiplication of Neutral Information\_X\_Motivation on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**H<sub>9b</sub>**: Neutral Information has effect on crowdfunders' intention to participate when funders are motivated through 'Reward'. As shown in Table 3-15, according to the path analysis results where the hypothesis is applied, the multiplication of Neutral Information\_X\_Reward on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**H<sub>9c</sub>**: Neutral Information has effect on crowdfunders' intention to participate when funders are motivated through 'Peer Pressure'. As shown in Table 3-16, according to the path analysis results where the hypothesis is applied, the multiplication of Neutral Information\_X\_Peer Pressure on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**H<sub>9d</sub>**: Neutral Information has effect on crowdfunders' intention to participate when funders are motivated through 'Helping Others'. As shown in Table 3-13, according to the path analysis results where the hypothesis is applied, the multiplication of Neutral Information\_X\_Helping Others on the investment intention is found as  $p < 0.05$ , so the null hypothesis was rejected.

**H<sub>9e</sub>**: Neutral Information has effect on crowdfunders' intention to participate when funders are motivated through 'Enjoyment'. According to the path analysis results where the hypothesis is applied the multiplication of Neutral Information\_X\_Enjoyment on the investment intention is found as  $p > 0.05$ , so the null hypothesis cannot be rejected. In the present study, AMOS was run to carry out confirmatory factor analysis and test path coefficients of the structural model. A series of models was developed to examine the hypotheses. Model 1 does not contain any moderator. Every subsequent model has one moderator, with the following variables, respectively; motivation, helping others, enjoyment, reward, and peer pressure.

The results of Model 1 indicate that there is a strong evidence against the null hypothesis for H<sub>1</sub>-H<sub>2</sub>- H<sub>3</sub>- H<sub>7</sub>- H<sub>8</sub>- H<sub>9</sub> therefore, we would reject the null hypotheses. According to this table, it can be clearly identify that impact, support, early adopters, advocate recommendation, herding, neutral information variables have a significant positive direct effect on participation intention thus might be an explanatory variable for a decision to participate in crowdfunding. However the influences of trust, self representation and network on participation intention are not statistically significant. Therefore H<sub>4</sub>, H<sub>5</sub>, H<sub>6</sub> are not supported. In the second model, extrinsically and

intrinsically motivations may positively moderate the relationship between variables of self-representation, herding and neutral information and participation intention variable. The results of Model 3 suggest that, helping others variable may positively moderate the relationship between variables of self-representation, network, herding and participation intention variable. Furthermore the results from Model 4 show that, enjoyment variable may positively moderate the relationship between self-representation and participation intention variable. Model 5 indicates that, rewards variable may positively moderate the relationship between variables of self-representation, herding and participation intention variable. Lastly Model 6 indicates that peer pressure variable may positively moderate the relationship between variables of self-representation, herding, neutral information and participation intention variable. The results are summarized in the following table.

Table 3-19: Interpretation of hypotheses (Own Draft)

	INDEPENDENT VARIABLES	MAIN MODEL (1)	MODEL WITH MODERATOR VARIABLES					
			MOTIVATION (2)	HELPING OTHERS (3)	ENJOYMENT (4)	REWARD (5)	PEER PRESSURE (6)	FINDINGS
SOCIAL RELEVANCE	(H1)IMPACT	***	NOT SIGNIFICANT	NOT SIGNIFICANT	NOT SIGNIFICANT	**not moderator	NOT SIGNIFICANT	Has a significant positive direct effect on participation intention thus might be an explanatory variable for a decision to participate in crowdfunding
	(H2)SUPPORT	***	NOT SIGNIFICANT	**not moderator	NOT SIGNIFICANT	NOT SIGNIFICANT	NOT SIGNIFICANT	
INNOVATIVE INVESTMENT	(H3)EARLY ADOPTERS	***	NOT SIGNIFICANT	**not moderator	*not moderator	**not moderator	NOT SIGNIFICANT	Does not have a significant effect on the participation intention thus the null hypothesis cannot be rejected.
	(H4)MISSING TRUST	NOT SIGNIFICANT	NOT SIGNIFICANT	NOT SIGNIFICANT	NOT SIGNIFICANT	NOT SIGNIFICANT	NOT SIGNIFICANT	
PERSONAL UTILITY	(H5)SELF REPRESENTATION	NOT SIGNIFICANT	**moderator	*moderator	***moderator	*moderator	*moderator	Does not have a significant direct effect on the participation intention but motivation and its sub-dimensions moderate positively and significantly
	(H6)NETWORK	NOT SIGNIFICANT	NOT SIGNIFICANT	**moderator	NOT SIGNIFICANT	NOT SIGNIFICANT	NOT SIGNIFICANT	Does not have a significant direct effect on the participation intention but Helping Others sub-dimension of motivation moderates positively
	(H7) ADVOCATE RECOMMENDATION	*	NOT SIGNIFICANT	NOT SIGNIFICANT	NOT SIGNIFICANT	*not moderator	NOT SIGNIFICANT	Has a positive direct effect on intention.
	(H8)HERDING	***	***moderator	*moderator	NOT SIGNIFICANT	***moderator	***moderator	Has a strong negative effect on the intention but motivation and its sub-dimensions except Enjoyment variable, moderate positively and significantly
	(H9) NEUTRAL INFORMATION	*	*moderator	*moderator	NOT SIGNIFICANT	**not moderator	*moderator	Has a negative effect on the intention in addition to this, variables of Motivation, Peer Pressure and Helping others are moderating this effect.

## **4 CONCLUSION, DISCUSSION & SUGGESTIONS**

In this section, the findings obtained from investigations and the conclusions reached which are based on these findings are explained. The arguments about the conclusions and future research suggestions also take part in this section.

### **4.1 CONCLUSION**

In recent years, the crowdfunding has been an important investment phenomena growing fastly. The rapid advancement of Web 2.0 and social media allows for increased interest in crowdfunding. However, it has not taken enough attention in the academic environment for research.

The aim of this thesis is to contribute the better understanding of this phenomenon specifically by crowdfunders' sides. With a clearer expression, this study targets to explain the questions of, what drives the supporters to take part in reward-based crowdfunding, what do the potential investors search for in projects and how can these factors be useful for project owners for obtaining capital through crowdfunding.

The theoretical framework mainly has been developed on crowdsourcing and crowdfunding in general. This study has further tested the relationship between factors that affect supporters and each motivational factor based on Self Determination Theory (SDT) in reward-based crowdfunding, particularly based on previous researchers' work in the area. This research project offers the one of the first scientific study in order to determine factors that affect the decision making process of investors in Turkey to participate crowdfunding from a financial point of view, which is supported by the literature about crowdfunding. The limited number of direct literature and many theoretical movements which can be applicable to crowdfunding were analyzed in order to answer these questions. The results of these analyses were used for developing a conceptual model that explains the motivation reasons of the crowdfunding investors. The crowdfunders' perspectives were examined equally by using an online quantitative

survey and nine propositional hypotheses were used as fundamental for guiding purpose to the investigation and assesment of the study. According to results of analysis in the study, six out of the nine identified factors seem to influence the investor's decision to participate in crowdfunding. Accordingly, it is possible to answer the research question as follows: the factors economic /societal impact perception, the sense of being supportive, the sense of being an early adopter, advocate recommendation show a positive influence on the investment decision-making, whereas herding, neutral information, appear to affect the intention to participate in crowdfunding negatively. It should be noted that advocate recommendation and neutral information, are only significant at  $p < .10$ .

It has been understood that the items included in the "Social Relevance" classification have a significant importance in explaining the decision-making in crowdfunding. The items included in advocate recommendation, herding, neutral information classifications have also importance in this regard. On the other hand, missing trust variable which is in "innovative investment" category, does not show any particular effect on decision-making. The similar situation is also observed for 'Personal Utility' but it has retained for testing moderation effect analysis as recommendations have key importance for the investors in their investment decisions. Although we could not prove the significance of the other three factors it does not mean that these factors are not influential on the intention of participation in crowdfunding, but it can be taken into account that they are not appropriate for explaining why individual decides to participate in crowdfunding or not.

The most interesting finding of this research is that the supporters of 'Personal Utility' expectations are not as effective as they thought in their decision to participate in crowdfunding. The internal satisfaction of being able to help and providing an opportunity to entrepreneurs have been more effective in their investment decisions. There are numerous theories that may explain a backer's motivation for contributing to a crowdfunding campaign. For example, the literature on altruism discusses 'warm glow' giving (Andreoni, 1990); that is, the positive feeling one gets from helping someone else, and there is evidence that in some crowdfunding contexts altruism does exist (Burtch, Ghose, & Wattal, 2013a). Other motives might include egotistical motivation; that is backers participate because they want to be part of the project



(Gerber et al., 2012) or may want others to recognize their participation. Early adoption may play a role, and evidence suggests that some backers focus on the material return received in exchange (Gerber et al., 2012). Although limited research has been conducted on backers' motivations for contribution in the crowdfunding context, in reality, it is most likely a combination of these factors. In exchange for their choices and contributions, backers receive extrinsic rewards (e.g. a return on their investment, a copy of the product, etc.) and an intrinsic reward (e.g., a "warm glow" or the feeling of being a part of something).

Therefore, Crowdfunding operations could give the opportunity to provide capital to the entrepreneurs for their ventures as well as to social & cultural projects by collecting the small amount of money from the individuals.

### **Social Relevance:**

The results confirm that social relevance of crowdfunding has a positive impact on the funders' participation intention in crowdfunding. The sense of being supportive and economic /societal impact perception are the sub-dimensions of the 'Social Relevance' category. Supporting new ventures by providing the necessary initial capital for start-ups and supporting an entrepreneurial culture and innovation via crowdfunding provides societal relevance for crowdfunders. Our results show that participants know the importance of entrepreneurship in terms of economy and social benefit and therefore they are aware of the necessity of supporting financially startups. Based on the results of the study we could suggest that backers can contribute to crowdfunding projects to earn monetary rewards, but more importantly they want to make a socially meaningful impact. In other words, crowdfunders might be driven altruistically. Also Bretschneider et al. (2014) indicated that altruism may have influence on crowdfunding. Burtch, Ghose and Wattal (2013) claimed that regarding crowdfunding, supporters are mainly motivated by altruism. Hemer (2011) argued that in his study, supporters could be motivated by making contribution socially significant task. Schwiendbacher and Larralde (2010) find that the main motivation for contributors is the community and social aspect of crowdfunding. Ebert and Schöndorfer (2014) conclude that in their study which is the basis of our work Social relevance is an important factor for participation in crowdfunding. The results of our work are in line with these statements. As a result, we

could claim that the perception of Social Relevance can be characteristic factor for participation intention to crowdfunding in Turkey, so platforms and entrepreneurs should consider this feature when launching projects.

### **Innovative Investment**

The factors early adopter and missing trust in platforms build the category Innovative Investment. According to the results, the early adopter variable can be an explanatory variable for crowdfunding participation. In other words people who consider themselves early adopters are more likely to support crowdfunding. This is an expected result because crowdfunding is a completely new way in financing methods and creative and innovative projects are presented in the crowdfunding platforms. In this way crowdfunding is an attractive opportunity for early adopters who consider crowdfunding to be preordering a product or to be a new investment method. Because, as mentioned previously, an early adopter wants to have a new product or technology before other users have access. Our findings and Eber's findings are consistent for this dimension.

In the current study, we hypothesised that Investors' unwillingness to use online crowdfunding platform has a negative effect on their intention to participate in crowdfunding projects. But there are no strong evidence against the null hypothesis, this means that 'Missing Trust in online platforms' factor has no significant effects on participation intention. Therefore we could state that backers are not reluctant to use crowdfunding platforms. Therefore it can be said that it is not a challenge to trust to crowdfunding platforms for supporters. This finding is different from the study of Ebert and Schöndorfer (2014). They found that 'missing trust in online platforms has a negative influence on the decision to participate in crowdfunding' (Ebert and Schöndorfer, 2014). In the literature, previous researches have shown that 'trust in platform' as a critical factor and according to their findings crowdfunding platforms have to be trustworthy for participation. In order to increase the backers' interest in crowdfunding, it is important to establish funders trust. (Jalonen, 2013; Lambert and Schwienbacher, 2010; Dannehall, 2017; Zhao, Chen, Wang, & Chen, 2016).

## **Personal Utility**

In the present study, Personal Utility category includes factors of self representation and network. All items within the category of Personal Utility do not seem to play an important role in explaining the decision to participate in crowdfunding. On the other hand, when the moderator variables were added to the analyses it was seen that different results emerged. Interpretation of all of the coefficients changed because of adding an interaction term to the model. The Self Representation turns out to be a significant in the model with moderating variables.

The major contribution and the critical result orientation of this research lies in “The self-conception”. The term which is often used in a broad array of phenomena by clinical and social psychologists in their discussions depict itself in this particular crowdfunding research. This is also supported by the fact that although there is not yet an incorporated and a general psychological theory of the self which can explain these phenomena as Thagard (2014) suggested; aspects of the self as a multi-level system that comprises neural, social, individual and molecular mechanisms can be explained. Since the self representation consists of various ways of the showing the people to themselves or to the others as represented below:

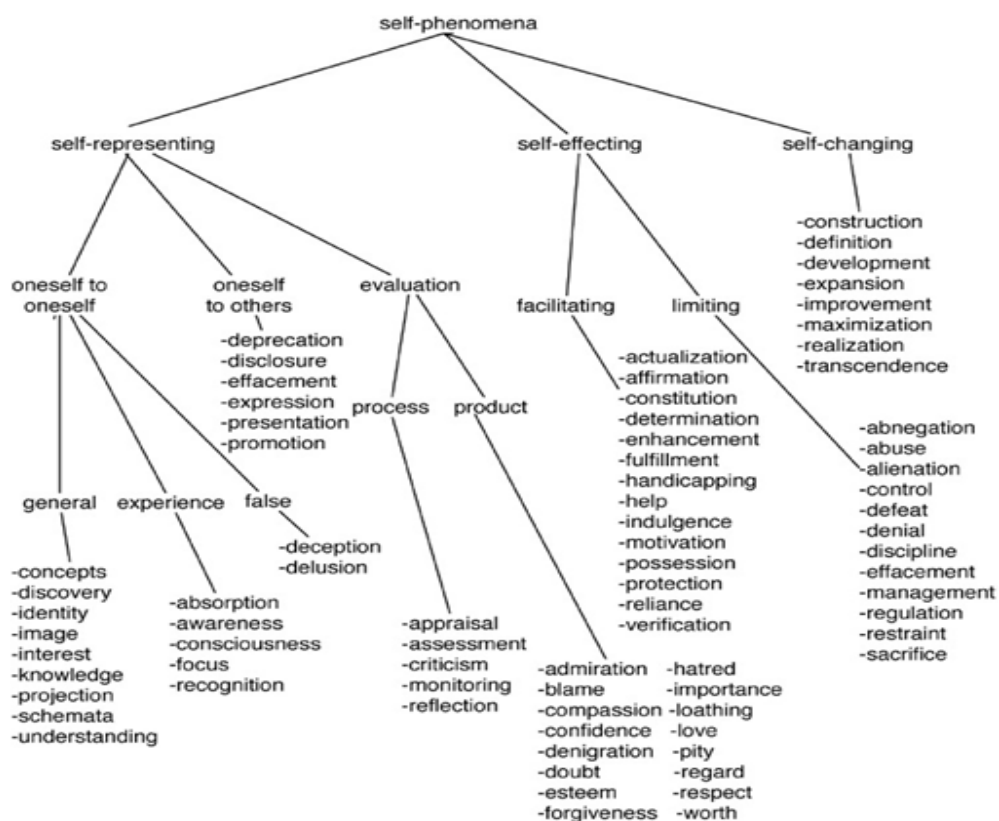


Figure 4 1: The self as a system of multilevel interacting mechanisms (Thagard P., 2014).

A structure or an event which represents something is called representation. Figure 4-1 contains many self-phenomena related to the ways of representing the people themselves. The representational sides of the self can shortly be defined into the three subgroups related to, describing to oneself to oneself, describing to oneself to others, and evaluating oneself due to one's own standards. The phenomenon of self-representation is the related to showing and describing oneself to others. The forms of self-representation that have been argued until the present time substantially related to how a person wishes other people to think about himself/herself. The self-representation is the main phenomenon for representing himself/ herself to other people (Thagard and Wood, 2015). The researches have been done by social psychologists for 30 years emphasizes the interaction of individual and social levels in self-presentation. (Schlenker, 2003). A person's target which is at the personal level influences the social level. People have a fundamental need of being associated with the groups that feel themselves belong to and care about. (Deci and Ryan, 2000). The essential need of

being connected with people takes place partly from being involved in appealing activities. Therefore, we sometimes mention naturally interesting and appealing events. The main reason people want to take part in these events is that they would like to be or feel like to be a part of these groups. These groups can be a family, a peer group or a society. The sense of belonging to these groups ensures that they are valued by other people in the groups. This shows that the basic-work for enabling internalization is supplying a feeling of belongingness and dependence to a person, a group or a culture widespread a target or what in SDT, we call "sense of relatedness". It is very natural for people to want to make a favorable impression on others because they are aware that this will make their acceptance easier.

The self-presentation is used to construct identity by people. Identity needs social validation (Baumeister R. F. 1998). The significant link of the "self-representation concept" with the results of current research surface and support the extensive literature on social psychology showing motivations that maintain, protect and develop self-representation can direct about how people to introduce themselves to others. (Fein S., Spencer S. J. 1997). Human beings are social by nature, so want to know about other people and want other people to know about them as well. The analysis which is on the basis of this study finds out that the positive relationship between the feeling of self-presentation and participate intention to crowdfunding is stronger when a person has strong extrinsic and intrinsic motivations. Intrinsic motivation and extrinsic motivations refer to different significations. People take in charge missions with intrinsic motivations as they find these missions appealing. Extrinsic motivation refers to people's tendencies to perform missions for gaining distinguishable consequences like verbal and tangible rewards. The present study pointed out that there is no direct positive relationship between the sense of self representation and the intention to invest in crowdfunding. Supporters do not have a generally higher intention to invest to present themselves. But when a supporter is motivated by the feeling of helping others or personal enjoyment of participating crowdfunding or external motivations like reward and peer pressure, he or she has a higher intention to invest in the project. The findings confirm that motivations of enjoyment, helping others, reward and peer pressure positively moderate the relationship between self representation and participation intention. As revealed by this study, the people that are more conscious

about their image have the tendency to give support to more crowdfunding campaigns when they are motivated by extrinsically and intrinsically. This behaviour is partly influenced by a person's desire for philanthropic motivation, having fun motivation and their motivations to obtain reward and peers' influence. The researcher could find the possibility to explain the association between the self-presentation and motivational factors in the crowdfunders' behaviors specifically intrinsically and extrinsically. For this reason, motivational perceptions such as helping others, having fun, peer pressure, and more monetary or non monetary rewards are needed to stimulate the enthusiasm of participants. These findings give support to the emerging researches on philanthropy, crowdfunding, and crowdinvesting. (Ryan & Van Wingerden, 2011, Wechsler 2013, Kaufmann et. al., 2011, Pearson et al. 2016, Lakhani & Wolf, 2003, Harms 2007, ) Besides, the research study emphasizes that the platform owners have the capacity to affect the behavior of self-presenting users by encouraging their members to think carefully about the creation of public profiles. While taking strategic decisions about crowdfunding operations which can be apparently seen by the public, they promote the self-presenting users' thinking cautiously.

The other variable within the Personal Utility category is Network which is not significant in the main model as well. Therefore we could not find evidence to reject the null hypotheses which means network does not have any significant influence on the decision to participate in crowdfunding, it remains uncertain whether it plays a role in the decision-making process. When we added motivation and its sub-dimensions as moderator variables, only Helping Others variable moderates positively. Which could mean backers might use crowdfunding for creating networking through philanthropy. Crowdfunding is important for funders who want to reach their philanthropic goals. So that they could expand their network online. In the literature researchers indicate that backers are motivated with the chance to broaden one's own personal network. (Gerber et al., 2012; Moritz and Block 2013; Hemer, 2011; Wechsler, 2013). In contrast to this result, Ebert and Schöndorfer (2014) found that network has a negative effect on the participation in crowdfunding.

### **Advocate Recommendation-Neutral Information**

Advocate Recommendation factor comprises sources of information from Recommendations of experts, colleagues from work Friends and family. (Nagy and Obenberger, 1994). Consistent with the research findings by Nagy and Obenberger (1994) and Setlers and Valdmanis (2016), the present study identified that the factors related to advocate recommendations by analysts, family members, co-workers and friends have a positive effect on the decision to participate investing in crowdfunding. Our findings have shown that similar to Advocate Recommendation, all items within the category of neutral information are significant explaining the intention to participate in crowdfunding, but the relationship is negative. In fact, neutral information factor is different from advocate recommendation as it is based on news from financial and general media coverage. Nagy and Obenberger (1994) and Setlers and Valdmanis (2016) found in their study, neutral information factor is important for an investment decision as well. According to these findings we could suggest that crowdfunders are negatively influenced by news, reports, articles on the press. In contrast to these results, they consider their own networks information. However, Ebert and Schöndorfer (2014) revealed that advocate recommendation and neutral information factors were not significant for the explanation why individual invests in projects on crowdfunding platforms.

### **Herding**

Relating to the field of behavioral finance, herding effects represents the tendency for an individual to do what others are doing instead of using their own knowledge or making independent decisions (Bikhchandani & Sharma, 2001). This phenomenon has particular interests in the last decade for the academic researches. Multiple academic studies on herding have been conducted and they have found evidences for crowd's herding behaviour as a possible determinat for investing in crowdfunding. Researches indicate that individuals want to contribute to projects that already have a lot of support from other community members (Burtch et al., 2013; Ward, 2010; Zhang and Liu 2012; Astebro et al., 2018; Bretschneider and Leimeister, 2017).

Existing literature identify that crowdfunding has high levels of uncertainty for backers when they make a decision whether or not to participate in a project. They

believe that other people have better information than they have. Therefore in this uncertainty, herding plays a fundamental role. Based on our results it was expected that herding affects intention positively, since the recommendation of funders' network was significant. Our study reveal that, the herding factor has a significant effect on the intention to participation in crowdfunding but, suprisingly this effect is negative. This finding is inconsistent with the results of the broader empirical literature on herding behaviour in financial decisions.

When we test the moderating effect of motivation and its sub-dimensions, we found positive effect for other community members' funding decisions on contributions. This means that an interaction variables, except enjoyment\*herding variable, changed the direction of the relationship between herding and intention variables. As a result, we confirm that helping others, reward, and peer effect moderates positively the relationship between herding and intention.

The study came with major implications not without any limitations as in the case of quantitative research based works. In line with the methodological limitations the assumptions of the researcher were mainly to trustworthiness of both the studies of social media networks and the availability of crowdfunding platforms to invite the potential supporters and individual funders to take part in the survey. The researcher is aware of the fact that the gathered samples may not reflect the crowdfunding population ideally. Since the research population is structured on the crowdfunding platforms in Turkey, the findings in these platforms may not be implemented to the investors outside of Turkey, which means the study is limited with the Turkish platforms. Accordingly, the results of the study should be treated on the very specific nature of Turkish climate and culture.

In addition to the above, the investigation population has a limited structure basing on only a few crowdfunding platforms mostly Arikovani and Fongogo that may carry the risk of not representing any sample and may not give the chance of doing generalizations. Nevertheless, doing scientific generalizations or pointing out what are the motivations for the Turkish or international investors is not the target of this study; instead, it is focused on supplying strong indications.

The other limitation is about gathering the secondary data. The investor motivations investigations on reward-based crowdfunding are quite limited, therefore in order to



complete the literature review, the crowdsourcing theory, and the general crowdfunding were implemented. Besides this, because of the limited research as previously stated, the literature reviews contains non-peer-reviewed secondary data like the conference documents, industry reports, and websites. It has been also decided to make use of the previous theses and this study is built on their findings. Nevertheless, the author is aware of the fact that the reliability and validity level of findings from non-peer-reviewed sources may be low.

## **4.2 THEORETICAL AND PRACTICAL RECOMMENDATIONS**

Some of the conceptual and theoretical outcomes in this research might have influences on the literature. The findings obtained from this research underline that different factors can affect the investors' intention of joining the crowdfunding system in many different ways. Therefore the conceptualization provides a deeper understanding on how various sort of factors and motivations can influence on participating in crowdfunding.

In this research study, the contribution is made to the crowdfunding literature in two ways. First, the relationship between the factors that affecting investors and their intention to invest in crowdfunding has been empirically tested. Second, we investigated the factors that affecting decisions to participate in crowdfunding and motivation interaction perspective to better understand the effects of individual intentions on crowdfunding participation. Although an interactional perspective has an intuitional attraction, in prior studies of crowdfunding the focus has been solely on the factors and intention, thus ignoring the possibility that another characteristics could moderate the relationship between factors and crowdfunding participation intention. In the current study, additional hypotheses were developed to test the moderating role of Motivation factor and its sub-dimensions: reward, helping others, enjoyment, and peer pressure. In our empirical analysis we revealed that extrinsic and intrinsic motivation factors played a meaningful role in the strength of the relationship between the self representation and intention.

The outcomes of the study show that supporters are primarily driven by economic /societal impact perception, the sense of being supportive, the sense of being early adopters, advocate recommendation, herding, neutral information factors and when there is a philanthropic, enjoyment, peer pressure and reward motivation, self representation also have great importance for the investors as well. Supporting our expectation, the association between self representation and intention became stronger in a situation where the person had strong extrinsic and intrinsic motivation. Firstly, it was focused on to determine how the findings could make a contribution to the crowdfunding field. In addition, these findings have implications for the relevant areas as well. In the scope of open source software, co-creation, crowdsourcing, the speculations can be made about the similar user motives existence and attitudes. Actually, the crowdfunding could be taken as supplying an opportunity to informal or angel investors to make investment beyond the geographical limits that are commonly faced. These will cause effects on the practical and theoretical levels for sure. In conclusion, this study could create effects in marketing in the widest sense. Many people participating in crowdfunding and the growth in invested funds probably points out shifting to a new type of consumer. Additionally, the classical sort of "consuming" consumer and co-creating consumer existing in co-creation and crowdsourcing, indicate itself as a new sort of consumer. This new type of consumer or with a better expression, consumer-investor can create value that enables to supply capital for others; which in return can support the others to create value. This carries the engagement level with a construct, project, business, or brands to a completely new level. In terms of empirical contributions the results of the study are very important to many crowdfunding platforms.

The results of this current study about motivation factors give many useful and encouraging findings concerning the setting up of a platform to supply the user maximization of participation. It should be decided if extrinsically motivated or intrinsically motivated individuals will be chosen as the type of crowdfunder before a platform was set up. Depending on this decision, the rewards must be given especially to aim their main motives. The findings will attract the attention of many intermediary crowdfunding platforms but mostly the entrepreneurs' who use reward-based crowdfunding will find it very useful as it will provide the necessary capital for their

venture. It is possible for the crowdfunding project owners to supply the funding target and to get even more than that when they understand the decision model described and offered in this thesis and by using the defined factors as efficient as possible. Besides, when the entrepreneur understands the motivation reasons for the various demographic features, he or she can re-arrange the crowdfunding campaign and target to take the attention of particular type of investor. The general funding problems lead entrepreneurs to choose crowdfunding models so the findings can be used for helping to overcome these difficulties. For this reason, when the entrepreneur starts the campaign he or she can be very successful by emphasizing these factors in the presentation of the venture. In case the entrepreneur is worried about finding the necessary capital for his venture, this is recommended as a good strategy. But the entrepreneur can use the outcomes of the study if he or she also wants to use reward-based crowdfunding to supply non-financial benefit to his/her venture, apart from just financing his/her enterprise. In addition to financial support, investors can provide many non-financial support to enterprises. These include, business contacts, becoming brand ambassador, being a customer, contributing to lack of competence, and supplying feedback that is of great importance to the enterprise. Also, findings can also be used to attract professional investors. These type of investors can bring significant business connections and competencies to enterprises.

The findings indicate that the entrepreneurs should aim to pay particular attention to community factors, as it is understood that the experienced investors give significant importance to the community factor as a motivational factor. The findings of this study include applicable beneficial results for the parties included in crowdfunding ecosystems like campaign designers, and platforms. As a beginning, they should raise their awareness concerning the key effects of different sorts of motivations and factors in order to participation in crowdfunding system. Some of the important extrinsic motivations like peers' effect and external rewards should completely be included in the structure of encouraging systems. Nowadays, most of the crowdfunding platforms are quite alike to each other in many ways which cause the old-fashioned perception. For this reason, care must be taken to ensure that the crowdfunding platform is an innovative and original structure while it is being configured. Thus, it may become attractive especially for Early adopters, who want to use especially in search of new

products and who embrace new technologies before others. Also, this research study supplies a conceptual model which contributes to the academic investigations on crowdfunding. These defined factors enable to understand the decision and evaluation process of investors in crowdfunding. In addition, when it is demonstrated that the crowdfunding investors don't only take into account the profit maximization targets like the investors in another environment, it should encourage the researchers for further investigations. Consequently, this study provides a solid foundation for future research on crowdfunding which can be developed, enabling better and accurate understanding.

### **4.3 SUGGESTION FOR FUTURE RESEARCH**

The research about the motivations of the investors in reward-based crowdfunding is quite limited especially in Turkey, so further investigations are necessary for this area. The present investigations about investor motivations in reward-based crowdfunding have done mostly with the qualitative approach. In order to find out new motivational factors and make scientific definitions on them, the new investigations can be worked on with quantitative approach. It is necessary to increase the number of quantitative investigations for further testing and verify the existing investigations specifically on the motivational factors that are recently added. The conclusions reached compose a meaningful start point to discover these phenomena with regard to crowdfunding. At the same time, however, it is advisable to take into account that there are many more factors that affect the decision of crowdfunder. Although this investigation is basically focused on "the relationships between motivational factors", the subject of "relationships between demographic features and motivational factors" can also be interesting for an investigation. Especially, the studies about the factors can be more significant if they are performed as successful-unsuccessful projects basis. The other investigation area with regard to potential variations in large aberrations between the project features in terms of awards is (monetary vs. nonmonetary) and general type (e.g. music, movie or start-up).

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## 6 APPENDICES

### Appendix 1: Questionnaire

<p>Dear Participant,</p> <p>Thank you for your interest. The following questionnaire is part of our PHD thesis at Okan University. It will take approximately 15 minutes to complete the survey. We will mainly ask for your opinion and agreement / disagreement – thus, there are no ‘right’ or wrong answers. All responses are completely anonymous.</p> <p>Best Regards,</p> <p><b>FATMA SEBLA UZUNTEPE</b> Istanbul Okan University</p>					
<b>1. Please indicate your likelihood of participating in crowdfunding.</b>	(1) Unlikely				(5) Likely
I would generally invest in start-ups via crowdfunding platforms.	1	2	3	4	5

**2. Have you ever invested in a start-up using a crowdfunding platform?**

Yes                       No

**3. Why have you not participated in crowdfunding so far?**

- I am not familiar with crowdfunding.
- I have invested in start-ups but not by using an online platform.
- The conditions are not attractive.
- I do not trust crowdfunding platforms.
- Other reasons: .....

**4. Have you founded your own start-up ?**

Yes                       No

**5. Which Platform(s) did you use ?**

- Arikovani
- Buluşum
- Crowdfon
- Fongogo
- Fonlabeni
- Fonbulucu.com
- Ideanest
- Other .....

**6. How many start-up(s) have you invested in ?**

- 1  2  3  4  More

**7. What was the overall sum of your investments?**

- 0-99TL  100-499TL  500- 999TL  1.000- 4.999TL  5.000TL and higher

**8. What was the average sum per start-up you invested?**

- 0-99TL  100-499TL  500- 999TL  1.000- 4.999TL  5.000TL and higher

**9. Please indicate your agreement/disagreement concerning the presented statements.**

	Strongly disagree				Strongly agree
Crowdfunding is a great possibility to support new ventures.	1	2	3	4	5
I like the idea of opening possibilities for start-ups by supporting them financially via crowdfunding	1	2	3	4	5
I support a new venture if I like the idea even though i may not be convinced about the economic success.	1	2	3	4	5
I like the idea of making it easier for start-ups to receive funding by supporting them my investment..	1	2	3	4	5
Crowdfunding gives me the possibility to support innovation.	1	2	3	4	5
I think innovation and entrepreneurship are very important for an economy.	1	2	3	4	5
Crowdfunding offers the opportunity to support the society, e.g. by creating new jobs.	1	2	3	4	5
Crowdfunding is a great opportunity to support an entrepreneurial culture..	1	2	3	4	5

**10. Please indicate your agreement/disagreement concerning the presented statements.**

	Strongly disagree				Strongly agree
I (would) enjoy being involved in the start-up I invested in.	1	2	3	4	5
Among my friends I'm often the first to try out new things.	1	2	3	4	5
I like to explore new Technologies that emerge from the internet.	1	2	3	4	5
When I consider making investments, I like to look for new and innovative options.	1	2	3	4	5
I feel more comfortable investing through my online banking portal than using another online platform.	1	2	3	4	5
It feels safer to invest via my bank instead of using an online platform.	1	2	3	4	5

**11. Please indicate your agreement/disagreement concerning the presented statements.**

	Strongly disagree				Strongly agree
Investing in start-ups is a way of being an entrepreneur without founding my own business.	1	2	3	4	5
I like the idea of being an entrepreneur myself.	1	2	3	4	5
I have a good feeling about Crowdfunding.	1	2	3	4	5
When making investment decisions, I often go with my gut feeling	1	2	3	4	5
I like to talk about my investments.	1	2	3	4	5
I (would) enjoy talking about the start-ups I support financially.	1	2	3	4	5
I (would) enjoy participating in Crowdfunding because it provides an interesting conversation topic.	1	2	3	4	5
I (would) share my investments in start-ups online (social media, blogs etc.).	1	2	3	4	5

**12. Please indicate your agreement/disagreement concerning the presented statements.**

	Strongly disagree				Strongly agree
I have a strong interest in start-ups/new ventures	1	2	3	4	5
An investment on a Crowdfunding platform would increase /increases my own network.	1	2	3	4	5
I (would) enjoy interacting with the Project teams (start-ups).	1	2	3	4	5
I would like to interact with other crowdfunders.	1	2	3	4	5

**13. Please indicate your agreement/disagreement concerning the presented statements.**

	Strongly disagree				Strongly agree
I would be more likely to invest in a crowdfunding project if it was recommended by friends/family.	1	2	3	4	5
I generally trust investments more if they are recommended by experts.	1	2	3	4	5
I would be more likely to invest in a crowdfunding project if it was recommended by an expert.	1	2	3	4	5
Generally, I first wait to see how other people decide.	1	2	3	4	5
I tend to follow new movements only if a certain amount of people participates.	1	2	3	4	5
I take some time to observe the behaviour of others before making a decision	1	2	3	4	5
I am more likely to participate in crowdfunding if many people participate.	1	2	3	4	5

**14. Please indicate your agreement/disagreement concerning the presented statements.**

	Strongly disagree				Strongly agree
Before making an investment decision, I get informed in the financial press.	1	2	3	4	5
It is important for me what the financial press writes about particular investments.	1	2	3	4	5
It is important to me what the general press publishes about investments.	1	2	3	4	5
If the general press published a positive article about crowdfunding i would be more likely to invest.	1	2	3	4	5

**15. Please indicate your agreement/disagreement concerning the presented statements.**

	Strongly disagree				Strongly agree
I want to make a meaningful impact with my contribution.	1	2	3	4	5
I invest in crowdfunding projects for the pure enjoyment of it	1	2	3	4	5
The project(s) I supported intrigued me because it was something different and new for me.	1	2	3	4	5
One reason why I supported my last project is because I was curious to find out about crowdfunding	1	2	3	4	5
I enjoy supporting crowdfunding projects, not just for the things I receive in return	1	2	3	4	5
I like to help (creative) people that I feel have authentically good ideas and maybe would not get mainstream support from the public.	1	2	3	4	5

**16. Please indicate your agreement/disagreement concerning the presented statements.**

	Strongly disagree				Strongly agree
I have chosen my reward carefully	1	2	3	4	5
If the creator of a project is a friend or acquaintance I would prioritize to support his project	1	2	3	4	5
Getting a reward as an outcome of such a project is important to me	1	2	3	4	5
When a friend of mine asks me to support her crowdfunding campaign, I would do so because of our friendship	1	2	3	4	5
I anticipate my reward to be delivered in a timely manner.	1	2	3	4	5
I only contribute to a crowdfunding project if I get something in return	1	2	3	4	5
My contribution entitles me to receive a reward.	1	2	3	4	5
When I fund a project I tend to view it more as a donation than as a way of receiving a reward	1	2	3	4	5
I kind of feel obliged to support a project of a friend or acquaintance					
<b>17. How well do you know the creators of the project?</b>	<b>Complete Stranger</b>				<b>Family / Friends</b>
	1	2	3	4	5
<b>18. Which of the following categories describe your latest reward best?</b>	<b>Product</b>	<b>service</b>	<b>Experience</b>	<b>Thank you reward</b>	<b>Other</b>
	1	2	3	4	5

	Unlikely				Likely
<b>19. Please indicate your likelihood of participating in crowdfunding.</b>					
I would generally invest in start-ups via crowdfunding platforms.	1	2	3	4	5

**20. How old are you ?**

**21. Gender ?**  **Male**  **Female**

**22. Marital Status ?**  **Married**  **Single**

**23. What is your country of residence?**

**24. What is your highest education ?**

**25. What is your current Professional status?**

## Appendix 2: The Cronbach's alpha values and the factor analysis of the pretest

**Rotated Component Matrix<sup>a</sup>**

	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
Q9.2	,824											
Q9.4	,818											
Q9.5	,811											
Q9.6	,807											
Q9.1	,706											
Q9.9	,692											
Q9.3	,612											
Q9.7	,609										,401	
Q9.8	,503										,422	
Q12.2		,724										
Q12.4		,717										
Q12.3		,677										
Q12.1		,632										
Q11.7			,696									
Q11.8			,675									
Q11.6			,620									
Q11.5			,494									
Q16.7				,824								
Q16.6				,808								
Q16.5				,696								
Q16.3				,671								
Q16.1				,637								
Q13.5					,873							
Q13.6					,816							
Q13.4					,791							
Q13.7					,673							
Q13.1					,607							
Q14.2						,845						
Q14.3						,826						
Q14.1						,629						
Q14.4						,599						
Q16.9							,862					
Q16.2							,800					
Q16.4							,698					
Q10.3								,802				
Q10.4								,731				
Q10.5								,452				
Q10.2								,414				
Q15.4									,731			
Q15.2									,638			
Q15.5	,521								,574			
Q13.2										,813		
Q13.3										,781		
Q15.1											,736	
Q15.6											,661	
Q15.3								,432			,486	
Q10.7												,794
Q10.6												,738
Q10.1												,661
Q16.8												-,485

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 a. Rotation converged in 8 iterations.



**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q9.1	178,09	738,622	,526	,933
Q9.2	178,04	739,620	,510	,933
Q9.3	178,94	741,568	,319	,934
Q9.4	179,16	749,966	,211	,935
Q9.5	178,43	731,423	,619	,932
Q9.6	178,36	733,660	,577	,933
Q9.7	178,07	737,945	,499	,933
Q9.8	178,10	737,553	,563	,933
Q9.9	178,07	736,517	,593	,933
Q10.1	178,44	734,602	,533	,933
Q10.2	179,08	733,892	,447	,933
Q10.3	178,83	740,644	,350	,934
Q10.4	178,47	735,444	,464	,933
Q10.5	178,63	732,133	,581	,933
Q10.6	179,43	732,130	,433	,934
Q10.7	179,16	727,496	,493	,933
Q11.5	179,00	726,756	,545	,933
Q11.6	179,05	728,065	,534	,933
Q11.7	178,90	720,276	,668	,932
Q11.8	179,13	718,480	,537	,933
Q12.1	178,47	735,327	,525	,933
Q12.2	178,79	722,771	,635	,932
Q12.3	178,54	730,687	,594	,932
Q12.4	178,80	722,514	,651	,932
Q13.1	178,88	734,608	,447	,933
Q13.2	179,01	732,933	,466	,933
Q13.3	179,00	726,387	,565	,932
Q13.4	179,45	742,653	,297	,935
Q13.5	179,68	737,361	,374	,934
Q13.6	179,56	743,207	,286	,935
Q13.7	179,68	735,865	,414	,934
Q14.1	179,18	735,193	,429	,933
Q14.2	179,33	734,443	,455	,933
Q14.3	179,41	731,504	,503	,933
Q14.4	179,35	729,070	,512	,933
Q15.1	178,41	727,639	,653	,932
Q15.2	179,65	739,910	,354	,934
Q15.3	178,61	741,299	,403	,934
Q15.4	179,21	731,057	,446	,933
Q15.5	178,83	737,720	,392	,934
Q15.6	178,26	742,697	,429	,934
Q16.1	178,73	735,911	,488	,933
Q16.2	178,98	733,873	,458	,933
Q16.3	179,24	732,975	,434	,933
Q16.4	178,94	733,938	,475	,933
Q16.5	178,71	739,217	,352	,934
Q16.6	179,97	743,730	,244	,935
Q16.7	179,57	736,214	,355	,934
Q16.8	178,83	749,440	,207	,935
Q16.9	178,92	735,153	,417	,934

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