




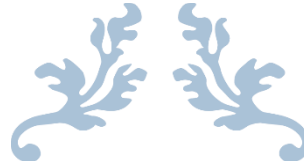


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RE-INVESTING MOTIVATIONS AND
PLAYBOUR IN EQUITY CROWDFUNING

PhD Thesis



International Doctorate in Management and
Entrepreneurship (IDEM)

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Supervised by:

Dr. Stefan Van Hemmen



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Submitted by:

Rayan Faisal Makki

In Partial Fulfillment of the Requirements for the Degree of

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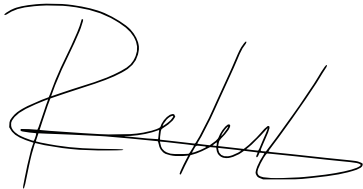
Major: **Entrepreneurial Finance**

DECLARATION

This Thesis is the product of my own work and contains nothing that is the result of collaborative work except as expressly stated in the text. It has never been submitted to any university or institution before, in part or in full, for any degree, certificate, or other qualification.

PhD Candidate

Rayan Makki

A handwritten signature in black ink, appearing to read 'Rayan Makki', written in a cursive style.

Supervisor

Dr. Stefan Van Hemmen

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Rayan Faisal A Makki

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INTRODUCTION

Problem Statement:

Due to the digital revolution nowadays in our lives, entrepreneurial finance has developed to link finance and entrepreneurs, gaining more access to funds which will allow them to start their ventures. Crowdfunding has evolved to solve financing obstacles by linking the crowd to platforms where they are able to discover new ventures and support them by investing their money. Crowdfunding allows many people –the crowd- to invest small amounts of money on a selected venture. Crowdfunding started with donation crowdfunding which allowed the crowd to donate small amounts of money to a variety of social projects. Afterwards, reward crowdfunding has gained presence to allow paying for a product before manufacturing takes place: prototypes and products requiring investment can be chosen, with investors subsequently waiting till it is made and delivered to them. Finally, the equity crowdfunding appeared by which crowds are enabled to be part of the venture by investing and becoming shareholders. This thesis will focus on the equity crowdfunding type and study motivations for investors to engage in such platforms.

Research on equity crowdfunding has been evolving since 2012 (Mochkabadi & Volkmann, 2018) but it is acknowledged that much more is needed to gain better understanding of this topic. Moreover, in their systematic literature review these authors analyzed 117 published papers to identify the streams that scholars are pursuing in equity crowdfunding. They found out that streams can be divided into human capital, equity retention, social capital, active communications, third parties, campaigns characteristics, post campaigns and investor's motives. This thesis is based on the investor motive stream.

Investor's motives have drawn the attention for many scholars, starting with Cholakova & Clarysse (2015), who discussed pledging from reward to equity crowdfunding. Later research tried to explain intrinsic and extrinsic motivations affecting investors' intention to engage in equity crowdfunding (Bretschneider & Leimeister, 2017; Hervé et al., 2016; Kang et al., 2016; Schwienbacher, 2017; Vismara, 2019).

Although papers discussed the potential motive attracting investors to engage in equity crowdfunding, little is still known about re-investing motives. Scholars discussed intrinsic and extrinsic motivations that influence investors to risk small amount of money on new ventures but did not discuss which of those motivations make investors re-invest and engage in equity crowdfunding platforms.

At the same time, due to the emergence of digitalization and gamification nowadays, individuals' behavior toward things has changed. The concept of playbour introduced by (Kücklich, 2005) is a phenomenon combining play and labor and its study involves how people are motivated by fun and play at the workplace. In this thesis I consider playbour a second-stage investment motivation for investors in equity crowdfunding, which means that investors having motivations to invest and re-invest in equity crowdfunding to support a start-up to be established, but their financial motives not only drive the investment alone but they could also be motivated by the projection they make on working in the type of start-up they support, basically due to the association between the fun they feel they could experience while being exposed to the crowdfunding campaign.

To the best of my knowledge, no paper has been published where the re-investing motivations in equity crowdfunding are discussed. In addition, papers empirically studying

playbour are few and do not examine the relationship between playbour and other extrinsic motivations to disclose the possible effect of playbour on the intention to work in start-ups.

As for specific research objectives, this thesis aims at answering the following questions:

To evaluate motivations affecting students as potential investors to re-invest in equity crowdfunding platforms, we asked ourselves the following questions (Q):

Q1: Which are the intrinsic motivations affecting potential investors' intention to re-invest in equity crowdfunding?

Q2: Which are the extrinsic motivations affecting potential investors' intention to re-invest in equity crowdfunding?

To evaluate playbour intention for students as potential investors:

Q1: Would fun at work motivate potential investors' intention to choose to work in the start-up they invested at?

Q2: Are potential investors motivated by other extrinsic motivation when they intend to work in start-up motivated by fun?

To evaluate motivations affecting digital workers to re-invest in equity crowdfunding platforms, in contrast to potential investors' motivations:

Q1: Which are the intrinsic motivations affecting digital workers' intention to re-invest in equity crowdfunding?

Q2: Which are the extrinsic motivations affecting digital workers' intention to re-invest in equity crowdfunding?

To evaluate playbour intention for digital workers, in contrast to with potential investors:

Q1: Would fun motivate digital workers' intention to choose working in the start-up they invested at?

Q2: Are digital workers motivated by other extrinsic motivation when they intend to work in a start-up motivated by fun?

All these questions were addressed by accounting for win and loss scenarios, where ECF investors are using platforms again to re-invest regardless to their win or loss in the previous investments.

Theoretical Framework:

Self-Determination Theory (SDT) was used as a theoretical framework through this thesis. The theory by Deci & Ryan (1987) is a macro theory of human motivations, studying motivations behind people's choices. The theory divides motivations to intrinsic and extrinsic. Intrinsic motivations are those motivations involve people doing an activity because they find it interesting itself while extrinsic motivations, in contrast, are involve people doing an activity because derived by receiving rewards and not because of the interest in the activity itself. Accordingly, this thesis studied intrinsic and extrinsic motivations to give broader understanding on why investors are repeating investments in ECF in win and loss situations. Furthermore, it gives broader understanding on whether fun at work, as playbour motive, affects the decision of those investors to choose to work in the start-ups they invested at in addition to other extrinsic motivations.

Empirical Strategy:

With regards to empirical strategy, two samples were used to study the questions proposed in this thesis. The first sample was using business students at UAB in Spain through an experiment held in the university. Afterward, digital workers, who are also business students, from Amazon Mturk platform in the US, were compared with the first sample. So, the thesis

moved from studying un-experienced sample in work and investment to experienced workers and investors to illustrate the differences between them in re-investing and playbour decisions.

To test the hypotheses proposed in this thesis, I have used regression analysis and structural equation modelling using STATA and SMART-PLS statistical packages.

Research outline:

Chapter1. Extrinsic and Intrinsic Motivations in Re-Investing Decisions. An Experiment on Equity Crowdfunding

The chapter addresses extrinsic and intrinsic motivations affecting potential investors' intention to re-invest in equity crowdfunding (ECF) platforms. More specifically, the chapter seeks to shed light on motivations affecting potential investors to re-invest in win and loss scenarios. In order to study this, self-determination theory was used as it is studying intrinsic and extrinsic motivations effect of individuals' intention toward an action. According to the literature of ECF Financial return and recognition used as extrinsic motivations, pleasure and excitement used as intrinsic motivations.

In order to study these motivations on potential investors, an experiment was held on the business school students at the Universitat Autònoma de Barcelona. The experiment was designed to let students choose an investment channel to invest a small amount of money. Only students who chose ECF as an investment channel were considered part of the sample.

Afterwards, those students were asked if they wanted to re-invest in both scenarios –win and loss– and were subject to a survey examining which of those motivations affected their intentions to re-invest in ECF. Samples used in this chapter include 141 business students (43% male and 57% female) at UAB.

Results showed that potential investors in the win scenario are motivated by financial return and pleasure to re-invest again in ECF. This implies that they care about financial return from the investment they made and are also motivated by the pleasure that gives them a feeling of happiness in the long run; hence, they choose to re-invest again when they win. In contrast, potential investors in the loss scenario were motivated by recognition and excitement. This could explain the reason behind their intention to invest when they have lost in the first one as they are keen to win to be recognized among their peers and social circle. Their feeling of the excitement which in the short run gave them happiness when selecting the venture in the platform motivated them to re-invest, even though they lost in their first investment.

This chapter contributes to the literature on ECF in many aspects. First, it shows which intrinsic and extrinsic motivations affect the intention to re-invest in ECF platforms. Second, it shows which of those motivations are affecting the intention to re-invest in specific scenarios, i.e., win and loss. This chapter contrasts with existing literature on ECF where preserved those motivations in sum and does not specify which of them is attracting investors in the second investment; additionally, this literature did not specify how motivations influence the will to re-invest in case of winning or losing.

Chapter 2. Playbour: Equity Crowdfunders as Potential Workers for Start-ups

This chapter addresses the playbour phenomenon on ECF potential investors. The chapter investigated a second-stage intention for potential investors in the way that they are not only investing in ECF platforms derived by motivations for the investment itself but also they have an intention to work in the start-up they invested at. Moreover, it examined if participants specifically motivated to work in the start-up they invested at were driven by the fun-at-work

motive. Furthermore, the chapter included other extrinsic motivations –financial return and recognition– along with the intrinsic motive –fun at work–.

The data used in this chapter is derived from the experiment performed in Chapter 1. After potential investors were confronted with the survey to find their motives behind the re-investing intention, they were confronted to another set of questions asking them about their intention to work at the start-up they invested at. Afterwards, they were asked questions about the three intrinsic and extrinsic motives affecting their intention to work in the start-up.

Results showed that fun at work as an intrinsic motive with a positive effect on potential investors' intention to work in the start-up they invested at. Moreover, it showed that recognition also has a positive effect on their intention to work there. On the other hand, results showed that financial reward was not a motive for potential investors, which could be justified by their age as students seeking fun and recognition rather than financial return.

This chapter contributes to the literature of ECF by showing that there is a possibility that younger investors are not motivated to invest only for the return itself but also because they have another plan in mind, such as projecting themselves as potential workers, endorsing the venture success to work at it. The chapter also contributes to the literature of human resource management by adding an empirical evidence for the playbour phenomenon, showing that fun at work is a motive affecting the intention to work in start-ups.

Chapter 3. Re-Investing in Equity Crowdfunding: The Case of Digital Workers

The chapter addresses extrinsic and intrinsic motivations affecting digital workers' intention to re-invest in equity ECF platforms. More specifically, the chapter sought to shed light on motivations affecting digital workers to re-invest in win and loss situations. Similar to Chapter 1, SDT was used because it studies the effects of intrinsic and extrinsic motivations on

individuals' intention toward an action. Following the existing literature on ECF, financial return and recognition were used as extrinsic motivations, and pleasure and excitement as intrinsic motivations.

In order to study these motivations on digital workers, I used the Amazon Mturk platform to reach digital workers and have the possibility to compare with potential investors who were students only and not working. Out of 600 respondents, we only studied 355 digital workers who fell within the sample criteria –student, studying business– to be able to compare them with students in Chapter 1. Then, those digital workers were confronted with a self-administrated survey to disclose which of those motivations affected their intentions to re-invest in ECF.

Results showed that digital workers in the win scenario are motivated to re-invest again in ECF by financial return, pleasure and excitement. This shows that they care about financial return from the investment they made, and about the pleasure that gives them a feeling of happiness in the long run because of the financial return, as well as excitement in the short run by the happiness produced by being in the platform, so they choose to re-invest again when they win. On the other hand, digital workers in the loss scenario were motivated by financial return, recognition and excitement. This could explain the reason behind their second investment when they lost in the first one, as they are keen to win and recover their losses and to be recognized among their peers and social circle. Moreover, their feeling of the excitement which a short run happiness feeling conveys when selecting the venture in the platform motivated them to re-invest even though they lost in their first investment.

This chapter contributes to the literature of ECF in many ways. First, it shows which intrinsic and extrinsic motivations affect the intention to re-invest in ECF platforms. Second, it shows which of those motivations are affecting the intention to re-invest in specific situations,

win and loss. The literature on ECF put those motivations together and did not specify either which of them attracted investors in the second investment or specify whether their research was dealing with cases of winning or losing while entrepreneurs and platforms owners need more information about investors to know how they could attract more of them to repeat investing in the platform which will help to have more ventures succeed.

Chapter 4. Playbour in the Platform Economy

This chapter addresses the playbour phenomenon on digital workers. The chapter investigated a second stage intention for digital workers in the sense that subjects are not only investing in ECF platforms driven by motivations towards the investment itself but also they have an intention to work in the start-up they invested at. Moreover, this chapter examined if subjects were specifically motivated to work in the start-up they invested at for the fun-at-work motive. The chapter included other extrinsic motivations –financial return and recognition– along with the intrinsic motive fun-at-work.

The data used in this chapter is derived from Amazon Mturkers digital workers used in Chapter 3. They were confronted with a self-administrated survey to find their motives behind the re-investing intention, and with another set of questions asking them about their intention to work at the start-up they invested at. Afterwards, they were asked questions about the three intrinsic and extrinsic motives affecting their intention to work in the start-up.

Results showed that fun at work as an intrinsic motive has a positive effect on digital workers' intention to work in start-up they invested at. Moreover, it showed that recognition also has a positive effect on their intention to work there. Furthermore, results showed that financial return (pay) was also a motive for digital workers as they are already seeking additional financial

return by working digitally on Amazon. Results also showed the whenever education and age increase, digital workers' intentions to work in start-ups get lower.

This chapter contributes to the literature of ECF by showing that digital workers as ECF investors may become motivated to invest not only for investment itself but also because they intend to make their venture succeeded in order to work at it. The chapter also contributes to the literature of human resource management by adding an empirical evidence for the playbour phenomenon, showing that fun at work is a motive affecting the intention to work in start-ups.

CHAPTER 1: EXTRINSIC AND INTRINSIC MOTIVATIONS IN RE-INVESTING DECISIONS. AN EXPERIMENT ON EQUITY CROWDFUNDING

Abstract

Despite the existence of significant research studying which motivations drive investors into equity crowdfunding, still little is known about which motivations influence investors' *re-investing* decisions. The present study investigates the extent to which extrinsic financial and non-financial motivations, or intrinsic non-financial motivations, determine the decisions to re-invest in equity crowdfunding. Specifically, this paper reports an experiment to measure the effect of different types of motivation on micro-investor decisions to re-invest in a win scenario as well as in a loss one. One of the most important results is that, when thinking about the possibility of re-investing, subjects are sensitive to previously experienced win and loss scenarios. In particular, results show that extrinsic financial motivations and excitement motivated participants to re-invest in win scenarios. In contrast, recognition and pleasure motivated investors to re-invest in loss scenarios.

Keywords: *Experimental Study. Re-invest Decisions. Intrinsic and extrinsic motivations. Equity Crowdfunding.*

Introduction

Equity crowdfunding platforms are a new form of entrepreneurial finance, allowing new projects to be funded by the public—‘the Crowd’ (Agrawal 2013; Cumming and Vismara 2017; Hollas 2013; Walthoff-Borm et al. 2017). Since its inception, there has been a dramatic rise in the volume of money invested through equity crowdfunding and the number of investors participating in these platforms. Langley and Leyshon (2017) noted that during 2013–2015 alone, the amount raised through equity crowdfunding increased from £666 million to £3.2 billion—an increase of 300%.

McKenny et al. (2017) published a paper discussing the phenomenon of equity crowdfunding and noted that research was needed to enhance the understanding of the participants in crowdfunding (McKenny et al. 2017). They added, however, that this would require connectivity with other disciplines such as marketing, organizational behavior and psychology since it appeared that participation in this type of investment was not driven purely by economic considerations or to achieve returns on the investment.

Although some recent papers have dealt with the motivations for investing in equity crowdfunding these have tended to neglect the important issue of motivations for reinvestment. An exception is Hervé et al. (2016), who studied reinvestment decisions in order to test the overconfidence and risk aversion of investors. This study, however, did not deeply study what motivates investors to reinvest. This is a crucial point and could certainly help entrepreneurs and platform owners understand what measures they might implement to preserve current investors rather than having to look for new ones. This paper, therefore, seeks to fill this gap in respect to the understanding of the motivations for reinvesting in equity crowdfunding.

The field of behavioral finance, which is related to psychology, emerged to explain behaviors and patterns in financial decision making that could not be modelled through conventional finance theory (Cudd et al. 2006). This paper draws on behavioral finance theory, specifically, self-determination theory (SDT) (Miller, Deci, and Ryan, 1988) to study the main intrinsic and extrinsic motives in equity crowdfunding re-investment decisions, encompassing both win and loss scenarios.

This study is also informed by relevant research into the significance of intrinsic and extrinsic motivations in building *initial* investment decisions in equity crowdfunding. In general, however, this body of research has not reached a consistent position on whether intrinsic or extrinsic motivation has the greatest impact on the decision to invest in equity crowdfunding (Allison et al. 2015; Fischer et al. 2019; Li et al. 2018; Wu and Lu 2013) but it shows us what kind of intrinsic and extrinsic motivations affect re-investing decisions. Cholakova and Clarysse (2015), meanwhile, studied intrinsic and extrinsic motivations informing investors' entry into equity crowdfunding rather than reward-based crowdfunding.

Given the novelty of crowdfunding and the lack of papers discussing re-investment decisions in equity crowdfunding, we have also turned to stock market literature in search of intuitions on the effect of motivations on reinvestment decisions by investors and fund managers (Magron and Merli, 2015). In that area, a financial extrinsic motivation, such as a dividend, has been one of the factors that have been studied, with clear evidence that this motivates investors to reinvest in stock markets (Andriosopoulos et al. 2012),(Yarram, 2014). Several papers have also demonstrated the importance of intrinsic motivations in the decision to reinvest. Cudd et al. (2006) asserted that mimicking is one of the motivations affecting the decision to repurchase stock, and this so-called herding behavior has also been found to be a factor in the decision to

invest in equity crowdfunding. Moreover, Meyer et al. (2017) studied enjoyment as an intrinsic motivation affecting the decision to reinvest in the stock market, which is a non-financial motivation that will be studied in this paper as well to see its impact on the re-investing decision. Building on the above research, the aim of this paper is, to study which types of intrinsic and extrinsic motivation affect the re-investment decisions in both win and loss scenarios in equity crowdfunding which is to our knowledge is one of the first papers dealing with re-investing. As in equity crowdfunding, participants do not know anything about their investment in any campaign if they lose or if the campaign fails after launching, so it is useful to know what type of motivations dragged them back to re-invest again in different campaigns.

The study takes the form of an experiment on micro-investors. Business Economics undergraduate students at the Universidad Autònoma de Barcelona (UAB) participated in the experiment and were given instructions which enabled regression analysis of the effect of extrinsic and intrinsic motivation on equity crowdfunding re-investment decisions in win and loss scenarios. Four motivations (financial extrinsic motivation, recognition, pleasure and excitement) are tested in each scenario to see which affect the decision making.

Theoretical framework and related literature

Self-determination theory

Self-Determination Theory (SDT) is used to develop the hypotheses needed to study the motivation effect present in equity crowdfunding decision-making. SDT is recognized as one of the best psychological theories to study the motivation behind crowds' choices to invest in equity crowdfunding platforms. The theory studies how a person chooses between available options depending on motivational drivers, i.e. "the process of utilizing one's will" (Adams et al. 2017;

Hagger and Chatzisarantis 2008). The theory asserts that these motivational drivers comprise intrinsic and extrinsic factors that lead an individual to take action towards something (Miller et al. 1988). Intrinsic motivation pushes an individual to pursue an action in order to feel good, while actions done involving extrinsic motivation require an extra instrumental value or prize, whether monetary or something else (Pierrakis 2019).

Many papers have used the SDT theory to measure investors' motivation to participate in crowdfunding, whether as donation, reward, lending or equity (Allison et al. 2015; Cholakova and Clarysse 2015; Collins and Pierrakis 2012; Kang et al. 2016; Lukkarinen et al. 2018; Pierrakis 2019; Schwienbacher and Larralde 2012). This study attempts to combine most of those motivations discussed in previous papers so as to be able to capture which motivation most affects the decision to re-invest.

Extrinsic motivation

Financial Return

Extrinsic motivation discusses the genesis of behavior, which, on a very basic level, is expected to result in some outcome that is divisible from the activity itself (Legault, 2017). In other words, extrinsic motivation is instrumental in nature: it is performed in order to achieve another result. For example, a child might seek to perform well in school in order to receive a gift from their parents.

The literature on extrinsic motivation in crowdfunding reveals interesting insights. Cholakova and Clarysse (2015) concluded that extrinsic motivation drives investors towards equity crowdfunding.. Zhao et al. (2018) also agreed that financial returns are a significant motivation for crowdfunding participants.

The possibility of re-investing provides an interesting context in which to research financial extrinsic motivations, since reinvestment offers the opportunity to either increase initial gains or reverse initial losses. We therefore study the effect of extrinsic motivation on the decision of whether to re-invest in equity crowdfunding.

We hypothesized this effect as follows:

H1: Financial extrinsic motivation has a significant positive effect on the decision to re-invest in equity crowdfunding in win and/or loss scenarios.

Recognition

Recognition is another extrinsic motivation to be addressed in this paper. It is one of the extrinsic motivations that affect individual decisions and is derived from the inner desire of individuals to attain notoriety or fame, and thus experience higher self-esteem (Bretschneider and Leimeister 2017). Bretschneider and Leimeister (2017) explained the concept of recognition using Maslow's theory of motivations and pointed out that intrinsic motivation could be either implicit or explicit. An example of implicit motivation could be illustrated in the desire for a researcher to have their work recognized by peers. In contrast, an example of explicit recognition would be when someone receives thanks from a colleague for recommending a good investment that earned them more money.

Schewenbacher and Larralde (2012) explained the 'recognition effect' in their book *Crowdfunding of Small Entrepreneurial Ventures*, stating that investors in certain types of crowdfunding look for non-financial motives such as recognition. Hossain, Shi, and Waiser (2019) stated that people could engage in an activity in order to be recognized within their peer group.

Allison et al. (2015) conducted a study to test individuals' motivations to invest in start-ups through equity crowdfunding, concluding that recognition is one of the initiating intrinsic motivations leading an individual to invest in new ventures to help young entrepreneurs.

Again, re-investment decisions offer an interesting setting for individuals sensitive to recognition: the lack of recognition associated with a loss may push an investor to try again, whereas the lucky ones may want to experience extended recognition and love being recognized by their close friends, family or colleagues that they have invested in equity crowdfunding and make profits, which will show that they are smarter or have more information than others. Thus, there is an assumption that recognition is a relevant intrinsic motivation in investors' decisions to re-invest in win or loss scenarios. Therefore, we hypothesized:

H2: Recognition has a significant positive effect on the decision to re-invest in equity crowdfunding in win and/or loss scenarios.

Intrinsic Motivation

It is also essential to investigate intrinsic motivation in order to gain a broader understanding of how self-related processes works and what intrinsically motivates participants to re-invest again in equity crowdfunding (Deci, 1987). Deci and Ryan (1985) proposed that interest (in the sense of being curious about something) is the main driver for intrinsic motivation. In their study on SDT, experiments were conducted to test how people act when they feel interested in something, so as to understand more clearly the link to why they choose one action rather than another. Previous studies explored the meaning of interest and how it is potentially created, while some went deeper to study motivational drivers; such as Hull's drive theory for motivation, which states there are different types of motivational drivers that increase interest (Seward, 1954). Studying these different motivational drivers in detail will allow a better

understanding of relevant factors, allowing a hypothesis to be developed to study the intrinsic motivations of micro-investors (the crowd).

Malon and Lepper (1987) discussed factors that affect intrinsic motivation, finding that social factors such as competition, cooperation and recognition serve to enhance intrinsic motivation, leading an individual to act in a certain way.

Consequently, Soediono (2006) studied different drivers that could enhance the level of interest and thence also increase the intrinsic motivation to choose one action rather than another. He started with the boredom driver, which is the curiosity to perform an act out of boredom, noting that an animal, for example, sometimes searches for food out of boredom (page 39). He then discussed information conflict as a driver that arises when a person tries, but fails, to link information to the remembering or labeling stage, which is a way of matching information to its related set of knowledge in something. This will increase the person's interest to undertake the action in order to satisfy him or herself. Soediono (2006) also discussed the information gap driver, in that interest and curiosity increase when one perceives a gap in one's knowledge. Loewenstein (1994) also discussed those gaps in knowledge could be a major driver in interest arousal. This case can be applied to equity crowdfunding as it is a new form of investment and the amount of knowledge and technology used in the platform or projects presented make the crowd interested to invest.

On the other hand, Huang (2018) observed that investors in early-stage investments depend on their gut feeling rather than their knowledge and experience. Huang further stated that gut feeling usually depends on factors such as feelings and emotions, which are other aspects of intrinsic motivation.

To be able to explain intrinsic motivations, we need to classify them into different factors so that we can identify each factor's effect on the decision to invest and re-invest in equity crowdfunding. Knowing the exact effect of each separate factor will make it possible to build up a clearer idea about each type of decision.

Using cognitive appraisal theory to study individuals' emotions, Roseman and Evdokas (2004) defined pleasure as a positive emotion that leads someone to feel happiness, joy, enjoyment and fun.

Pleasure

Using online websites and technology is an example of an activity that may produce a degree of pleasure and fun. A study of online shoppers showed they have higher intrinsic hedonic motives like enjoyment and fun, leading them to use online websites for shopping due to the uniqueness of the technology (Peng and Kim 2014). Lin, Wang, and Chou (2012) also found that pleasure and fun could relate to the use of technology and that individuals could act due to the pleasure of the thing rather than achieving certain goals.

Similarly, another study conducted on investors showed how they are motivated to invest in highly uncertain and complex contracts like warrants because of the pleasure and fun involved, the focus being put on so-called contractual technology (Abreu 2019).

Moreover, Schwienbacher and Larralde (2010) studied the motives and reasoning for participating in crowdfunding platforms, stating that participants in crowdsourcing projects are always intrinsically motivated by pleasure and fun. Pierrakis (2019) confirmed in his study that fun is one of the main motives cited by equity crowdfunding investors when they decide to invest.

Pleasure has always been an area of interest, especially when it comes to using technology in investment. It has been mentioned as an intrinsic factor in the decision to invest by many authors (Zhang et al. 2019; Schwienbacher and Larralde 2012) and we therefore also need to study its impact on the re-investing decision.

Due to its novelty, investing in equity crowdfunding for the first time seems an appropriate context for those who are in search of pleasure. The initial experience may be deemed incomplete, however (for instance, not fully satisfying curiosity), thus leading to repetition. Pleasure may, therefore, be thought as likely to play a relevant role as an intrinsic motivation affecting the decision to re-invest in equity crowdfunding. Thus, we hypothesize:

H3: pleasure has a significant positive effect on the decision to re-invest in equity crowdfunding in win and/or loss scenarios.

Excitement

Another major motivation is excitement. Roseman (2017) included excitement as one of the positive feelings for humans, which leads people to seek it when doing an activity. Deci (1987) studied intrinsic motivation and found that people engage in an activity because it is interesting, challenging, fun or exciting, which shows the importance of studying it as a factor in this study.

In his book *Exploring the Psychology of Interest*, Silvia (2006) stated that excitement is derived from the interest or curiosity to do something. The curiosity to perform and act to increase one's level of knowledge and experience is something exciting (Soediono, 2006). Given that equity crowdfunding, is a novel form of investment it is unsurprising that the few studies that there are in this area, such as that of Daskalakis and Yue (2017), have confirmed that

excitement has a high effect on some crowdfunding types, such as equity and reward-based crowdfunding. This highlights the need to study excitement and has it as an intrinsic motivation in the decision to re-invest in crowdfunding. Thus, we hypothesized:

H4: Excitement has a significant positive effect on the decision to re-invest in equity crowdfunding in win and/or loss scenarios.

Research method

Sample

The purpose of this research is to gain a better understanding of what motivations affect the decision to re-invest in equity crowdfunding in both win and loss scenarios.

To achieve this, this study used university students, within 18-24 years old, as a sample in an experiment to test the hypotheses proposed earlier. University students have been used previously in studies of entrepreneurship. For example, Bernardino and Santos (2020) used university students to understand the characteristics of young entrepreneurs using crowdfunding in Portugal. The use of students as a sample in research has been discussed by Henry (2008). He stated that in psychological research we need to consider whether university students could match the characteristics of the sample needed. Glick (2007) added that a large body of research using college students shows exactly the same results as other samples. Henry (2008) added that the only limitation of using university students as a sample is when the research question is not relevant to their experience, such as testing the effect of social media applications on marriage relationships. This is not the case in this research, however, since students are potential investors in crowdfunding, and their age is consistent with the ability to use technology and with having the motives we are testing. Furthermore, this age group is interesting to study since such research

can provide insights into possible future trends in investing behavior. A number of recent papers on crowdfunding have therefore studied motivations among investors of this age group (Cholakova & Clarysse, 2015; Daskalakis & Yue, 2017a; Hervé et al., 2016). In addition, in another paper discussing investors' behavior 56% of the sample were aged 19-25 years old (Liang et al., 2019).

The experiment was therefore performed on 158 undergraduate students studying business economics courses to see how intrinsic and extrinsic motivation affect the decision to re-invest in equity crowdfunding.

Participants were given access to Crowdcube platform, one of the biggest equity crowdfunding platforms globally. One can simply register through Facebook, Twitter or Instagram, making it easy to access and perform the experiment.

Of the 158 participants, 141 completed the experiment by satisfying all the requirements of the study (43% male and 57% female). Eighty-four students undertook the experiment.

Procedure

To fulfill the purpose of this study and identify real motivations, an experiment was held at UAB to study potential investors motivations. Among of the three types of experiments used in business research; natural, controlled and field experiments, this study performs a field experiment where it combines both natural and controlled experiments by setting a real-world experience under controlled conditions. To do so, we needed to place participants in a situation that would feel as close to reality as possible, where they were investing their own money. First, therefore, we asked teachers to inform students that in the following week's class there would be a voluntary experiment where they would be offered the opportunity to invest an amounting of ten Euros. Then, on the day of the experiment, the students were informed that they would have a

practical session to gain knowledge about on Fintech and entrepreneurial finance. Students were asked if they wanted to attend the experiment, in which case their class would be rescheduled. The decision was freely to their interest to stay or leave the class and not take the experiment, and among the three different teaching groups in which the offer was made (all of them in their second year), only four students did not want to attend the experiment and they were offered the chance to leave the room, which they did.

Participant students were given an introduction to equity crowdfunding to show them how this works. Although the participants were under no obligation actually to invest their money if they did not wish to do so, only six of those who had decided to stay then chose not to invest in equity crowdfunding and keep their money with them. Nonetheless, there was no attempt to check whether those who expressed their intention to invest actually did so, so as to protect their privacy.

Second, when making their choice to invest in equity crowdfunding, the participants were allowed to access the equity crowdfunding platform in order to choose the campaign in which they wanted to invest. The aim was to expose them to the experience of dealing within the platform and choosing the campaign they would invest in.

Third, after selecting the desired campaign, participants were asked to complete an online survey on their motivations in respect to potentially re-investing their ten Euros in equity crowdfunding. They were asked whether in the case of receiving news that the campaign they have invested at have proceeded to the next stage and start producing product or giving a service which will generate a financial return, they would invest another ten Euros in a different campaign, as a hypothetical scenario. The same question was asked for a loss scenario. They

were told that if they know that the campaign fails to make it to the next stage will they choose another campaign in a different company to re-invest in.

Lastly, after completing these tasks, students were thanked for their attendance and participation and were welcome to open up a discussion in respect to the notes they may had made during the process to answer their questions.

Measures

Control variables

Use of technology. Recently, the finance literature has become increasingly interested in the use of technology, following the emergence of Fintech. Authors have started analyzing the effect of using technology as a motive in engaging in technology-related activities. Ryu (2018) asserted that the use of technology is a motive for an individual as it combines economic benefits, reduces transaction costs and is more convenient. Another study discussing the use of Bitcoin asserted that perceived ease of use and usefulness were also motives for investors to participate in the task (Walton and Johnston 2018). Furthermore, Li et al. (2018) used UTAUT (Unified Theory of Acceptance and Use of Technology) to confirm that use of technology was one of the variables affecting donors' intention to participate in donation crowdfunding platforms. Therefore, use of technology became a motive itself for participants as they are eager to try different mean of investment. Thus, we believe that use of technology should be included in the model as control.

Future Planning. Thinking about the future motivates individuals to invest to secure their future. In finance, deferring consumption for the future has always been rewarded by interest; when you think about the future, you expect to get rewarded. The literature on future planning has dealt with rewards from an investment point of view. Lam and Hui (2018) studied the relationship

between investor predictions and actual long-term returns to point out that future planning motivates investors to invest in real estate in Hong Kong. Lam and Hui (2018) further stated that the relationship between future planning and long-term return could be explained by investors being motivated to have a better future; which is also why they chose a certain type of investments they believed would deliver a higher return, thus securing their future. They concluded that this type of thinking increased real estate prices in Hong Kong.

Watson (2009) also discussed future planning and planning practice in the UK, arguing that future planning increases UK citizens' willingness to accede to government policies to support a strong financial system for a brighter future.

Zheng, Xu and Zheng (2019) also confirmed that future planning is usually derived from investors who think about long-term profit in order to secure a better source of income in the future.

Thus, we believe that use of technology needs to be included in the model as a control variable.

Dependent variables

Dummy variables were used to capture the re-investment decisions in equity crowdfunding in both the win and loss scenarios. They were used to measure the willingness to re-invest in certain scenarios thus allowing us to identify which motivations affect the decision for re-investing.

Independent variables

The experiment included a survey containing statements aimed at studying the effect of specific motivational drivers on the decision to invest which has been similarly used by Cholakova and Clarysse's (2015). It is important to state at this point that we do not explicitly distinguish

between investment and re-investment in these questions, because the purpose lies in identifying the subjects' investment profile, so that this profile could be used in subsequent re-investment modeling. The first motivation surveyed was the financial extrinsic motivation. This measure has been used by other papers (Cholakova and Clarysse 2015; Zhao et al. 2018). In respect to this motivation, we asked questions like “you are motivated to invest in equity crowdfunding to have future return”. We also surveyed recognition, which has been found to be one of the main motives in the literature (Cholakova and Clarysse 2015; Schwiendbacher and Larralde 2012). In order to determine whether recognition has a similar impact on the re-investment decision, we confronted participants with statements like: “you feel motivated to invest to be one of the first people invested in equity crowdfunding”.

Moreover, intrinsic motivations are introduced in this paper, specifically in respect to pleasure and excitement, as discussed in the literature review of this paper. Thus, we again confronted participants to statements like: “You feel motivated to invest in equity crowdfunding to try the pleasure of using this type of platform”, and “You feel excited while investing in equity crowdfunding”.

Principal components analysis (PCA), which is a statistical technique used with data dimensionality, was used to analyze the independent variables, which were surveyed across sixteen items. PCA is a technique that uses dependencies between variables to represent them in fewer factors so as to make it easier to trace their view about a statement or a question without losing too much information (Roscoe et al. 1982). In psychological studies, a number of questions need to be answered to measure one factor and capture it carefully; this therefore increases the importance of using PCA in such studies (Fabrigar et al. 1999).

Importantly, to use PCA, some terms need to be satisfied to have adequate results. Factor-loading represents the strength of the variable in each factor (Finch, 2020). A factor-loading above 0.5 is considered to be indicate that the factor offers a good representation (Salako 2006). Additionally, the Kaiser-Meyer-Olkin (KMO) technique is used to measure the adequacy of sampling (Sen and Antara 2019) which shows how much of the variance in your variables could be explained by underlying factors.; the results are considered good when the KMO is above 0.5.

In this study, financial extrinsic motivation was found to have a factor-loading of 0.56–0.7 and a KMO result of 0.672, both of which indicate that this factor is good and adequate to be studied. Moreover, the intrinsic variables showed factor-loadings in a range between 0.7 and 0.8, which is considered a high loading. Moreover, they had good KMO scores of between 0.5 and 0.65, again suggesting that statements used in this study were adequate.

Results

We developed two models to see how the surveyed motivations affected the re-investing decisions in win and loss scenarios, as shown in Tables 1 and 2.

Table 1.1: Regression Model for Win scenarios.

Win_Re-Invest	Coef	std. err.	t	p> t	[95% conf.	Interval
Techno Use	-0.0488062	0.078298	-0.62	0.534	-0.203666	0.1060537
Future Planning	0.2881228	0.0591313	4.87	0.000	0.1711713	0.4050742
<u>Financial Extrinsic</u>	0.1126033	0.0573093	1.96	0.052*	-0.0007444	0.2259511
Recognition	-0.0485815	0.070887	-0.69	0.494	-0.1887836	0.0916207

Pleasure	0.0366687	0.0781602	0.47	0.640	-0.1179185	0.1912559
Excitement	0.1322084	0.0592482	2.23	0.027**	0.0150257	0.249391
_cons	4.052622	0.0549828	73.71	0	3.943876	4.161369
Number of observations: 141						
R2: 23% Adj-R: 21%						

* = significant at $p < 0.1$; ** = significant at $p < 0.05$

Table 1.2: Regression Model for Loss scenarios.

Loss_Re-Invest	Coef	std. err.	t	p> t 	95% conf.	Interval
Techno Use	-0.101006	0.0802672	-1.26	0.21	-0.259782	0.0577705
Future Planning	-0.005175	0.0608241	-0.09	0.932	-0.125491	0.1151414
Financial Extrinsic	0.0208061	0.0590732	0.35	0.725	-0.096047	0.1376588
Recognition	0.2986208	0.0726238	4.11	0.000**	0.1549638	0.4422779
Pleasure	0.1488569	0.0800908	1.86	0.065*	-0.009571	0.3072845
Excitement	0.0974208	0.0607437	1.6	0.111	-0.022736	0.2175777
_cons	3.437113	0.0567085	60.61	0	3.324938	3.549288
Number of observations	141					
R²	23%					
Adj-R²	21%					

* = significant at $p < 0.1$; ** = significant at $p < 0.05$

Win scenario

In order to study the effect of motivations on the re-investment decision in a win scenario, we conducted a regression in which the decision to re-invest was a dependent variable and the other motivations were independent variables. The results for Model 1 (table 1.1) show that future planning ($\beta = 0.288$, $P = 0.000$), financial extrinsic motivation ($\beta = 0.113$, $P = 0.052$) and excitement ($\beta = 0.132$, $P = 0.0270$) had significant positive relationships with the decision to re-invest. Therefore, financial extrinsic motivation and excitement hypothesis were supported.

Loss scenario

Another regression analysis was conducted for the re-investment decision in loss scenario. This model (Model 2, table 1.2) shows that both recognition ($\beta = 0.299$, $P = 0.00$) and pleasure ($\beta = 0.149$, $P = 0.065$) had significant positive relationships with the decision with the decision to re-invest. Therefore, recognition and pleasure hypothesis were supported in loss scenario.

Discussion

This paper has studied the effect of financial and non-financial extrinsic motivations and intrinsic motivations on decisions to re-invest in an equity crowdfunding platform in both win scenario and in a loss scenario. Recent debates in the finance and psychology literature inspired the research questions in this paper. Moreover, while the literature identified a number of motivations affecting the investment decision, it did not distinguish between the first decision and re-investing decisions. Therefore, the aim was to expand on current knowledge by understanding how these motivations influence investors' decisions in the re-investing stages in both win and loss scenarios, so as to help platform owners develop differential strategies for attracting investors and retaining them.

SDT guided us to conclude that both intrinsic and extrinsic motivations have a high impact on the decision to invest in equity crowdfunding platforms. The following paragraphs

will therefore discuss our findings in respect to how those motivations also affect the re-investing decisions in win and loss scenarios.

Financial extrinsic motivation has always been one of the main factors influencing the decision to invest in equity crowdfunding (Cholakova and Clarysse 2015; Zhao et al. 2018). Our findings showed that financial extrinsic motivation is also highly significant for reinvestment, given a win scenario.

Additionally, we studied the effect of recognition motivation and found that recognition is a motivation for re-investing given a loss scenario. This supports Schwienbacher and Larralde (2012), who stated that recognition plays a role in motivating investors to use this type of investment. Despite losing in their first investments, some participants in equity crowdfunding chose to re-invest again, and that decision was statistically related to the desire for recognition, leading to self-esteem for people (Bretschneider and Leimeister, 2017). Even when financial extrinsic motivation was not relevant, therefore, participants' desire to be recognized by other people in their society motivated them to re-invest in equity crowdfunding.

The pleasure hypothesis was also supported in the loss scenario. This suggests that, alongside the main investment objective, investors enjoy using the platform that motivates them to go back and choose another campaign, even though they lost previously. This supports Pierrakis (2019) who found that pleasure is a factors that needed to be considered in this type of investment. The fact that participants choose to invest again even though they lost once before could be explained by knowing that pleasure is a feeling that persists even after the action done (Cabanac 1971; Roseman and Evdokas 2004).

The hypothesis in respect to excitement was also supported in the win scenario, supporting Daskalakis and Yue's (2017) contention that excitement was a motivation to invest in equity crowdfunding. The feeling of excitement motivates investors to re-invest.

Deci (1970) discussed that excitement is ignited by curiosity, which therefore motivate a person to perform an action. This feeling of curiosity might be derived from the process of discovering and learning to use something new. In the case of re-investing in equity crowdfunding we found out that participants were motivated by both excitement extrinsic financial motivation in the win scenario, suggesting that excitement is a particular motivation when the return is positive.

Furthermore, excitement was not far from being an accepted hypothesis even in loss scenario as it has a p- value of 0.111, which is very close and supports the discussion of excitement as a motive. We also saw excitement in loss scenario in lottery and gambling where people lose money but they still repeat the action.

Our findings provide insights to platform owners and entrepreneurs by allowing them to distinguish the motives of new investors from those who have invested previously. This could help them to tailor their marketing content and incentives in order to increase the overall number of investors in a campaign.

Furthermore, technology was used as a control variable and found to be significant in the loss scenario. Technology has been shown in other research using the UTAUT model—derived from the TAM (Technology Acceptance Model)—to be a factor in crowdfunding and other types on investments, like bitcoins (Li et al. 2018; Liang et al. 2019; Liu et al. 2018; Moon and Hwang 2018).

Limitations

In this study, we performed an experiment for micro-investors in a university. Due to the novelty and difficulty of the experimental procedure, it was hard to have a higher number of participants to perform the experiment. Furthermore, the age range was similar, as they were all second-year undergraduate students in Economics and Business, making it difficult to test the effect of the control variables in both models.

Moreover, the need to minimize the experiment time was a barrier. A longer time would allow the study of more motivations and other psychological aspects but would risk participants becoming tired, potentially affecting the reliability of their responses. Financial rewards could not be offered as part of the experiment as a way of maintaining participation for a longer time since such rewards could affect the re-investment decision, with the reward itself becoming capital for investment, when we needed to study motives for investing from their own money. In addition, we did not offer participants the option to re-invest in the same campaign again as this would have complicated the analysis by introducing issues of loss aversion and diversification into the mix of motivations.

Future Research

The finding that motivations affect investors' decisions to re-invest in equity crowdfunding opens the way to further research to study those effects in different contexts, for example to see if the same motivational effect holds or if it changes with other participants. Moreover, a larger sample would help both to verify the current results and allow investigation of a broader range of psychological aspects to see whether other motivations play a role in the re-investing decisions.

On the other hand, studying the same motivators with citizenship behavior could also give us a better understanding in the re-investing decision, as it could show us whether investors

feel more committed to particular types of projects, thereby supporting their decision to re-invest or not.

Additionally, other research could be done to test whether the same motivations hold for all sectors or if results vary to enhance the knowledge if there is a variation in motivation among sectors. Moreover, another possibility would be to study the option of re-investing in the same campaign to be able to test dilution and pre-emption effects, and any interactions with other motivations.

Conclusion

In this paper, we discovered which motivations affect the re-investment decisions of micro-investors in equity crowdfunding platforms in two scenarios, win and loss, by conducting an experiment on university undergraduate students in Economics and Business.

Research questions were inspired by the debates in the crowdfunding literature but advances beyond these to examine whether the motivations previously identified as affecting initial investment decision-making hold true for re-investing decisions. In order to reach more insightful conclusions, we investigated motivations in depth both for micro-investors who had experienced win in their first investment, and those who had experienced a loss.

We found that when their first investment had been a win, financial extrinsic motivation and excitement encouraged micro-investors to re-invest. On the other hand, when their first investment had made a loss, we found that recognition and pleasure encouraged reinvestment. The findings of this paper invite scholars of equity crowdfunding platforms to place more focus on understanding users' motivations for re-investment decisions.

CHAPTER 2: PLAYBOUR: EQUITY CROWDFUNDERS AS POTENTIAL STARTUPS' WORKERS

Abstract

Playbour has been introduced recently in the entrepreneurial human resources development's literature with a scarcity of number of papers published. Therefore, this paper will statistically connect the literature of entrepreneurial human resources and entrepreneurial startups through equity crowdfunding experiment. The experiment will be conducted to measure motivations such: fun, pleasure and financial motivation toward the decision to work in startups through an equity crowdfunding platform. The study will explore those motivations related to the playbour phenomena using the Self- determination theory as one of the most used theories in this aspect. Particularly, results supported the phenomena of playbour and show fun motivated crowdfunders to work in startups. Moreover, results show that whenever these motivations satisfied, crowdfunders are motivated by fun neglecting the financial motivation.

Introduction

The new era of technology and the evolution of crowdsourcing society had its impact on individuals by changing the nature of their working culture. This change could be observed with workers in digitalization forms such Uber, Airbnb and gamification sector (Törhönen, Hassan, et al., 2019). This evolution impacted the intrinsic motivation by changing the perceived and engaging activities at work from being professionally engaged to being engaged seeking the leisure part of it. Therefore, understanding how those individuals are motivated to work is crucial, in order to understand what make them choose a certain job and what keep them motivated to perform well.

This paper will expand the study of ‘playbour’ phenomena by studying equity crowdfunders as potential workers in new startups. The playbour ideology has been studied recently with many papers (Archer, 2019; Goggin, 2011; Lund, 2014; Törhönen, 2019) emphasizing the importance of capturing changes in behaviors, which led to increase the need of fun, pleasure and playing in workplace nowadays. However, the idea of having fun was not new, Fleming (2005) discussed this idea and showed the importance of increase the fun level for workers to increase their interest at workplace. He added that fun budgets should be available and ready to be spent to increase this aspect at work (Fleming, 2005).

Similarly, the crowdfunding literature has supported the idea of fun, pleasure and excitement as an intrinsic motivation toward investing in crowdfunding (Cholakova & Clarysse, 2015; Daskalakis & Yue, 2017a; Pierrakis, 2019; Schwienbacher & Larralde, 2012b; Xiao & Yue, 2018). Therefore, discussion and findings on the literature led us to think about connecting both ideas together due to the resemblances between actors in investing and working in startups.

The era of online gaming and merging with technology in everyday life's tasks increase had its impact of on individuals' behavior (Biegun et al., 2019). Authors added that this had increased the addiction level and risk-taking behaviours for younger generations and made them eager to use technology to be satisfied and having fun. Furthermore, many authors discussed the same issue of the effect of gaming on behaviour in the social integrative, affective, cognitive and personal integrative levels (Sjöblom & Hamari, 2017; Vesa et al., 2017).

Interestingly, IBM in its report (2013) mentioned the impact of gaming on its employees and their behaviour at work. It suggested that their job performance increasing with more fun and pleasure they find at works. It also added that its easier for them to take managerial role as they have higher risk attitude that make it easier for them to face challenges (IBM, 2007).

Simultaneously, the effect of this changing in the behaviour through the gamification era caused the liminality stage. Liminality has been defined and explained by Stenner (2017) in his book "Liminality and Experience" as it is a psychosocial phenomenon as it combines psychology and sociology, and it happens when people transferring from a situation to another. He added that this occurs after a change in someone's behaviour from one stage to another, like from religious activities to play or to work (Stenner, 2017). Additionally, Archer (2019) used this idea in explaining how mum could be classified as they are at playbour level when they are at home and working online even if they are not making lot of money (Archer, 2019).

Remarkably, the importance of studying startup companies has been increasing due to the number of new startups in the era of technology. Knowing that startups having 5 years surviving rate (Lueg et al., 2014) increased our desire to study issues related to overcome this problem and to have a higher survival time for those companies to help the growth of each economy. Putri & Suhariadi (2019) discussed the of human resources management in startups and asserted there is

a need to study employees' behaviors in startups to specify how could we have a lead to their productive behaviour. They added that achieving productive behaviour will put the startup company in better position (Putri & Suhariadi, 2019). Also another paper stated that in order for the alliance between business model and business process models to work efficiently in startups they need to have a good human resources management which have the knowledge on how could they attract talents to work in those startup companies (Lueg et al., 2014). Moreover Davila also asserted that for startups to have more growth, they need to change the human resources management in the new technological era (Davila et al., 2003).

However, pleasure, fun and play became essential and big motivations for employees to work, especially in startups. Scholars stated that in the fourth industrial revolution era, pleasure has become one of the main motivations in startup companies nowadays (Nangoy et al., 2020). Furthermore, in psychology, there is also a supportive prove that hedonic state is part of well-being for the new generation and it is something they are looking for (Schotanus-Dijkstra et al., 2016). Moreover, in future work report done at Business strategy review in 2010, author suggested that according to the new era changes, firms should have happiness and fun at work in the future (Lynda Gratton, 2010).

Due to the scarcity of papers studying playbour and working for fun, pleasure and play this paper will study the question of does playbour and fun at work motivate individuals to work in startups neglecting the financial return using the Self Determination Theory. The study will be conducted through an experiment performed at the University of Autonoma de Barcelona in Spain. The study will also measure the new generation's financial and non-financial motivation toward working at startups to prove if fun motive as an intrinsic motive could diminish the financial extrinsic motivation.

Literature Review and Hypothesis Development

Self-Determination Theory

For many years, numbers of motivational theories have been used to predict the persistence of human behaviour. However, with time changing accompanies with behavioural changes in human being, these theories needed to be revisited to focus on the potential of human beings rather than insufficiency of human being (Shuck et al., 2018). Therefore, self-determination theory will be used in this paper to discuss intrinsic and extrinsic motivation impact of playbour ideology and weather fun has become the main motive for crowdfunders as potential workers in startups or not. Furthermore, we will see if financial extrinsic motivation has a lower impact for the decision to work at startup. Moreover, other scholars also asserted that SDT is one of the most vital theories to be used when it comes to study motivational aspects in human resources. They added that this theory has its impact of the development of human resources process (Zigarmi et al., 2018).

SDT is a theory that study intrinsic and extrinsic motivations that support personality and behavioural self-regulation to have a better performance and be a better wellbeing (Adams et al., 2017).

Intrinsic Motivation:

Studying intrinsic motivation is vital in order to gain the knowledge on how self-related process works (Deci, 1987). Therefore, papers in human resources focused on intrinsic motivations to understand their workers more. Moreover, having a high level of intrinsic motivations would lead to have more enjoyable workplace and it will affect factors like: performance, innovations, satisfactions and loyalty (Rigby & Ryan, 2018). Furthermore, they also explained that the need nowadays is not to study how to motivate them rather that you need

to study how can you support the motivation they have (Rigby & Ryan, 2018). Additionally, when a worker has a higher intrinsic motivation will lead to have a certain degree of satisfaction that will lead to have higher intention to stay in the firm, perform better and have higher organizational citizenship behaviour (Zigarmi et al., 2018).

In the cognitive appraisal theory, Roseman and Evdokas (2004) defined pleasure as the positive emotion that leads someone to feel happy (Wen et al., 2018). Scholars also connected pleasure with joy, enjoyment and fun in their study of individuals' emotions (Roseman & Evdokas, 2004).

Conner (2005) argued that in the 20th century, playing, having fun and feeling happy became essential even at work; people want to experience these feelings to be motivated to perform. Other papers (Archer, 2019; Lund, 2014; Putri & Suhariadi, 2019; Törhönen, 2019) also supported the idea of having fun at work became vital to motivate the new generation to perform in their roles and have better performance. Another paper added that enjoying an activity which has a higher level of fun will lead to have higher passion stage (Manganelli et al., 2018)

Furthermore, the playbour literature discussed that if fun is there and worker are enjoying, then performance will be higher in their role in the workplace. Immaterial labors, who are labor working with gaming industry and technological industry, are expecting fun and pleasure in their workplace before anything else, therefore, researched support the idea of having higher performance for those immaterial labors as they don't want to lose the job they are enjoying doing (Dyer-Witthford, 2005). Moreover, we have modders, who are the game modified workers, who are working with pleasure in the game they choose to customize it and improve it to be in a better version, they understand that they are a precarious labour and if they

don't perform well the company will not hire them again (Kücklich, 2005). Therefore, studying the relationship between fun at work and intention to work in start-up firms could help to open the gate toward new window for HR managers to attract more workers. Thus, we hypothesize:

H1: Fun at work has a significant positive effect on the decision to work in startup firms.

Extrinsic motivations:

An extrinsic motivation can be defined as the motivation required to perform an activity to receive a form of reward, weather its financial or non-financial (Shuck et al., 2018). A study done on youtubers to test their motivation and see if they believe that their work is a playing, would they care about the financial return or not, it showed that when participants motivation for fun is higher than the motivation for a high financial income is lower (Törhönen, Hassan, et al., 2019). Furthermore, Conner (2005) also added that financial rewards would not be the motivation for when the level of intrinsic motivation is high and fulfilled.

Additionally, studying the gaming industry shows that workers in such sector are motivated by fun and entertainment and they have no interest in financial return (Kücklich, 2005). Postigo (2007) also added, workers in digitalization and gaming sectors are not financially motivated when they are enjoying the work provided to the developer (Postigo, 2007). This shows that we are facing a new trend where workers are not aiming for high salaries only when they are applying for jobs, other factors have been emerged which are more sought after by them.

Remarkably, there is a view of characterizing workers into classes to know which one is motivated by financial return -salary- and who doesn't. Lund (2014) characterized individual who seek fun and joy in workplace as a social labor where they differ from normal workers who work to certain tasks every day for certain amount of money called salary at the end of each

month. Author stated that intellectual works are provided because motivations are different (Lund, 2014).

Thus, we hypothesized that:

H2: Financial income (Salary) has a significant negative effect on the decision to work in startup firms.

On the other hand, recognition is an alternative extrinsic motivation worth studying in this context as it has been neglected by other playbour papers. Recognition is one among the extrinsic motivations that affect individual decisions and is derived from the inner desire of an individual to lead him or her to notoriety or fame, and to a higher self-esteem (Bretschneider & Leimeister, 2017). Fraser has added that recognition refers to realization of an individual among the group that he or she is a full partner in the social interaction (Näre, 2013).

The importance of recognition clearly observed when we look at the case of the domestic workers in Brazil. They sought full recognition when the labor rights started negotiating reforming constitution in Brazil. In 2013 the Brazilian constitution reformed and give full recognition that domestic work is work (Acciari, 2019). Doing so alter the social life significantly in Brazil by shifting the concept of domestic work.

Moreover, startup nowadays facing the problem of retaining employees and it became harder due to the competition on the market for good employees (Suvethashri, 2020). Authors added that employees need to be motivated to enhance their retention in the company specially after having new ideas and procedures they are trained for. Thus, one of the motivational aspects workers seeking is recognition. They concluded with other papers also (Kumar & Mathimaran, 2017) that recognition is one among three factors affecting employees' satisfaction. Additionally, number of research stated that recognition has its effect of commitment and effort increase. The

studied the moderation effect of recognition on employees effort and advocacy behavior and found out that there is a positive effect between them (Tsarenko et al., 2018). They also added that being motivated by being recognized could increase employees' citizenship behavior which increased the commitment level for employees.

The importance of being recognized could even let workers do extra tasks or do things after work to be recognized. A social media platform study has been conducted by Dividson, Rebak and Lamar (2020) including an interviews with employees showed that they use Facebook and WhatsApp even after work in order to engage in the firms' activities and post to receive recognition from their management (Lazar et al., 2020). Interviews showed that employees engaging in WhatsApp and Facebook even when they are home and in their free time.

Mattering at work is something important to worker which has been studied by (Bucher et al., 2019). The study showed that to feel mattered at work, there should be satisfied dimensions such reliance, interaction and social recognition and those dimensions are positively related to work engagement. Being socially recognized by your friends, colleagues and family matters for some workers and increase their work engagement which is the ultimate goal foe human resource managers to make sure that efficiency will be met.

Remarkably, a study of motivations for volunteering work design has been conducted by a group of researchers in 2019 studied the self- determination theory motivations and its relationship with volunteering work. The study showed that recognition and support are two moderated factors on motivating employees to engage in more volunteering tasks at work (van Schie et al., 2019).

Thus, the literature endorses hypothesizing recognition to be a key factor affecting individuals to seek working in start-ups. Therefore, we hypothesized that:

H3: Recognition has a significant Positive effect on the decision to work in startup firms by Crowdfunders.

Research Method

Sample

The purpose of this study is to advance our understanding on the ideology of playbour and what crowdfunders' motivations affect the decision to work in startup firms. Furthermore, to shed light on understanding whether financial motives play a role in the startup job decision or not, when fun is there.

An experiment has been performed on 170 students, who are studying business courses to see how intrinsic and extrinsic motivations affect the decision to work for startups firms.

Participants were recommended retrieving Crowdcube platform – one of the biggest equity crowdfunding platforms globally. They can simply register through Facebook, Twitter or Instagram, making it easy to access and perform the experiment.

The sample used in this experiment was chosen to invest in a startup firm through the equity crowdfunding platform, Crowdcube, where they have many startups in different industries they could choose from. Moreover, participants' motivations for investing and re-investing in equity crowdfunding showed that pleasure, excitement were the main intrinsic motivations in the last chapter (reference will be added after publishing). Thus, it drew our attention to test the playbour behaviour and its effect on performance, financial and non-financial extrinsic motivations toward working at startup companies.

Procedure

There are three types of experiments utilized in business research: natural, controlled, and field experiments. This study uses a field experiment, which combines both natural and controlled experiments by putting a real-world experience under controlled conditions. Therefore, to fulfil the purpose of this study, we needed participants to feel close to reality and that they were investing their own money, in order to study real motivation. First, we ask teachers to inform students that next week's class there will be an experiment where they would be offered to do an investment amounting as much as 10 Euros. Then, in the experiment day, we inform students that they will have a practical session to gain knowledge on fintech and entrepreneurial finance. Students were asked that if they want to attend the experiment, they will have a class rescheduling. Delegates put the decision to vote, and only 4 students voted against the rescheduling. They were offered to leave the room and they did.

Participant students were given introduction about equity crowdfunding, to show them how this works. 6 of them decided to stay but not to invest in equity crowdfunding and keep their money with them, which is an option every participant had.

After that, during their choice to invest in equity crowdfunding, they could access the equity crowdfunding platform to choose the campaign in which they wanted to invest. The aim was to expose them to the experience dealing with platform and choosing the campaign they want.

Next, after selecting the desired campaign, only participants who choose equity crowdfunding as mean of investments were asked to fill a survey on their motivations of their deciding to work for the startup company they choose to invest at.

Lastly, after finishing those instructions, students participated in the practical workshop and opened up with discussions to answer all related notes they had made during the process to make sure that the experiment profited them.

Measure:

Dependent variables:

This study focused on the equity crowdfunders decision to work in startup companies by asking participants question about their willingness to work in startup firms. They have been asked: ‘ You would like to work in the startup company which you selected to invest at’ following the literature on playbour (Shuck et al., 2018). Participants had to choose 1 to 5 scales to measure the degree of their willingness to work in startup firms.

Independent variables:

To study equity crowdfunding micro investors’ motivations to work in startup firms, we had to visit the literature of human resources management and gaming development as playbour literature research mainly focused on conceptual and theoretical papers.

The experiment included a survey, which had several questions for participants to study their motivational effect toward decision to work in startup firms. The first motivation used in the study was the fun motivation that has been hypothesized in this paper to measure its effect on the decision to work in such environment. This measure has been used by other papers (Nangoy et al., 2020; Sjöblom & Hamari, 2017) to show its importance as a motivation in this context. Therefore, we asked question ‘ Fun and enjoyment are important factors for you in choosing your future workplace’. Moreover recognition which has been used in other papers such (Nangoy et al., 2020) which was focusing in fourth industrial revolution human resources

management. We confronted participants to the statement: ‘‘you feel motivated to work in startup firms to be one of the first people working in this type of workplace’’.

Moreover, financial extrinsic motivation has been introduced in this paper to understand if this motive is negatively related to work in startup when the focus is on the fun at the workplace. Thus, we confronted participants to a statement about low salary acceptance ‘‘ It is ok to start working in startup knowing that the salary is low to start with, expecting it will increase when firm grows’’. All questions scaled 1 to 5 to measure them in the regression model.

Table 2.1: Regression Analysis Results

Job	Coefficient	std. err.	t	p> t
Fun	0.1487798	0.0546453	2.27	0.007**
Low Salary	0.353567	0.0751435	4.71	0.000**
Recognition	0.1349198	0.071742	1.88	0.062*
_cons	1.252514	0.2450922	5.11	0.000
R²	0.1897			
Adjusted R²	0.1744			

* = significant at p<0.1; ** = significant at p<0.05

Results

To test hypotheses deliberated in this paper, regression analysis has been conducted to test significance levels for each variable and identify the effect of them to crowdfunders’ decision to work in startup firms they have invested at.

The intrinsic motivation fun was significantly and positively related to the decision to work at startup firm. It has a coefficient of 0.14 and the significance level was 0.007 showing

that the first hypothesis is supported. Moreover, the financial extrinsic motivation was also significant to explain that participants not motivated by salary to work in start-up, and they have the willingness to work in startup firms even when they know that the salary will be low. The coefficient was 0.35 which is the highest among others with p- value of 0.000. This is also endorsing that the second hypothesis was supported. Furthermore, the last result was for recognition, which was also supported with coefficient of 0.135 and a p-value of 0.062. The overall R-squared for the model was 18.978% with all hypotheses supported.

Discussion

This paper has studied the Playbour behaviour by studying a selected intrinsic and extrinsic motivation to measure its impact on crowdfunder's decision to work in startup firms. However, results supported the literature discussed earlier in the paper.

To begin with, we start with the main result that was studying the intrinsic motivation fun in workplace as one of the main reasons of why people nowadays choose to work in startup firms. The result for this factor showed that the relationship between having fun at workplace and working at startup is positive. Literature using the playbour phenomena (Archer, 2019; Biegun et al., 2019; Goggin, 2011; Törhönen, Hassan, et al., 2019) supported our finding, showing that there is increase attention on having fun at work and it becomes a phenomena managers should be considered these days. The playbour behavior has been extended from only people want to have at their work to invest in a start-up that they could work at in the future for fun pursuing. This phenomenon seems to be the trend nowadays which could be resulted from the tech era we live at.

Moreover, results also supported the idea of that people are willing to substitute their financial income with the possibility of having more fun and pleasure at workplace. This shows that the possibility of having low wages at fun workplace is becoming acceptable for them and this is discussed and supported by other papers(Connor, 2005; Kücklich, 2005; Shuck et al., 2018). Additionally, Lara (2018), when explaining the relationship between internal and external rewards, asserted that when the level of internal reward is not there, which is the intrinsic motivation –fun, in this case–, then people tend to look for the external reward. Therefore, in this case participants’ intrinsic motivation exceeded the think of the external financial motivation. Moreover, this also has been deliberated by Allison et al. (2015), who affirm that, according to SDT, intrinsic motivation could silence extrinsic motivation and vice versa, when individuals sense that they could obtain the further motivation in the future. This means that individuals are pursuing the fun at work and believing that future will be held extrinsic motivation -salary- for them so ultimately their salaries will be sophisticated. Furthermore, many researchers asserted that when the level of intrinsic motivation fun satisfies in the workplace; the high performance will follow (Rigby & Ryan, 2018; Shuck et al., 2018). Moreover, Anias (2018) also stated that the higher level of fun and pleasure at workplace could lead to passion increasing which therefore will increase the performance for employees. Thus, when participants were asked about their intention of performing, knowing that the workplace has been chosen under the assumption of fun, they showed their intention to work hard to make the startup firm grows. Remarkably, the existence of mutual benefits in this scene needs to be understood by entrepreneurs, as providing the workplace environment needed will result to grow the firm and making more profits which will be shared by both parties.

It is also worth noting that crowdfunders working in startups could be considered as employees' stock option holders. Employees shares option has been found as one of the best ways to make them work harder, it is also commonly used to reach highest available performance (Kanne & Uhrig-Homburg, 2020). Moreover, working harder will result to an increase in share price which will make employees benefit in work positions and pay through share price increase (Ermel & Medeiros, 2020) which could be the same case for crowdfunders as they will be in the workplace environment they like and an increase in their investment return. Furthermore, it has been discussed that employees' shares option used as a mean to motive employees toward improving financial earning (Chendra & Sidarto, 2020). Thus, this could explain the acceptance of working with lower salary in startups by crowdfunders, as they are smart with an implicit future plan to make both parties succeeded.

Additionally, recognition is another motivation affecting this type of decision. It has been discussed when researchers studied modders' behaviour and working in gaming industry (Kücklich, 2005; Sjöblom & Hamari, 2017). For some people, being recognized as one of the first people working in new industry is a motivation that enhances them to take such decisions.

Overall, this paper studied the ideology of playbour empirically to enhance its literature. Findings increased our understanding on motivational aspects regarding the decision to work in startup firms by implementing the idea of fun and pleasure at workplace. The behavioural change in the fourth industrial revolution has its impact on human resources management and talents attracting, therefore, this paper gave managers and entrepreneurs an updated motivational altering to adjust their criteria selections in recruiting the new generation. Importantly, understanding the nature of the behavioural change occurring could help all parties to increase profits and expand life expectancy for startup firms.

Limitation and future research

In this study, we performed an experiment for micro investors in a university; due to the novelty of the experiment procedure, it was hard to have a higher number of participants to perform the experiment, given the fact that corona situation locked people down and stopped the opportunity to increase the sample size.

Furthermore, the age range was similar, as they were all students in Economics and Business majors, making it difficult to test the effect of their control variables in both models but at the same time it gave us a glance of the future workers behavior in start-ups in the upcoming futures and perfectly fulfilled the purpose of this study.

Thus, a future research with higher sample number varying in their age, profession and source of income could help to gain more about the fun motivation and its impact on the decision to work in startup firms.

Conclusion

This paper studied the phenomena of playbour and the new motivational changes by using the self-determination theory. Notably, to increase the reliability of the empirical work, this paper has conducted an experiment trying to confront participants to real life choices to be able to measure the crowdfunders motivational change toward workplace environment.

Moreover, results were supported by the ideology of playbour which asserting that people these days are eager to find a workplace that combines fun/work (playbour). It shows that fulfilling the fun and pleasure side could lead to a higher performance by future employees. Moreover, this study showed that extrinsic financial motivation evanesces when the increase of intrinsic motivation realized. Additionally, recognition also was one of the motivations affecting

the decision to work in startup firms showing that this generation might care about being recognized working with new, novel or exciting projects.

Conspicuously, this paper draws the attention for startups' recruiting team, which shows them that crowdfunders could be one of their best choices due to the shared intentions and motivations. Doing so could enlighten the future for startups by having a motivated team who works hard to help firms to succeed.

CHAPTER 3: RE-INVESTING IN EQUITY CROWDFUNDING: THE CASE OF DIGITAL WORKERS

Abstract

Prior research in equity crowdfunding focused on intrinsic and extrinsic motivation affecting the decision to participate and invest in equity crowdfunding platforms but neglected to study which of those motives specifically affect in win or in loss situations for re-investors. Thus, this study builds on the self-determination theory to study the effect of intrinsic and extrinsic motivations on re-investors. Structural equation model used to test the effect of those motivations on re-investors. The framework analyzed using a survey data from 355 digital workers from Amazon MTurk, one of the biggest crowdsourcing platforms globally. Results show that there are differences in motivations for re-investors when they are in win situation or in loss situation.

Introduction

Internal finance and debts are crucial to form a new venture but the issue is that entrepreneurs do not have access (Walthoff-Borm et al., 2018) and external equity is not available either (Vismara, 2019) while banks do not loan then due to the high risk they bear with their projects. Therefore, the existence of equity crowdfunding becomes a vital solution for entrepreneurs where they could get access to fund and proceed with their projects without the need of other external financing (Cumming et al., 2017; Mochkabadi & Volkmann, 2018; Signori & Vismara, 2018a).

The evolution of internet and the varieties of financial products made people mixing between crowdfunding, blockchains, cryptocurrencies and initial coin offering (Beck et al., 2018). A study conducted by (Bogusz et al., 2020) between May 2017 and Jul 2018 analyzed more than 197,000 posts online concluded that people were having ambiguity in understanding the role of each financial instrument but with time they were able to understand the role of equity crowdfunding and how does it help in raising capital for entrepreneurs. Thus, this shows that people using crowdfunding understand the meaning and the function of it. Many scholars have approached the subject with relatively similar definition of equity crowdfunding as an online platform to list entrepreneurs' projects where the crowd could view them and invest in the projects they choose (Bernardino & Santos, 2020; Cholakova & Clarysse, 2015; E. Lee, 2019; Signori & Vismara, 2018b).

Research on equity crowdfunding is progressing and has started to explore more detailed information about the dynamic of equity crowdfunding and its participants, entrepreneurs and investors. They focus on the way it works and its success factors (Bapna, 2015; Collins & Pierrakis, 2012; Gleasure & Feller, 2016; Meric et al., 2016). Then, more papers started to study

the behavioural intention for investors and how does it affect the decision to invest in equity crowdfunding (Al-Swidi et al., 2014; Liang et al., 2019; Ryu, 2018; Zhang et al., 2019).

Moreover, scholars studied motivations affected the decision to invest in equity crowdfunding and whether they are intrinsic or extrinsic (Bretschneider et al., 2014; Cholakova & Clarysse, 2015; Li et al., 2018; Macht & Chapman, 2019; Vismara, 2019), while those papers focused on the initiative motives for investors to participate in equity crowdfunding; this paper will study the question of: *what motivates them to re-invest again in equity crowdfunding in success and in loss scenario?*

Scholars shed the light on serial entrepreneurs and studied different motives and personal attitude which result in having another start-up projects after winning or losing in the first project (Carbonara et al., 2020; Conway, 2013; Lafuente et al., 2019). They found out that there are a motivational factor driving entrepreneurs to re-start projects and that some of them have higher resilience which allow them to quickly adapt to a different project's type (Lafuente et al., 2019). Remarkably, a newly published paper discussed the serial investors' PERMA (positive emotions, engagement, relationships, meaning and accomplishment) and how these factors change the intention to keep investing in equity crowdfunding. Therefore, to expand the knowledge in research on serial investors we need first to know what motivates investors to re-invest in equity crowdfunding. Thus, this paper will study motivations affecting re-investors decisions to invest again in equity crowdfunding.

To address the research question, the paper will draw on the Self- Determination Theory- SDT- (Miller et al., 1988). SDT is a macro theory of human motivations and personality, it studies the intrinsic and extrinsic motivation behind choice people make on something (Adams et al., 2017). This theory has been widely used by scholars in studying intrinsic and extrinsic

motivations affecting the decision to invest in equity crowdfunding (Allison et al., 2015; Bretschneider & Leimeister, 2017; Cholakova & Clarysse, 2015; Collins & Pierrakis, 2012; Medina-Molina et al., 2019; Zhang et al., 2019; Zhao et al., 2018).

Moreover, those papers studied a number of motivations affecting the decision to invest in equity crowdfunding such: financial return, fun, recognition, helping others, excitement and helping community. Notably, Cholakova (2015) published an interesting article discussing motivations for investors to switch from reward crowdfunding to equity crowdfunding, finding that financial return and helping others are strong motivations for investors to pledge in equity crowdfunding. Therefore, this paper will use selected intrinsic and extrinsic motivations according to the literature to test which of them affect the re-investors' decision to re-invest in equity crowdfunding. Furthermore, the study will be done in win and loss scenarios to spot the differences in each case.

This study contributes the equity crowdfunding literature. Existing studies focus on initial motives that alter the behavioural intention to participate in equity crowdfunding, rather than studying why investors are re-investing in equity crowdfunding when they win or when they lose – what motivate them- intrinsically and extrinsically. This study will be conducted on digital workers in Amazon Mturk which is one of the biggest platforms with high number of online workers (Teschner & Gimpel, 2018). Furthermore, structural equation modelling technique will be used to test the effect of intrinsic and extrinsic motivations on the decision to re-invest in equity crowdfunding. Consequently, this will help entrepreneurs, platforms owners and scholars to gain more knowledge about re-investors motivations and find the proper way to attract more investors to the platform to increase chances of funded projects.

Literature Review

Banks are considered to be one of main funding sources, but their care about creditworthiness and risk measurements prevented them from financing entrepreneurial ventures (Smallbone et al., 2012). Therefore, the need of external funds became vital for entrepreneurs to create their start-ups without even needing venture capital and angel investors who require a high growth rate to be interested to invest. Thus, the existence of equity crowdfunding, especially after the time of the financial crises, as an alternative source of financing has developed and became more popular to use by entrepreneurs (Walthoff-Borm et al., 2018).

Yet, there is a gap in the literature studying motivations for re-investing in equity crowdfunding. The relationship between re-investors and well-being has been studied and explored by Sherman and Axalrad (2020); their finding of the relationship between the two variables encourages us to explore more in the intrinsic and extrinsic motivation for re-investors which will eventually lead to more studies on serial investing in equity crowdfunding. On the other hand, the literature has studied the notion of serial entrepreneurs in equity crowdfunding (Butticè et al., 2017; Carbonara et al., 2020; Conway, 2013; Lafuente et al., 2019; C. H. Lee & Chiravuri, 2019; Skirnevskiy et al., 2017; Vaillant & Lafuente, 2019; Yang & Hahn, 2015) shows that repeating the action by both side of participants in equity crowdfunding is relevant.

Based on results in the equity crowdfunding literature, investors motivation to participate in equity crowdfunding has received significant attention. However, the research on which of those motivations encourage investors to re-invest and participate as re-investors in equity crowdfunding is still limited. Remarkably, the inquiry about re-investors motivation is novel and needed to be. Investors are different from each other; some of them are investing for one time, some for many times with different motivations. Therefore, there is need to differentiate between

“solo investors” (or occasional) and “serial investors” and “Syndicate Serial investors” (Kelly et al., 1996). Kelly (1996) also added that there are some investors who invest in once and others who invest more than that, both groups have different motivations behind it that needed to be studied. In this paper, we choose a sample of investors who had a repetitive investing in equity crowdfunding platform to test their motivations and study the differences with the literature found in equity crowdfunding. He added, the need of studying each of them separately is vital to know how entrepreneurs could differentiate and target the group of investors they desire.

We draw on the self-determination theory (Miller et al., 1988), which suggest that investors are motivated by intrinsic and/or extrinsic motivations to have the behavioural intention to invest in equity crowdfunding (Schwienbacher & Larralde, 2012a). Therefore, investors will be intrinsically and/or extrinsically motivated for re-investing decision in win or loss scenarios. SDT is considered to be to be one of the best theories used in crowdfunding literature as its high relevance and how helpful it is to explain motivations for investors (Choy & Schlagwein, 2016). Moreover, SDT is useful because it distinguishes between different reasons or goals behind the action (Zhang et al., 2019) as it separates intrinsic from extrinsic motivations to capture detailed information behind actions. Intrinsic motivations refers to doing something because performing the act is interesting by itself or enjoyable while extrinsic motivation is doing an action because it leads to a separate outcome or prize (Adams et al., 2017; Fischer et al., 2019). Intrinsic motivation is manifested by the involvement of individuals in an activity for the sake of the activity itself and for the pleasure of carrying out the activity. In comparison to intrinsic motivation, extrinsic motivation specifies circumstances in which people participate in an action in order to achieve some beneficial and distinct results. External variables, such as incentives, grades, prize or punishment, function to enforce on the person an externally regulated regulation

to generate and improve the desired behaviour. In terms of SDT, the representative motivations of investors are divided into the internal motivation and external motivation categories, by their sources. More relevant studies used the same theory with the exact technique in order to study investor’s motivations in equity crowdfunding (Bretschneider et al., 2014; Bretschneider & Leimeister, 2017; Cholakova & Clarysse, 2015; Hervé et al., 2016; Lukkarinen et al., 2018; Schwienbacher, 2017).

Empirical research in crowdfunding agreed to number of motivations affect investors decision to participate in crowdfunding platforms as shown in table 3.1. Financial return, recognition and fun (which is called fun, enjoyment, pleasure and excitement in different papers) were the most repeated motivations discussed by scholars in the equity crowdfunding literature. Therefore, this paper will discuss these intrinsic and extrinsic motivations to test which of them influences re-investors’ decisions to participate in equity crowdfunding.

Table 3.1: Motivations of investors. Own elaboration.

<u>Motivation</u>	<u>Papers</u>
Financial Return	Borello et al. (2015); Collins & Pierrakis (2012); Estrin et al. (2018); Martínez-Climent et al. (2018); Pierrakis (2019)
Recognition	Bretschneider & Leimeister (2017); Cholakova & Clarysse (2015); Fischer et al. (2019); Wullaume et al. (2019)
Fun (enjoyment, pleasure and excitement)	Bento et al. (2019); Bretschneider & Leimeister (2017); Gleasure & Feller (2016); Moysidou & Spaeth (2016); Zhang et al. (2019)

Hypothesis Development

Financial Return

As discussed previously in this paper, extrinsic motivation considered to be a major influence to enhance crowd to participate in equity crowdfunding as they would receive an external reward for participating in this type of investment which is financial reward in this case. Therefore, significant number of articles can be found concluding with financial return as a motivation for investors like (Cholakova & Clarysse, 2015). Moreover, Pierrakis (2019) explained financial return as the main motive for investing when studying investors motivations. More scholars also studied the same motivation due to its reasonable and justified cause for investing in first place, thus, they were including it as one of the first extrinsic motivations. Even when Zheng & Zheng (2019) wanted to study the citizenship behaviour for investors in equity crowdfunding, they included financial return in their research model as they knew it's impact on increasing the citizenship behaviour.

Therefore, financial return could influence re-investing in equity crowdfunding platform. Therefore, it will be used as a motivation which should increase the participance in equity crowdfunding. Hence, our hypothesis is that:

H1: Financial extrinsic motivation has a significant positive effect on the decision to re-invest in equity crowdfunding in win and/or loss situations.

Recognition

In contrast, other scholars asserted that there is always a need to study what is beyond financial return that makes investors willing to invest (Borello et al., 2015; Daskalakis & Yue, 2017b). Furthermore, other scholars studied specific variables like attitude, social and environmental to test its impact on the decision to invest (Aspara & Tikkanen, 2011; Reyhanloo et al., 2018). Therefore, including more motivations is required to expand knowledge on what

other motivations could impact the decision of investors to participate in such investment. Thus, this paper will discuss number of non- financial motive which could influence investors' decisions.

Firstly, we will study another extrinsic motivation that has been studied broadly in the context of crowdfunding which is recognition. Recognition is the desire of individual to be acknowledged by others which derived from inner desire of fame and self-esteem (Abraham Harold Maslow, 1987). Researchers in many disciplines believed that recognition is a motivation for individuals when they work or engage in open source communities (Bretschneider & Leimeister, 2017). Therefore, participating in equity crowdfunding as a platform where anyone's behaviour is observable and succeeding in such type of investments could give participants recognition in his or her society, encouraging them to participate more and more.

Recognition seen as non- financial motive (Schwienbacher & Larralde, 2012a) which motivate individuals to participate in this type of investments as the number of people investing in a campaign is limited, not like stock market where the number is much higher. Consequently, the need of being recognized may push individuals to invest again to achieve their desired goals. Thus:

H2: Recognition has a significant positive effect on the decision to re-invest in equity crowdfunding in win and/or loss situation.

Pleasure and Excitement

However, the equity crowdfunding, as discussed, is an evolution of information technology facilitating the interaction between investors and platforms. Scholars studied the relationship between IT and users and asserted that the participation in such platforms is derived by hedonic system which is an intrinsic motivation derived by enjoyment and the feeling of fun

while using technology (Lin et al., 2012). As mentioned earlier in this paper, many papers in equity crowdfunding used enjoyment, fun, pleasure and excitement as an intrinsic motive influences equity crowdfunder's intention to invest in these platforms. Therefore, this paper will follow and test the motivational effect of these motivations on investing in equity crowdfunding.

The study of enjoyment as a motivation has been evolving in research on IT users by many scholars. Notably, they studied enjoyment and fun as motivational factor affecting the decision to participate in IT without going in depth to differentiate between the elements of it. A number of papers used questionnaires including the words: pleasant, fun, enjoyable and excited to test the enjoyment motives (Cyr et al., 2006; Gerow et al., 2013; Lin et al., 2012; Törhönen, Sjöblom, et al., 2019). Moreover, studies in crowdfunding also used similar questions to study the same effect (Bretschneider et al., 2014; Cholakova & Clarysse, 2015; Schwienbacher & Larralde, 2012b) while psychologists differentiate between excitement and pleasure in the sense of enjoyment and asserted that they should be separate (Reeve, 1989). In psychology, pleasure is referring to the feeling of continuing to do an act and try to enter into active relationship with it, while excitement derived from the want of experiencing something or becoming involved (Soediono, 2006). Moreover, pleasure lead to repeating the activity because it gives feeling of fun for long time after doing the act while excitement is producing fun during doing the act (Cabanac, 1971; Roseman & Evdokas, 2004). Therefore, this shows that there is a need to know if re-investors are re-investing because they are having fun during browsing and selecting a campaign to invest, or because they carry the fun feelings after investing in the campaign and wait the start-up to grow. Thus:

H3: pleasure has a significant positive effect on the decision to re-invest in equity crowdfunding in win and/or loss situation.

H4: Excitement has a significant positive effect on the decision to re-invest in equity crowdfunding in win and/or loss situation.

Methodology

Research Model:

Based on SDT, this paper constructs the research model and hypotheses as shown in figure 1 through a structural equation model, which aims to investigate the effect of intrinsic and extrinsic motivations (financial return, recognition, pleasure, excitement) on investors' intention to re- invest in equity crowdfunding in win and loss situations.

Sample:

An online self-administered survey was conducted with 600 individuals who were crowdfunding investors in different platforms such as Crowdcube, Kickstarter, Gofundme, Fundingcircle and other equity crowdfunding platforms; only 355 results were considered valid and usable for this study. Individuals who failed to name the platform they have invested at were excluded from the study along with individuals who were not students or graduates in business major. The focus was on re-investors who have invested more than once in crowdfunding platforms to reduce the potential for recall bias. Respondents were recruited through Mechanical Turk (MTurk) by Amazon and were offered a payment of US\$0.60 in the period 1 to 15 Jan 2021. MTurk was chosen because it is one of the well-known crowdsourcing platforms for digital labour.

Amazon MTurk became popular for research purposes in order to test theories (Teschner & Gimpel, 2018). Moreover, scholars asserted that it is becoming a more frequent way to study behavioural researches using MTurk sample according to its reasonable results (Wen et al.,

2018). Furthermore, studies on digital workers' intrinsic and extrinsic motivation used MTurk sample to test hypothesis in their researches (Mitchell et al., 2020).

The population characteristics were as follows: 65.1% of respondents were between 25 and 34 years old, most of them 69.0% were males, 52.8% were married and 39.7% were singles. 43.6% were white, 36.6% were Asians, most of them 58.9% were still undergraduate students, yet 80.2% of them were working in full time jobs (Appendix1).

Measures:

The study focuses on analyzing motivations that affect the decision to re-invest in equity crowdfunding in win and loss situations. All items were based on the literature and modified for equity crowdfunding when needed as shown in Table 3.2. Five-point Likert scales ranging from 1 (strongly disagree) to 5 (strongly agree) were used to rate each item's level of agreement. Financial return for equity crowdfund investors was adopted from (Cholakova & Clarysse, 2015). Recognition was adopted from (Bretschneider & Leimeister, 2017) while pleasure and excitement were adopted from (Wu & Lu, 2013). Finally, intention to invest in equity crowdfunding was modified from (Li et al., 2018) which was used for donation crowdfunding.

Financial Return	I prefer making profit by investing for equity than keeping a savings account.	Cholakova & Clarysse (2015)
Financial Return	My primary goal from investing in ECF is to generate return on my investment.	Cholakova & Clarysse (2015)
Financial Return	I want to generate financial return by investing in ECF	Cholakova & Clarysse (2015)
Recognition	I want to receive recognition from other crowdfunders on platform.	Bretschneider & Leimeister (2017)
Recognition	I am aiming at being recognized.	Bretschneider & Leimeister (2017)
Recognition	I hope to receive acknowledgement from project initiators on Investment.	Bretschneider & Leimeister (2017)
Pleasure	Investing in ECF makes me feel happy.	Wu & Lu (2013)
Pleasure	Investing in ECF makes me feel pleased.	Wu & Lu (2013)
Pleasure	I feel happy while using ECF platform	Wu & Lu (2013)
Excitement	Investing in ECF makes me feel excited.	Wu & Lu (2013)
Excitement	Investing in ECF makes me feel aroused.	Wu & Lu (2013)
Excitement	I feel Active while using ECF platform.	Wu & Lu (2013)
Intention to Re-Invest in ECF in win situation	For my previous winning experience in equity crowdfunding investment, I would like to invest money in equity crowd-funding projects in the future.	Li et al. (2018)
Intention to Re-Invest in ECF in win situation	For my previous winning experience in equity crowdfunding investment, I will For my previous winning experience in equity crowdfunding investment, I would probably invest money to Equity crowd-funding projects in the future.	Li et al. (2018)
Intention to Re-Invest in ECF in win situation	For my previous winning experience in equity crowdfunding investment, I will continue to invest money in equity crowd-funding projects in the future.	Li et al. (2018)
Intention to Re-Invest in ECF in loss situation	For my previous losing experience in equity crowdfunding investment, I would like to invest money in equity crowd-funding projects in the future.	Li et al. (2018)
Intention to Re-Invest in ECF in loss situation	For my previous losing experience in equity crowdfunding investment, I will probably invest money to Equity crowd-funding projects in the future.	Li et al. (2018)
Intention to Re-Invest in ECF in loss situation	For my previous losing experience in equity crowdfunding investment, I will continue to invest money in equity crowd-funding projects in the future.	Li et al. (2018)

	projects in the future.	
Intention to Invest in ECF	I would like to invest money in equity crowd-funding projects in the future.	Li et al. (2018)
Intention to Invest in ECF	I will probably invest money to Equity crowd-funding projects in the future.	Li et al. (2018)
Intention to Invest in ECF	I will continue to invest money in equity crowd-funding projects in the future.	Li et al. (2018)

Table 3.2: Survey Items

Results

Reliability and validity:

Cross loading analysis was conducted to assess the discriminant validity of the scales, which is shown in Appendix 2. Individual item reliability checked using the outer loading items measurements. In this model most items' loading is above 0.7 except for items: Excitement 2, Intention to invest 2, Pleasure 2 and Financial Return 1. The outer loading of these items varies between 0.562 to 0.688, which is considered acceptable as it shows more than 0.5 loading on other factors indicates that every item still belongs to the corresponding factor. When the loading is above 0.5 or above then it considered to be significant (Hair et al., 2019)

Composite reliability (CR):

Composite reliability (CR) or internal consistency which is a measure of internal consistency in scale items was theoretically set to 0.7 Cronbach alpha level; however, reliability of most of factors was lower than 0.7 (Appendix 3). This may be due to the low number of items corresponding to each factor; as any slight inconsistency of participants' answers will produce major decline in Cronbach's Alpha. Since, according to Hair et al. (2019), values lower than 0.5 are considered low, those between 0.5 and 0.7 are considered moderate, and values between 0.7

and 0.9 are deemed very reliable, values for this model ranked between moderate and very reliable.

Average Variance Extracted (AVE):

The amount of variance captured by a construct is measured in AVE. Appendix 2 shows the average variance extracted by the model for all factors. Since AVE value equal or higher than 0.5 are established by the literature as accepted for good models, and AVEs range from 0.533 to 0.719, acceptable levels of convergent validity have been attained, indicating that more than 50% of variability in latent variables was explained by the model. Also, after Hire et al. (2019), these results can be considered to be reliable to use for study.

Assessment of structural model:

Multicollinearity issues are checked in this model by using VIF value, which is acceptable determinant for tolerance; for this model, VIF value for all model's items was below 3.30; this considered sufficient evidence that the study variables are biased free (Appendix 2).

The coefficient of determination (R^2) shows strong productivity of overall variance in intentions to invest ($R^2 = 0.465$) and in the win situation ($R^2 = 0.410$), while lower power of prediction for the loss situation ($R^2 = 0.111$).

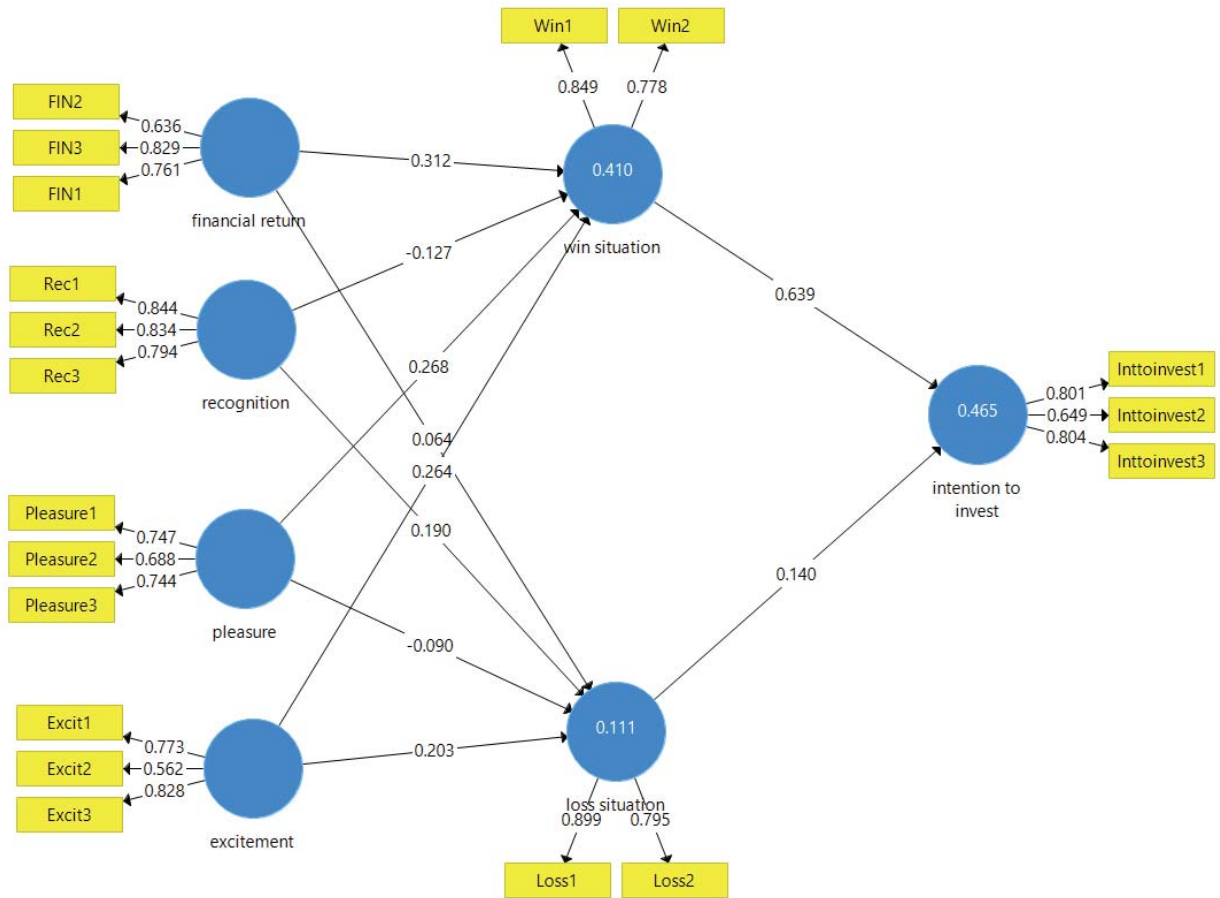
Structural equation Model:

The partial least square structural equation model PLS-SEM has been used by researchers in various disciplines due to its ability to estimates complex models with many constructs, indicator variables and structural paths without imposing distributional assumptions on the data (Hair et al., 2019). PLS-SEM should be used when the research deals with the prediction perspective testing of a theoretical framework, many constructs, measures and/or model

relationships are included in the structural model and when one or more measured constructs are included in the model is formative (Hair et al., 2019).

Accordingly, by examining path coefficients and their significance levels, in the win situation the path coefficients of all latent variables were positive with moderate effect except for recognition (it was negative -0.127) while the win situation itself has a path coefficient of 0.639 ($\beta = 0.639, p < .1$), for excitement ($\beta = 0.264, p < .1$), financial return ($\beta = 0.312, p < .1$), recognition ($\beta = -0.217, p < .1$) and pleasure ($\beta = 0.268, p < .1$). Therefore, results show that hypotheses 1, 3 and 4 are supported in the win scenario. On the other hand, for the loss scenario the path coefficient for loss was ($\beta = 0.140, p < .1$), for excitement ($\beta = 0.203, p < .1$), financial return ($\beta = 0.064, p < .1$), recognition ($\beta = 0.190, p < .1$) and pleasure ($\beta = -0.090, p < .1$) [fig 2]. Therefore, results show that hypotheses 1, 2 and 4 were supported.

Figure 2: SEM Results



Discussion

In this study, research has been built on SDT model to investigate the effect of intrinsic and extrinsic motivations on re- investing intention at equity crowdfunding. The study examined the effect of financial return, recognition, pleasure and excitement on investors in win and loss situations. Structural equation model was employed on 355 digital workers who are also (equity?) crowdfunding investors to test which motivations affect their decisions in both situations.

Financial return motive was positive for re-investors in win and loss situations showing that financial return is a crucial motivator for investors. Moreover, this is consistent with crowdfunding literature stating that financial return motivates investors to invest in equity crowdfunding (Borello et al., 2015; Collins & Pierrakis, 2012; Estrin et al., 2018; Martínez-Climent et al., 2018; Pierrakis, 2019). Moreover, financial return found to be a major motive for digital workers in first place (Gewald & Pilz, 2013) which explains why it is positive in both situations in this study.

Furthermore, recognition was a motive for re-investors in loss situation only which can be explained by understanding that the self esteem they are trying to achieve motivates them to re-invest even when they had made a loss in previous investment. While recognition has been a motive for participants in open- source platforms (Bretschneider & Leimeister, 2017), it makes sense to re-invest when losing as they are intrinsically motivated by being recognized. Moreover, number of investors in equity crowdfunding is smaller than other type of investments making social recognition a high motive for crowdfunding investors (Schwienbacher & Larralde, 2012a).

Moreover, pleasure was positive with win scenario re-investing in equity crowdfunding. According to Soediono (2006) pleasure gives a feeling of happiness for long time leading to repeating the action, this is shown when investors chose to re-invest because of the good feeling they received after winning in their previous investments. Moreover, it has been mentioned that digital workers are seeking fun after financial return when participating in online platforms (Kaufmann et al., 2011) so this gives more explanation on why pleasure motivates them for re-investing again.

On the other hand, excitement was positive with win and loss situation showing that excitement is the feeling of happiness during the action only; participants are re-investing again in

equity crowdfunding whether they win or lose because they are feeling happy and excited during the process of being active on the platform, browsing through projects, selecting a certain project, and then invest at it. Thus, literature in crowdfunding states that excitement is a motive to participate in equity crowdfunding (Daskalakis & Yue, 2017a) but it did not specify if it is because they are feeling happy during the time being active in the platform or feeling happy even after investing in those platforms under different scenarios.

This study contributes to the literature of equity crowdfunding by focusing on the motivations affect the decision to re-invest in equity crowdfunding in many ways. First, it focuses on re-investors' motivations and showing how does it differ with regards to one time investors. Second, it shows that motivations could be different when we study win and loss scenarios. Third, fun, happiness, pleasure and excitement were mixed in the crowdfunding literature and not differentiated, therefore, this paper provides more knowledge about fun motive by clarifying the main difference between pleasure and excitement motive and in which case they are positive and negative. Fourth, the study shed the light for re-investors motivations in equity crowdfunding by showing differences in motivations when situations change. Finally, the study provides an insight on the literature about serial investors because the more likely you invest, the more likely to become a serial investors. The paper started with re-investing decisions in order to shed the light for studying serial investors phenomena in equity crowdfunding.

Conclusion

The study was built on the self- determination theory and focused on intrinsic and extrinsic motivations affecting digital workers' decision to re-invest in equity crowdfunding. It improves our knowledge on re-investors motivations in equity crowdfunding which is a novel

research line in the equity crowdfunding exploration. The study used a structural equation model to test the effect of financial return, recognition, pleasure and excitement motives of re-investors on their decision to re-invest in win and loss situations.

The study contributes to fill the gap in the literature of the equity crowdfunding by expanding the knowledge on motivations study by studying the effect of those motivations on re-investors. Results imply that financial return, excitement and pleasure are positively affecting the decision of re-investors to re-invest in win situation. On the other hand, it implies that financial return, recognition and excitement are motivating re-investors to re-invest in loss situation.

The study represents a further understanding on how digital workers are motivated as re-investors in equity crowdfunding. Thus, more studies need to be built up on this study with different sample to test if these results can be generalized or not.

Future research on different samples could be perused to explore if same motivations hold or if there could be other motivations have higher impact on the decision to re-invest in equity crowdfunding. Furthermore, the more research completed on re-investing decisions could lead the more solid base for research in serial investing in equity crowdfunding.

CHAPTER 4: PLAYBOUR IN THE PLATFORM ECONOMY

Abstract

Nowadays digitalization and gamification have changed people's attitudes toward many dimensions. Playbour, which combines the concepts of play and labour, has emerged to capture behavioural changes which have enlarged workers' motivation to have fun in their workplace. In this context, start-ups are frequently seen as changing (non-routine) and informal settings in which fun and other intrinsic motivations can be experienced. This article examines this intrinsic motivation in digital workers performing tasks through platforms. Specifically, platform digital workers were posed the following question: would they work in start-ups motivated by fun? Even though start-ups are less known than incumbent companies, platforms provide the perfect showcase of their projects. Start-ups seeking funds through equity crowdfunding platforms thus provide an appropriate research context to test the question in digital workers who are crowdfunders themselves and are acquainted with such start-up projects. Fun motivation is tested along with extrinsic motivations, such as pay and recognition. The study builds on the self-determination theory, which studies the effect of intrinsic and extrinsic motivations toward the behavioural intention. A total of 355 digital workers from Amazon Mturk were included in the sample to test the hypothesis. The results indicate that fun at work is an intrinsic motivation affecting the intention to work in start-ups. Pay and recognition are also supporting the intention to work in start-ups. Results find that lower age and educational level increased the intention to work in start-ups.

Introduction

Digitalization merged in our everyday life activities from communications to mobile and even to order food. This evolution of using technology increased the debates about digital play and digital working, thus becoming predominant in the social sciences and cultural and human resources studies. This research will expand the discussion of the interaction between play and work and labour. This phenomenon is known nowadays as playbour, a term introduced by Kuchlich (2005), who studied this phenomenon on modders who are working on game modification. He studied how they are accepting these jobs downplaying the risk of being financially rewarded and paid because they are having fun at work. Thus, he showed that the motivation of having fun at work could dominate other factors.

Since then, playbour has been studied by other scholars, with research being divided into two streams, one studying motivation for labour to play in the gaming industry and the other one studying the playbour in ordinary work activities. Accordingly, some publications continued what Kuchlich started and explored more about having fun at work in the gaming industry. For instance, researchers did a study on EVE game and how participants agree to work for the fun motivation and having better features in the game they like rather than getting paid (Taylor et al., 2015).

On the other hand, other scholars studied playbour for those individuals who are interested in having fun while they work. These researches (Goggin, 2011; Lund, 2014; Pink et al., 2018; Törhönen, Sjöblom, et al., 2019) discussed how enjoyment at work affects employees and make them wanting more and even overlooking the pay they would receive in exchange of the work they do. Interestingly, Törhönen et al. (2019) performed a structural equation modelling study to empirically study the effect of intrinsic and extrinsic motivation on playbour and

concluded that enjoyment at work as an intrinsic motivation has effects on labourers spending more hours working. Therefore, further empirical research is needed to enhance our knowledge of this phenomenon.

Notably, start-ups differ from traditional companies in multiple ways, work settings, culture, recruitment and motivations. Moreover, scholars have asserted that even knowledge creation is different in start-ups as it is derived from the entrepreneurs themselves and spreads to employees (Barboza & Capocchi, 2020). Furthermore, employees in start-ups' teams are more mixed than in traditional firms and they vary in industries they come from and specializations, which makes them very different. Start-ups have a higher degree of uncertainty due to the fact that ideas generated are very new, therefore causing employment loss in the job (Jáki et al., 2019). Start-ups need to build a high resilience to be able to move to the next stage and become a more stable firm and, in order to do that, they need to be routinized and follow a certain routine process to achieve goals (Haase & Eberl, 2019). In order to achieve this, start-ups employees need to have incentives and be motivated to carry on. Fun at work could be a reason nowadays for them to be motivated to work in such workplaces.

Consequently, this paper will empirically examine the question of fun as motivation for the intention of digital workers to work in start-ups, together with extrinsic motivation (financial return and recognition). The study uses the self-determination theory as a theoretical framework to test the proposed hypotheses. The study was conducted on digital workers at Amazon Mturk who are already investors in equity crowdfunding. To do this, this study used the literature on digital working and the effect of the new era of digitalization on individuals, and the literature on human resource management related to motivations for intention to work in start-ups.

This study will add to the literature of playbour by showing motivations affecting the intentions to work in start-ups and test the relationship between fun and play at work. Although a number of studies in playbour empirically tested the fun motive at work (Törhönen, Sjöblom, et al., 2019), they examined the intention to continue working because of the fun motive . In contrast, other publications, such as (Dargonaki, 2018; Lund, 2014), were either argumentative or ethnographic . Thus, this article will show the effect of fun before starting the job to see if fun itself motivates labour intention to choose a start-up to work at.

Literature Review and Hypotheses

Self-Determination Theory

The new era of technological development changed work environment and therefore the engagement of motivational theories becomes vital to understand how those changes affected employees in organisations (Rigby & Ryan, 2018). Self-determination theory (SDT) is one of the most used ones to understand how intrinsic and extrinsic motivations are interacting among employees and organizations (Deci et al., 2017; Gagné & Deci, 2005). Therefore, this theory will be used in this article due to its capabilities in exploring extrinsic and intrinsic motivations affecting employees in their workplace. The SDT is concerned with motivations behind people's choices. Its domain is the study of people's natural growth tendencies and psychological needs (Adams et al., 2017). Moreover, reviewing the literature of human resource and motivations shows us that from time to time behaviours and motivations change, therefore SDT should be explored to know how we could help flourish employees at work (Zigarmi et al., 2018). Thus, the theory will provide an understanding to be able to study playbour in start-ups nowadays.

A number of scholars in human resource management have used the SDT to discover which motivation has an impact on employees in their workplace (Lion & Burch, 2018; Shuck et

al., 2018; Thibault-Landry et al., 2018; Zigarmi et al., 2018). They discussed how employees' motivations could change the degree of work outcome, passion and performance in the workplace. Furthermore, they used SDT to find out which incentives and rewards satisfy employees' needs to be motivated in performing the required tasks at work.

Intrinsically motivated behaviour is prototypically autonomous, since it is driven by people's interest in the activity itself (Miller et al., 1988). However, one of the core concepts of SDT is that extrinsic motivation can differ in terms of how autonomous or regulated it is. Extrinsic motivation is needed for activities that are not interesting (i.e., activities that are not intrinsically motivating) so the need of extrinsic motivation is higher; as a result, its initial implementation is contingent on the recognition of a connection between the behaviour and a desired outcome, such as tacit acceptance or tangible incentives. When behaviour is so motivated, it is said to be externally controlled in SDT, meaning that it is initiated and sustained by factors outside the individual. This is the most common form of extrinsic motivation and serves as a model for controlled motivation. When people are externally controlled, they behave with the goal of achieving a desired result or preventing an undesirable one, and they are only energised to act when the action is necessary to achieve certain goals (e.g., I work when the boss is watching; Gagné & Deci, 2005).

Financial return

Therefore, this study will start by studying financial return (pay) as a motivation affecting digital workers' intention to work in start-ups. Pay is an extrinsic motivation considered to be an important factor motivating employees to be in the workplace, as there is always a relationship between people leaving work and pay (Deci et al., 2017). Scholars investigated the relationship between financial return and work and found out that pay has a positive effect by increasing

creativity and innovation in the workplace (Fischer et al., 2019). Moreover, other studies concluded that financial return has a positive relationship with job satisfaction, which means that employees are motivated by financial rewards and achieving high rewards make them be satisfied at their workplace (Lamberti et al., 2020).

On the other hand, according to research in the gaming industry, employees are driven by fun and enjoyment rather than a financial return (Kücklich, 2005). Staff in the digitalization and gaming industries, according to Postigo (2007), are not financially driven when they enjoy the work they are doing for the developer (Postigo, 2007). This indicates that we are experiencing a new trend in which employees are not exclusively concerned with high wages when applying for jobs; other considerations have arisen that are more appealing to them.

The relationship between pay and employees' retention in start-ups is a rising issue these days due to the high turnover rate in start-ups (Lueg et al., 2014). Financial return considered to be one of the issues for employees in start-ups as they do not achieve the desired financial pay due to the slow phase start-ups face when they just begin, this increases employees' retention after time in start-ups. This article will examine financial return as an extrinsic motivation affecting digital workers' intention to work in start-ups; hence, we hypothesise:

H1: Financial income (pay) has a significant positive effect on the intention to work in start-ups.

Recognition

Recognition is another extrinsic motivation required to be considered in the playbour context when evaluating its influence on the intention due to its high importance in people behaviour. Recognition is one of the extrinsic motivations that influence human behaviour, and it derives from an individual's inner desire to gain notoriety or fame, as well as a higher sense of

self-esteem (Bretschneider & Leimeister, 2017). Recognition, according to Fraser, refers to an individual's awareness in the community that he or she is an important participant in the social interaction (Näre, 2013). Lazar et al. (2020) showed that employees also work harder to gain recognition by their employers.

Being recognised at work and perceived to be important in the firm is something always desired by employees and it changes their advocacy behaviour at workplace (Tsarenko et al., 2018). Studies show that when employees receive from their colleagues, supervisors and managers the recognition they desire, their job performance, job satisfaction, creativity, innovations and job retention increase at the workplace (Božović et al., 2019; Fischer et al., 2019; Kumar & Mathimaran, 2017). Interestingly, another study shows that even volunteers are encouraged to be engaged for free in a workplace to receive recognition (van Schie et al., 2019).

However, the embeddedness of new technology into society and the changes it causes in the workplace have not changed the recognition effect as a motivation for employees. A study performed on digital labour showed that employees really care about recognition not only by employers but also by their peer group workers (Bucher et al., 2019). Recognition was found to be one of the solutions used by start-ups to retain employees which could overcome the pay problem they were facing (Suvethashri, 2020). Thus, we hypothesise:

H2: Recognition has a significant positive effect on the intention to work in start-ups.

Fun at Work

It is important to study intrinsic motivation in order to obtain a better understanding of how the self-related mechanism functions (Deci, 1987). As a result, publications on human resources focused on intrinsic motives in order to better understand employees (Tran et al., 2020). Having a high degree of intrinsic motivation can result in a more pleasant workplace,

affecting factors such as success, creativity, happiness, and loyalty (Rigby & Ryan, 2018). These authors further clarified that the current need is to study how to help the motivation employees already have, rather than how to motivate them. Additionally, higher intrinsic motivation leads to a higher level of satisfaction, which leads to a higher intention to remain with the company, perform better, and have higher productivity, which leads to strengthening the organizational citizenship behavior (Zigarmi et al., 2018).

According to Conner (2005), playing, having fun, and feeling happy became important at work even in the twentieth century; people want to encounter these emotions in order to be motivated to succeed. Afterwards, publications discussing playbour phenomena also supported the hypothesis that having fun at work was important in motivating the younger generation to perform better in their positions (Archer, 2019; Lund, 2014; Pink et al., 2018; Putri & Suhariadi, 2019; Törhönen, 2019; Törhönen, Sjöblom, et al., 2019). Another research showed that engaging in an activity that is more rewarding regarding fun contributes to a higher degree of enthusiasm (Manganelli et al., 2018).

However, recalling the issue of start-ups and how turnover problems could be solved by turning attention toward having fun at work, other scholars discussed that start-ups can pay experienced employees to stay in the workplace, and fun at work could be a substitute for them to remain longer in the job (Lueg et al., 2014). Moreover, when organizations fail to manage emotional exhaustion effectively, they will incur high costs as a result of poor work performance and high employment turnover (Ko et al., 2018). Therefore, we hypothesize:

H3: Fun at work has a significant positive effect on the decision to work in start-ups.

Methods

Sample:

Using Amazon Mturk, as many as 355 responses were considered accurate and available for this study after an online self-administered survey was conducted with 600 participants who were crowdfunding investors on platforms such Crowdcube, Kickstarter, Gofundme, Fundingcircle, and other crowdfunding platforms. Participants who did not name the platform in which they had invested, as well as those who were not students or graduates of a business major, were removed from the study because we wanted participants who had more knowledge of how start-ups work. Investors and business major students appeared to have more knowledge than others in their group.

Amazon's Mechanical Turk (Mturk) was used to hire respondents, who were paid US \$0.60 between January 1 and January 15, 2021. MTurk was selected since it is one of the best-known crowdsourcing sites for digital labor.

Amazon MTurk gained reputation as a research tool for putting theories to the test (Teschner & Gimpel, 2018). It has been asserted that using the MTurk sample to study behavioral research is becoming a more popular method due to its fair performance (Wen et al., 2018). Furthermore, studies on the intrinsic and extrinsic motivation of digital workers used the MTurk sample to test hypotheses in their studies (Mitchell et al., 2020).

In this study, MTurkers offer a supplementary interest: they are acquainted with digital platforms, which is the setting we find start-ups to be exhibited when seeking for funds. Moreover, they are already individuals working with a digital platform and that gives them more understanding and ease in using other platforms.

The demographics of the population were as follows: 65.1% of respondents were between the ages of 25 and 34, the majority of whom were males (69.0%), 52.8% were married, and 39.7% were single; 43.6% were white, 36.6% were Asian, and the majority of them (58.9%) were still in school, but 80.2% were working full-time jobs (Appendix 1).

Table 4.1. Survey questions

Control Variable	Age	Demographic question
Control Variable	Gender	Demographic question
Control Variable	Education	Demographic question
Control Variable	Job	Demographic question
Financial Return	I prefer receiving good salary when working in start-ups.	Modified from Cholakova & Clarysse (2015)
Financial Return	My primary goal from working in start-up is to generate good income.	Modified from Cholakova & Clarysse (2015)
Financial Return	I want to generate financial return by working at start-up.	Modified from Allison et al. (2015)
Recognition	I want to receive recognition from other workers in start-up.	Modified from Bretschneider & Leimeis (2015)
Recognition	I am aiming at being recognized.	Modified from Bretschneider & Leimeis (2015)
Recognition	I hope to receive acknowledgement from start-up managers.	Modified from Bretschneider & Leimeis (2015)
Fun at Work	I want to have fun in the place I work at.	Modified from Törhönen et al. (2019)
Fun at Work	I hope to have fun in the place I work at.	Modified from Törhönen et al. (2019)
Fun at Work	Working at fun workplace makes me feel happy.	Modified from Wu & Lu (2013)
Fun at Work	Working at fun workplace makes me feel pleased.	Modified from Wu & Lu (2013)
Intention to Work in Start-ups	I intend to work in the start-up I invested at in ECF Platform.	Modified from Törhönen et al. (2019)
Intention to Work in Start-ups	I predict I apply for start-ups I invested at in ECF Platform to work there.	Modified from Törhönen et al. (2019)
Intention to Work in Start-ups	I plan to continue applying in start-ups I invest at.	Modified from Törhönen et al. (2019)

Measures:

Dependent Variable:

By questioning participants about their willingness to work in start-up companies, this study focused on the decision of equity crowdfunders to work in start-ups. Following the literature on playbour (Törhönen, Sjöblom, et al., 2019), participants were asked: "I intend to work in the start-up I invested at in ECF Platform". Participants were asked to rate their willingness to work in a start-up company on a scale of one to five.

Independent Variables:

Since playbour literature mostly centred on philosophical and theoretical articles, we had to revise the literature of human resources management and gaming development to study equity crowdfunding digital worker investors' motivations to work in start-up firms.

The research included a survey with multiple questions for participants to answer in order to determine their motivational impact on their decision to work in a startup. The first motivation in this study was the fun motivation, which was speculated in this paper to affect the decision to work in such setting. Other publications, such as that by Törhönen et al. (2019), have used this measure to demonstrate its significance as a motivation in this context. As a result, we asked the question: "I want to have fun in the place I work at". Furthermore, now in the extrinsic motivation domain, recognition has been used in other publications such as that of Bretschneider & Leimeister (2017) which focused on human resource management in the fourth industrial revolution. We asked participants questions such as "I am aiming at being recognized".

In addition, financial extrinsic motivation is discussed in this article to see if it is positively linked to work in a startup while the emphasis is on having fun at work. As a result, we presented participants with a statement about low salary acceptance: " My primary goal while

working in a start-up is to generate good income" (after Cholakova & Clarysse, 2015). We also considered the effect of personal characteristics such as age, education and gender.

Results

Table 4.2. Regression models.

Intention to work			
	Model 1	Model 2	Model 3
Constant	4.4 ^{***}	1.789 ^{***}	1.216 ^{***}
Age	-0.121	-0.130^{***}	-0.100[*]
Gender	0.183 ^{**}	0.081	0.071
Marital status	-0.061	-0.060	-0.042
Ethnic Background	-0.047	0.002	-0.004
Education	-0.037	-0.055	-0.063[*]
FIN		0.205^{***}	0.119[*]
REC		0.480 ^{***}	0.453^{***}
FUN			0.245^{***}
R²	0.038	0.442	0.475
Model fit (f)	2.716 [*]	38.97 ^{***}	38.94 ^{***}
Mean VIF	1.047	1.333	1.176

* p < 0.05, ** p < 0.01, *** p < 0.001

In order to test the hypothesis, three multiple regression models were conducted using SPSS. The first model used only demographic (control) variables: age, gender, marital status,

ethnic background and education. This model showed significant effect of constant 4.4 increase in intention to work with each one-point increase in factors other than h factors involved in the model; gender also showed a small increase (0.183) in intention to work with females more than males. This model explained 3.8% of the variability in intention to work for participants and showed significant model fit [$f(5.348) = 2.716, p < .05$].

The second model included financial return and recognition, which are the extrinsic motivations to the demographic variables tested in the first model. It showed that the effect of a constant decrease to 1.789 points increase in intention to work with each point increase in factors that were not included in the model. Each year increase in age led to 0.13 points decrease in intention to work and each point increase in financial return and recognition led to an increase in intention to work by 0.119 and 0.480, respectively. This model explains 44.2% of variability in intention to work for participants and showed significant model fit [$f(7.345) = 38.97, p < .000$].

The third model included fun at work to the previous model. It showed the effect of constant decrease to 1.216 points increase in intention to work with each point increase in factors not included in the model. Each year increase in age led to 0.1 points decrease in intention to work, while change in educational level led to 0.063 points decrease in intention to work. Each point increase in financial return and recognition caused an increase in intention to work by 0.205 and 0.453, respectively. Finally, each point increase in fun at work produced 0.245 points increase in intentions to work. This model explains 47.5% of variability in intention to work for participants and showed significant model fit [$f(8.344) = 38.94, p < .000$].

The mean Variance Inflation Factor (VIF) values of all three models were within the accepted range as they were less than 10. When VIF is less than 10, it indicates that collinearity does not exist and the model is good to proceed with (Chennamaneni et al., 2016; Kalnins,

2018). The f test of overall significance in regression is a test that determines if the linear regression model fits a dataset better than a model without predictor variables. The f test for all models showed that the significant level for models was below $p < 0.001$, which is considered very good model fit (Wamelink et al., 2004).

Discussion

This research investigated, based on SDT, the playbour behaviour as an intrinsic motivation in addition to extrinsic motivations in order to assess its effect on digital work investors' willingness to work in start-ups. Fun at work as intrinsic motivation, financial return and recognition as extrinsic motivations were found to be significantly related to the intention to work in start-ups. These findings corroborated previous literature; articles on human resources have mainly focused on extrinsic motivations and their relation to productivity at work, while less attention has been paid to intrinsic motivations and their importance in affecting employees at workplace (Manganelli et al., 2018). The present contribution additionally offers proof of the role of intrinsic motivations.

Firstly, we will look at our key finding, which considers intrinsic motivation –fun at workplace– as one of the main reasons why digital workers nowadays may choose to work in start-ups. The findings for this factor revealed that there is a positive association between having fun at work and working at a start-up, which increases the intention to work at a start-up. Literature based on the playbour phenomenon (Archer, 2019; Biegun et al., 2019; Goggin, 2011; Törhönen, 2019) supports our findings, demonstrating that having fun at work is becoming a phenomenon that managers should be aware of. The playbour behaviour has expanded beyond what people want at work to include investing in a start-up that they might work at just for having fun in the future workplace.

The relationship between work, play and labour was detected through our results to be especially strong for digital workers. The sense of fun at work increases productivity and helps firms to achieve targets by having more productive employees (Bucher et al., 2019). This occurs because of the satisfaction achieved by fulfilling the fun motivation at work, which leads to increased intention to work harder. Other studies asserted that using information systems increased the perceived enjoyment satisfaction which therefore helped making employees feel better. Furthermore, an IBM report also supported the idea of productivity and fun at work, showing that the more fun employees feel, the higher their willingness to produce more at the workplace (IBM, 2007).

Secondly, financial return as pay was found to have a positive relationship with intention to work in a start-up. This result reaffirms the literature showing a strong tie between pay and productivity at the workplace (Deci et al., 2017; Fischer et al., 2019; Lamberti et al., 2020). This relationship was expected to be positive due to the fact that the subjects of the present research, digital workers and investors at Amazon Mturk, work there to earn extra money. Moreover, it still raises the point discussed by scholars (Lueg et al., 2014; Suvethashri, 2020) when they asserted that pay is an obstacle for start-ups and causes employee turnover, especially for highly experienced employees.

Thirdly, recognition was found to have a positive relationship with the intention of digital workers to work at start-ups. This has been previously highlighted as a strong factor for digital labour to work and engage in start-ups, as workers want to be socially recognized by their peers (Bucher et al., 2019; Lazar et al., 2020; Näre, 2013). Recognition as an extrinsic motivation found to be a motivation driving employees to work harder in order to gain fame among peers or from the management (Bucher et al., 2019).

Our results also showed that whenever education level and age group increase, digital workers' intention to work in start-ups decreased. This suggests that due to the higher level of education and age, employees become more experienced and look for higher salaries and more stable jobs, as discussed by Suvethashri (2020), this was found to be a turnover reason in start-ups. It has been found that individuals with lower educational level and younger age have more appetite in investing at riskier and more complex financial products such as warrants instead of stocks (Abreu, 2019). Therefore, this finding is considered vital in order to understand that there are differences between age groups and education level but, unfortunately, we cannot compare it to any other playbour research due to lack of published material on this issue.

Conclusions

Using the self-determination theory, this article investigated the phenomenon of playbour, which combines play and work. Particularly, in order to improve the validity of the empirical work that was neglected in playbour research, this article tested the proposed theories on digital labour who are already working in Amazon Mturk.

Our findings support the playbour hypothesis, which emphasizes that people nowadays are keen to find a workplace that mixes fun and work. Results demonstrate that focusing on the fun and leisure side of the business will contribute to potential employment in start-ups. An additional factor influencing the decision to work in a start-up was recognition, indicating that newer generations are keen on working in new, novel, or exciting ventures. This research shows additionally that although fun at work is important, digital workers are also seeking financial return when they seek to work in start-ups.

The obtained article expects to contribute to the playbour literature by showing the reaction of digital workers toward the playbour phenomena. Furthermore, results showed a differentiation between age groups and educational levels which should attract the attention of the start-up recruitment teams, demonstrating that digital workers who are already crowdfunders may be one of their best options due to similar intentions and motivations. An interesting finding was that lower age and educational level increased the intention to work in start-ups. Having a motivated team that works hard to help companies thrive will brighten the future for start-ups.

CONCLUSIONS

This thesis has studied equity crowdfunding, one of the frontier technologies in entrepreneurial finance. Specifically, it studied re-investing motives for both potential investors and digital workers. This thesis went further and studied the playbour phenomenon on two samples (one composed of business economics students, another by crowdworkers with studies in business and economics) to determine the possible differences between them. This thesis was built on the self-determination theory (Deci, 1987) studying intrinsic and extrinsic motivations that affect intentions in both groups.

Chapter 1 empirically examined the re-investing motivations for potential investors, who were business economics students at the Universitat Autònoma de Barcelona. Results showed that motivations vary depending in the scenario of win or loss. In the win scenario, financial return and pleasure motivated potential investors to re-invest in ECF platforms. In the loss-scenario, potential investors were motivated by recognition and excitement.

Chapter 2 consists of an experiment on playbour behavior along with financial return and recognition as extrinsic motivations on students as potential investors. Results showed that fun at work positively affect the intention to work in start-ups, asserting that the playbour phenomenon, as a new trend for individuals to be motivated to work in start-ups, can be identified empirically. Moreover, it showed that recognition is another significant motive as those investors also wanted to be acknowledged where financial return had a negative effect. Indeed, students are not thinking about high pay at the beginning of their careers.

Chapter 3 studied the same issue as in Chapter 1, but now digital workers (active on Amazon Mturk platform) were targeted. Being digital workers makes them particularly fitting for progressing into a meaningful enquiry, as the type of start-ups I am focusing on are exposed

in crowdfunding platforms. Further, the research in this chapter was performed on real investors to study the difference between them and potential investors, i.e., students. Results showed that financial return and excitement were positively affecting their re-investing decisions in both win and loss situations. Moreover, recognition was found to a motive only for re-investing in loss situations, while pleasure was a motive for re-investing in the win situation.

Chapter 4 studied again the playbour phenomenon but for digital workers accessed on Amazon Mturk. The fun-at-work motive showed to be also positively affecting the intention to work in a start-up. As digital workers are seeking extra funds in Amazon, financial income was an important motive for them and shows an impact on their intention to work in a start-up. Recognition was found to positively motivate digital workers to work on start-ups. Lower age and education were also found to affect significantly on the intention to work in start-ups.

Table 5.1: Summary of Re-investing motivations for both samples

Re-Investing Motivations	Potential investors		Digital Worker investors	
	Win	Loss	Win	Loss
Financial Return	✓		✓	✓
Recognition		✓		✓
Pleasure	✓		✓	
Excitement		✓	✓	✓

Table 5.2: Summary of Playbour motivations for both samples

Motivations	Potential investors	Digital Worker Investors
Financial Return		✓
Recognition	✓	✓
Fun at Work	✓	✓

To recap, table 5.1& 5.2 show list of motivations addressed in this thesis for re-investing motivations and playbour. Tables showed differences between the two chosen samples and the thesis explained how and why they varies supported by previous research and theories.

IMPLICATIONS

In summary, these chapters managed to answer the aimed questions in the beginning of this thesis. Firstly, an understanding was gained on which intrinsic and extrinsic motivations affect the intention of re-investing in ECF by studying it with potential investors and digital workers. Moreover, it was shown that there are similarities and differences between both groups in terms of motivations. Results of Chapters 1 and 3 showed that financial return was a motive for potential investors and digital workers in winning but it is the opposite in losing and that this could be explained by the fact that digital workers are in a state of seeking additional return, so they are motivated by financial return even in lose scenarios, since they want to recover their losses from previous investments. Results demonstrated that excitement is only a motive for potential investors in the lose scenario, while for digital workers it was a motive in winning and losing because they are already working on a platform and feel excited about it.

Secondly, the thesis also helped gain a deeper understanding of the playbour phenomenon by showing the difference between students who are only studying and students who are working in digital platforms. Fun at work, as the playbour concept proposes, showed to be positively affecting both samples' intentions to work in start-ups. Pay was a key difference between samples, to the extent that digital workers seek higher pay while students would accept working in start-ups with low pay as long as they find fun at work.

Fortunately, this thesis added to the literature of ECF and playbour in many aspects. In addition to studying the re-investing motives, which constitutes the opening of a new research line, it enhances the literature on playbour by empirically studying it. Specifically, it shows that there are other extrinsic motivations affecting the intention to work in start-ups along with fun at work. The thesis also added to the literature the idea of investing for working, which means that investors could invest not only for the sake of investment but because they would like to see these ventures grow so they could have a possibility to eventually work with them in the future. Furthermore, this thesis provides entrepreneurs, platform owners and practitioners a greater understanding of the behavioral aspects for individuals to invest in ventures and know which motivations attract them more, which will enhance the chances of more ventures to thrive.

LIMITATIONS AND FURTHER RESEARCH

The limitation of this thesis was the size of the sample of students in the experiment done at the Universitat Autònoma de Barcelona due to restrictions related to the Covid-19 pandemic. The constraints on experimental time and self-administrated surveys prevented the study of more intrinsic and extrinsic motivations.

This thesis proposed new research directions for scholar to study the re-investing motives with different sample characteristics to gain more understanding on the re-investing motives. Moreover, it proposes scholars to study serial investor motives and compare it angel investors – who re-invest for first time- to see similarities and differences between them. Furthermore, it proposes researchers to study the differences between investors who invest for financial return and investors who do so with the intention of working in those start-ups. Also, it enhances researchers to study playbour on different groups of workers in public and private sectors other

that digital workers in order to perceive possible differences among them. Finally, finding in this thesis ECF investors' intention to work in start-ups they invested at raises an important question: could ECF platforms turn to be platforms for start-up recruitments?

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APPENDIX

Appendix 1: Demographic analysis

	Subgroup	Frequency	Percentage (%)
Age	18-24	52	14.5
	25-34	233	65.1
	35-44	73	20.4
Gender	Female	111	31.0
	Male	247	69.0
Marital status	In relationship	27	7.5
	Married	189	52.8
	Single	142	39.7
Ethnicity	African	20	5.6
	Asain	131	36.6
	Hispanic\ Latino	48	13.4
	Other	3	0.8
	White	156	43.6
Educational level	Diploma	16	4.5
	Graduate	3	0.9
	High School	12	3.4
	Postgraduate	116	32.4
	Undergraduate	211	58.9
Job status	Full time	287	80.2
	Owner	6	1.7
	Part time	63	17.6

	student	2	0.6
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Appendix 2: cross-loading matrix with VIF.

	excitement	intention to invest	loss	pleasure	recognition	Financial return	win	VIF
Excit1	0.773	0.458	0.225	0.419	0.395	0.36	0.405	1.205
Excit2	0.562	0.333	0.128	0.439	0.432	0.311	0.255	1.104
Excit3	0.828	0.455	0.242	0.552	0.412	0.386	0.441	1.27
FIN1	0.361	0.406	0.171	0.426	0.549	0.761	0.356	1.314
FIN2	0.31	0.375	0.116	0.317	0.22	0.636	0.348	1.101
FIN3	0.399	0.489	0.164	0.448	0.291	0.829	0.457	1.345
Inttoinvest1	0.427	0.801	0.183	0.452	0.29	0.484	0.548	1.373
Inttoinvest2	0.415	0.649	0.208	0.397	0.202	0.362	0.456	1.107
Inttoinvest3	0.457	0.804	0.233	0.457	0.286	0.44	0.504	1.405
Loss1	0.265	0.296	0.899	0.172	0.253	0.2	0.198	1.251
Loss2	0.205	0.149	0.795	0.084	0.245	0.136	0.156	1.251
Pleasure1	0.442	0.436	0.042	0.747	0.214	0.432	0.409	1.228
Pleasure2	0.478	0.347	0.092	0.688	0.299	0.37	0.417	1.088
Pleasure3	0.472	0.48	0.21	0.744	0.444	0.367	0.367	1.218
Rec1	0.505	0.267	0.231	0.342	0.844	0.378	0.227	1.713
Rec2	0.419	0.301	0.279	0.402	0.834	0.402	0.233	1.534
Rec3	0.438	0.286	0.207	0.338	0.794	0.378	0.237	1.484
Win1	0.406	0.586	0.186	0.489	0.241	0.499	0.849	1.122
Win2	0.439	0.498	0.155	0.398	0.218	0.342	0.778	1.122

Appendix 3: Cronbach's Alpha and AVE

Factor	Cronbach's Alpha	AVE
excitement	0.561	0.533
intention to invest	0.616	0.570
loss	0.618	0.719
pleasure	0.553	0.529
recognition	0.764	0.679
return	0.597	0.557
win	0.496	0.664

