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Essays in Financial Behaviour: Evidence from Equity Crowdfunding

Mohammed Alharbey

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Essays in Financial Behaviour: Evidence from Equity Crowdfunding

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Mohammed Alharbey

Supervisor:

Prof. Dr. Stefan Felix van Hemmen

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Mohammed Abdullah H. Alharbey

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Declaration

I declare that this thesis is my own work. No part of this thesis has been previously submitted to any university or institute of learning for any degree or qualification.

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List of Abbreviations

CMA	Capital Market Authority
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
ECF	Equity Crowdfunding
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
S-O-R	Stimulus-Organism-Response
TAM	Technology Acceptance Model
TPB	Theory of Planned Behaviour
UTAUT	Unified Theory of Acceptance and Use of Technology

Introduction

Entrepreneurs play a crucial role in the world's economy as they are essential for innovation, creating jobs, and expanding productivity. Unfortunately, they face financial constraints when initiating their projects, and as a result, their development is limited and their existences jeopardized (Block et al., 2018; Moritz & Block, 2016). Exhaustive literature has investigated the financial obstacles that entrepreneurial projects face (Schwienbacher, 2019; Schwienbacher & Larralde, 2010). Insufficient cash flow, uncertainty, and information asymmetry are the major inherent problems in raising capital. Various types of investors provide large capital, such as venture capital. Banks are also involved in providing capital, though entrepreneurs tend to require a small amount of money. Thus, they usually establish their innovative firms with the support of their savings, friends, or family.

In the past few decades, entrepreneurial finance has been noticeably evolved (Bessière et al., 2020). Several investors' players have entered the entrepreneurial finance context. First, venture capitalists initially emerged in 1946 in the U.S. Then, their practice had introduced worldwide in the 1980s (Gompers, 1994). Venture capital is a type of investment fund and a source of financial equity in private firms. Gompers and Lerner (2001) defined venture capital as "independent, professionally managed, dedicated pools of capital that focus on equity or equity-linked investments in privately held, high growth companies". The fund in this type of investment is handled by professional investors who usually invest in something with a real potential opportunity (Wallmeroth et al., 2018). Second, business angels are defined as accredited wealthy investors who invest their own money in the early-stage start-up in exchange for equity (Mason & Harrison, 2008). According to the U.S Security Exchange Commission, accredited investors have over $1,000,000 or have an annual income worth $200,000 in the last two years.

Recently, financial technology, also referred to as "FinTech," is beginning to gain recognition worldwide and is being applied to the stream of platforms and environments that make economic services offered by the finance industry more affordable, effective, and manageable. Also, the goal of FinTech is to utilise technology to establish the best financial solution by increasing transparency and financial assistance in economic sectors. Consequently, new alternatives have emerged which help entrepreneurship. Recently, entrepreneurial finance is shifting since entrepreneurs mix traditional loans and equity financing (Bruton et al., 2015). The crowdfunding phenomena is one of FinTech's numerous

features. FinTech is not exclusive to one technology, but multiple technologies that largely influence investing, lending, and financial services are used. These include crowdfunding.

Over the past few years, entrepreneurial finance has changed. After the financial crisis in 2008, start-ups, business ventures, and entrepreneurs were facing increased difficulties in raising capital. New investment instruments have emerged in the entrepreneurial finance field, such as crowdfunding, incubators, and angels' networks. In recent years, these new financing instruments have helped entrepreneurs in developed and developing countries to raise funds. Also, these new instruments are considered important financing methods that ease the financial difficulties of innovative firms. This thesis sheds light on one of these new FinTech entrepreneurial financing instruments, namely equity crowdfunding (ECF).

Crowdfunding Types and Characteristics

In the last decade, crowdfunding has become an alternative financial source for early-stage start-ups. The idea of crowdfunding was brought up by Dr Muhamed Yunis (who was awarded the Nobel Peace Prize) in 1976 as microcredit and microfinance (Bradford, 2012). Yunis launched a programme that helped to provide microloans for poor entrepreneurs in Bangladesh. Subsequently, the crowdfunding concept expanded with the technology revolution, particularly after the Web 2.0 internet transformation (Aldrich, 2014). Crowdfunding, which involves funding ventures and projects in small amounts of money from large groups of people, has been publicised as a new and powerful financial instrument for entrepreneurs (Agrawal et al., 2015; Belleflamme et al., 2014).

Moreover, the concept of crowdfunding was inspired by crowdsourcing and microfinance (Paschen, 2017). In 1997, the first documented successful crowdfunding case occurred after the British band Marillion financed their event via online contributions (donations) from their fans (Gerber et al., 2012). Later, the band used crowdfunding in order to fund their future albums as well as marketing their tour. Crowdfunding projects come in the form of profit and non-profit projects, and there are four different types.

First, donation crowdfunding is also known as charity crowdfunding. Donation crowdfunding is the second-biggest version of crowdfunding in terms of volume (Massolution, 2015). Funders in this type of platform do not expect any physical or monetary return from the project (Paschen, 2017). Recently, donation crowdfunding platforms have been applied in social environments (Lehner & Nicholls, 2014).

Second, in reward-based crowdfunding, funders support projects in return for non-financial rewards. The rewards come in the form of pre-selling products or services. Reward crowdfunding allows entrepreneurs to market their products and secure their cash flow through pre-ordering options (Frydrych et al., 2014), which is a major problem that entrepreneurs face in the early stages.

Third, in lending based crowdfunding—also known as peer-to-peer (P2P)—entrepreneurs and business owners present their projects in order to obtain a loan (Morse, 2015). Funders support the project with the expectation that they will get their money back with interest. Usually, ventures ask for money to cover the debt they have from another institution. Thus, lending P2P crowdfunding functions similar to traditional banks; however, entrepreneurs borrow from many investors.

Fourth, equity crowdfunding, often referred to as crowd-investing, is similar to lending crowdfunding. Investors in both P2P and ECF expect a tangible financial profit. However, in ECF, investors invest to receive a share of the new ventures (Ahlers et al., 2015; Vismara, 2018). Investors own a stake in the venture, so they have the right to vote. Most of the ECF platforms have two types of ownership: *nominee,* where the platform manages relationships with investors and holds shares, and *direct shareholder,* where the investors directly hold their shares and have the right to vote (Cumming et al., 2019). To have a direct share, backers must invest above the threshold that set by the owner or the platform.

Unlike investors in business angels and venture capitalists, investors in crowdfunding characterise as unsophisticated investors (Stemler, 2013). It means that investors in ECF do not have a wide range of investment knowledge and experience. Additional to the financial contraptions, entrepreneurs seek funds from angel investors and venture capital to get help and access to their own connections and network. In contrast, entrepreneurs prefer to fundraise their projects via the ECF platforms for financial contribution and obtain a reputation through social networks (Bessière et al., 2018). Venture capitals and business angels get involved in the business of the project, and they usually get a share in the board of directors of the company (Burchardt et al., 2016), while ECF investors provide cognitive support such as feedback on the product (Brown et al., 2019). In the last few years, ECF has grown faster compared to other types of crowdfunding (Paschen, 2017). The next few years seem exceptionally promising for

ECF. It is projected that the compounded annual growth rate over 32%[1]. That will benefit investors and entrepreneurs. The UK, which is one of the leading markets of ECF, has more than 20% of early-stage funding and 35% of seed funding deals that happened all through ECF platforms in 2015 (Vulkan et al., 2016). Saudi Arabia as one of developing countries that recently adopted the concept of crowdfunding, shows a three times increase in the number of ECF platforms since 2018[2]. Therefore, the three chapters presented in this thesis focus on ECF.

Motivation and Theoretical Background

Motivation

The rapid growth of the crowdfunding market over the last few years has been notably high. According to the Statista report 2018, transactions in crowdfunding circulated $5,250 US million. Compared to the rest of the world, The report also indicates that China has reached the top value of the transaction of $4,105 US million (Crowdfunding - China | Statista Market Forecast, n.d.). In 2018, the average campaign raised $818. It is projected that in 2030, the crowdfunding market will reach $300 billion, and there are estimated to be more than twelve million campaigns by 2025 (Meyskens & Bird, 2015). According to the World Bank report, the US is home to the world's highest number of crowdfunding platforms with a current total of 344. Equity crowdfunding will have decent proportion of arguably similar investment types, such as venture capital and business angels (Vulkan et al., 2016).

There is no doubt that ECF plays a vital role in the current financial system. Recently, ECF emerged as an alternative funding option for entrepreneurs instead of traditional funding instruments, such as venture capital, business angels, and bank loans. Equity crowdfunding has the potential to accelerate current efforts to establish entrepreneurial ecosystems. Unlike other forms of crowdfunding, funders in ECF expect financial returns in the form of shares. Thus, ECF involves investor decision-making. Even though ECF is experiencing remarkable growth, the academic literature has not kept pace with that increase. The majority of the literature has investigated the campaign's success from the entrepreneur's point of view. At the same time, not much is known about the investors' behaviour in this popular and alternative source of finance. Moreover, with the rapid growth and popularity in both developed and developing countries, ECF introduces an exciting opportunity to study the behaviour of investors.

[1] Alternative Financing Report 2021 https://www.statista.com/study/47352/fintech-report-alternative-financing/

[2] https://cma.org.sa/en/Market/fintech/Pages/ExpFinTechs.aspx

Crowdfunding is considered a two-sided market. A two-sided market occurs when vendors and purchasers join to trade goods and services. The market appears when the buyers and sellers interact via an intermediary for both groups' advantage (Rochet & Tirole, 2006). In crowdfunding, the platform acts as an intermediary market that allows interactions between users (end users) and project creators. Besides acting as a services provider, the platform also enables the users to communicate with the fundraisers. Moreover, the platform advises fundraisers on marketing and provides due diligence. Furthermore, the platform is in charge of collecting money from the bankers and delivering it to the fundraisers once the campaign closes.

In chapter 1, I analyse the factors that influence the acceptance of crowdfunding as a new paradigm that recently emerged. In chapter 2, I investigate the role the platform has on the investors' behaviour and decisions in a two-sided market. Finally, in chapter 3, I explore both platform and project characteristics and their effect on investors' behaviour and decisions.

Theoretical background

This thesis includes four theories regarding investors' behaviour and decisions.

Chapter 1 employs the technology acceptance model (TAM) to study the factors that impact the investors of ECF. The technology acceptance model is the most appropriate behavioural theory to empirically test factors that influence the decision-making behind the investors' intentions to adopt new technology, as suggested by Davis (1989). Davis introduced TAM in 1989. Since then, TAM has been widely used to investigate user acceptance and user behavioural intentions (Venkatesh & Davis, 2000). The major variables of TAM are perceived ease of use and perceived ease of usefulness applied in a number of technological models. Several scholars have used TAM in banking sectors (Ben Mansour, 2016), e-commerce (Agrebi & Jallais, 2015; Gefen et al., 2003), and in education (Rafique et al., 2020; Scherer et al., 2019). Moreover, TAM is used to investigate the user behavioural intention in the non-profit crowdfunding platform (Mohd Thas Thaker et al., 2018). Also, TAM has been used to test entrepreneurs' intentions to present their projects on crowdfunding platforms (Jaziri & Miralam, 2019). Chapter 1 examines the behavioural decision to adopt the platform for investment interests, particularly in ECF platforms. Expanding on TAM, I integrate subjective norms as an external factor to test the behavioural intention of the investors.

Chapter 2 investigates the platform's role as a two-sided market on the investors' behaviour and decision by applying swift (Meyerson et al., 1996) and transfer trust (Stewart,

2003). Trust, considered from a relational, social, and capital perspective, was introduced into crowdfunding by Zheng et al. (2014). Trust is an important aspect of entrepreneurial finance and one of the substantial impacts on the investors' intentions in crowdfunding (Strohmaier et al., 2019). Likewise, trust affects decision-making in venture capital (Bottazzi et al., 2016). Equity crowdfunding is performed under high levels of information asymmetry between fundraisers and potential investors (Ahlers et al., 2015). Consequently, trust plays a substantial role for those who want to invest in ECF. However, distrust can negatively influence potential investors (Lee et al., 2010).

Traditional trust involves face-to-face communication, which does not exist in the online platform (Grabner-Kräuter & Kaluscha, 2003). Thus, two types of trust used in the online sector are considered in this chapter. Swift trust is a trust that occurs at the initiation of a relationship when there has been no previous communication with the trustee (Meyerson et al., 1996). This theory has been applied in virtual teams and temporary situations (Germain & McGuire, 2014; G. Xu et al., 2007). Equity crowdfunding is a complex type of crowdfunding because the exchange implies not just contributing to a project but owning part of a legal entity (Moysidou & Hausberg, 2019). The second theory in this chapter is transfer trust (Stewart, 2003). Transfer trust proposes that one person can trust an unfamiliar person based on the level of confidence in a familiar person or object when there is a particular connection between the familiar and unfamiliar person or entity (Wang et al., 2013). In chapter 2, the familiar object is the platform, while the unknown object that lacks information is the fundraisers. Thus, transfer and swift trust theories offer an appropriate approach that can be utilised in this chapter.

In chapter 3, I apply the S-O-R model by Mehrabian and Russell (1974) to blend factors related to ECF investors. Based on the proposed framework, I examine the psychological characteristics of investor behaviour that explain the external environment (stimuli) and psychological cognition (organism) that convey positive or negative reactions previously affected by the organism (response). Investors participate in ECF by paying attention to a number of elements originating in the platforms. These platform elements are essential features of the crowdfunding environment and could impact the process that leads to investing (Jiang et al., 2010). The S-O-R literature has investigated individual behaviour and points to various factors that influence the investors' intentions, including project characteristics, platform characteristics, and cognitive attribute (Jiang et al., 2010; Liu et al., 2018; Mazaheri et al., 2011). The S-O-R model was suitable when combined with the examined literature because it served as a theoretical guide by forming a perception of stimulus-organism-response in ECF. The chapter presents a framework for investigating platform characteristics (stimuli),

influencing the investor's risk perception (organism), and affecting the potential investor's intent (response) in the context of ECF.

Objectives

Primary objective

The primary objective is to investigate the importance of critical factors that affect the investors' willingness to invest in ECF.

The line of the thesis lies in the context of entrepreneurial finance. Although ECF has emerged as a new financial tool that benefits the financing process of entrepreneurs, it creates some concerns about the factors that influence the investors' willingness to invests in ECF. Investors generally estimate the financial and economic aspects of the projects in ECF; however, the behavioural factors of fundraisers and platforms can also influence the investors. This thesis address three specific objectives. Each objective is presented and headed in a separate chapter.

Specific objective

1. To analyse the technological acceptance of ECF, mainly focusing on investors.
    1.1. Q1: How can technological factors affect the investors' attitudes and intentions?
    1.2. Q2: How can the subjective norm as an environmental factor affect the investors' attitudes and intentions?

2. To investigate the investees' trust development and its effect on investors' willingness to invest in ECF.
    2.1. Q1: How is trust in the ECF model established?
    2.2. Q2: How can platform trust affect the trust in the fundraisers?
    2.3. Q3: How do fundraisers and platform trust impact investors' intentions? And which one of those has more effect on investors' intentions?

3. To analyse the factors that affect the risk perception and intention of the investors.
    3.1. Q1: What is the impact of information disclosure perception on the risk perception of the investors?

3.2. Q2: How different is hard and soft information? And which of them has more effect on perceived risk?

3.3. Q3: What is the influence of perceived risk on the investors' intentions in ECF?

3.4. Q4: Would investors investment experience moderate the relationship between perceived risk and investment intention?

Study Outline

This thesis consists of three empirical chapters. All of the chapters aim to investigate the investors' intentions in ECF. Each chapter applies a different theory on exploring the factors that affect the investor's intention. The instant thesis has studied two platform financial system cultures in developed and emerging markets. In chapter 1, as a first step, I analyse ECF in the United States, where it first evolved. I wanted to make sure that I was able to run a survey in a context where platform financial system is common. Thus, I targeted the general population of those who participate in crowdsourcing in the United States, namely the Mturk platform. In the last two chapters, I focus on investors in an emerging market: Saudi Arabia.

Chapter 1: An Empirical Study on Investors' Intentions in Equity Crowdfunding: Integrating Social Norms and TAM.

Chapter 1 addresses and explores the factors that influence the investor's intentions on ECF platforms. This chapter develops a theoretical framework to investigate the behavioural aspects of investors. I have explored the technological (perceived ease of use and usefulness) and environmental (social norms) factors that affect the acceptance of potential investors in the ECF platforms. This chapter extends TAM to explore the intention of the crowdsourcing community to use ECF. I integrate a person's education level as a moderation variable. I examine the effect of the potential investors' level of education on their attitude toward the ECF platform. The study used an online questionnaire; 304 responses have been obtained in the study.

I have developed a theoretical framework to explore the technological and behavioural characteristics of potential investors. I employed Ordinary least Squares (OLS) regression and test three models. Crucial results are drawn from the study. The results show that TAM variables and subjective norms affect investors' attitudes toward investing in ECF. Specifically, the suggested framework consists of five factors that directly relate to describing the relationship between perceived ease of use, perceived usefulness, subjective norms,

attitude, and crowd funder's behavioural intentions in the ECF platform. Moreover, the technological factors have positively impacted investors' intentions to invest in ECF. However, results show that the investor's level of education has not strengthened the relationship between their attitude toward the platform and their intention.

This chapter contributes to the literature on crowdfunding and technology acceptance from academic and practitioners' perspectives. First, it improves and expands behaviour and technology studies (Davis, 1989; Venkatesh & Davis, 2000). Second, it studies the adoption of new technology as an appealing topic given the many ruptures throughout all sectors of the economy, and notably finance; however, the issue has not been extensively investigated. Third, the study is the first to integrate subjective norms with TAM in ECF. Finally, education is used to understand the impact of investor's education differences on attitude and behavioural intentions. To the best of my knowledge, no study has examined education differences as a moderator between attitude and investors' intentions in the ECF context.

Chapter 2. Investor Intention in Equity Crowdfunding. Does Trust Matter?[3]

This chapter is in line with chapter 1 for examining the investors' behaviour and intentions in ECF. However, this chapter goes deep to explore the two-sided market by studying the issue of trust and its impact on investors' decisions. Chapter 2 aims to explore the factors that influence the investors' intentions in ECF in one of the developing countries, Saudi Arabia, where the uncertainty and information asymmetry are at high levels. In 2018, the model of ECF emerged in Saudi Arabia. Thus, trust is an essential factor worth attention. Investors and platforms in crowdfunding diverge from traditional investment. Investors in ECF are inexperienced compared to traditional investors (Moysidou & Hausberg, 2019). Based on swift (Meyerson et al., 1996) and transfer (Stewart, 2003) trust theories, the chapter builds a framework that investigates the effect of trust on both platform and fundraisers on investors intention. Moreover, trust perceptions use as a mediation variable between the exogenous and endogenous variables.

The structural equation model (SEM) was applied to test the influence of the following variables: *familiarity*, *disposition to trust, information quality*, *educational signals, trust in the platform, trust in project creators, and intention to invest*. An online survey was distributed to the users of one of the biggest ECF platforms in Saudi Arabia. Two hundred sixteen users of

[3] This chapter was published in *Journal of Risk and Financial Management* in January 2021, volume 14, https://doi.org/10.3390/jrfm14020053

the Mnafah platform completed the survey. The chapter proposes twelve hypotheses. The SEM found a blend of mixed results, with confirmed and rejected hypotheses. The results show that trust in platform and fundraisers play a significant role in investing threw ECF platforms. Also, the results extend the transfer and swift theories (Meyerson et al., 1996; Stewart, 2003) by showing how trust in the platform underlies the relationship between variables *familiarity and disposition* and the trust on the fundraisers. Thus, the platform transfers trust to the fundraisers. The chapter shows how important is the institutional trust variable to investors' intentions. Also, shows the role of platform trust as mediator variable, the results indicated that platform trust positively mediate disposition to trust and fundraisers trust, while disposition to trust has no direct relationship to fundraisers trust.

This study provides valuable insight into the working of trust mechanisms in the crowdfunding domain and explains the relationship between interest variables. In the the chapter I asserted that ECF appreciates the reputation and growth, though we do not know much about the trust formation in ECF. Trust reduces the uncertainty and risk perception of potential investors; thus, it impacts their investment intention. Therefore, understanding investors' trust formation is essential for project creators, as well as ECF platforms. The chapter contributes to the literature on crowdfunding by focusing on platform and fundraiser trust and their influence on investors' intentions. From an academic perspective, the chapter addresses both swift and transfer trust theories (Meyerson et al., 1996; Stewart, 2003) by presenting institutional and interpersonal trust and implementing it in the ECF model. The chapter also contributes to behaviour intention literature by illustrating how trust in both platform and fundraisers positively affects investor intention.

Chapter 3. Information Disclosures, Perceived Risk, and Intention to Invest: An Empirical Study in the Equity Crowdfunding Context.

This chapter is in line with previous chapters by investigating the factors that affect the investor's intentions to invest in ECF. Chapter 2 explores the direct and indirect impact of information quality, and the results show a robust positive effect of information quality on investment decisions. Thus, in this chapter, I investigate in-depth the projects' information disclosure.

Chapter 3 aims to evaluate the role of perceived risk and its impact on investment decisions. I developed a framework to identify factors that reduce the perception of risk. I employed S-O-R theory to empirically determine investment intention in ECF. The chapter

presents platform quality as a platform characteristic and information disclosure as a project's characteristics. It extends to the project's disclosures by dividing the information into soft and hard information based on disclosure literature (Bertomeu & Marinovic, 2016; Petersen, 2004).

As ECF becomes popular in Saudi Arabia, we expand our sample to target users of all (eight) platforms. The survey was distributed in January 2021. A total of 334 participants have completed the survey. The SEM was applied to test the proposed hypotheses. The result shows that perceived risk has a strong effect on the intention to invest. The perception of hard disclosures which means the verifiable information found to reduce the perception of risk. Soft disclosures that present in textual form (unverifiable) also decrease investors' risk perceptions. Even though investors in ECF are considered unsophisticated, the results show that the perception of hard disclosure has more effect in reducing perception of risk than soft disclosure. The model also hypothesises whether the investors' investment experience would strengthen the negative relationship between perceived risk and intention to invest.

The chapter outcomes underline some important contributions to existing knowledge of uncertainty and information asymmetry related to ECF. Also, it contributes to the S-O-R theory (Mehrabian & Russell, 1974) by recognising information disclosure (soft and hard) and platform quality as stimulus signals, evaluating their impacts on perceived risk as cognitive organisms and validating it in the context of ECF. Moreover, the chapter contributes to information disclosures literature (Bertomeu & Marinovic, 2016; Petersen, 2004; Pötzsch & Böhme, 2010), and the interaction between individual and computer by hypothesising and examining how project disclosures and platform quality reduce risk perception. From a practitioner point of view, the chapter addresses platform operators, project, and fundraisers. Findings indicate that, in order to encourage potential investors to participate in ECF, the perception of verifiable and unverifiable information and the platform's quality (e.g., design and convenience of the transaction) should be advantageously administered to reduce perceived risk.

Under the guidance of my supervisor, Professor Stefan Felix van Hemmen, we have published chapter 2, and we aim to publish the other chapters as a co-author work. Therefore, through the forthcoming empirical chapters, I will use the pronoun (we) instead of (I).

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Chapter 1: An Empirical Study on Investor Intentions in Equity Crowdfunding: Integrating Social Norms and the Technology Acceptance Model

Abstract

Equity crowdfunding (ECF) involves making future investments to support new and renewed entrepreneurial ventures and other projects. This relatively new instrument has proven convenient for those who want to invest in entrepreneurial projects. This study explores factors that affect investors' intentions pertaining to equity crowdfunding platforms using a theoretical framework we developed to investigate the behaviours of funders. We employed a quantitative methodology to test our hypotheses within the theoretical framework, and we applied the technology acceptance model (TAM) and the subjective norm and also controlled for education. We collected the research data through 304 responses to an online survey. In the setting of ECF platforms in the United States, we found that perceived usefulness, perceived ease of use and subjective norms had significant effects on investor attitude and investor intentions. Additionally, this study's framework enhances the understanding of the role of the TAM on investors' behavioural intentions.

Keywords: equity crowdfunding, technology acceptance model, attitude, subjective norm, investor intentions

1.1. Introduction

Individual entrepreneurs often seek financial support for their business ventures from social investors, friends and family or by bootstrapping due to difficulties with raising funds through traditional financial institutions because of the liabilities typically associated with new businesses. In this context, crowdfunding has emerged as a viable alternative source of financing (Meyskens & Bird, 2015). Crowdfunding is 'the practice of funding a project or venture by raising money from a large number of people, typically via the Internet' (Hollas, 2013). The crowdfunding market has experienced considerable growth in recent years; for example, research indicates that in 2014 approximately $16.2 billion was raised through crowdfunding, which is triple the amount raised through such methods in 2013. This 167% growth in the market strongly reflects the increasing popularity of crowdfunding (Massolution, 2015). However, despite the increased interest, the success rate of crowdfunding campaigns is

less than 50%.

Nevertheless, crowdfunding has become a popular and feasible financing alternative for entrepreneurs who want to start or scale up their businesses. The first crowdfunding project was implemented in 1997, when the members of the British rock band Marillion funded their reunion with donations from their U.S. fans via an online platform (Mazure, 2017). In 2000, the first crowdfunding platform was born under the name ArtistShare. Thenceforth, additional crowdfunding platforms were developed.

Crowdfunding is classified into four types: reward, donation, peer-to-peer (lending) and equity crowdfunding (ECF) (Ahlers et al., 2015; Alegre & Moleskis, 2016; Walthoff-Borm et al., 2018). *Reward crowdfunding* is a reward-based, seed or pre-ordering practice, according to which a crowd provides funding to an entrepreneur or artist in return for products or services, such as membership to a fan rewards club or a ticket for admission to an event (Moritz & Block, 2016). Social capital has a significant impact on the success of reward-based crowdfunding campaigns. The second type of crowdfunding, *donation crowdfunding*, is characterised by the donation of funds to non-profit projects. Donation crowdfunding contributors bestow funds on project owners through a platform without expecting a tangible return (Team, 2015).

The third type of crowdfunding practice is *peer-to-peer crowdfunding*. The peer-to-peer or lending crowdfunding platform works as a bank by giving loans to borrowers, but at interest rates lower than those typically assessed by banks. The peer-to-peer lending platform links lenders or investors with borrowers. Some platforms link the lenders directly to individual borrowers, while others indirectly connect them by collecting the funds from the lenders on the businesses' behalf (Massolution, 2015).

Equity crowdfunding (ECF) comprises the fourth crowdfunding practice. ECF platforms fund new venture entrepreneurs, enabling them to start or develop their projects. Unlike the other types of crowdfunding platforms, through the ECF platform, the owner of the new venture gives the funders shares of the project or business equal to a percentage of the value of that project or business. As such, ECF has become investment intentions alternative financial instrument for investors (Hollas, 2013).

The concept of crowdfunding is an evolving research area that captures scholars' interest throughout different disciplines. Despite the successes that crowdfunding platforms have experienced, many campaign failures have occurred as well. Previous studies have comprehensively studied the concept of crowdfunding (Mollick, 2014), success and failure

factors using economic, financial and management theories (Alegre & Moleskis, 2016; Walthoff-Borm et al., 2018), the effectiveness factors of the platform (Frydrych et al., 2014; Silva & Vieira, 2017), characteristics of projects in crowdfunding (Ahlers et al., 2015; Belleflamme et al., 2014). However, few have investigated success and failure in this context from the investor behavioural perspective. Also, studies that examined the funders acceptance for various filed of crowdfunding is relatively few. Consequently, investigating the investors' acceptance of ECF is needed to recognize the factors influencing the performance of such an instrument for entrepreneurial finance. Therefore, this paper presents an analysis of funders' acceptance of ECF platforms as a legitimate form of financing.

This research is designed to accomplish two main goals. First, drawing on the current literature, we identified potential factors underlying funder investment intentions, suggesting a technology acceptance theory that includes perceived ease of use, perceived usefulness and subjective norms to understand investor intentions regarding ECF. Second, we used investors' educational level as a moderator to determine if educational differences explain differences in the relationship between funder attitude and intention, classifying education into two groups: high level of education and low level of education. In the literature, differences in education levels play an essential role in the relationship between attitude and behavioural intentions. The present study examines if this effect exists in the context of ECF.

This paper first introduces a review of the theoretical literature on the technology acceptance model (TAM) to shed light on investment intentions. Then, it explains the nature of the sample for the ECF research. Next, the paper presents the hypotheses we developed pertaining to outcomes on potential investors' intentions based on the theoretical perspectives mentioned. We employed the linear regression technique to examine the framework, and we analysed survey data from 304 participants who had used ECF platforms. The results should be of interest to both practitioners and academics. From a theoretical standpoint, this research contributes to the ECF literature in several directions. First, by applying the TAM, the proposed model fills existing gaps in the ECF literature. More precisely, in the case of ECF users, the suggested framework encompasses behavioural factors that directly explain the relationships between perceived ease of use, perceived usefulness, subjective norms, investor attitude and investor behavioural intentions. This study is the first to integrate the TAM with the subjective norm factor in the ECF context. The second contribution of this research is that education is a variable considered to understand the influence of investors' educational levels on differences between their attitudes and behavioural intentions. To the best of our knowledge, no study has

investigated educational differences as a moderator between attitude and behavioural intention in the ECF context. In practical terms, this paper offers intuitions regarding the intentions of project owners in ECF to develop a robust relationship with investors. It also provides platform owners with recommendations on how to enhance and perfect the functions of the platform.

This paper is organised as follows: in the next (second) section we present the conceptual framework and theoretical background underpinning our focus on the TAM, followed by a review of the research hypotheses. In the third section, we present the research methodology and describe the variables. The results and hypotheses testing are explained in the fourth section, and in the fifth and sixth sections we discuss the results and their implications and present the conclusion, study limitations and future research recommendations.

1.2. Conceptual Framework

The ECF phenomenon has become a threat to traditional private equity sources, such as angel investors and venture capital (Hollas, 2013). In prior studies, researchers have extensively investigated the impact of ECF using various management theories, such as information asymmetry theory, agency theory, signalling theory (Alegre & Moleskis, 2016). In 2015, 20% of early-stage investments in UK projects were made through ECF platforms (Schwienbacher, 2019; Walthoff-Borm et al., 2018). Evidence shows that one reason ECF more popular among project creators is that they can solicit funds through the platform instead of going directly to the crowd (Tomczak & Brem, 2013). The TAM theory plays a primary role in explaining behavioural intentions. In this paper, education is examined as a moderator variable based on educational background, educational level and academic achievement, as studies have shown a significant relationship between entrepreneurial intentions and entrepreneurs' education (Wu & Wu, 2008). However, research that investigates behavioural approaches is lacking. Nevertheless, the TAM is the most relevant behavioural theory that can test the factors that motivate decision-making behind the user's intention to adopt a technology.

Constant changes in technology create threats to or may slow the pace of the adoption of new ventures (Tounsi & Rais, 2018). However, at the same time, that rapid technological growth can offer even more opportunities (Lai, 2017). Recently, most profit and non-profit enterprises have benefited from the use of technology. Nevertheless, acceptance of the technology has always been questioned by business owners and researchers in the academic field. In 1989, Fred Davis introduced the TAM, which extends from the theory of reasoned

action (TRA) by Ajzen and Fishbein (1980). Since then, the TAM has been widely employed to analyse user acceptance and user behavioural intention in the context of technology (Venkatesh & Davis, 2000).

Other theories have been influenced by the TAM, which has been expanded to develop three additional major theories: TAM2, proposed by Venkatesh and Davis (2000); the unified theory of acceptance and use of technology (UTAUT), proposed by Venkatesh et al. (2003); and TAM3, proposed by Venkatesh and Bala (2008). The TAM defines two variables that can significantly influence the acceptance of new technology: perceived ease of use (PEOU) and perceived usefulness (PU). PEOU and PU dominate user attitude and can directly affect user intention. Davis (1989) defined PU, one of the primary variables of the TAM, as 'the degree to which a person believes that using a particular system would enhance his or her job performance' and defined PEOU as 'the degree to which a person believes that using a particular system would be free from effort' (Davis, 1989). Demographics, subjective norms, trust, social capital and other factors have also been introduced to the model as external and moderating variables. Scholars have used the TAM to test users' behavioural acceptance of emerging technologies, which has led to predictions on the adoption of e-banking, e-finance, e-commerce and online shopping (Abroud et al., 2015).

As noted previously, the TAM has been used extensively to investigate users' acceptance of new technologies in the academic field. The TAM was employed in one study to examine behavioural intentions related to the donation crowdfunding platform in Malaysia (Mohd Thas Thaker et al., 2018). Another study applied the TAM along with trust, empathy and personal innovation as external variables to investigate behavioural intentions related to a Spanish ECF platform (Guirado et al., 2018). A scenario approach was taken in a French study to examine reward-based crowdfunding users' behavioural intentions (Lacan & Desmet, 2017). However, few researchers have studied user acceptance of and intention to adopt crowdfunding platforms, specifically the ECF platform. We attempt to fill this gap by considering the factors that affect user acceptance of crowdfunding in general and of ECF in particular.

The ECF platform receives its financial resources from a 'crowd' of funders. The crowd consists of the people who fund a project through an ECF campaign. The ECF platform is a two-sided market, as it connects the community of project founders with a population of funders via an Internet platform (Lacan & Desmet, 2017). The project's funders can communicate directly with the project's creator through the ECF platform (Albuquerque et al.,

2012). TAM constructs and external variables such as subjective norms were used to examine the main factors that affect the platform's funders' acceptance.

As mentioned previously, the TAM is one of the models that scholars widely use to assess the level of adoption of new technologies. Scholars agree that the model is valid for examining behavioural intention (Chiu et al., 2009; Davis, 1989; Gefen et al., 2003). The TAM and the theory of planned behaviour (TPB) have been generally used to examine user acceptance of and intention to use a new technology (Davis, 1989). Based on the TAM, both PEOU and PU affect user attitude and intention. Attitude is defined as an individual's evaluation of an entire experience (Ajzen & Fishbein, 1980). This study included one of the variables of the TPB: the subjective norm.

The conceptual framework and the research hypotheses for this study are shown in Figure 1.1.

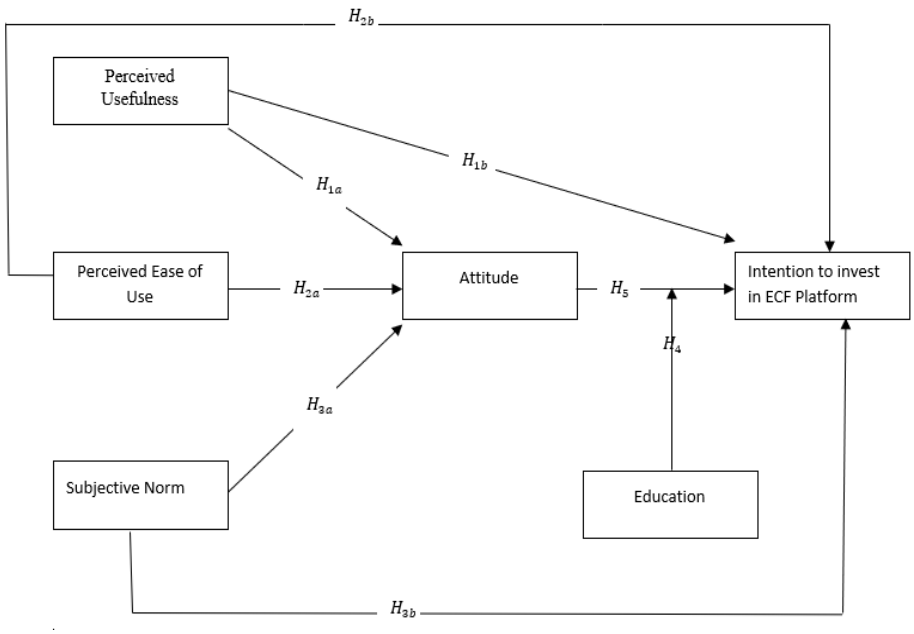

Figure.1.1. Proposed Model

1.2.1. Perceived Usefulness (PU)

As the TAM proposes, attitude towards a new technology is influenced by that technology's PU and PEOU (Davis, 1989); in the context of crowdfunding platforms, PU affects funders' acceptance of the platform and impacts that investors' attitude to use ECF platform (Lacan & Desmet, 2017; Mohd Thas Thaker et al., 2018). Perceived Usefulness also affects users' beliefs that new technology can enhance their performance in the activities supported by that technology. From the ECF perspective, PU encourages funders to invest, through the Internet, in the project for which financial support is sought based on the belief that

the investment will enhance their performance in using ECF (Guirado et al., 2018). Guirado et al. (2018) analysed potential investors' behavioural intentions related to ECF projects using a scenario approach. The targeted sample of the Guirado study was a group of users of one of the largest reward-based crowdfunding platforms in Spain. The research employed PEOU and PU as part of the TAM and employed trust and empathy as external variables to examine intention to use ECF. Based on this, we proposed the following hypotheses:

Hypothesis 1

H1a: Perceived usefulness has a significant positive influence on attitude towards the ECF platform.

H1b: Perceived usefulness has a significant positive influence on ECF investors' intentions.

1.2.2. Perceived Ease of Use (PEOU)

The second main variable in the TAM is PEOU, which is defined as 'the level to which an individual considers using a specific system would be free of effort' (Davis, 1989). Scholars have found PEOU, among all possible variables, to have the most substantial impact on the potential adopters of a new technology. Undeniably, PU alone is not enough to justify an attitude towards a new technology because of the efforts generated by usage of the platform and users' attempts to reduce those efforts. Evidence has shown that the more effort that is exerted by users of the platform, the more negative preference the user demonstrates (Perugini & Bagozzi, 2001). Furthermore, Lacan and Desmet, (2017) investigated crowdfunding's potential backers by examining the effect of PEOU and PU mediated by attitude on users' behavioural intentions. They found PU to have a positive impact on attitude towards the platform as well as on intention to use the platform (Lacan & Desmet, 2017). A scenario-based approach was taken in this study by establishing a crowdfunding platform, which was then presented to the participants. Based on these research initiatives, we developed the following hypotheses:

Hypothesis 2

H2a: Perceived ease of use has a significant positive influence on attitude towards the ECF platform.

H2b: Perceived ease of use has a significant positive influence on ECF investors' intentions.

1.2.3. Subjective Norm

As part of the planned behaviour theory, the subjective norm has been applied to examine behavioural intention in conjunction with the TAM. Subjective norms refer to perceptions of social pressures that affect behaviour (Ajzen & Fishbein, 1980). A study conducted in Taiwan on online banking users employed the TAM, TPB and perceived risk to analyse users' behaviours (Lee, 2009). Lee found that subjective norms as part of the planned behaviour theory positively impacted users' intentions to use online banking (Lee, 2009). A study conducted to test the level of adoption of virtual learning website among American undergraduate students(Sivo & Brophy, 2003). The study found that there a positive relationship associated between students' subjective norms and their attitude toward using the website. Also, another study extended TAM framework by applying subject norms as an external variable; the study found a significant positive effect of subjective norms on attitude(Teo et al., 2008). Another comprehensive study analysed the factors influencing user acceptance of the ECF platform using the TAM, TPB and UTAUT with data collected through an online survey (Savolainen, 2016); the subjective norm was found to have a positive relationship with intent to use the ECF platform. Moreover, the TAM3, like the original model of technology acceptance that influenced it, used subjective norms as a variable that can affect users' acceptance and attitudes (Coeckelbergh, 2012). Hence, we proposed the following:

Hypothesis 3

H3a: Subjective norms positively influence attitudes toward the ECF platform.

H3b: Subjective norms positively influence ECF investors' intentions.

1.2.4. Education

Education plays an essential role in social science studies. Some studies use education as a moderator, while others use it as an independent variable. According to the literature, educational level as a sociological characteristic significantly affects investors' decisions (Metawa et al., 2019). Previous studies found that among other demographic variables, level of education has an impact on technology adoption (Ahuja, 2002; Woodfield, 2002). A study that applied TAM theory to test the adoption of information technology uses education level as a moderator that strengthens the intention to use the computer (Al-Gahtani, 2008). Another study that applied TPB also tested education level as a moderator that affects the relationship between attitude and consumers' intentions in Malaysia (Genevie. et al., 2019). Moreover, investors who hold a high academic degree (bachelor's degree or higher) have a high level of risk tolerance (Yao et al., 2011). Therefore, because the crowdfunding context comes with

uncertainty and information asymmetry (Cumming et al., 2020), the level of education is believed to enhance investors' ability to evaluate and be involved in such risky enterprises (Hallahan et al., 2004). Furthermore, the education variable has been divided into background, major, achievement and highest level completed. A study on mutual funds investors demonstrated that investors' education had a significant impact on their attitudes towards mutual funds (Subramanya & Murthy, 2013). Thus, we hypothesised the following:

Hypothesis 4

H4: The relationships between investors' attitudes and intentions have different effects across educational factors.

1.2.5. Attitude

An individual's attitude can be inherited or acquired through previous experiences (De Houwer et al., 2001). Attitude directly impacts the intention to use information systems (Dwivedi et al., 2019). Attitude considers the centre of the user's behaviour and is included in a person's behaviour and beliefs on a particular concept or condition, impacting the decision-making process. In crowdfunding, attitude was found to significantly affect users' intentions (Pangaribuan & Wulandar, 2019). Specifically, an investor's positive attitude towards ECF is considered a sign of acceptance, where a negative attitude is perceived as a sign of rejection. In this study, investors' attitudes towards the ECF platform are proposed to significantly influence their intentions.

Hypothesis 5

H5: Attitude toward the platform significantly influences ECF investors' intentions.

1.3. Methodology

Through an Amazon Mturk and Qualtrics survey tool (www.qualtrics.com), we distributed an online questionnaire to members of the target population t and received a total of 304 responses. Qualtrics is an online survey platform that offers services for administering surveys and collecting responses. Amazon Mturk allows the scholars who collect the data to recruit survey respondents, who are called workers. These workers, or study participants, are awarded a small stipend paid by the researchers for performing human intelligence tasks (HITs). We used cautious analysis for summarising and presenting the data. The samples acquired from MTurk are valid and reliable, and data collected from MTurk represent the U.S. community (Goodman & Paolacci, 2017; Walter et al., 2019). While the ECF platforms attract unsophisticated investors, samples from MTurk have been applied in previous crowdfunding

research (Allison et al., 2017; Chan et al., 2020; Mahmood et al., 2019). These prior studies demonstrated that the sample taken from MTurk represents the characteristics of potential funders who may invest through an ECF platform. We used Qualtrics' skip-logic to reject workers whom we considered unqualified for participation. (Participants must have either invested through or at least held a user account for one of the ECF platforms in the United States to qualify for inclusion.

To examine the proposed hypotheses, we developed a questionnaire that initially included 18 items: 4 for PEOU, 3 for PU, 4 for subjective norms, 2 for education and 3 for intention to invest in the ECF platform. A seven-point Likert scale was used for all items, with response options ranging from 1 ('strongly disagree') to 7 ('strongly agree'). Moreover, demographic data were gathered from the users sampled. In this study, we based each variable on the results of primary exploratory studies and an in-depth analysis of the relevant literature. As noted, the survey questions were determined according to the variables.

We chose an online survey over a traditional paper-based survey for two reasons. Online surveys are less expensive to administer and collect data from, and they can reach the targeted participants regardless of geographical boundaries (Tan & Teo, 2000). We collected a sample of 304 valid responses from participants who had used the ECF platform in the United States.

1.3.1. Dependent, Independent and Moderating Variables

The dependent variable in this study refers to the investor's behavioural intention to participate in the ECF platform. For the independent variables, we used two TAM constructs: PU and PEOU. The subjective norms presented in the TPB were used in this study as an independent variable. An investor's evaluation of an ECF system is determined with consideration of that investor's attitude. Thus, attitude in this research was presented in two models as an independent variable and dependent variable in multiple regression analysis. Also, the level of education has been applied as moderating variable that affects the relationship between attitude and investors' intention. level of education was operationally defined according to the International Standard Classification of Education as the level of education that the investors have achieved, where a high level of education is defined as the high qualification the investors have (bachelor and above) and low level of education the investors achieved (lower than university degree)

Table1.1. Summary of Measurement Scales

Construct	Item	Source
Perceived Usefulness	By investing in equity crowdfunding, I would obtain better financial results than by investing in other products. Equity crowdfunding makes me more efficient in the management of my investments. I would invest in an equity crowdfunding project with attractive financial projections.	(Davis, 1989; Venkatesh & Davis, 2000)
Perceived Ease of Use	Using a crowdfunding platform system would save time. I believe that understanding the process required to invest in equity crowdfunding would be easy for me. I consider that I would have enough financial knowledge to invest in equity crowdfunding. I think that my interaction with the equity crowdfunding platform would be clear and easy to understand. I would invest in equity crowdfunding if I could do it anywhere – at home, at the office...	(Davis, 1989; Gefen et al., 2003; Guirado et al., 2018)
Subjective Norms	Most people who are important to me agree that I invest in equity crowdfunding. Most people who are important to me support that I invest in equity crowdfunding. Most people who are important to me understand that I invest in equity crowdfunding. Most people who are important to me recommend that I invest in equity crowdfunding.	(Chiu et al., 2018)
Attitude	Using a crowdfunding platform would be a pleasant experience. I like the idea of using crowdfunding platforms as an investment tool. Using crowdfunding platforms to make investments would be a wise idea.	(Davis, 1989; Pavlou, 2003)
Intention	If I have access to a crowdfunding platform, I want to use it as much as possible. I expect to use crowdfunding platforms in the future. I would recommend using equity crowdfunding platforms to my family, friends...	(Davis, 1989; Pavlou, 2003)

1.3.2. Demographics

Table 1.2 displays the sampling frequency distribution of multiple age ranges from 18 to 65 years and older. The model class of 25–34 years old represented 51.3% of the sample; 61.8% of the sample was male. Further, 71.1% of the sample respondents were employed for wages, while 1.6% were retired. While 35.2% of the sample indicated earning a monthly income of less than US$ 3,000, the monthly income of the second highest percentage of respondents (31.9%) in the sample was US$ 3,000–6,000. The data on respondents' marital status indicate that 48% were single, followed by 45.4% married.

Table 1.2. Demographic Characteristics of the Participant Sample *(n = 304)*

Demographic Variables	Frequency	%
Age		
18–24	51	16.8
25–34	156	51.3
35–44	64	21.1
45–54	20	6.6
55–64	10	3.3
65 and above	3	1.0
Gender		
Male	188	61.8
Female	116	38.2
Occupation		
Employed for wages	216	71.1
Self-employed	49	16.1
Out of work	10	3.3
Homemaker	8	2.6
Student	16	5.3
Retired	5	1.6
Income (in US$)		
Less than $3,000	107	35.2
$3,000–$6,000	97	31.9
$6,000–$9,000	49	16.1
$9,000–$12,000	28	9.2
over $12,000	23	7.6
Marital status		
Single	146	48.0
Married	138	45.4
Widowed	3	1.0
Divorced	13	4.3
Separated	4	1.3

1.4. Results

1.4.1. Model Measurement

To measure the strength of and linear association between variables, we used a correlation coefficient. Table 1.3 depicts the correlation matrix along with the associated test results on its significance. In multivariate analysis testing, the appearance of normality is required (Hair et al., 2010). The data should be normally distributed; otherwise, reliability and validity may be affected.

Table 1.3. Correlation Coefficient Matrix

	[1]	[2]	[3]	[4]	[5]	[6]
Intention [1]	1.000					
Perceived Usefulness [2]	0.719**	1.000				
Perceived Ease of Use [3]	0.724**	0.643**	1.000			
Subjective Norms [4]	0.601**	0.597**	0.491**	1.000		
Attitude [5]	0.765**	0.643**	0.774**	0.542**	1.000	
Education [6]	-0.054	-.033	-.073	-.014	-.043	1.000

** Correlation is significant at the 0.01 level (2-tailed).

A reliability term was constructed for the study to calculate the subscale measure's internal reliability to measure the difference of results consistency among items. To determine the internal consistency scale, we used Cronbach's alpha, as illustrated in Table 1.4. Based on Nunnally (1978), the Cronbach's alpha coefficients for each scale were considered fit, as they were higher than the accepted baseline of 0.70. Hence, every variable measure constituted a reliable instrument. Table 1.4 also illustrates the factor loading for each item; no cross-loading was found between the items.

Table 1.4. Convergent Validity Indices and Reliability Measures

Items	Factor Loading	Number of Items	Cronbach's α
Perceived Usefulness		3	0.743
PU1	0.635		
PU2	0.553		
PU3	0.603		
Perceived Ease of Use		4	0.843
PEOU1	0.763		
PEOU2	0.671		
PEOU3	0.708		
PEOU4	0.651		

Subjective Norms		4	0.918
SNN1	0.824		
SNN2	0.881		
SNN3	0.927		
SNN4	0.739		
Attitude		3	0.833
ATT1	0.501		
ATT2	0.874		
ATT3	0.486		
Intention		3	0.820
INN1	0.888		
INN2	0.566		
INN3	0.603		

1.4.2. The Kaiser-Meyer-Olkin (KMO) and Bartlett's Tests

The Kaiser-Meyer-Olkin (KMO) test measures whether the factors in a presented sample are fit and correctly correlate with the objectives, and Bartlett's test of sphericity analysis is employed to guarantee that the link between variables is stable. The KMO and Bartlett's tests are required to progress the confirmatory factor analysis (CFA); (Kline, 2014). A KMO value above 0.60 is considered adequate. Moreover, a *p*-value less than 0.05 ($p < 0.05$) is required in Bartlett's analysis. As shown in Table 1.5, the study outcomes pointed to Bartlett's test of the *p*-value being significant ($p < 0.05$) and to a KMO value of 0.859. Thus, the results were higher than the minimum values required, demonstrating the appropriateness of the data for conducting a factor analysis.

Table 1.5. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.859
Bartlett's Test of Sphericity	Approx. Chi-Square	988.561
	df	15
	sig.	0.000

1.4.3. Hypothesis Testing

A multiple linear regression analysis was used to predict the interrelationships between the independent variables and the dependent variable. To obtain the data analysis evidence in this study, we used the least-squares method and a linear regression model, as shown in Table 1.6. Also, multicollinearity diagnostics were employed on the data. According to the literature, the variance inflation factor (VIF) is a sufficient value of multicollinearity, and it should be less than 3.3 to determine a moderate limit (Diamantopoulos & Siguaw, 2006). The VIF values

of all the variables fell within the range of 1.05 to 2.90, which is below the suggested upper boundary. Therefore, according to the findings, no multicollinearity was observed in the data.

Table 1.6. Multiple Linear Regression Results

	Model 1 INN			Model 2 ATT			Model 3 INN			
Variable	β- value	*SE*	t-value	β- value	*SE*	t-value	β- value	*SE*	t-value	VIF
Constant	3.277	0.281		0.021	0.212		0.740	0.266		
PU				0.191***	0.056	3.439	0.330***	0.057	5.767	2.218
PEOU				0.715***	0.055	12.948	0.248**	0.071	3.512	2.872
SNN				0.130***	0.034	3.771	0.129***	0.036	3.602	1.766
ATT							0.420***	0.064	6.619	2.905
EDU							-0.013	0.038	-0.394	1.057
Interaction										
EDU x ATT							-0.052	0.036	-1.614	1.046
Control variables										
gender	-0.0221	0.138	-1.607	-0.098	0.077	-1.261	-0.006	0.079	-0.193	1.066
age	0.110	0.067	1.642	-0.075	0.038	-2.008	0.026	0.038	0.809	1.051
income	-0.170**	0.055	-3.117	0.029	0.031	0.931	-0.003	0.032	-0.102	1.124
F Change (sig.)	4.351	(0.005)		179.317	(0.000)		110.54	(0.000)		
R Square (adj.)	0.042	(0.032)		0.656	(0.649)		0.706	(0.697)		
n	304			304			304			

Note: $p < 0.05$ *; $p < 0.01$ **; $p < 0.001$ ***

Demographic variables, as control variables, consisting of gender, age, and income. Gender was estimated as a nominal variable where 1 male and 2 is female. Age and income were measured as ordinal variables from low to high. Table 1.6 illustrates the results of our nine hypotheses and shows the results of the multiple regression models. The dependent variable in models 1 and 3 is investor intention, while in model 2, it is investors' attitudes towards the ECF platform. Model 1 tests the effects of the control variables – gender, age and income – on the potential investors' intentions. The results showed that the gender and age control variables did not have a significant impact on the investors' intentions, but the income control variable had a significant negative impact (b = -0.170, p < 0. 05). The results for model 2 indicate that PU significantly influenced investor attitude (b = 0.191, $p < 0.001$), so we accept H1a. Similarly, PEOU had a significant positive effect on investor attitude (b = 0.715, $p < 0.001$); hence, H2a is accepted. Subjective norm was shown to have a significant impact on investor attitude (b = 0.130, $p < 0.001$); this outcome suggests the acceptance of H3a.

Model 3 tested all variables. The dependent variable of this model is investor intention. The results showed that PU had a significant positive effect on investor intention (b = 0.330, $p < 0.001$). Thus, we accept H1b. PEOU demonstrated a positive impact on investor intention (b = 0.248, $p < 0.001$), these results suggest accepting H2b. A positive relationship between subjective norms and investor intention (b = 0.129, $p < 0.001$), therefore, hypothesis H3b is accepted. In model 3, attitude, considered as an independent variable, exhibited a strong positive impact on investor intention (b = 0.420, $p < 0.001$); thus, H5 is accepted. Moreover, in model 3, the education variable is used as an interaction term to test the moderating effect of attitude on investor intention. The results showed no significant differences in the relationship between attitude and investor intention based on education factors (b = -0.052, $p = 0.108$). Thus, H4 is rejected.

1.4.4. Group Differences Analysis

A *t*-test was applied to analyse the differences and similarities between education factors. The results for the group differences help to achieve another objective of this research: developing a comprehensive categorisation of the similarities and differences between high and low levels of education on investor intention. This analysis informs a greater understanding of the differences between groups according to education level. The results of the analysis of these differences indicate no significant differences in the relationship between attitude and investor intention ($t = 0.887$, mean difference = 0.14985, p-value = 0.377). Thus, hypothesis H4 is rejected.

1.5. Discussion and Implications

ECF represents the future of investing in start-ups. It has become a new, convenient tool for those who want to invest in entrepreneurs' projects. In this research, we investigated investor behavioural intention towards ECF. We aimed to investigate the factors that affect investors' intentions to use an ECF platform using the TAM and subjective norms. As hypothesised, our results conformed with the literature (Guirado et al., 2018; Lee, 2009). The results reveal that PU has a significant influence on investor attitude toward ECF platform, showing that it is an essential element that affects the investors' attitudes. This finding is in accordance to previous studies (Guirado et al., 2018). Moreover, PU was found to impact the investors' intention positively, showing that PU will enhance the performance of the investors in acceptance of ECF. The result is in line with the findings obtained by Guirado et al. (2018), Lacan and Desmet (2017) and Lee (2009).

Moreover, PEOU found to positively impact investor attitude toward using the ECF, showing that ease of use enhances the positive attitude of the investors. This finding is in accordance to prior studies (Lacan & Desmet, 2017; Lee, 2009). Investor intention found to be influenced by the level of ease of use that the investor perceived; the high PEOU of the platform, the more positive preference the investors demonstrate. The findings go in line with existing literature (Perugini & Bagozzi, 2001).

This study applied subjective norms as an external variable from TPB. The results showed a positive effect of subjective norm on investor attitude toward using the ECF platform. Also, subjective norms was found to have a significant positive impact on investors intentions, indicating that investors' perceptions of social pressures influence the attitude and behavioural intention of the investors, confirming the previous literature findings (Coeckelbergh, 2012; Savolainen, 2016; Sivo & Brophy, 2003; Teo et al., 2008). Furthermore, attitude found to significantly impact investors' intentions, showing that investors' positive attitude towards ECF is considered a sign of acceptance. The finding aligns with previous studies (Dwivedi et al., 2019; Pangaribuan & Wulandar, 2019).

On the other hand, education level was divided into low and high levels; participants who had a high school diploma or the equivalent were categorised as having a low level of education. A high level of education was represented by those with undergraduate or postgraduate level educations, which was presented as a moderator effect in hypothesis H4. The hypothesis indicates that a different relationship between investor attitude and investor intention appears across education. The results reflect no significant impact and differences between low and high education. However, this finding does not follow the same direction as related findings in the literature (Wu & Wu, 2008). One explanation, investors in ECF are inexperienced investors (Stemler, 2013), means that investors do not have a wide knowledge of the context of crowdfunding. Thus, the educational qualification would not have as much effect as skills and experience.

This research contributes to the literature of ECF adoption among investors. The adoption of new technology has been extensively investigated, though it has not been fully studied in the field of crowdfunding more specifically ECF. The study's implication intended at examining the factors influencing investors' behavioural intention to use the ECF platform from the standpoint of different perceptions: ease of use, usefulness, and subjective norm as an external factor from TPB. To the best of the authors' knowledge, this research is one of the first

studies investigating the factors of investors intention in the context of ECF.

Numerous implications can be derived for various participants from the outcomes of this study, including both academic and practitioner perspectives. First, this research strengthens and extends on behaviour technology studies (Gefen et al., 2003; Kim, 2012; Venkatesh & Davis, 2000) by demonstrating the applicability of the TAM in the study of the ECF platform. Second, PEOU as the main factors of this study were found to have a strong positive impact on potential investors who intend to invest in ECF, so crowdfunding platform owners are advised to enhance all the elements related to PEOU. For example, enhance accessibility through all types of devices by establishing user-friendly phone applications, thereby providing potential investors with additional convenience.

Third, ECF platforms should not act simply as web mediators; they should enable potential investors to interact with each other so they can obtain feedback on the project. Finally, the results contribute to fundraising planners, who should present their campaign on a trustworthy and secure platform, since the attitude of the potential investors is positively affected by the usefulness of the platform. Also, this study contributes to the behaviour intention literature by showing that PU, PEOU, subjective norm and investor attitude toward the ECF platform positively affect investor intention. This study provides valuable insight into the working of behaviour aspects in the crowdfunding context and sheds light on the interrelationships between the variables of interest.

1.6. Conclusion, Limitations and Recommendations for Future Study

This study aimed to investigate the factors that affect investors' intentions towards using the ECF platform. We developed a theoretical framework to investigate the behavioural intentions of ECF funders. An important result from this study is that TAM variables and subjective norms influence investors' attitudes towards and intentions to invest through ECF. Specifically, in the case of ECF users, the suggested framework identifies factors that directly related to explaining the relationship between PEOU, PU, subjective norms, attitude and the crowd funder's behavioural intentions in the ECF platform. Moreover, the same positive effect was uncovered on the investors' intentions to use the ECF platform.

One limitation of this study results from the lack of a published paper that investigates the TAM in the financial sector, which limited our literature review. The sample size was collected from 304 potential investors compared to the total target population represents an additional limitation. Moreover, the only available data were primary data, the collection of

which involves high costs and requires outsourcing. Thus, cautiousness is needed when interpreting the outcomes of this study. Other factors can be affecting the investors' behaviour to use ECF platform that are not taken into account in our current framework. Future researchers can extend to this study framework by adding variables such as trust and risk perception, which have been proven to influence decision-making.

This study examined potential investors' intentions towards using ECF platforms in the United States. However, future research can be done using the same framework in another region to test cultural and regulation effects on potential investors' intentions. A quantitative method was employed to examine investors' behavioural intentions; a future study can take a qualitative approach to investigate the same variables. Finally, the results of this study suggest that education constructs be examined as independent variables, such as technology in education, self-learning and related majors, and that the direct effect of education constructs on the TAM be investigated.

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Chapter 2: Investor Intention in Equity Crowdfunding. Does Trust Matter?

Alharbey, M., & Van Hemmen, S. (2021). Investor Intention in Equity Crowdfunding. Does Trust Matter?. *Journal of Risk and Financial Management*, *14*(2), 53.

Abstract

Equity crowdfunding (ECF) is becoming a convenient alternative instrument for investing in entrepreneurs' projects in many countries. The purpose of this study was to investigate the factors that affect the investor's intentions toward ECF platforms in Saudi Arabia, where they have not been introduced until very recently. This context offers a unique opportunity to test the role of investors' perceived trust in the context of ECF. The proposed framework builds on two critical layers: (1) trust in the platform (intermediary) and (2) trust in the fundraiser. Structured equation modelling was applied to examine the factors that affect investors' trust and intentions. The framework was analysed using survey data from 216 users of Manafa, one of the largest ECF platforms in Saudi Arabia. Our findings showed that both fundraiser and platform trust have a significant effect on the investor's intentions. In particular, trust in the platform substantially impacts the fundraiser's trust, showing the importance of the fundraiser's reliance on trusted institutions. On the other hand, to build investors' trust, fundraisers must deliver high-quality information for their projects.

Keywords: equity crowdfunding; trust; intention; structural equation modelling

2.1. Introduction

Crowdfunding has emerged as an alternative source of for-profit and non-profit financial aid for entrepreneurs. In 2008, during the economic crises, many small and medium enterprises (SME) and start-ups transformed their traditional practices by seeking funds from the *crowd* platforms instead of financial institutions such as banks (Tomczak & Brem, 2013). Recently, crowdfunding has become an excellent financial recourse for the individuals, business and the public sector. The adoption of Web 2.0 (Bouncken et al., 2015), allows individuals to share their information through websites and applications. Thus, technology helps entrepreneurs connect with millions of potential investors. Project creators on crowdfunding platforms request funds for a particular project, while crowd investors (termed

bakers, funders or sponsors, depending on the platform purpose) contribute to for-profit or non-profit projects. Crowdfunding uses mediation by collecting numerous small amounts of money from a vast number of individuals; this approach to fundraising is open to the funder and applied through the internet.

Crowdfunding is considered an element of the internet economy, with many countries issuing policy responses in financial technology (fintech) regulation. According to the Global Crowdfunding Industry Report 2015, 344 million households are expected to use their savings to invest in crowdfunding by 2025 (Massolution, 2015). Academic research in the field of crowdfunding has increased. The majority of scholars have been investigating the types and definitions of crowdfunding and the funders' motivation and geographic character (Alegre & Moleskis, 2016).

Crowdfunding emerged after the concept of crowdsourcing, which allows the crowd to solve problems by applying online tasks to the crowd (Paschen, 2017). Firms have been using crowdsourcing to solve their internal task sourcing constraints. Moreover, firms can attain new ideas and answers from the crowd (Van der Have & Rubalcaba, 2016). Crowdfunding offers a more innovative role in a capital raising and problem-solving paradigm.

The goal of crowdfunding (whether commercial or charitable) is to use the power of the crowd to obtain a small portion of the money that collectively will provide enough capital to establish a proposed project, which may be unlikely to succeed through traditional bank funding (Ullah & Zhou, 2020). Based on the literature, scholars have identified different crowdfunding types based on what the funder will be given in exchange for their monetary contribution (Walthoff-Borm et al., 2018). In this study, we investigated equity crowdfunding.

ECF platforms fund new venture entrepreneurs, enabling them to start or develop their projects. In ECF, unlike other types of platforms (reward[4], peer-to-peer[5] and donation crowdfunding[6]) the project's owner offers shares to the funders as a percentage of the company

[4] Reward-based, seed, or pre-ordering crowdfunding is when the crowd fund's entrepreneurs or artists give products or services in return for funding, such as membership in a fan rewards club or a ticket for an event (Moritz & Block, 2016). Nevertheless, social capital has a significant impact on the success of reward-based crowdfunding campaigns.

[5] The peer-to-peer or lending crowdfunding platform works like a bank by giving loans to borrowers, but at interest rates lower than banks. The platform links lenders or investors with borrowers. Some platforms link the lenders directly to individual borrowers, while other platforms connect the individual to small businesses indirectly by collecting the funds from individuals on the businesses' behalf (Massolution, 2015).

[6] Donation crowdfunding is the donation of funds to non-profit projects. The funders of donation crowdfunding donate through the platform for no tangible return (Moritz & Block, 2016).

running the project. ECF has become an alternative financial instrument for investors (Hollas, 2013)

In developing countries, fintech financial solutions have been challenging the traditional forms of finance. At the Middle East Financial Technology conference (MEFTECH) 2020, Saudi Arabia declared its intent to be a hub of financial technology, a stated goal in the Saudi Vision 2030. According to the Fintech Saudi annual report published in 2020, the fintech industry continues to expand. The value of fintech transactions from 2017 to 2019 increased by 18% annually, achieving more than USD 20 billion in 2019 (Resources—Fintech Saudi n.d.) Moreover, the Saudi fintech market is expected to have over USD 33 billion worth of transactions. Between 2020 and 2024, those transactions will grow by a Compound annual growth rate(CAGR) of 2.4% annually, with an estimated overall amount of USD 3.2 million (Crowdfunding—Saudi Arabia|Statista Market Forecast n.d.). The Saudi Arabia Monetary Authority (SAMA) and Capital Market Authority (CMA) are working to develop regulations and rules for the Saudi financial capital markets, including the primary goal of meeting the objectives of the 2030 vision of Saudi Arabia.

Furthermore, the vision recognised SMEs and their essential role in economic growth. CMA has recognised the need for investment diversification channels from the traditional financial source, reducing unemployment and raising the Saudi gross domestic product (GDP). Hence, the CMA initiated a financial technology lab called FinTech Lab to enhance economic activities through technology applications. Under the authority of Saudi Arabia Capital Market law Royal Decree No. (M/30) (31 July 2003) and The Financial Technology Experimental Permit Instructions (1 October 2018), CMA announced its first batch of FinTech ExPermits in February 2018. One of the first companies to get an experimental permit was the equity crowdfunding platform, Manafa.

To a greater or lesser extent, entrepreneurs know that, in the real world, most of the critical factors affecting success are out of their control. Currently, many cases of fraud in crowdfunding have made building trust a challenging task for entrepreneurs. This effect is evident in reward-based crowdfunding. The delay or inability to deliver the product is considered fraud. In contrast, ECF fraud (that is when entrepreneurs are involved in illegal and unethical activities) is hard to detect (Cumming et al., 2020). When asking about the importance of trust in equity crowdfunding, every practitioner and entrepreneur will answer affirmatively. Nevertheless, being trusted entails taking multiple actions. It is easy to

misunderstand what trust is about, and how it can be generated unless rigorous evidence is provided. This shows that different and generally complementary strategies have a real impact on micro investor decisions. In the Saudi business environment, trust is essential in a business relationship (Abosag & Naudé, 2014). Recent studies have investigated trust in reward-based and lending crowdfunding and suggest that trust plays a significant role in project success (He et al., 2016; Moysidou & Hausberg, 2019). Unlike the traditional investment process, investors who intend to invest in a start-up tend to look at the project owners more than the financial disclosure; investors tend to spend money on people they trust (Moysidou & Hausberg, 2019). In donation crowdfunding, trust has a significant effect on the intention to donate (Chen et al., 2019). There is no doubt that the topic of trust and its impact on investors' intent needs attention, particularly in the context of ECF, where complexity and uncertainty are high, and information asymmetries abound. Unlike P2P crowdfunding, investors in ECF focus on the mid-to-long term.

Thus, a gap in research is found on the need to determine trust and its effect on investors' intention in the context of ECF. This study aimed to know how trust in the field of ECF is established and the impact of trust of the fundraiser and the platform on the intention of potential investors. We investigated interpersonal and institutional trust in the field of crowdfunding by applying two well-known trust theories, *swift trust* (Meyerson et al., 1996) and *transfer trust* (Stewart, 2003). These theories fit comfortably in the field of crowdfunding, where trust is original and temporary. Swift trust occurs in short-term organisational structures that include quickly formed teams or groups. According to Meyerson et al. (1996), a group of people engage in trust first, then they verify and confirm trust values accordingly. On the other hand, transfer trust suggests that trust is conveyed from the platform to the vendors (Stewart, 2003) and has been employed notably in the context of e-commerce. Online trust does not rely on a long-term relationship, and it does not require previous experience or past behaviour. Therefore, these theories allow us to frame the potential significance that trust may exert on potential investors' intention in ECF.

Guided by the swift and transfer trust theories (Meyerson et al., 1996; Stewart, 2003), this study examined the effect of familiarity, the disposition to trust, project information quality, trust in the fundraisers and confidence in the platform as factors in the investor's intention in the ECF platform. Our empirical findings showed that, in equity crowdfunding, the most crucial factors that positively affect the investor's intention were perceived project information quality and perceived trust in the platform. We also found that perceived trust in

the platform has a significant impact on the perceived trust in fundraisers. The results are valuable for both entrepreneurs and platforms.

From a theoretical perspective, this study contributed to the crowdfunding literature in several ways. First, we used the swift and transfer theories (Meyerson et al., 1996; Stewart, 2003), a framework that fills an essential gap in the ECF literature. To our knowledge, there is no study investigating the effect of trust on the investors' intention to invest in ECF. This study is the first to examine the impact of trust in ECF in developing countries. From a practical standpoint, this study provided intuitive concepts for entrepreneurs on how to build trust in their relationship with investors. It also offered crowdfunding platform guidance on how to enhance and model the functions of the platform. Second, the study findings will contribute to the literature on information asymmetries and uncertainty in ECF. Likewise, the intention to invest in ECF is an essential factor that empowers a project's success. Furthermore, ECF is particularly interesting because of the complexity of its contractual process and crowd involvement. Finally, prior studies have focused primarily on developed countries, whose findings may not apply to Saudi or Middle Eastern environments. To provide a greater understanding of investor behaviour in Saudi ECF platforms, further research on one of the developing country's ECF is needed.

The remainder of this paper is organised as follows: Section 2 introduces the conceptual framework and the literature review results related to our study. Section 3 presents the study hypotheses. In Section 4, we describe the research methodology, including data collection and measurement and the results of structural equation modelling. In Section 5, we discuss the study findings and their implications. In the final Section 6, we consider study limitations and opportunities for future study.

2.2. Conceptual Framework and Hypothesis

Conceptual Framework

The concept of social capital is multidimensional (Hazleton & Kennan, 2000; Nahapiet & Ghoshal, 1998). The dimensions are cognitive, relational and structural social capital. Cognitive, social capital can support people in the association to increase social capital due to the shared narrative and shared language. Structural social capital suggests structural features, for example, network ties, roles and rules. Both cognitive and structural capital relate to the network's relationship, not to the quality of the relationship. Nevertheless, relational social

capital describes the relationship's quality, meaning trust, trustworthiness, expectations and obligations of the social network (Cabrera & Cabrera, 2005).

Trust is considered a relational, social and capital characteristic, introduced into crowdfunding by (Zheng et al., 2014). It encouraged research by involving various aspects of relational social capital. Trust is a vital aspect of entrepreneurial finance (Mochkabadi & Volkmann, 2020) and one of the significant impacts on the supporters' intention in crowdfunding (Strohmaier et al., 2019). Similarly, the decision-making in venture capital is influenced by a trust (Bottazzi et al., 2016). Crowdfunding platforms assume trust among fundraisers and investors when funders are encouraged to support a project's creator.

Thin trust, which is the trust between strangers and trust in the internet, "the level of confidence assigned in the internet effectiveness a medium to conduct transactions," has been investigated in the equity-based crowdfunding platforms (Kshetri, 2018). A study of a Chinese peer-to-peer platform applied the trust model to understand critical factors that affected investors' trust in fundraisers (the borrower) and trust in intermediaries (Chen et al., 2014). Chen et al. found that trust in the platform and trust in the borrowers significantly impact the funders' intention. Trust has further been divided into calculus and relationship trust relating to ECF. We examined the trust effect on the willingness of investors using a research model with three measures: (1) entrepreneur-related, (2) project characteristics and (3) platform-related (Kang et al., 2016). Moreover, individual trust expectations can be distinguished as either competence-based trust or integrity-based trust (Connelly et al., 2018). Competence-based trust is when the trustee has the technical and interpersonal competencies to complete their work. In crowdfunding, competency-based trust is represented by trust in the entrepreneurial capabilities of the fundraiser. In addition, the project creator's creditworthiness would be measured by their previous successful experience in crowdfunding (He et al., 2016). Integrity-based trust is rooted in the trustee's experiences, personality, motives and honesty.

Equity crowdfunding entails high levels of information asymmetry between entrepreneurs and potential investors (Ahlers et al., 2015). Thus, trust plays a significant role for those who want to invest in a project presented on the platform. However, distrust can negatively impact potential investors (Lee et al., 2010). Trust requiring a face-to-face bonding relationship between the trustors and the trustee is *traditional trust*. Moreover, trust must be built through a high degree of communication, which is unlikely to happen in the internet community. The conventional trust model considers trust to be a developing progression (Wang

et al., 2016). Trust typically occurs after a dependable relationship history slowly developed through people's communication of prior behaviour (Gefen, 2000).

However, the traditional trust model cannot explain the levels of trust in the geographically dispersed team or virtual team (Robert et al., 2009). This type of trust, called *swift trust*, was explored by Meyerson et al. in 1996. Swift trust is a type of trust that happens in a temporary group and can involve a quick-starting team (Meyerson et al., 1996). Swift trust is an initial trust that occurs at the beginning of a relationship when there has been no previous communication with the trustee. ECF is a complex type of crowdfunding because the exchange implies not just contributing to a project but owning part of a legal entity (Moysidou & Hausberg, 2019). Thus, swift trust theory provides an appropriate approach that could be applied in this study.

The other type of trust used in our study is the *transfer trust* theory (Stewart, 2003). Transfer trust proposes that one person can trust another unfamiliar person based on the level of confidence in a familiar person or object when there is a particular connection between the familiar and unfamiliar person or object (Wang et al., 2013). In our study, the familiar object is the platform, while the unfamiliar object that lacks information is the entrepreneurs.

Though trust is one of the significant elements affecting an investor's decision relating to online investment, few studies have examined the effect of trust on the project's success in the field of crowdfunding. A high degree of online trust in the internet community is more important than face-to-face trust (Grabner-Kräuter & Kaluscha, 2003). In particular, in the context of ECF, trust is essential, not only because the ECF occurs online but also because the majority of funders are not sophisticated investors (Belleflamme et al., 2014).

Because most information on crowdfunding platforms is unsupported, the relationship between the fundraiser and the crowd is hampered by asymmetries (Moritz et al., 2015). Thus, potential investors focus on identifiable entrepreneur signals; information on the project page is one of the signs that investors receive (Bi et al., 2017). The level of trust varies for each type of crowdfunding because each kind of profit crowdfunding differs in its contribution (Moysidou & Hausberg, 2019). As mentioned previously, ECF is the most complex type of crowdfunding, requiring high levels of trust. Thus, trust is essential to surmount the information asymmetries.

This study examines the effect of familiarity, project quality, disposition to trust, education signals, fundraiser's trust and platform trust in investors' intention in the equity

crowding platform (Figure 2.1). Moreover, fundraiser trust and platform trust have been tested as endogenous and mediation variables.

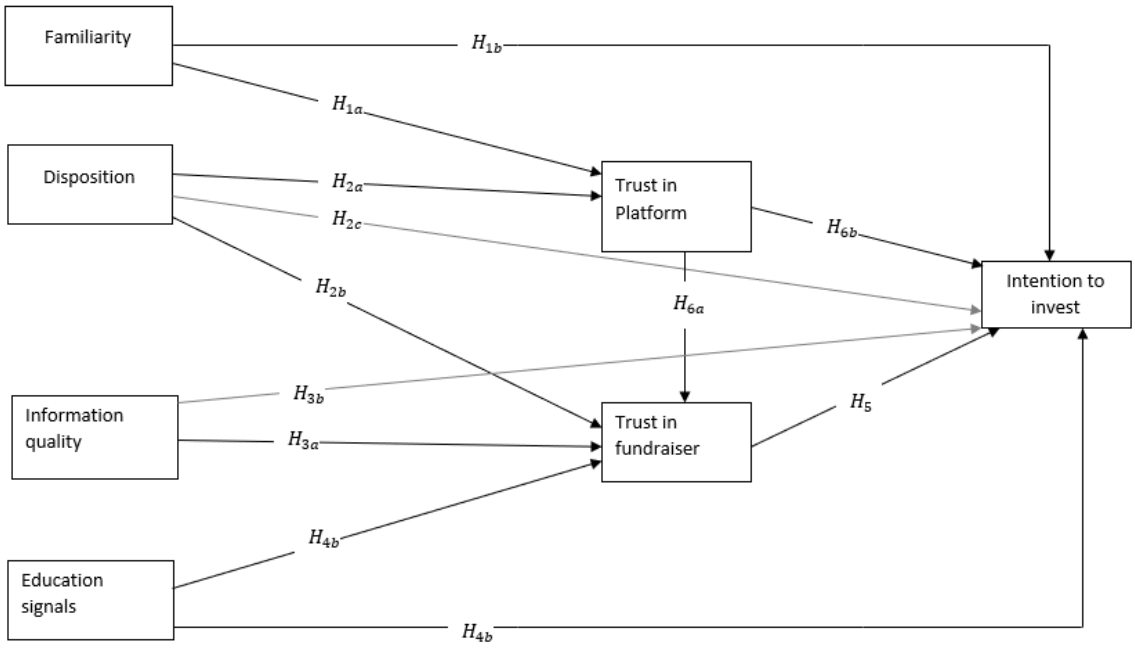

Figure 2.1 Proposed model

2.3. Hypothesis

2.3.1. Familiarity

Familiarity describes investors' acquaintance with the ECF platform throughout the interaction. Investors can predict the platform behaviour, which is the mediator based on the experience gained from previous communications (Kim et al., 2008). Therefore, the investors acquaint themselves through the platform and develop familiarity with the behaviour of the intermediate. A buyer's familiarity with the online business party indicates the buyer's level of acquaintance with the selling unit, including the seller's knowledge and an understanding of the relevant process, such as looking for products and information and buying through the platform.

According to Luhmann (2018), familiarity is a prerequisite of trust because trust usually deals with the belief in a potential entity's action, while familiarity deals with understanding the current entity's action (Gefen, 2000). Consumers or investors often return to the platform when they have had a pleasant experience; they will not revisit the platform when they have had an unpleasant experience. Thus, investors will develop a high level of familiarity with the platform where they have had favourable experiences. Investors who have a positive

experience with the platform will stick to the platform and project a strong perception of what they expect in the future (Kim et al., 2008). Investor's loyalty defines the trust that the investors have in the platform. Familiarity represents the investors' degree of trust in the crowdfunding framework (Moysidou & Hausberg, 2019). Moreover, in crowdfunding, investors typically invest in different projects but chose the platform with which they have had a positive experience. Thus, an investor frequently attempts to invest in projects posted on the trusted platform.

Interface complexity is another element of potential investors' intricacy. For example, how, where and what information does an investor need to do what is required? Familiarity should mitigate this complexity and result in enhanced use of the platform (Luhmann, 2018). On the other hand, those affected by the platform's complexity are more likely to quit investing in the platform, simply because they may not understand what to do and how to do it. Thus, the following hypothesis suggests that familiarity increases trust in the ECF platform and the potential investors' intention.

Hypothesis 1

Familiarity with crowdfunding (H1a) and the crowdfunding platform (H1b) are positively associated with investors' intention.

2.3.2. Disposition to Trust

Here, we turn to the three types of trust identified by McKnight et al. (1998): (1) trusting beliefs, (2) trusting intention and (3) disposition to trust. McKnight et al. compressed the disposition to trust into faith in humanity and a trusting stance in the same study. The propensity to trust is an additional attendance of trust. However, that trust has not been built-in gradually through consistent interaction. Moreover, the disposition to trust has been described as a person's general tendency to trust others (Bélanger & Carter, 2008). The propensity to trust is a psychological concept identified by Erikson (1968) and Rotter (1967). This concept rests on the premise that individuals develop general beliefs about people's reliability throughout the cycle of their lives. Thus, the disposition to trust is not founded on knowledge or experience with another person. In our framework, an investor's propensity to trust is the extent to which a person shows a willingness to depend on others throughout a wide range of circumstances and players.

The disposition is not built on previous information or experience about a specific trusted group but is autonomous of the particular perspective (Kenning, 2008). On the other

hand, it is the outcome of ongoing socialisation and lifetime experiences (Fukuyama, 1995; Uslaner, 2008). A study on leading Chinese crowdfunding found that *disposition* to trust is essential to *initiating* trust in the investment process (Chen et al., 2014). Another crowdfunding survey found that backers' disposition to trust has a positive impact on fundraisers' perception of trust (Moysidou & Hausberg, 2019). In e-commerce, consumers' propensity to trust was observed to impact online trust (Teo & Liu, 2007). Disposition to trust is crucial in the short-term or initial relationship, especially in the virtual environment in which parties are not familiar with each other. Thus, a disposition to trust in an active crowdfunding environment is expected to be evident in an impromptu relationship where information about the fundraiser (trustees) is not clear. Therefore, the disposition to trust will have a significant effect on endogenous variables: fundraiser trust, platform trust and investors' intent.

Hypothesis 2

Disposition to trust is positively associated with (H2a) the equity crowdfunding platform, (H2b) the fundraiser and (H2c) investors' intention.

2.3.3. Project Quality

In this study, the quality of project information was described as the degree to which an investor accepts that the information that he or she has been given about a project is of high value (Liu et al., 2018). Unlike traditional investors, crowdfunding investors access all of the project information (financial and non-financial) from the project page. Because multiple projects are posted simultaneously and with the same purpose, funders can distinguish projects that are reliable from those not by obtaining specific information such as project goals, project owner and the amount of funding. A recent study on crowdfunding lending found that project quality significantly affects the fundraiser's trust (Moysidou & Hausberg, 2019). Moreover, cognitive trust is defined as the "trustor's rational expectations that a trustee will have the necessary attributes to be relied upon" (Komiak & Benbasat, 2006). Cognitive trust belongs to reasoning activity or, according to Lewis and Weigert (1985), "good rational reasons why the object of trust merits trust". Furthermore, in cognitive trust, sophisticated investors' trust and confidence in the project initiators are based on their knowledge, reliability and competence; while, in crowdfunding, constant communication along with previous experience between the trustors and the trustees has not always existed. Therefore, cognitive trust is founded on" good rational reasons." Accordingly, we propose that project information quality will significantly impact the fundraiser's trust and the investors' intention.

Hypothesis 3

Perceived project quality is positively related to trust in (H3a) the project fundraiser and (H3b) the investors' intention.

2.3.4. Education Signal

Once a project is launched on the platform, investors face enormous uncertainty from the fundraiser. When entrepreneurs lack track records or actual output, such as a source of revenue, the fundraisers' human capital will be one of the primary signals, particularly the project founder's education (Grossman, 2006). The role of education is a quality signal of human capital (Spence, 1978). Various studies have shown positive and sustainable relationships among entrepreneurs' educational level and project success (Cooper et al., 1994; Wiersema & Bantel, 1992). Educated entrepreneurs not only offer greater knowledge; they also have considerably more of the skills needed for a project's success (Barbi & Mattioli, 2019).

Moreover, most of the information on human capital is represented by formal education. In the context of entrepreneurial finance, initiators who have a PhD are expected to receive funds from investors in the early stages (Hsu, 2007). Likewise, a new venture capital study found that start-up ventures are more likely to be funded if the owners have "high academic status" (Backes-Gellner & Werner, 2007). The same study found that fund-seekers with an academic degree can quickly get a loan and have fewer labour problems. In the field of crowdfunding, one of the first studies on the context of equity-based crowdfunding investigated the impact of entrepreneurs' education as a signal, choosing an MBA holder as an indicator of a broad education (Ahlers et al., 2015). Thus, the education signal has a high impact on the fundraisers' trust and investors' intention.

Hypothesis 4

The perceived entrepreneur's education signal is positively associated with trust in (H4a) the project fundraiser and (H4b) the investors' intention.

2.3.5. Fundraisers Trust

Investing in ECF is considered to be a high-risk, long-term investment. Trust in the fundraiser was hypothesised in this research as confidence that the fundraiser will perform cooperatively to satisfy the investor's expectations (McKnight & Chervany, 2001). Fundraiser trust is vitally necessary for funding achievements. In the context of crowdfunding, investors can choose to invest in a project offered from multiple entrepreneurs, but many are generally not accustomed to dealing with those fundraisers. Further, investors and project owners do not

usually repeat transactions (Lin et al., 2013). Investors in crowdfunding lending are subject to risk, information asymmetry and uncertainty in their investment decisions (Chen et al., 2014). Thus, investors must thoroughly assess the fundraisers in all aspects. The fundraiser assessment can be provided through the information on the project page to indicate the project owner's honesty and reliability. Investors' trust in the fundraisers can be affected through the regulation of the transaction because the technical protection of the platform can avoid fundraiser fraud. Furthermore, entrepreneurs who are explicit about their obligations and *good standing* will reduce the probability of fundraiser failure (Liu et al., 2015). Studies of trust and behavioural intention found that an individual's personality affects the attitude of trust (Brown et al., 2004; Gefen et al., 2003).

Interpersonal trust has been examined to investigate human behaviour in offline and online environments. It refers to the confidence the person has in trusting another person or group in the transaction context. In the framework of this study, interpersonal trust relates to the trust-building structures between and investors and fundraising. This concept is fundamentally crucial in an individual's behaviour (Jarvenpaa et al., 1998; McKnight et al., 2002; Parks & Floyd, 1996). Interpersonal trust has been tested in various fields such as economic behaviour, financial decision behaviour and human resources. Rotter (1980) defined interpersonal trust as a "general expectancy, held by a group or individual that the trustor's written and oral statement can be relied on." Rotter introduced the interpersonal trust scale (ITS), containing 25 items that evaluate trust in individuals generally and particular groups, such as parents and public officials. Thus, in ECF, the fundraisers play a significant role in trust through the project page's information. Moreover, a more confident attitude about investing will be built when trust conquers uncertainty (Chen et al., 2014). Previous studies have suggested that vendors' trust positively affects the intent to purchase (Pavlou & Gefen, 2004; Sun, 2010). These findings can likewise be supported in virtual environments. Hence, we concluded that the fundraiser's trust influences an investor's intention to invest.

Hypothesis 5

(H5) Trust in the project fundraiser is positively associated with the investors' intention.

2.3.6. Platform Trust

Similar to e-commerce, crowdfunding requires not only a seller (fundraiser) and a purchaser (investor), but a platform (intermediary) (Pavlou & Gefen, 2004). The ECF

intermediary is the platform or, in other words, the *marketplace*. The platform utilises the internet structure to expedite investing operations through investors and potential entrepreneurs by managing, collecting and distributing information (Moysidou & Hausberg, 2019). Therefore, investors should trust both the fundraisers and the platforms. Trust in a crowdfunding platform (intermediary) has been defined as an individual investor's confidence in the belief that the platform will organise and apply policies, rules and outcomes efficiently and honesty (Bansal et al., 2016).

Furthermore, the platform's technical protection leads investors to trust the fundraisers. Because of investors' high risk, the security and safety of investors, such as authentication, fraud safeguard and escrow services, are the platform's primary concern. In addition to protection and security, investors assume that the platform will provide high-quality services to aid the transaction (Liu et al., 2015). Furthermore, platforms (profit or non-profit) that collect money from the crowd without permission from the Capital Markets Authority of Saudi Arabia are prohibited; this should add credibility to the intermediary. Both formal and informal institutions can affect investor's trust. Institutional trust refers to the functional relationship between the people and institutions (Bachmann & Inkpen, 2011). In the context of this study, institutional trust has been defined as the relationship between an individual (investor) and an institution (equity crowdfunding platform). In the absence of an institutional perspective, crowdfunding platforms sometimes substitute that absence by providing the necessary *institutional safety net*. Usually, crowdfunding platforms have their own internal processes that allow honest and trustworthy fundraisers to launch their project on the platform to protect their investors.

In this study, we adopted the theory by Stewart (2003) on trust transfer, arguing that trust in the platform is a crucial factor that builds confidence for the potential investor's trust in the fundraiser. That trust can affect the willingness to invest. Nevertheless, goodwill and skills cannot be detected by potential investors in the absence of frequent communication. As an alternative, investors rely on platform signals by viewing the pre-launch procedures. Hence, in this study, we suggest that trust in the platform positively affects trust in the fundraiser and the investors' intention.

Hypothesis 6

Trust in the platform positively affects trust (H6a) in the project fundraiser and (H6b) the investors' intention.

2.4. Methodology

2.4.1. Context of the Research

An online survey was administered to the users of Manafa, one of the ECF platforms in Saudi Arabia. Manafa is authorised by the Saudi CMA, which makes it trustworthy (Gazzaz, 2019). According to available platform statistics (https://www.manafa.sa/), Manafa has more than 25,000 active investors. During 2019, more than 1.5 million people visited the platform. Females hold 12% of the currently active accounts, while less than 1% are professional investors; the rest are laypeople. To register on this platform, the investor must be a resident of Saudi Arabia. The investor's identity is confirmed through a government-issued ID, which affects the ease of use of the platform and dramatically enhances trust.

Each investor registered on the platform can independently decide where to invest after reviewing the project's information and the risks it entails. The standard information provided about a project includes its description, financial information, market information, management team, sometimes a short video presentation, fundraiser profile and risk. Apart from that, information about the equity price and minimum shares that investors can pledge is provided, along with the project evaluation.

2.4.2. Sample

The study data were gathered through an online survey. We distributed the survey through email and social networks, targeting those registered on Manafa and had who visited the platform. The survey was distributed between 1 February and 20 March 2019. Because the study examined the investor's intention, the target participants were those who had an account on the platform, not just those who have already invested through it. A total of 267 people participated in the study, of which 216 completed the survey. The average time required to complete the survey was 8.4 min.

Table 2.1 shows the breakdown of the survey sample by primary demographic variables. As shown in the table, most of the study participants were between 35 and 44 years of age, while a significant portion was aged 25 to 34. Although males dominated the sample, there were more females than indicated in the official report by Manafa (compare 20.8% female respondents in this survey to 12% female account holders reported by Manafa). Most of the respondents had a bachelor's degree, while a considerable proportion had a master's degree. Most of the respondents were married.

Apart from the demographics presented in Table 2.1, there were other significant characteristics of the sample. A total of 173 participants (80.1%) reported they had invested in the stock market before; while a total 134 (62%) reported that they had made some other type of investment. Interestingly, only 31.9% (69 participants) said that they had previously invested in cryptocurrencies.

Table 2.1 Demographics of the collected sample (N = 216)

Variable	Frequency	Per cent [%]
Age		
18 to 24	3	1.4%
25 to 34	84	38.9%
35 to 44	104	48.1%
45 to 54	19	8.8%
55 and older	6	2.8%
Gender		
Male	171	79.2%
Female	45	20.8%
Occupation		
Student	40	18.5%
Employed	148	68.5%
Retired	15	6.9%
Unemployment	10	4.6%
Other	3	1.4%
Education		
High school or equivalent	26	12%
Bachelor's degree	102	47.2%
Master's degree	83	38.4%
Doctoral degree	5	2.3%
Marital status		
Married	134	62%
Single	75	34.7%
Widowed	0	0%
Divorced	7	3.2%

2.4.3. Measurement

The scale used for the measurement was based on sources in the literature. All items were modified to adjust to the context of ECF. Five-point Likert scales ranging from 1 (strongly disagree) to 5 (strongly agree) were used to rate each item's level of agreement. The scale was constructed to cover several domains. First, participants' familiarity with ECF was assessed with items adapted from Gefen's scale (Gefen, 2000). That section was followed by assessments of project information quality (Kim et al., 2008; Xu et al., 2013) and the disposition to trust (Gefen, 2000). Platform trust items were adopted from McKnight et al.

(2002), as were fundraiser trust items. We constructed items ourselves to measure the fundraiser education signal domain, as they were not present in the available literature. Finally, items related to investor's intention were modified and applied from a study by Dodds et al. (1991).

The survey items were initially developed and modified in English, then translated to Arabic. The questionnaire was distributed in both English and Arabic. To minimise potential errors and ensure that the translation was accurate, a pilot test was conducted. For this evaluation, ten PhD students reviewed the questionnaire and identified potential problems. Minor changes were made to the survey to ensure clarity, readability, completeness and validity. Table 2.2 shows all of the survey items and their coding in the database and place of origin.

Table 2.2. Survey items, database codes and reference source

Code	Item	Source
FAM1	I am generally familiar with crowdfunding.	
FAM2	I am familiar with conducting online investments in crowdfunding projects.	(Gefen, 2000)
FAM3	The process of supporting crowdfunding projects is known to me.	
DIS1	In general, I trust other people.	
DIS2	I tend to count on other people.	(Gefen, 2000)
DIS3	In general, I trust other people unless they give me a reason not to trust them.	
PROJQ1	I am satisfied with the information on this project page.	
PROJQ2	Overall, I would give the content quality of the project a high mark.	(Kim et al., 2008; Xu et al., 2013)
PROJQ3	Overall, I would give a high rating in terms of the content quality for the crowdfunding project.	
EDU1	A fundraiser's education is important to me.	Now developed
EDU2	A fundraiser's heavy investment in education gives me a signal that the project will succeed in equity crowdfunding.	
EDU3	A fundraiser who has spent heavily on higher education is important to me.	
PTRUST1	I believe that the platform is trustworthy.	
PTRUST2	I believe (the platform) keeps its promises.	(McKnight et al., 2002)
PTRUST3	(The platform) can be trusted at all times.	
FTRUST1	I am convinced that the project creator(s) will fulfil his/her/their obligations.	
FTRUST2	I would call the project creator(s) honest.	(McKnight et al., 2002)

FTRUST3	I believe that the project creator(s) has the competence and efficiency to successfully achieve the goals and keep all promises made to me.	
IN1	The probability that I would fund the crowdfunding project is high.	
IN2	My willingness to invest in the crowdfunding project is high.	(Dodds et al., 1991)
IN3	I intend to contribute financially to crowdfunding campaigns.	

Note: FAM = Familiarity, DIS = Disposition to trust, PROJQ = Project quality, EDU = Education signals, PTRUST = Platform trust, FTRUST = Fundraise trust and IN = Intention.

2.5. Results

2.5.1. Model Measurement

2.5.2. Common Method Bias (CMB)

Single-factor analysis was used because it is most used to identify CMB. This analysis was done to test the real preferences of the respondents. This method uses exploratory factor analysis (EFA) to test for CMB. When testing for CMB with EFA, all variables were loaded onto a single common factor. Because only one factor was relevant, no rotation was applied (Podsakoff et al., 2003). The logic of Harman's single factor test (Harman, 1976) is that the single factor on which all items are loaded would not explain more than 50% of the total variance (Podsakoff et al., 2003). When we followed that procedure in this study, the variance explained by the single factor was 18.924%, far below the problematic 50%. We concluded that CMB did not influence this study's results.

2.5.3. KMO and Bartlett's Test

Both the KMO test and Bartlett's test must be sound to conduct exploratory (EFA) or confirmatory (CFA) factor analysis (Kline, 2014). In this study, both conditions were satisfied with the *p*-value associated with Bartlett's test being significant ($p < 0.05$) and the KMO test equal to 0.746. The results were higher than the necessary recommended values and supported the notion of conducting EFA and CFA on the data.

2.5.4. Reliability, Validity Analysis and Model Fit

The reliability of measurement is the constancy of the measured concept (Bell & Bryman, 2007). Internal reliability, stability and inter-observer consistency are the three critical factors involved when considering whether a measurement is reliable. Through time, the stability of measurement is under the influence of whether it is balanced. Internal reliability can be viewed as the extent to which all items of a compound measurement provide reliable estimates. Inter-observer constancy is described as a lack of differences in *subjective judgment*, in which more than one observer evaluates the scale.

In this study, internal consistency was used to assess the scale's reliability. Because the scale was comprised of different domains and its score was summative (implying that all items have the same importance), it is understandable if the reliability measure is somewhat lower. To calculate the reliability measure based on internal consistency, Cronbach's alpha index was used. While this index ranges from 0 to 1, guidelines for its interpretation are that values lower than 0.5 is considered low, those between 0.5 and 0.7 are considered moderate, values between 0.7 and 0.9 are deemed very reliable, and those higher than 0.9 are considered to be very high or to have outstanding reliability (Spicer, 2005). Table 2.3 displays the reliability measurements for every scale domain, reflecting that if all values surpass the value of 0.7, we can conclude that the administered scale was exceptionally reliable.

Table 2.3. Convergent validity indices and reliability measures

Items	Factor loading	Composite reliability	AVE	A
Familiarity		0.893	0.736	0.888
FAM1	0.870			
FAM2	0.929			
FAM3	0.767			
Disposition to trust		0.822	0.608	0.822
DIS1	0.789			
DIS2	0.854			
DIS3	0.688			
Education		0.767	0.525	0.765
EDU1	0.765			
EDU2	0.759			
EDU3	0.643			
Project quality		0.823	0.607	0.820
PROJQ1	0.751			
PROJQ2	0.796			
PROJQ3	0.790			
Platform trust		0.764	0.522	0.757
PTRUST2	0.666			
PTRUST3	0.828			
PTRUST4	0.660			
Fundraise trust		0.772	0.540	0.713
FTRUST1	0. 906			
FTRUST2	0. 552			
FTRUST3	0.703			
Intention		0.747	0.497	0.746
IN1	0.769			
IN2	0.657			
IN3	0.685			

2.5.5. Confirmatory Factor Analysis (CFA)

The CFA was conducted using the AMOS 22.0 software package. Hair et al. (2010) suggested that the validity of the CFA model can be evaluated through two major prisms: fit indices and overall construct validity. The constructed measurement model is comprised of seven latent variables with three items loading onto each of them. The item-latent variable correspondence is shown in Table 2.3.

The indices known to provide the most stable and accurate results were used to evaluate Hair's recommendation for evaluating the model fit using at least four indices. χ^2/df is a commonly employed index of model fit; in this study, it was 1.753. Apart from this index, the values of several more are reported: IFL was 0.928, TLI was 0.908, while CFI was 0.981. As Hair et al. (2010) noted, all of these indexes should be equal to or above 0.9 to be considered acceptable. Additionally, an RMSEA of 0.059 was observed.

Apart from the fit indices presented above and noted by Hair et al. (2010), it was essential to validate the CFA outcomes by examining the construct validity (Hair et al., 2010). Although the validity of a scale can be operationalised in many ways, one of the most frequently used is the convergent validity approach. If a scale is unidimensional, consistent with the original definition (that is, it measures what it was intended to measure) and sufficiently reliable, it can be deemed valid. This study examined the extent to which validity was met through the examination of convergent validity.

Convergent validity, as defined in the literature, implies that the items on the same topic or belonging on the same scale domain share a considerable proportion of the common variance (Hair et al., 2010). This study assessed this variance through several indices: factor loadings, average variance extracted (AVE) and composite reliability. Drawing from the literature (Hair et al., 2010, 2014), criteria for considering a measurement valid in the convergent sense were standardised regression weights above the value of 0.5. They were accompanied by a t-value greater than 1.96, AVE greater than 0.5 and a composite reliability index greater than 0.7. Table 2.3 shows all three measures of convergent validity, along with the Cronbach's alpha measure discussed in the previous section.

2.5.6. Discriminant Validity

Discriminant validity is "the degree to which two conceptually similar concepts are distinct" (Hair et al., 2010). This idea's mathematical operationalisation can be achieved by comparing the square root of the AVE with the correlations of a given construct with others.

For a pair of constructs, if AVE's square root is more than their inter-correlation, they are considered different constructs. The values provided in Table 2.4 can be used to gauge whether that condition is fulfilled for any variable pair. The table's primary diagonal presents the square roots of AVE, while other non-diagonal elements represent inter-correlations.

In addition to the described analyses, multicollinearity diagnostics was applied to the data. As noted in the literature, a reasonable estimate of multicollinearity is the variance inflation factor (VIF), which should remain lower than 3.3 to establish a conservative inflation limit (Diamantopoulos & Siguaw, 2006). Calculation of the VIF for all variables of relevance for the research showed that the results spanned the range between 1.01 and 2.02, far below the suggested upper bound. Based on those findings, we concluded there was no multicollinearity in the data.

Table 2.4. Comparison of the square root of AVE to correlations for each variable pair

Variable	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Project quality [1]	**0.779**						
Platform trust [2]	0.501	**0.722**					
Familiarity [3]	0.252	0.363	**0.858**				
Fundraiser trust [4]	0.374	0.438	0.087	**0.735**			
Disposition to trust [5]	0.015	0.089	0.006	0.045	**0.780**		
Intention [6]	0.469	0.462	0.302	0.358	-0.059	**0.705**	
Education [7]	0.251	0.078	-0.042	0.122	-0.052	0.066	**0.725**

Notes. Bold values indicate the square root values of AVE.

2.6. Structural Equation Model

For research, a structural equation model was developed to thoroughly test the hypotheses and understand the relationships between the variables of interest. Moreover, the SEM is known to be applied for both theory testing and analytical applications. This technique combines CFA, path analysis and regression in a theoretical framework to examine the latent variables that simultaneously evaluate the measurement model for the constructs and the structural model (Jöreskog, 1993). The overall model achieved an acceptable fit, based on the indices suggested by Hair et al. (2010). The model had a χ^2/df of 2.60, while the CFI was 0.91, the NFI was 0.98, and the TLI was 0.90. The RMSEA was 0.08. Together, these indices suggest that the model showed an acceptable fit. The model reported the three endogenous variables'

values as percentages of the variances as follows: trust in the platform 42%, trust in the fundraiser 28% and investor's intention 44%.

After assessment of the complete model, each of the relationships was evaluated separately. Because each path in the model corresponded to a single hypothesis, the research hypotheses were simultaneously assessed by evaluating the significance of the model path. For a path to be deemed significant, the *p*-value associated with it would have to be lower than 0.05. The *p*-value was derived from a t-test of a single path coefficient. Each regression weight was divided by the corresponding standard error of the estimate (SEE) and compared to the critical values of ±1.96. Table 2.5 shows the results of each hypothesis/path test. For easier comprehension, Figure 2.2 visually displays the model and the relationships within it.

Table 2.5. Results: evaluation of the SEM model paths

Hypothesis			Estimate	t- value	P	Outcome
Disposition to trust	→	Platform trust	0.084	1.626	0.104	Not Supported
Disposition to trust	→	Intention	-0.107	-2.173	0.030	Not Supported
Disposition to trust	→	Fundraiser trust	0.009	0.177	0.859	Not Supported
Familiarity	→	Platform trust	0.292	6.694	<0.001	Supported
Familiarity	→	Intention	0.111	2.351	0.019	Supported
Project quality	→	Fundraiser trust	0.162	2.885	0.004	Supported
Project quality	→	Intention	0.325	5.734	<0.001	Supported
Education	→	Fundraiser trust	0.067	.866	0.386	Not Supported
Education	→	Intention	-0.079	-1.072	0.284	Not Supported
Platform trust	→	Fundraiser trust	0.411	6.595	<0.001	Supported
Platform trust	→	Intention	0.286	4.113	<0.001	Supported
Fundraiser trust	→	Intention	0.167	2.583	0.010	Supported

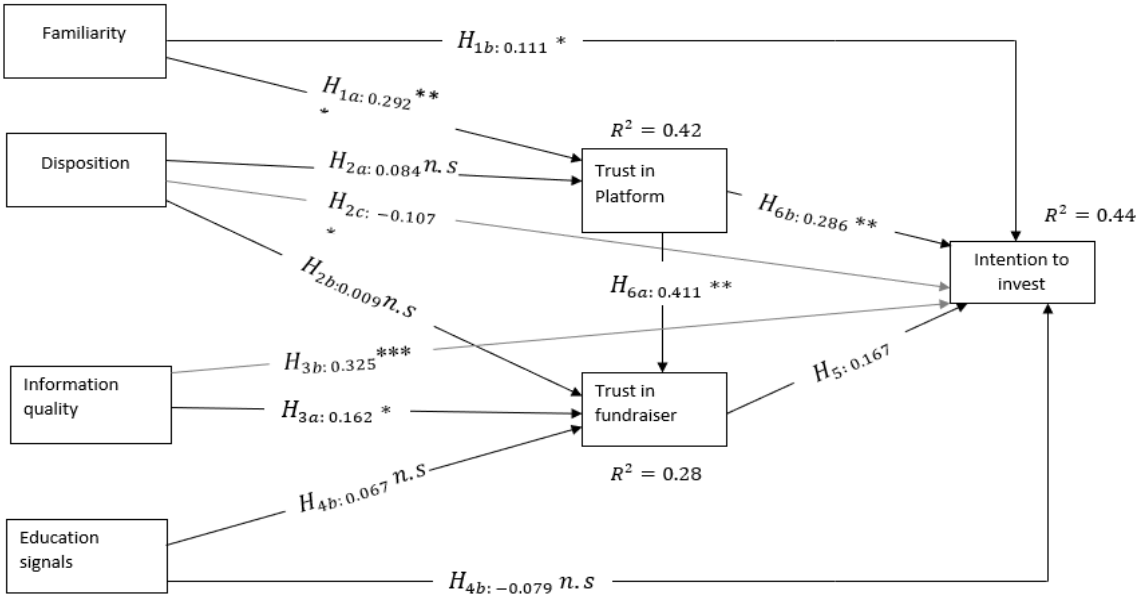

*Figure 2.2 Visual representation of the tested SEM model. Note: n.s., not significant. p < 0.05 *; p < 0.01 **; p < 0.001 ***.*

We started with the direct effect of familiarity on trust in the platform, shown by H1a. The results showed that familiarity significantly influenced trust in the platform (b = 0.29, p < 0. 001). Similarly, familiarity had a significant impact on investor's intention as shown by H1b (b = 0.111, p = 0.019). The impact of disposition to trust on both trust in the platform (b = 0.08, p = 0.104) and fundraiser trust (b = 0.009, p = 0.85) was not significant; therefore, we considered H2a and H2b to be unsupported by the collected data. Similarly disposition to trust found to have weakly significant with negative effect (b = -0.107, p = 0.030) thus we reject H2c. We also observed positive support of H3, indicating that the information quality had a direct positive influence on both fundraiser trust (b = 0.162, p = 0.004) and investor's intention (b = 0.325, p < 0. 001). The effect of education signals on both the trust in the fundraiser (described by H4a; b = 0.067, p = 0.386) and investor's intention (H4b; b = −0.079, p = 0.284) were not significant, implying that the hypotheses H4a and H4b were not supported.

Additionally, we analysed the effect of interpersonal and institutional trust. In support of H5, there was a significant effect of trust in the fundraiser on the investor's intention (b = 0.167, p = 0.010). Moreover, we found evidence in support of H6a, in which there was a strong effect of trust in the platform on the trust in the fundraiser (b = 0.411, p < 0.001). After H6a was examined, we found evidence in support of H6b, which was the direct effect of platform trust on the investor's intention and was somewhat higher than all other paths examined in the model (b = 0.286, p < 0.001). The effect of trust in the platform on investor intention was higher than the impact of fundraiser trust. These findings support the previously published results of

McKnight et al. (1998) regarding the fundamental relationship between interpersonal trust and institutional trust. The findings of this study further suggest that such a link also exists in the field of ECF.

The framework analyses not only the direct effects in table 2.5 but also the indirect effects (shown in table 2.6). The direct effect of disposition to trust on fundraiser trust was not significant (b = 0.009, p = 0.859), it may affect the platform's variable trust. This is because the platform trust had a significant effect on fundraiser trust (b = 0.411, p < 0.001), and the fundraiser trust had a significant influence on investor intention (b = 0.167, p = 0.010). To test for this possibility, a mediation analysis was performed to check whether trust in the platform carried the effect of disposition of trust on the trust of the fundraiser. The indirect effect was low but significant (b = 0.035, p = 0.030). This result showed that, although the direct effect of disposition to trust on fundraiser trust was not significant, the indirect effect through platform trust was significant, with the total effect of [0.009 + 0.035 = 0.044]. moreover, even though there is no direct effect of disposition to trust on investors intention, the indirect effect showed a weak positive significant effect (b = 0.024, p = 0.050)

Table 2.6. Result of indirect effects

Indirect effects					Estimate	P
Disposition to trust	→	Platform trust	→	Fundraiser trust	0.035	0.030
Disposition to trust	→	Platform trust	→	Intention	0.024	0.050
Disposition to trust	→	Fundraiser trust	→	Intention	0.002	0.779
familiarity	→	Platform trust	→	Fundraiser trust	0.120	0.000
familiarity	→	Platform trust	→	Intention	0.084	0.001
project quality	→	Fundraiser trust	→	Intention	0.027	0.012
education	→	Fundraiser trust	→	Intention	0.011	0.306
Platform trust	→	Fundraiser trust	→	Intention	0.068	0.007

2.7. Discussion and Implications

In this study, we introduced a trust model to investigate investor's perceived trust in the intermediary and fundraiser and its effect on the investor's intention. The study examined how trust transitions from institutional to interpersonal by applying two well-known theories: swift trust (Meyerson et al., 1996) and transfer trust (Stewart, 2003). Investors' trust was analysed from the perspective of both fundraiser and platform. Direct and indirect effect precursors were included for the platform and fundraiser trust. The SEM was employed on data gathered from

216 users of Manafa, one of the largest and best-known Saudi ECF platforms. As illustrated in Table 2.5, seven of the initial 12 hypotheses were supported. As proposed, we provided evidence that intent to invest was influenced by trust in the platform and trust in the fundraiser; we also supplied additional details regarding the roles of familiarity, disposition, information quality and education signals on the intent to invest.

Mediation effects were examined where deemed necessary. This finding was consistent with previous literature (Gefen, 2000; Kim et al., 2008; Liu et al., 2018; McKnight et al., 2002; Moysidou & Hausberg, 2019; Pavlou, 2003). Interestingly, entrepreneurs' education signals did not affect platform trust, nor investor intention; this finding is not consistent with the previous literature (Backes-Gellner & Werner, 2007; Hsu, 2007). A possible explanation for the unsupported result on the educational signal was that the ECF investors were considered unsophisticated. As a result, they might not spend much time investigating entrepreneurs like business angels and venture capital investors.

This study contributes to the crowdfunding literature by focusing on the effect of fundraiser and platform trust on investors' intention in several ways. First, it contributes to the swift and transfer theories (Meyerson et al., 1996; Stewart, 2003) by introducing interpersonal and institutional trust and validating and adopting it in the ECF framework. Second, the study contributes to the behaviour intention literature by showing that trust in both platform and entrepreneurs positively affects investor intention. This study provides valuable insight into the working of trust mechanisms in the crowdfunding domain and sheds light on the interrelationships between the variables of interest.

From a practical point of view, our findings have significant implications for ECF platform practitioners and entrepreneurs. To increase investment intent, entrepreneurs should consider two crucial aspects. First, make sure the platform strictly follows governmental regulations and shows trustworthiness. Second, fundraisers must pay as much attention as possible to the project contents by providing soft (e.g., future plans) and hard (e.g., financial statements) information to enhance the investor's trust on entrepreneurs and positively affect the investor's intention. Our results can be utilised to enhance a trust-building model in ECF platforms.

Trust must be considered from a holistic perspective: a trustworthy environment that encompasses all participants and mediators on the supply side. Given that trust affects the potential investors' ability to overcome uncertainty and information asymmetry, institutional

and interpersonal-based trust will, as a result, impacts investors' intention. Moreover, investor's trust perception is essential not only for the fundraiser but for the platform itself, by screening honest and competent entrepreneurs. Although the study focused on Manafa platform users with the necessary caution, we believe it can be generalised to similar platforms in developing countries. However, consistent with the study's primary goal, the results obtained were most useful in the context of Manafa.

2.8. Conclusions, Limitations and Future Study

This study focused on the effect of investor trust on investor behaviours. Our research improves our knowledge about the role of trust in both fundraisers and platforms in investors' intention. The study proposed a conceptual framework for assessing the mediating the impact of trust in the platform and the fundraiser concerning investors' intention. Hence, this research revealed a new position in establishing empirical evidence inside the context of crowdfunding. Although ECF has been growing as a financial resource, we still do not know much about how trust is established in ECF.

To fill the gap in the existing literature, this study contributed to expanding the swift and transfer theories (Meyerson et al., 1996; Stewart, 2003) in a context that has not been studied before, ECF. The results indicate that familiarity, the disposition to trust and information quality positively impact investors' intentions, while education signals were found to have no significant effect. Moreover, trust in the platform and the fundraiser, which were the focal points of our study, significantly affected the investor's intention. Furthermore, trust in the platform significantly affects the investor's trust in fundraisers. Both fundraiser trust and platform trust were tested as mediation. No mediation effect was found, except for disposition to trust; trust in the platform carries the effect of disposition of trust on the trust of the fundraiser.

This study represents a step forward in understanding the formation of trust in ECF, though it has limitations. First, data were collected from only one ECF platform in Saudi Arabia, exclusive to its citizens. Thus, the findings can only be generalised to ECF platforms in Saudi Arabia and those who share the same culture, such as the Gulf countries. Therefore, future studies can build on our research by applying it to different crowdfunding platforms or in a different culture.

Second, the study examined the intention of potential investors instead of the behaviour of actual investors. We evaluated ECF investors' intention rather than real investment by

dragging data from the ECF crowdfunding platform; the effectiveness of the framework can be tested. This study showed that perceived trust is one of the most crucial elements affecting potential investors in ECF. Prior studies found that investor trust is a critical factor affecting investor intention. An in-depth understanding of the impact of ECF investor intention relating to trust investment is vital.

Previous studies have investigated the impact of trust on the willingness of peer-to-peer lending crowdfunding (Moysidou & Hausberg, 2019). Lenders in crowdfunding are looking for a short-term return, while investors in ECF are looking for a long-term investment. Thus, a comparative study could be performed to determine and quantify the trust between these two crowdfunding types. Furthermore, it is not easy to investigate all of the potential variables influencing our model in one study. Additional variables, such as governance, risk and platform quality, may affect behavioural intention along with the trust factors that we have established in our framework.

The sample size was neither too small nor too big to run SEM. Because ECF is still new in Saudi Arabia, future researchers are encouraged to collect larger samples for similar quantitative studies. Finally, qualitative research in this domain is essential, and we recommend that future researchers turn toward such endeavours.

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Chapter 3: Information disclosures, Perceived risk and intention to invest: An empirical study in the equity crowdfunding context.

Abstract

Perceived risk critically impacts investment decisions. Equity crowdfunding (ECF) differs from other forms of traditional investment channels. This study investigated the perception of investor risk perception in this specific context. Built on the literature of disclosure (hard and soft) information, we developed a framework to identify factors that reduce the perception of risk. Stimulus-organism-response (S-O-R) theory was tested empirically to understand investment intention in ECF. An online questionnaire was distributed to gather data from ECF platforms. We found that risk perception was vital for determining investors' intent in ECF. Also, this study found that both verifiable and unverifiable information influence investors' perceived risk.

Keywords: Equity crowdfunding, perceived risk, information disclosers, intention, structural equation modeling

3.1. Introduction

Entrepreneurs seek financial capital to form and grow their businesses, and using internal funds is barely adequate to support entrepreneurs' growth (Ahlers et al., 2015; Cosh et al., 2009; Vanacker & Manigart, 2010). Furthermore, start-ups face significant difficulties in obtaining external funds; these difficulties were getting worse after the financial crisis in 2008 (Block & Sandner, 2009). Recently, crowdfunding has emerged as a new source of financing for entrepreneurial businesses (Block et al., 2018; Walthoff-Borm et al., 2018). Research g has focussed primarily on the dynamics of the crowdfunding platform by classifying success elements in various types of crowdfunding (Ahlers et al., 2015; Bertoni et al., 2015; Walthoff-Borm et al., 2018).

Moreover, after the financial crisis, a new economic structure emerged: ECF. Equity crowdfunding is "a form of financing, where entrepreneurs sell a specified amount of the firm equity to a group of potential investors over an internet-based platform" (Ahlers et al., 2015). Equity crowdfunding firms regularly link features from public companies with a high number of small investors (shareholders) with those entrepreneurial companies in which control and

ownership coincide because entrepreneurs maintain a large portion of the equity (Cumming et al., 2019). However, unlike public firms, investors in crowdfunding face information asymmetries and uncertainty, whether from the project or the platform. Scholars have begun discovering the impact of the information disclosure on the potential investor's decision, mainly focusing on the project financed through lending and donation crowdfunding (Liu et al., 2018; Moysidou & Hausberg, 2019).

The topic of information asymmetry and its role in signalling has recently been investigated by the growing crowdfunding literature (Ahlers et al., 2015; Courtney et al., 2017). Moreover, ECF investors are considered unsophisticated investors compared to public market "traditional investors;" the institution of crowdfunding is not formally developed as in the traditional financial forms (Mochkabadi & Volkmann, 2020), so the information disclosed in ECF is challenging to verify. Hence, information asymmetries between fund seekers and investors are at the highest level in ECF compared to traditional finance, and available signals are essential for funders (Courtney et al., 2017).

Equity crowdfunding diverges significantly from other types of crowdfunding in that it involves decision-making by potential investors with a possible financial return (Mochkabadi & Volkmann, 2020). Consequently, ECF implies a risky return compared to other crowdfunding types, such as reward-based, where backers receive products or services as a reward (Bapna, 2019). Furthermore, investment in ECF is risky (Mohammadi & Shafi, 2018). The setting, decision-maker and interaction between decision-maker and situation influence risk perception. Understanding the mechanism that affects risk perception (why, who, when) is vital, especially when the objective is to influence investors' behaviour. Investors continuously face cases that require them to choose between activities that vary in risk level (Riaz & Hunjra, 2015). Risky decisions depend on the uncertainty and variability of possible outcomes and uncontrollable factors (Highhouse & Yüce, 1996; Sitkin & Pablo, 1992). Thus, risk perception has a significant impact on informing investor intent.

Regardless of the popularity of ECF and its increasing public attention, many ECF campaigns have failed to accomplish their goals (Vulkan et al., 2016). To comprehend the success of crowdfunding, scholars have focussed on various factors that affect the investor's behaviour, such as project content, website quality, web governance, reputation and social network (Agrawal et al., 2015; Chen et al., 2019; Kuppuswamy & Bayus, 2018; Walthoff-Borm et al., 2018). Even though scholars have examined several elements with different

concerns, integrating departing perceptions and developing a theoretical framework that scientifically examines investor behavioural intent in the ECF context is needed (Alegre & Moleskis, 2016). The question of which characteristics affect investors' risk perception and their intent in ECF remains open. This study specifically addresses the extent to which soft disclosures (unverifiable information) may have more substantial effects than hard verifiable disclosures on unsophisticated investors.

To fill this gap, we incorporated the literature about investors' behaviour in ECF. Afterwards, drawing on the S-O-R, we examined and developed a model that defines an investor's ECF intent. The S-O-R model presents a hypothetical platform that combines factors related to the characteristics of the platform, project, funders, and their cognitive state. We involved a subset of behavioural mechanisms that are valid to ECF, from which our study expands our knowledge of investors' behaviour in ECF.

ECF projects disclose various types of information, distinguishing the impact of "soft" and "hard" data. Our main goal is to propose a new research prospect by analysing the role of hard (verifiable) such as financial statements and soft (unverifiable) information such as management, and personal data (more or less attractive to investors) alongside platform quality on risk perception. Moreover, the research investigates investors experience as a moderator that affects the relationship between perceived risk and investment intention. Our research interest also extended to the effect of perceived risk on investor intent.

Our study contributes to the emerging literature on ECF and the literature on disclosing soft and hard information. We contribute to improving knowledge of potential investors' behaviour in ECF. The proposed model will help academic researchers understand investment behaviour by applying an empirical description of the interaction between project and platform characteristics, cognitive conditions, and investor behavioural intention. This study extends to the literature of unsophisticated investors' decision-making when confronted with information asymmetry and uncertainty. It also recommends suitable strategies to aid research on investors' behaviour in the context of ECF. Finally, this study's context is Saudi Arabia, where financial markets are developing in both size and investor sophistication. Previous research investigated ECF institutions in financially advanced economies, and their findings can hardly be applied to Middle Eastern environments. We aimed to provide a better knowledge of the behaviour of investors in emerging financial markets.

The remainder of this paper is organised as follows: Section 2 presents a review of the related literature, the study's conceptual framework and hypotheses. Section 3 explains the study methodology, sampling and measurements. The results of the structural equation modeling are introduced in Section 4. Section 5 presents the study results and their implications. Finally, Section 6 discusses the study limitations and opportunities for future study.

3.2. Conceptual framework and Hypotheses development

Investors interact with ECF by paying attention to several features originating in the platforms. These platform features are essential elements of the crowdfunding environment that could influence the process that leads to investing (Jiang et al., 2010). Moreover, investors' intent is an essential factor affecting project success; however, it has not been studied intensively. The literature points to various factors that impact the investor's intent, including project characteristics, platform characteristics, and cognitive (perceived risk). This research applied the S-O-R model (Mehrabian & Russell, 1974) to combine factors related to an investor's ECF intent. Based on this framework, we investigated the psychological characteristics of investor behaviour that describe the external environment (stimuli) and psychological cognition (organism) that convey positive or negative reactions previously affected by the organism (response). The S-O-R model was appropriate in combination with the literature examined because it served as a theoretical guide by creating a perception of stimulus-organism-response in ECF. Figure 3.1 shows the proposed project framework for investigating platform characteristics (stimuli) influencing the investor's risk perception (organism), affecting the potential investor's intent (response) in ECF.

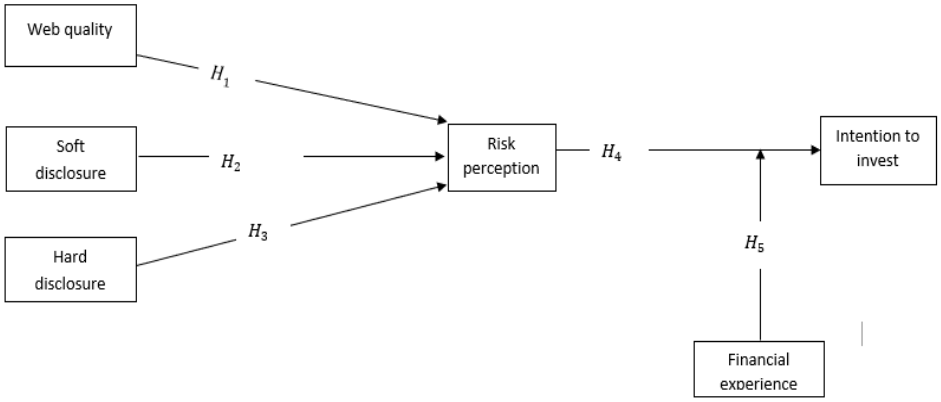


Figure 3.1. research model.

3.3. Hypotheses development

3.3.1. Platform quality

The ECF platform is the primary intermediary between investors and posted projects; thus, the platform's quality plays a vital role in investor perception. Platform quality was defined as the "users' assessment of whether a platform's features meet users' needs and reflect the overall excellence of the platform" (Chang & Chen, 2008). Platform quality is one of the characteristics of technology (Wells et al., 2011). Wells et al. pointed out that platform quality comprises three dimensions: navigability, security, and visual dimension. The attitude about platform information's trustworthiness can be recognised when its quality is affirmed (Gregg & Walczak, 2010).

Furthermore, the positive evaluation of platform quality reduces risk perception (Kim & Lennon, 2013). Prior studies investigated the relationship between platform quality and risk perception, which supported the argument (Grewal et al., 2007). A survey of e-commerce showed high-risk perception linked to the loss of buyer security of personal information (Smith et al., 2011), emphasising the importance of platform quality and its relation to security and privacy. Hence, we proposed the following hypotheses:

Hypothesis 1

(H1) The better the prescription of platform quality, the lower the perceived risk about the ECF project

3.3.2. Information disclosure (soft and hard disclosure)

Practitioners and academic researchers have suggested that crowdfunding regulations should balance the capital market with funders protection to develop and advocate regulation. In the US, crowdfunding platforms provide the knowledge required by the JOBS act and generate the needed changes (Kim et al., 2017), ease restrictions by developing guidelines for advertising and implementing the obligatory information disclosure rule. Even though the concept of crowdfunding has emerged as an alternative financial source for entrepreneurs, fundraisers and investors must be cautious (Drover et al., 2017). Crowdfunding shares many characteristics with the online community, making early-stage investment riskier.

The problem of information asymmetry exists in early-stage funding (Wilson & Testoni, 2014). Funders evaluate and monitor a project using information disclosure. Investors' decision-making, influenced by the exposure of appropriate corporate information disclosure (e.g., financial reporting quality), affects the perception of the potential investors toward the firm (Ngamchom et al., 2018). Furthermore, information disclosure has a practical impact on mitigating risk perception (Ahlers et al., 2015). Ahlers et al. (2015) found that information disclosure in the context of crowdfunding is an essential aspect of the funder's decision-making. Hence, project information disclosure can positively impact the investor's intent and lower the perceived risk.

The ECF platform is where fundraisers can deliver their entrepreneurial project's idea. Subsequently, both soft and hard information shown on the project page should be the foundation of investors' decision-making. Consequently, the campaign's presentation should present high-quality information to enhance the potential investors' understanding of the project (Pavlou et al., 2007). Soft information refers to unverifiable data in text format, such as self-description (Hoegen et al., 2018). However, soft disclosures significantly affect the investor's decision, particularly in the absence or lack of hard "verifiable" information (Michels, 2012; Prystav, 2016). A German lending platform study found that textual statements impact the lender's trust (Pötzsch & Böhme, 2010).

On the other hand, hard information is verifiable in the form of numbers (quantitative) such as financial statements. Hard data is sometimes verified by third party due diligence or the platform itself. Investors are affected by hard disclosure about the quality of fundraisers (Estrin & Khavul, 2016). The probability of a successful campaign is associated with the information disclosed in the financial statements (Nitani et al., 2019). A study of a UK

crowdfunding platform found that the campaign's success could be predicted through information cascades (Vismara, 2018). Furthermore, project information disclosure can send robust information signals to help investors evaluate a project. Risk perception may decrease when rational investors make decisions based on the informational cues presented on the project's page (Wang & Kim, 2017).

Hypothesis 2

(H2). The high quality of a soft project disclosure lowered the perceived risk toward the ECF project.

Hypothesis 3

(H3). The high quality of a hard project disclosure lowered the perceived risk toward the ECF project.

3.3.3. Perceived risk

Perceived risk is a subjective sense of risk level linked with preference or a particular action (Klos et al., 2005). Also, risk perception has been defined as "a citizen subjective belief of loss suffering in search of desirable outcomes"(Bélanger & Carter, 2008). In a financial context, perceived risk diverges significantly from conventional risk, for example, standard deviation or loss probability of potential outcomes (Weber et al., 2005). This study defined investment intention as investors willing to invest after being exposed to the investment opportunity offered for the first time by an ECF platform. Moreover, studies have viewed risk perception as a psychological concept that negatively affects risky decisions; they found that perceived risk negatively impacts decisions(Klos et al., 2005; Weber, 2001). In reward crowdfunding, perceived risk involves defects or failure to receive products, while in ECF, perceived risk includes fundraiser fraud (Cumming et al., 2019). Thus, perceived risk is a communication resource that can affect investors achievement of risk given their knowledge and psychological aspects. Once different degrees of risk perception are considered, investors believe differently about the investment and decide accordingly (Hallahan et al., 2004). If the information collected by the investors cannot reduce their perception of risk, they will not invest or will lower their investment. Therefore, the proposed hypothesis is:

Hypothesis 4

(H4) Perceived risk negatively affects the investor's intent.

3.3.4 Investment experience

Investors who have investment experience and knowledge tend to be confident because they are familiar with the current investment conditions. Financial experience has shown a negative effect on risk perception (Sachse et al., 2012). Financial literacy and knowledge were also found to have impact financial risk tolerance (Gibson et al., 2013; Hallahan et al., 2004; JOO & Grable, 2000). Moreover, investment experience strengthens investors' intent (Lyons et al., 2008). Financial expertise has a substantial impact on investment decisions (Chen & Volpe, 1998). Therefore, investment experience would moderate the relationship between perceived risk and investment intention. To that extent, knowledge is gained over time, but it does not, by itself, constitute the risk perceived; it is appropriate to hypothesise a moderated relationship between perceived risk and intended behaviour. Experience is thus conceived as progressively conforming to the intensity with which risk perception affects the intention.

Hypothesis 5

H5: Investment experience moderates the relationship between perceived risk and investment intent.

3.4. Methodology

3.4.1. Research context

To understand the effect of platform and project characteristics on perceived risk and investor intent, an online survey was administered to the ECF platforms in Saudi Arabia. Compared to other emerging markets, the Saudi market has forcefully pushed to develop the so-called Fintech sector. The supporting framework needed for the growth of crowdfunding was established. In addition, entrepreneurs in Saudi Arabia faced funding difficulties because of the shortage of financing sources. However, crowdfunding appears to have delivered an opportunity to reduce these obstacles.

In 2018, the Saudi Capital Market Authority approved the first ECF platform licenses. There are currently eight ECF platforms in Saudi Arabia, all licenced by the Saudi Capital Market Authority. According to Manafa, the first and largest ECF platform, more than 1.5 million people visited the platform in 2019, and there are now more than 25,000 active investors. Targeted participants are those who have an account on the platform, in addition to those who have already invested through it. To register on the platform, potential investors must be Saudi residents. The investors' identity is verified through a government-issued ID, which signifies trustworthiness to the potential funders and reduces the perception of fraudulent

fundraisers. Afterwards, users of the platform review the project's information and the risks involved; registered investors on the platforms can independently decide where to invest. Project information includes narrative, market information, financial information, project team, occasionally a short video presentation, the entrepreneurs' profile and a risk declaration.

3.4.2. Survey sample

To conduct this study, the researchers used primary data collected through an online survey. The survey was distributed through email, LinkedIn, and social networks targeting those already registered or who have visited ECF platforms in Saudi Arabia. The questionnaire took place from January 15 to March 28, 2021. Target participants were those with an account on the platforms, in addition to those already invested. The average time expected to complete the survey was six minutes. A total of 423 people participated in the survey, of which 334 met the requirements and completed the survey.

Table 3.1 summarises the demographic characteristics of the survey. The table shows that males dominated the sample with 254 responses, while females represented 80 responses. Most of the participants were between 25 and 34 years of age, while a considerable percentage was 35 to 44 years old. More than half of the respondents had a bachelor's degree, while 29% had a master's degree. Most of the respondents (59%) were single, whereas 41% were married. Also, 125 respondents (37%) had a degree in or were currently studying finance, accounting or economics.

Table 3.1. Demographics of the collected sample (N = 334)

Variable	Frequency	Per cent [%]
Age		
18 to 24	54	16.2%
25 to 34	141	42.2%
35 to 44	114	34.1%
45 to 54	18	5.4%
55 and older	7	2.1%
Gender		
Male	254	76.0%
Female	80	24.0%
Occupation		
Student	68	20.4%
Employed	224	67.1%
Retired	18	5.4%
Unemployment	17	5.1%
Other	7	2.1%
Education		

High school or equivalent	46	13.8%
Bachelor's degree	175	52.4%
Master's degree	99	29.6%
Doctoral degree	14	4.2%
Marital status		
Single	176	52.7%
Married	140	41.9%
Widowed	7	2.1%
Divorced	11	3.3%

3.4.3. Measurements

The scale developed for measurement was comprised of items derived from the literature. All scale items were modified to reflect the context of the ECF. A five-point Likert scales ranging from 1 (strongly disagree) to 5 (strongly agree) was used to measure each item's level of agreement. The scale was constructed to cover several areas. First, platform quality was evaluated using criteria adapted from Gleasure and Feller (2016). Previous literature (Bertomeu & Marinovic, 2016; Petersen, 2004; Tsai & Wang, 2017; Uchida, 2011) suggested that financial statements were indicators of hard information, while text content measured soft information. Perceived risks were those identified in the literature (Koonce et al., 2005; Rajamma et al., 2009; Sachse et al., 2012). Finally, the investor's intent was modified and applied based on Dodds et al. (1991). A summary of the results is shown in appendix A.

Survey items were initially created and modified in English, then translated to Arabic. The survey was distributed in Arabic. A pilot test was conducted to reduce potential errors and evaluate the study feasibility while ensuring an accurate translation. For this evaluation, 20 PhD students evaluated the survey and identified potential problems. Minor modifications were made to the questionnaire to confirm readability, clarity and validity. Table 3.2 shows the items and their coding in the database and place of origin.

3.5. Results

Our model consisted of a series of linked dependant connections between a group of latent variables measured by a set of items. We applied structural equation modeling (SEM) to examine the research model using AMOS 22. SEM is a robust and flexible statistical technique for analysing the causal relationship among multiple-item variables (Kline, 2014). When comparing SEM to other statistical methods, we found that SEM resulted in fewer measurement errors and more flexible assumptions accrued by several indicators per variable. As a general principle, SEM required a sample size of no less than 100; over 200 samples

would significantly strengthen the results. Our model contained five latent variables, of which four were exogenous and one endogenous.

3.5.1. Model measurement

3.5.2. Exploratory factor analysis

To analyse the research data, we first performed an exploratory factor analysis (EFA), the preferred way to examine the items' factor loading and check for potential cross-loading between the items. EFA grouping resulted in strongly correlated items in the expected latent variable (Tabachnick et al., 2007). Table 3.2 shows the high factor loading of each item; no cross-loading was observed between the items. Also, the Kaiser-Meyer-Olkin (KMO) value was 0.826, higher than the suggested value of 0.6. Bartlett's test showed that we achieved statistical significance with reliable factors (chi-square = 2573.59, df = 210). Thus, after exceeding the KMO threshold with a significant Bartlett's test result, we could perform the factor analysis.

Table 3.2. Convergent validity indices and reliability measures

Items	Factor Loading	Composite Reliability	AVE	Cronbach's α
Platform Quality		0.763	0.446	0.763
P.Q1	0.655			
P.Q2	0.670			
P.Q3	0.670			
P.Q4	0.674			
Hard Information		0.856	0.600	0.851
HARD1	0.802			
HARD2	0.896			
HARD3	0.763			
HARD4	0.606			
Soft Information		0.813	0.591	0.804
SOFT1	0.730			
SOFT2	0.846			
SOFT3	0.710			
Risk Perception		0.790	0.485	0.787
RISK1	0.716			
RISK2	0.790			
RISK3	0.611			
RISK4	0.613			
Intention		0.821	0.536	0.819
IN1	0.727			
IN2	0.577			
IN3	0.699			

IN4	0.842

3.5.3 Analysis of reliability, validity and model fit

The model had 20 items representing five different variables. Table 3.2 shows the loaded items. The factor loading of the items ranged from 0.577 to 0.896, the exceeding the minimum level of 0.5(Hair et al., 2014). The value of Cronbach's α for each latent variable exceeded 0.7 and shows excellent reliability. The highest correlation of two factors in the correlation matrix (Table 3.3) was less than 0.643, and the remaining components were less than 0.5, showing high discriminant validity. The reliability was confirmed by applying construct composite reliabilities (CR) and average variance extracted (AVE) (Hair et al., 2010). The CR value of all variables was above 0.7, exceeding the recommended value. The AVE values for all the variables exceeded the suggested value of 0.5, except for risk (0.485) and platform quality (0.446). The risk and platform quality variables were still adequate because the AVE of the construct was close to 0.5, and the CR values exceeded 0.7 (Fornell & Larcker, 1981).

In addition to the described analyses, multicollinearity diagnostics were employed in our analysis. As mentioned in prior literature, the estimated multicollinearity variance inflation factor (VIF) should be less than 3.3 to have a moderate inflation threshold (Diamantopoulos & Siguaw, 2006). The results of VIF for all variables of relevance for this study indicated that the products ranged from 1.13 to 1.40, far lower than the suggested upper bound. Based on the findings, no multicollinearity in the data was found.

Table 3.3. Comparison of the square root of AVE to correlations for each variable pair

Variable	CR	AVE	SOFT	HARD	RISK	IN	PQ	EX
SOFT	0.813	0.591	**0.769**					
HARD	0.856	0.600	0.174	**0.774**				
RISKK	0.790	0.485	-0.267	-0.266	**0.696**			
IN	0.821	0.536	0.409	0.364	-0.643	**0.732**		
PQ	0.763	0.446	0.269	0.208	-0.357	0.450	**0.668**	
EX	0.700	0.554	-0.062	0.053	-0.091	0.031	-0.101	**0.744**

Notes. CR = composite reliabilities, AVE = average variance extracted, bold values indicate the square root values of AVE**.**

Moreover, to determine if the measurements were consistent with the variables we hypothesised, we conducted a confirmatory factor analysis (CFA). CFA aims to fit the previous

hypotheses concerning how items can reflect the latent variable to the data. We conducted a CFA using AMOS 22 software. In addition to the construct's validity, Hair et al. (2010) suggested evaluating the fit indices. According to Hair et al. (2010), the indices offered highly stable and correct results. The model fit indicated the measurement conditions of the model. Our model fit was acceptable. Chi-square (χ2/df) typically used for model fit was 1.453, below the level of 5.0. Moreover, the tucker Lewis index (TLI) was 0. 961, the comparative fit index (CFI) was 0.968, and the incremental fit index (IFI) was 0.968. To achieve a satisfactory model fit, all previous indexes should have been above 0.9. Additionally, the root mean square error of approximation (RMSEA) was 0.037, less than 0.05 (Hair et al., 2010). Thus, the model fit indices indicated acceptable goodness of fit.

3.6. Structural model

Figure 3.2 shows the regression outcome of the proposed structural model. Based on the indices recommended by Hair et al. (2010), the model had an acceptable fit. The model achieved χ^2/df *of* 1.625, where the indexes were above the threshold 0.9 (TLI = 0.941, CFI= 0.950, and IFI = 0.951), and the RMESA = 0.043, below 0.05. Because the model showed a strong fit with empirical data, it was ready to test the path coefficients. The model explained two dependent variables: 25% of perceived risk and 49% of investor intent.

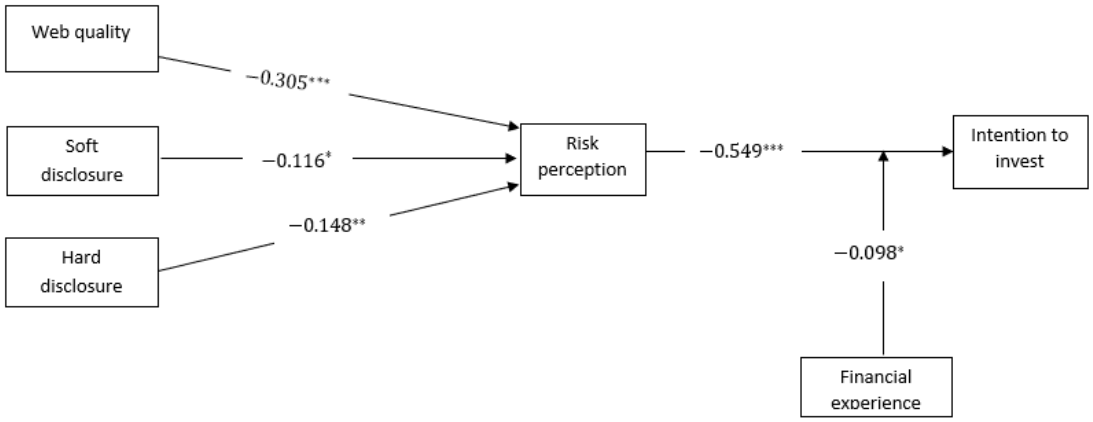


*Figure 3.2. Visual representation of the tested SEM model Note: p<0.05 *; p<0.01**; p<0.001****

The results obtained from SEM had mixed outcomes. First, we found a significant negative relationship that strongly supported H1, that the perceived platform quality decreased the perceived risk by investors (b = -0.305, p < 0.001). Second, perceived soft (b = -0.116, p <0.05) and hard (b = -0.148, p < 0.01) information were found to significantly and negatively affected risk perception. Consequently, H2 and H3 were empirically accepted.

Furthermore, we found that the path from risk perception to investor's intention (b = -0.549, p < 0.001) was negative and highly significant. Therefore, H4 was supported empirically. Furthermore, Figure 3.2 illustrates that an investor's experience negatively moderates the relationship between the investor's perceived risk and intent; thus, the higher the experience, the stronger the negative relationship. Figure 3.3 illustrates the moderating effect between risk perception and investor's intent in the case of high and low financial expertise. We found that financial experience strengthened the negative relationship between risk perception and investor's intent (b = -0.098, p <0.05). Consequently, H5 was empirically supported.

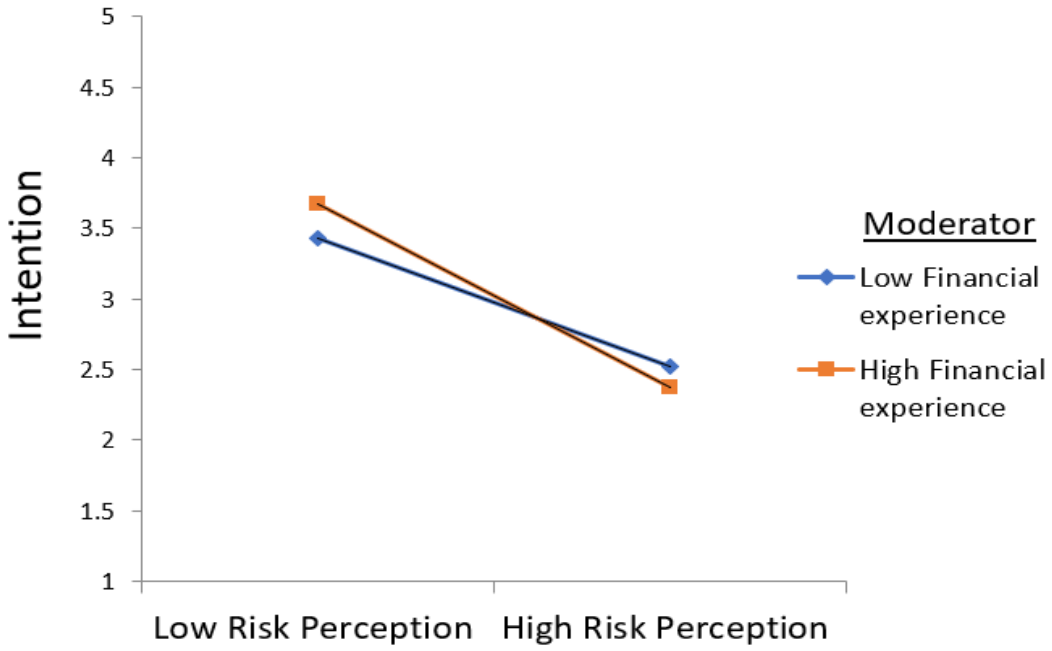
In conclusion, most of the hypotheses were strongly supported, while soft information and financial experience were weakly supported. Moreover, among the 334 participants, 189 respondents had previously invested in ECF, while 145 had not. To verify the robustness of our empirical findings, we conducted a multigroup analysis. We tested the two models using the chi-square difference test. The results showed no difference between those who had invested before and those who did not (p-value = 0.661).

Table 3.4. Results: evaluation of the SEM model paths

Hypothesis			Estimate	t- value	p-value
Perceived platform quality	→	Perceived Risk	-0.305	-3.619	***
Perceived Soft information	→	Perceived Risk	-0.116	-2.317	.021
Perceived Hard information	→	Perceived Risk	-0.148	-2.785	.005
Perceived Risk	→	Intention	-0.549	-6.549	***
Moderating					
Financial ex*risk perception	→	Intention	-0.098	-2.544	.011

Note: *** significant at p<0.001.

Figure 3.3. Moderating effect



Source: Outputs of statistical analysis using AMOS 22 software.

3.7. Discussion and implications

This study aimed to test and build a model that describes investor behaviour in ECF over the application of the S-O-R model. Generally, the findings verify the validity of the S-O-R model as an effective method to understand investors intentions in ECF. Because ECF is becoming recognised as an investment instrument, it is essential to understand the factors influencing potential investors. Not enough is known about the information disclosure in ECF and its effect on investor behaviour. This study addressed those concerns to expand our understanding of investor behaviour related to ECF.

The study's findings showed that platform quality has a robust effect on reducing investors' risk perception. Evidence shows the effect of the platform's characteristics in stimulating perceived risk (Smith et al., 2011; Wells et al., 2011). Our findings add to the previous literature on risk perception by examining how the platform's quality, such as transaction convenience and design, exemplifies perceived risk.

Moreover, it is noteworthy that soft information in textual and qualitative form is considered unverifiable and related to risk perception. This finding is consistent with Pötzsch and Böhme (2010). However, hard information that comes mainly in the form of numbers (verifiable) has a significant negative effect on risk perception. This finding is consistent with prior literature (Wang & Kim, 2017). However, soft information such as business plan or

information about teamwork is essential in reducing risk perception. Hard information such as financial statements has a more negative impact on risk perception than soft information disclosures. These findings shed light on the importance of due diligence in ECF and align with Vismara et al. (2018). Thus, the perceived hard information is crucial even for those who considered unsophisticated investors.

Based on prior studies that empirically and theoretically proposed the correlated relationship, our research suggested that risk perception influences investor intent (Hallahan et al., 2004; Weber, 2001; Weber et al., 2005) . Consistent with Hallahan et al. (2004) and Weber (2001), who found that intent is affected by risk perception, this study suggests that intent will increase when the perceived risk decreases. Moreover, an investor's financial experience (moderating effect) strengthens the negative relationship between the perceived risk and the investor's intent. Figure 3.3 shows that the more experience the investors have, the less they are confronted with the perception of risk. This finding aligns with Gibson et al. (2013) and JOO and Grable (2000).

In this research, we drew on prior studies of information disclosure and ECF to explore the factors influencing investor behaviour in ECF. This study's findings highlight some significant contributions to current knowledge uncertainty and information asymmetry associated with ECF. This study represents one of the first to investigate how nonprofessional investors perceive verifiable and unverifiable information in the context of ECF.

Further, this study contributes to the S-O-R theory by recognising information disclosure (soft and hard) and platform quality as stimulus cues, measuring their effects on risk perception as cognitive organisms and validating and adjusting it in the context of ECF. Our findings contribute to the literature on information disclosures and the interaction between individual and computer by hypothesising and examining how project disclosures and platform quality reduce risk perception. Finally, this study provides insights to understand the significance of the environmental aspects that influence investor's behaviour in ECF, mediated by cognitive cues.

To improve the performance of ECF platforms, projects and entrepreneurs, this study identified crucial implications. Our research implies practitioner's interest in platform quality and projects' information disclosures. Our findings show that the perception of verifiable and unverifiable information and the platform's quality (e.g., design and convenience of the transaction) should be advantageously administered to reduce perceived risk, encouraging potential investors to participate in ECF.

The security, design and transactional convenience should be developed so the potential investor can quickly and safely complete the investment process. For example, a platform licenced by an official authority may inform potential investors about the platform's safety. A well-designed platform could unconsciously impact the behaviour of investors and enhance their visit experience. Moreover, the study findings could help platform owners and entrepreneurs enhance an ECF page's content. The results suggest that the perception of information disclosure has a crucial impact on reducing investors' risk perception. Surprisingly, the risk perception significantly decreases when the investors perceive the excellent quality of hard information, such as financial statements, compared to soft information such as information about the teamwork for crowd funders who might be considered unsophisticated investors (Mochkabadi & Volkmann, 2020). Therefore, the platform and fundraiser should put more effort into due diligence.

3.8. Limitations and future study

This study offers important insights into investors' perception of information disclosure and risk in ECF. However, the study has limitations. First, our empirical originated from only Saudi ECF platforms. Thus, results are limited to a Saudi Arabian context. Researchers should consider cultural differences. This study's results can also be generalised to ECF platforms in the Saudi context or developed countries with similar cultures, such as the Gulf countries. Thus, a future study would extend our research by comparing the behaviour of investors' intent in several countries. Another limitation in the samples of the study, the study included potential investors who have never invested in ECF. Bhattacherjee (2001) argued that the personal intention could shift after receiving feedback on previous funding. Therefore, a comparative study between those who have invested in ECF and those who never invested before is recommended.

Furthermore, this study's context is ECF; hence, our findings can only apply to that specific type of crowdfunding and cannot be generalised to other types of crowdfunding. Replicating similar crowdfunding models, specifically lending-based crowdfunding, provides an opportunity to identify differences in each crowdfunding context. Moreover, it highlights certain stimulus factors, making it was difficult to examine all possible stimuli in one study. Additional factors such as platform and project reputation are associated with the investor's intent (Liu et al., 2018). In response, this study calls for future research to identify more variables that could impact investor intent and risk perception.

3.9. References

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Conclusion

This thesis aimed to understand and expand the knowledge on investors' behaviour in ECF. Recently, entrepreneurs and early-stage ventures have faced obstacles when raising needed capital (Ahlers et al., 2015; Block et al., 2018). The concept of ECF is becoming a convenient alternative instrument for investing in entrepreneurs' projects in many countries (Belleflamme et al., 2014; Moritz & Block, 2016; Vismara, 2018). Equity crowdfunding has also become popular for inexperienced investors who want to invest in early-stage ventures (Hollas, 2013b; Mollick, 2014; Schwienbacher & Larralde, 2010). Recently, studies on crowdfunding have expanded and have been developed by qualified practitioners and academics (Belleflamme et al., 2014; Gleasure & Feller, 2016b; Moritz & Block, 2016). The results in this thesis represent my investigation of the factors that affect the investors' behaviour by employing *TAM, swift, transfer, and S-O-R* theories. These theories respectively comprise three empirical essays (chapters 1 to 3).

In the first chapter, I built a theoretical framework to investigate the behavioural characteristics of the investors. The study took place in the United States, where the concept of ECF evolved. I employed OLS regression and analysed three models. This chapter sought to examine the factors that influence investors' intentions toward the ECF platform. I measured the adoption level of the phenomena of ECF, by extending TAM theory by Davis (1989) to investigate the behavioural intention of the crowdsourcing community. Crucial results drawn from this chapter show that TAM variables and subjective norms influence investors' attitudes and intentions toward the ECF platform. Specifically, in the case of ECF users, the proposed framework consists of five behavioural factors that are directly or indirectly related to explaining the relationship between perceived ease of use, perceived usefulness, subjective norms, attitude, and investors' behavioural intentions in the ECF platform.

Chapter 2 focused on intentional behaviour in ECF in an emerging market. The chapter followed the general purpose of the thesis by examining the investors' behavioural intentions, though this chapter deeply explored the platform as a two-sided market. Although ECF has been growing as a financial resource, we still do not know much about how trust is established in ECF. This chapter examined the topic of trust in ECF. I investigated interpersonal and institutional trust and its effect on potential investors. I have applied two trust theories—swift by Meyerson et al. (1996) and transfer by Stewart (2003)—to test the effect of platform and fundraisers trust in intentional behaviour on ECF. The chapter improved our knowledge of trust

formation in both fundraisers and platform. Moreover, I offered a conceptual framework for measuring the mediation impact of trust in the platform and the fundraiser in relation to investors' intentions. Therefore, the chapter empirically discovered new evidence in the context of ECF. Using SPSS and AMOS 22, I applied SEM to test the impact of variables familiarity, disposition to trust, information quality, educational signals, trust in the platform, trust in project creators, and intention to invest.

Chapter 3 was constructed according to the results and recommendations in Chapter 2. I investigated the project disclosure in-depth and examined its impact on the risk perception of the investors. The purpose of Chapter 3 was to measure the investors' risk perception and its influence on their willingness to invest in ECF. A framework was developed to determine the factors that decrease the risk perception of the investors. Stimulus-Organism-Response theory was first introduced by Mehrabian and Russell (1974) to indicate the intentional investment in ECF. The chapter categorised information disclosers into soft information—where unverifiable information was present in the form of a textual format—and hard information—where verifiable information was in the form of financial statements (Bertomeu & Marinovic, 2016; Petersen, 2004). I introduced information disclosure as a project's characteristics and platform quality as a platform characteristic. The research framework also investigated whether the investors' experience would strengthen the negative relationship between risk perception and intent to invest. As I wrote Chapter 3, Saudi Arabia had eight ECF platforms. Thus, I decided to expand our research sample to target the users of all available platforms. I used SEM analysis to test the proposed hypotheses. The result showed that perceived risk has a strong effect on the intention to invest. The perception of hard and soft disclosures was found to reduce the perceived risk of ECF to the investors.

Contribution

In order to understand the behavioural intentions of investors toward ECF, it is helpful to recognise individual characteristics that influence their perception. A good explanation of investors' behaviour would help concerned parties—fundraisers, platforms, and government agency—determine investors' behavioural decisions in ECF and how it would benefit fundraisers to build a project giving to what is envisaged and reduce the campaign failure rate. Moreover, platforms can benefit from understanding the investors' perception which can affect the investors' trust, as this is an essential element of the investors' intention to invest.

Chapter 1 aimed to define the factors influencing potential investors' attitudes toward the ECF and their behavioural intention. The empirical results delivered new understandings for developing TAM theory, such as the effect of ease of use, perceived usefulness, and social norms on the behavioural intention of ECF. From both academic or practitioners' perspectives, the outcome of the chapter drew several implications. First, the findings were in agreement with prior studies regarding the investors' attitude and intention (Ben Mansour, 2016; Gefen et al., 2003; Kim, 2012), specifically on crowdfunding (Kang et al., 2016; Mohd Thas Thaker et al., 2018). Second, ease of use as a primary variable of TAM is found to have a robust effect on the intention to invest in ECF; hence, platform owners are advised to enhance the factors related to ease of use—for instance, improve accessibility for all types of devices by establishing an easy-to-use phone application. Hence, the potential investors get extra convenience.

Moreover, this chapter employed education to understand the influence of investors' education differences between attitude and behavioural intentions. To the best of my knowledge, no study has examined the education differences as a moderator between attitude and behavioural intentions in ECF. Lastly, findings contribute to the entrepreneurs, they are recommended to introduce their project on a trustworthy and secure platform since the attitude of the potential investors is influenced by the platform's usefulness.

Chapter 2 offered valuable insight into the working of trust mechanisms in the crowdfunding domain and sheds light on the relationships between the variables of interest. This chapter contributed to the literature on crowdfunding by focusing on the impact of platform and fundraisers' trust on behavioural intention in some aspects. It also contributed to the theories of swift and transfer trust (Meyerson et al., 1996; Stewart, 2003) by employing institutional and interpersonal trust and validating them in the context of ECF.

Moreover, Chapter 2 contributed to literature on intentional behaviour by illustrating the effect of fundraisers and platform trust on investment intention. From a practical perspective, this chapter's findings have significant implications for the ECF platform practitioners and project creators. To enhance investment intention, fundraisers should pay attention to two critical aspects. First, the platform should strictly follow governmental policies and show trustworthiness. Second, to enhance the investor's trust in entrepreneurs and positively affect their intention, entrepreneurs must pay as much attention as possible to the project contents and provide more detailed information in the form of text and numbers. Given that trust affects the potential investors' ability to overcome uncertainty and information

asymmetry, institutional and interpersonal-based trust will, consequently, impact investors' intentions.

Chapter 3 contributed to the existing knowledge of the effect of risk perception on intentional investment (Bernardino & Santos, 2020; Koonce et al., 2005; Wang & Kim, 2017). The results highlighted some important contributions to the current knowledge of uncertainty and information asymmetry associated with ECF. The chapter also drew on previous research of information disclosures in crowdfunding in order to explore the factors affecting ECF investors' behaviour. The chapter is one of the first that examined how unsophisticated investors perceive information disclosures (verifiable and unverifiable). Furthermore, Chapter 3 contributed to the S-O-R theory by integrating information disclosure (soft and hard) and platform quality as stimulus cues, measuring their impacts on risk perception as cognitive organisms and adjusting it in the ECF context. The results contribute to the literature on information disclosures and the interaction between potential investors and platform by examining how project disclosures and platform quality reduce perceived risk. Finally, Chapter 3 offers insights regarding the importance of the stimuli aspects that affect investment behaviour in ECF, mediated by cognitive cues.

Moreover, the results could help owners of the platform and project creators enhance the page's content. The findings indicate that perceived information disclosures have a crucial effect on reducing the risk perception of investors. Unexpectedly, the risk perception showed a significant decrease when investors perceived good quality of hard information, such as financial statements, compared to soft information, such as information about the teamwork for bankers who might be considered unsophisticated investors (Mochkabadi & Volkmann, 2020). Consequently, the platform and fundraiser should put more effort into due diligence procedures.

Limitations and Future Study

This thesis presents steps forward in understanding investors' behaviour in ECF. It also provides essential insight into the literature and industry of ECF. Unfortunately, the thesis has some limitations. First, all of the chapters have investigated the intention of investors instead of the actual behaviours of investors. A future study can exclusively examine those who have invested in ECF in order to test models effectiveness. Further limitations are present in Chapters 2 and 3. Findings in these chapters are limited to a Saudi Arabian context. Even though this is also a strength in that they explore into the development of a financial system

which is growing fast both in size and regulatory quality, scholars should consider cultural differences. Results of Chapters 2 and 3 can also be inferred to ECF platforms in the Saudi context or developed countries with similar cultures, such as the Gulf countries. Therefore, future studies would extend our findings by comparing investors' intent in other countries with a different culture.

Furthermore, this thesis focused on the ECF context. Thus, our results are limited to that particular type and cannot be generalised to other crowdfunding types. However, future studies can replicate our work to similar crowdfunding contexts, such as lending-based crowdfunding. Investors in both ECF and P2P are expecting financial return from fundraisers, though P2P investors are looking for short-term investments and ECF investors are considered long-term investors. Therefore, a comparison study between investors in P2P and ECF is needed. Furthermore, the thesis highlights certain factors that affect trust, behavioural intention, attitude, and risk perception, and it was hard to include all possible factors that affect the investors' intention. Previous studies have found that there is a strong relationship between trust and risk perception (Kim et al., 2008; Siegrist, 2019; Viklund, 2003). Thus, integrating trust is recommended for future research.

Finally, the sample size for the chapters was 304, 216, and 334, respectively. The samples were neither too small nor too big, meeting the requirements to run the regression analysis. However, given the changing nature of technology and finance, future studies are encouraged to introduce longitudinal data in order to capture trends over time. Finally, qualitative research, experiment, and scenario-based approach is needed, and I recommend that future researchers turn toward such efforts.

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Appendix (1)

Original questionnaire of chapter 1

Default Question Block

Dear Participant:

I am examining the user intention of equity crowdfunding platform Because you have invested or visited an equity crowdfunding platform I am inviting you to participate in this research study by completing the attached surveys.

The following questionnaire will require approximately 10 minutes to complete. In order to ensure that all information will remain confidential, please do not include your name

Have you used or invest in an equity crowdfunding platform before

- ○ Yes
- ○ No

Gender

- ○ Male
- ○ Female

What is your age?

- ○ 18-24 years old
- ○ 25-34 years old
- ○ 35-44 years old
- ○ 45-54 years old

- ○ 55-64 years old
- ○ 65 and older

What is your marital status?

- ○ Single
- ○ Married or domestic partnership
- ○ Widowed
- ○ Divorced
- ○ Separated

Are you currently…?

- ○ Employed for wages
- ○ Self-employed
- ○ Out of work
- ○ A homemaker
- ○ A student
- ○ Retired

your monthly Income

- ○ Less than $3,000
- ○ $3,000-$6,000
- ○ $6,000-$9,000
- ○ $9,000-$12,000
- ○ over $12,000

Have you invested in equity crowdfunding platform before?

- ○ Yes
- ○ No

what equity crowdfunding sites have you used?

- ○ AngelList
- ○ CircleUp
- ○ Fundable
- ○ Crowdfunder
- ○ EquityNet
- ○ Wefunder
- ○ Other

Perceived Usefulness

How much do you agree or disagree with the following statement?

Investing in equity crowdfunding, I would obtain better financial results than investing in other types of investment.

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

Equity crowdfunding makes me more efficient in the management of my investments

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree

- ○ Strongly disagree

I would invest in an equity crowdfunding project whose financial projections were attractive

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

Perceived Ease of Use

How much do you agree or disagree with the following statement?

Using crowdfunding platform system would save time

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

I believe that understanding the process required to invest in equity crowdfunding would be easy for me

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree

- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

I consider I would have enough financial knowledge to invest in equity crowdfunding

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

I think that my interaction with the equity crowdfunding platform would be clear and easy to understand

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

I would invest in equity crowdfunding If I could do it anywhere at home, at office...

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree

- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

Subjective Norms.

How much do you agree or disagree with the following statement?

Most people who are important to me agree with that I invest in equity crowdfunding

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

Most people who are important to me support that I invest in equity crowdfunding

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

Most people who are important to me understand that I invest in equity crowdfunding

- ○ Strongly agree

- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

Most people who are important to me recommend that I invest in equity crowdfunding

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

Attitude Toward the Platform

How much do you agree or disagree with the following statement?

Using crowdfunding platform would be a pleasant experience

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

I like the idea of using crowdfunding platform as investment tool

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

Using crowdfunding platform for investment would be a wise idea

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

Intention to Use the Platform

If I have access to crowdfunding platform, I want to use it as much as possible

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

I expect to use crowdfunding platform in the future

- ○ Strongly agree

- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

I would recommend to use equity crowdfunding platform to my family, friends...

- ○ Strongly agree
- ○ Agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Disagree
- ○ Strongly disagree

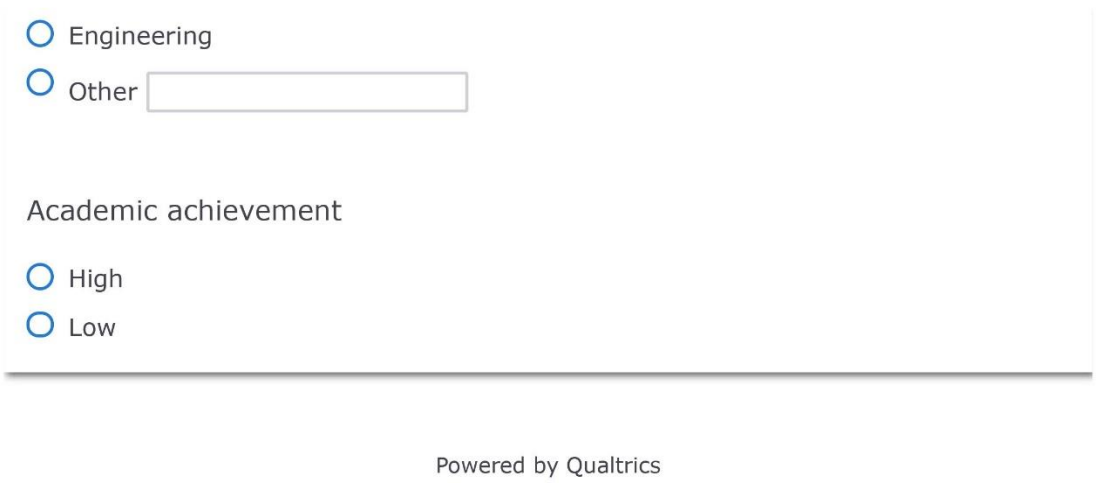
Education Information

What is your highest level of education?

- ○ high school
- ○ Diploma
- ○ undergraduate
- ○ postgraduate
- ○ other

Academic major

- ○ Entrepreneurship related majors (ERM)
- ○ Non-ERM
- ○ Natural Sciences



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Appendix (2)

Original questionnaire of chapter 2

Default Question Block

السلام عليكم ورحمة الله وبركاته،
الهدف من هذا الاستبيان هو عمل دراسة حول سلوك المستثمر في منصات التمويل الجماعي في المملكة العربية السعودية، حيث يستهدف المستخدمين أوالمستثمرين في منصات التمويل الجماعي في المملكة.
أمل تعاونكم بالإجابة بكل صدق وشفافية. مع العلم أن تعبئة الاستبيان يستغرق أقل من 7 دقائق، ولا يتطلب الإفصاح عن معلومات خاصة، ولا يتتبع أي من المعلومات الشخصية للمشارك، وجميع البيانات تخزن في قاعدة بيانات آمنة و سرية، تستخدم فقط لأغراض البحث العلمي.
ولكم مني جزيل الشكر والتقدير،

للاستفسار، أرجو التواصل على malharbey@kau.edu.sa

الجنس

- ذكر
- أنثى

العمر

- من 18 الى 24 سنة
- من 25 الى 34 سنة
- من 35 الى 44 سنة
- من 45 الى 54 سنة
- اكبر من 55 سنة

الحالة الاجتماعية

- متزوج
- أعزب

أرمل

مطلق

الوظيفة

طالب

موظف

متقاعد

باحث عن عمل

اخرى

المستوى التعليمي

دبلوم أو أقل

بكالوريوس

ماجستير

دكتوراه

هل استثمرت في سوق الأسهم من قبل

نعم

لا

هل لديك استثمارات أخرى

نعم

لا

هل استثمرت في العملات الإلكترونية من قبل

نعم

لا

الإلمام بالتمويل الجماعي

الإلمام بالتمويل الجماعي

إلى أي مدى تتفق مع العبارات التالية

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
بشكل عام، أنا على دراية بمنصات التمويل الجماعي	○	○	○	○	○
أنا على دراية بإجراءات الاستثمارات عبر الانترنت في مشاريع التمويل الجماعي	○	○	○	○	○
عملية دعم المشاريع في التمويل الجماعي معروفة لي مسبقا	○	○	○	○	○

الاستئمان

الاستئمان

إلى أي مدى تتفق مع العبارات التالية

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
أميل إلى الاعتماد على الأشخاص الآخرين	○	○	○	○	○
بشكل عام، أثق بالأشخاص الآخرين ما لم يوجد سبب لعدم الثقة بهم	○	○	○	○	○
بشكل عام، أثق بالأشخاص الآخرين	○	○	○	○	○

جودة معلومات المشروع

جودة معلومات المشاريع المدرجة في المنصات

إلى أي مدى تتفق مع العبارات التالية

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
توفر صفحة المشروع معلومات كافية عندما أحاول اتخاذ قرار بشأن الاستثمار	○	○	○	○	○
أنا راضٍ عن المعلومات الموجودة على صفحة المشروع	○	○	○	○	○
بشكل عام، أُعطِي علامة عالية لجودة محتوى المشروع	○	○	○	○	○
بشكل عام، سأقدم تقييماً عالياً من حيث جودة المحتوى لمشروع التمويل الجماعي	○	○	○	○	○
بشكل عام، يتم توفير محتوى عالي الجودة لمشروع التمويل الجماعي	○	○	○	○	○

تعليم مؤسس\ي المشروع

قياس تأثير تعليم مؤسسي المشروع على نجاح المشروع

إلى أي مدى تتفق مع العبارات التالية

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
مستوى تعليم مؤسسي المشروع مهم	○	○	○	○	○
استثمار مؤسسي المشروع بكثافة في تعليمه يعطي إشارة أفضل لنجاح المشروع	○	○	○	○	○
استثمار مؤسسي المشروع بكثافة في تعليمه مهم	○	○	○	○	○
تخرج مؤسسي المشروع من جامعة مرموقة مهم	○	○	○	○	○

الثقة في منصة التمويل الجماعي

الثقة في منصات التمويل الجماعي

إلى أي مدى تتفق مع العبارات التالية

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
أعتقد أن منصات التمويل الجماعي جديرة بالثقة	○	○	○	○	○
أعتقد أن منصات التمويل الجماعي تفي بوعودها	○	○	○	○	○
يمكن الوثوق منصات التمويل الجماعي في جميع الأوقات	○	○	○	○	○
(هذه منصات) تتمتع بنزاهة عالية كمنصة للتمويل الجماعي، أي أن المبادئ والقيم الأخلاقية التي يتم تنفيذها تتحقق	○	○	○	○	○

الثقة في مؤسس\ي المشروع

قياس مقدار الثقة في مؤسسي المشروع في منصة التمويل الجماعي

إلى أي مدى تتفق مع العبارات التالية

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
أنا مقتنع بأن مؤسسي المشروع سوف يوفون بالتزاماتهم	○	○	○	○	○
أعتقد أن مؤسسي المشروع يبذلون قصارى جهدهم للمشروع	○	○	○	○	○
أعتقد أن مؤسسي المشروع يتمتعون بالكفاءة لتحقيق الأهداف بنجاح وللوفاء بجميع الوعود التي قطعت	○	○	○	○	○
أعتقد أن مؤسسي المشروع سينجحون	○	○	○	○	○

الرغبة في الاستثمار

الرغبة في الاستثمار في مشاريع التمويل الجماعي

إلى أي مدى تتفق مع العبارات التالية

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
احتمالية أن أُمَوّل احدى المشاريع المعروضة على منصات التمويل الجماعي كبيرة	○	○	○	○	○
رغبتي في الاستثمار في احدى المشاريع المعروضة على منصات التمويل الجماعي مرتفعة	○	○	○	○	○
سأقوم بتمويل احدى المشاريع المعروضة على منصات التمويل الجماعي	○	○	○	○	○

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Appendix (3)

Original questionnaire of chapter 3

Default Question Block

السلام عليكم ورحمة الله وبركاته،
الهدف من هذا الاستبيان هو عمل دراسة حول سلوك المستثمر في منصات التمويل الجماعي في المملكة العربية السعودية، حيث يستهدف المستخدمين أوالمستثمرين في منصات التمويل الجماعي في المملكة.
أمل تعاونكم بالإجابة بكل صدق وشفافية. مع العلم أن تعبئة الاستبيان يستغرق أقل من 6 دقائق، ولا يتطلب الإفصاح عن معلومات خاصة، ولا يتتبع أي من المعلومات الشخصية للمشارك، وجميع البيانات تخزن في قاعدة بيانات آمنة و سرية، تستخدم فقط لأغراض البحث العلمي.
ولكم مني جزيل الشكر والتقدير،

للاستفسار، أرجو التواصل على malharbey@kau.edu.sa

هل اطلعت على المشاريع المعروضة في منصات التمويل الجماعي من قبل؟

- ○ نعم
- ○ لا

الجنس

- ○ ذكر
- ○ أنثى

العمر

- ○ من 18 الى 24 سنة
- ○ من 25 الى 34 سنة
- ○ من 35 الى 44 سنة
- ○ من 45 الى 54 سنة
- ○ اكبر من 55 سنة

الحالة الاجتماعية

- متزوج
- أعزب
- أرمل
- مطلق

الوظيفة

- طالب
- موظف
- متقاعد
- باحث عن عمل
- اخرى

المستوى التعليمي

- دبلوم أو أقل
- بكالوريوس
- ماجستير
- دكتوراه

مقدار الوقت الذي قضيته في دراسة التمويل أو المحاسبة أو الاقتصاد؟

- قليل جدًا
- قليل
- متوسط
- عالي
- عالي جدًا

هل سبق وان استثمرت في سوق الأسهم من قبل

- نعم

لا ○

هل لديك استثمارات أخرى

نعم ○
لا ○

كيف تقيم خبرتك الاستثمارية ؟

ضعيفة ○
جيدة ○
ممتازة ○

هل سبق أن استثمرت من خلال منصات التمويل الجماعي ؟

نعم ○
لا ○

ما مقدار احتياجك للمعلومات الاقتصادية أثناء أنشطتك اليومية (العمل ، المشاريع الخاصة ، ..)؟

قليل جدًا ○
قليل ○
متوسط ○
عالي ○
عالي جدًا ○

هل تدرس او ان سبق و تحصلت على درجة علمية في احدى التخصصات التالية: الاقتصاد، التمويل، المحاسبة، المالية؟

نعم ○
لا ○

لدي حساب في منصات التمويل الجماعي التالية

□

- [ ] سكوبير
- [ ] منافع المالية
- [ ] فالكم للخدمات المالية
- [ ] آفاق المالية
- [ ] بذور التكافل للتمويل
- [ ] إمكان العربية المحدودة
- [ ] تقنيات مكيال المالية
- [ ] أصول وبخيت الاستثمارية
- [ ] اخرى

جودة المنصة

جودة المنصة

ما مدى اتفاقك مع العبارات التالية عن جودة منصة التمويل الجماعي:

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
أنا متأكد من أن المعلومات التي سأقدمها للمنصة لن يتم مشاركتها لأطراف غير معنية	○	○	○	○	○
المنصة توفر معلومات دقيقة وشاملة	○	○	○	○	○
تحويل الأموال يتم بطريقة آمنه وسهله من خلال المنصة	○	○	○	○	○
المنصة مصممة بطريقة عملية وموفرة للوقت	○	○	○	○	○

معلومات المشروع الوصفية

قياس اهمية الإفصاح عن معلومات المشروع الوصفية

عند اتخاذك لقرار الاستثمار في احدى المشاريع المعروضة على منصة التمويل الجماعي، ما مدى أهمية المعلومات في كل من العبارات التالية ؟

	ليست مهمة على الإطلاق	غير مهمة	مهمة نوعًا ما	مهمة	مهمة جداً
المعلومات المعروضة عن أهداف المشروع	○	○	○	○	○
معلومات الهيكل التنظيمي للمشروع وفريق العمل	○	○	○	○	○
المعلومات المذكورة عن فريق الإدارة (مثل التعليم والخبرة)	○	○	○	○	○
المعلومات المذكورة عن رائدي الأعمال(مثل مشاريعهم السابقة، التعليم والخبرة)	○	○	○	○	○

الإفصاح عن معلومات المشروع الكمية

قياس اهمية الإفصاح عن معلومات المشروع الكمية

عند اتخاذك لقرار الاستثمار في احدى المشاريع المعروضة على منصة التمويل الجماعي، ما مدى أهمية المعلومات في كل من العبارات التالية ؟

	ليست مهمة على الإطلاق	غير مهمة	نوعًا ما مهمة	مهمة	مهمة جداً
المعلومات الموجودة في ملخص قائمة المركز المالي	○	○	○	○	○
المعلومات الموجودة في قائمة التدفقات النقدية	○	○	○	○	○
المعلومات الموجودة في ملخص قائمة الدخل التاريخية	○	○	○	○	○
المعلومات الموجودة في المؤشرات المالية ومؤشرات الأداء	○	○	○	○	○

المخاطرة

المخاطرة

المحور يقيس مدى تصورك للمخاطر عند زيارتك/استثمارك من خلال منصات التمويل الجماعي

إلى أي مدى تتفق مع العبارات التالية

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
قد اتعرض إلى خسارة مالية بسبب الاحتيال إذا استثمرت من خلال منصات التمويل الجماعي	○	○	○	○	○
إذا استثمرت في احد مشاريع التمويل الجماعي، سأكون قلقًا بشأن نجاح المشروع	○	○	○	○	○
قد يختلف المشروع المعروض في منصة التمويل الجماعي عن الواقع	○	○	○	○	○

بشكل عام، ما مدى خطورة الاستثمار في مشاريع التمويل الجماعي

- خطر جدًا ○
- خطر ○
- محايد ○
- آمن ○
- آمن جدًا ○

الرغبة في الاستثمار

الرغبة في الاستثمار في مشاريع التمويل الجماعي

إلى أي مدى تتفق مع العبارات التالية

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
احتمالية أن استثمر في احدى المشاريع المعروضة على منصات التمويل الجماعي كبيرة	○	○	○	○	○

	لا اتفق بشدة	لا اتفق	محايد	اتفق	اتفق بشدة
رغبتي في الاستثمار في احدى المشاريع المعروضة على منصات التمويل الجماعي مرتفعة	○	○	○	○	○
سأقوم بالاستثمار في احدى المشاريع المعروضة على منصات التمويل الجماعي	○	○	○	○	○
لدي النية للمساهمة ماليًا في حملات احدى المشاريع المعروضة على منصات التمويل الجماعي	○	○	○	○	○

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