



## Factors that influence the attitude of young people to participate in crowdfunding campaigns

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### Abstract

This paper highlights the factors that influence young people's attitude to participate in crowdfunding campaigns, and to what extent such factors impact their investment intentions. A quantitative approach is employed using a survey to gather information from Al Maaref University students about the determinants influencing their intentions to invest in crowdfunding and to explain how such factors affect their attitudes towards crowdfunding decisions. This study found that emotions and attitudes as well as attitudes and PBC are statistically and positively related. Moreover, personality types 'Agreeableness (A) and Neuroticism (N)' have a positive impact on PBC (with  $p < 10\%$ ), and subjective norms (SN) have a direct influence on engagement intention (EI) ( $p < 5\%$ ). PBC has a positive impact on EI ( $p < 5\%$ ), and risk preferences have a positive impact on EI (with  $p < 10\%$ ). In addition, results show that personality types do not have a positive impact on SN, and personality types Extraversion (E), Conscientiousness (C), and Openness (O), do not have a positive impact on PBC. Subjective norms do not have a positive impact on attitudes ( $p > 5\%$ ). Moreover, PBC does not have a direct influence on SN or behavior, risk preferences do not have a positive impact on EI ( $p > 5\%$ ), and demographic factors do not have a positive impact on EI. The findings of the study shall promote the comprehension of the influences that motivate young entrepreneurs to participate in crowdfunding campaigns. This paper's findings benefit investors, fintech decision-makers, and policymakers.

**Keywords:** Attitude, Crowdfunding, Lebanon, Personality, Young entrepreneurs.

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### Contribution of this paper to the literature

No other similar research was carried out in Lebanon, this study has an additional advantage in that it exposes the findings within the Lebanese cultural context. Therefore, adding to the corpus of information regarding the theory and applications of crowdfunding in general and the research platform in Lebanon.

## 1. Introduction

The financial services sector is undergoing fast transformations due to the increasing speed of technology-driven advancements (Zavolokina, Dolata, & Schwabe, 2016). FinTech innovations are transforming how individuals globally engage with financial services, enabling quicker payments, enhanced security in transactions, user-friendly interfaces, and reduced expenses (Smart Dev, 2023). Haddad and Hornuf (2019) categorize FinTech startups into nine different types such as financing, payment, asset management, loyalty, insurance, risk management, programs, exchanges, regulatory technology, and other business activities. Crowdfunding is a form of financial technology that utilizes creative digital solutions to meet fundraising requirements (Agrawal, Catalini, & Goldfarb, 2016). Paul Belleflamme, Lambert, and Schwiendbacher (2014) stated that “crowdfunding enables many people to pool funds, rather than just a few wealthy investors making larger contributions” (p. 585). Crowdfunding platforms utilize online technologies to facilitate transactions between funders and creators, with the help of existing internet-based payment systems such as Kicktraq.com (Light & Briggs, 2017). New community-facilitated finance channels were established for a diverse range of projects by implementing crowdsourcing concepts into fundraising processes. Therefore, Schwiendbacher and Larralde (2012) state that “Such projects encompass commercial, cultural, humanitarian, social, political, environmental, and technological projects, among others.” Lambert and Schwiendbacher (2010) and Hemer (2011). argue that Crowdfunding is a commonly used and uncomplicated tactic by startup and technology-focused companies to create new products and grow their operations.

Dorfleitner, Utz, and Wimmer (2018) posit that “Through an internet platform, crowdfunding acts as a link between those fund seekers and a group of funders.” Researchers like Klöhn and Hornuf (2012); Mollick (2014) and Short, Ketchen Jr, McKenny, Allison, and Ireland (2017) clarify that “Disintermediation, i.e., not depending any more on conventional financial intermediaries and agents, allowed the platform to perform the same task simpler, more efficiently, transparently, and effectively.” Zhao, Chen, Wang, and Chen (2017) add that “The notion of peer-to-peer lending was a relatively new and exciting phenomenon that assisted individual enterprises and small entrepreneurs in locating new sources of capital.” Therefore, as stressed by Stefanelli, Ferilli, and Boscia (2022) “Crowdfunding or peer-to-peer lending has emerged as an alternative solution for small and mid-size enterprises (SMEs) seeking to raise capital for their business.”

In addition, Baber (2020) postulates that “Crowdfunding is a great way for people and organizations with little financial resources to seek funds from a large crowd without much bureaucracy.” Moreover, Baber (2020) stresses that “A contributor or funder is anyone who is persuaded by the information offered on the platform and wishes to donate. The amount of the contribution does not require the contributors to be experienced investors; nonetheless, the platform must properly serve the needs of both contributors and fundraisers.” Furthermore, Aveni and Jenik (2017) and Jenik and Lauer (2017) pose that “Crowdfunding has become an alternative way of financing start-ups, commercial ideas, or social causes due to the development of *FinTech*.”

### 1.1. Motivation for this Study

Lack of funding to start projects is one of the biggest problems faced by entrepreneurs and early-stage businesses. Because of this, they mostly depend on bank loans to cover their initial investment, cash flow, and capital needs. However, banks pose difficulties for business owners and might not be the best choice in the beginning of a company's existence.

Faster Capital (2023) contends that “due to their perceived high risk, traditional banks and financial institutions frequently hesitate to lend to small firms.” In addition to the problems that any startup faces, the economic and financial conditions of the country in which it operates may eliminate any possibility of obtaining funds, even from venture and angel investors. Lebanon has been crippled according to Rkein, Hejase, Rkein, Hejase, and Fayyad-Kazan (2022) and Rkein, Hejase, Rkein, Fayyad-Kazan, and Hejase (2022) “for the past five years by a prolonged economic downturn, financial crisis, collapsing infrastructure, and political deadlock.”

Lebanon has long taken pride in its thriving banking sector, which attracted foreign depositors partly because of its high interest rates and permitted financial secrecy. (Mantach, 2014) posits that “In Lebanon, the banking industry is well known for being one of the most robust. It maintained a strong reputation and helped the economy by functioning as a shock absorber while withstanding numerous financial and economic crises” (p. 1). However, since 2019, Lebanon's socio-economic, political, and financial circumstances have been the worst among many crisis-ridden countries in the world, according to Hubbard (2021) and Khalife, Yammine, and El Bazi (2022).

Hubbard (2021) posits that “The Lebanese pound has lost 90% of its value since autumn 2019, and annual inflation in 2020 is 84.9%. According to government statistics from June 2021, consumer goods prices have nearly doubled in the last two years. The big explosion that occurred in Beirut's port in 2020, leaving a wide portion of the city in ruins and over 200 dead, added to the sorrow” (para 6). Consequently, bank clients become confused, mistrustful, disoriented, and desperate as a result of the above. The choice of the current study was thus influenced by uncertainties regarding the clients' disclosed financial information and their conduct toward banks. As a result, Saoud (2021) posits that “a crisis of this magnitude may have made customers second-guess their choice to keep making bank investments.” People's main concern was as asserted by Barbuscia (2021) “How should I deal with my money in the bank” as “the current corruption in Lebanon worsened” (Nassar & Hejase, 2021).

These declining indicators hurt all sectors of the economy, particularly the startup ecosystem, according to KAS (2022) “resulting in an alarming exodus of talent and dwindling funding on the innovation scene.” The capacity of businesses to get funding has also been significantly impacted by the crises, which has become a top worry for startups. According to the Konrad Adenauer Stiftung (KAS) report (KAS, 2022) “the biggest obstacles for a company is a lack of investment and cash and transferring money and pay internationally” (pp. 22, 28). Moreover, the Lebanese

startup entrepreneurs' priority, as KAS report asserts is that "securing capital and liquidity was the area of a business that they focused most in response to the crisis" (KAS, 2022). Finally, the KAS report showed that "41.3% of start-ups reported that interested investors turned away because of crisis, 23.9% of committed investors have not made their payments, 13% of interested investors discussed new conditions, 6.5% of investors became more committed to their business, and 39.1% of investors had no impact" (p. 31). However, despite Lebanon's grim situation, there are still opportunities for start-ups to succeed. To enable startups to take advantage of these opportunities, it is imperative to highlight their access to finance businesses with the modern methods of crowdfunding.

### **1.2. Problem Definition**

Because traditional sources of finance for entrepreneurial ideas and enterprises are insufficient owing to the deteriorating state of the financial sector indicators in Lebanon (Rkein et al., 2022); Rkein et al. (2022) crowdfunding is advocated as an alternative funding mechanism in the country.

Needless to say, because funders are the ones sought after, it is critical to address their attitudes toward funding participation. Cholakova and Clarysse (2015) postulate that "Funders who decide to participate in crowdfunding activities are motivated by a desire to receive rewards." According to Rodriguez-Ricardo, Sicilia, and López (2018) "knowing the elements to grow participants' intentions is necessary for all entrepreneurs who consider the platform as a means of subsidizing their venture."

According to Belleflamme et al. (2014) "Funders aim to support entrepreneurs in the early phases of an endeavor by acting as active investors, consumers, or a mix of the two." It is essential to comprehend the motivations behind investors' initial participation in crowdfunding to help businesses create the "right" community.

Gerber and Hui (2013) concur that the main motivation for participating in crowdfunding is the wish to be part of a community with common values and interests, along with the goal of earning money and helping others. Motivations are also highlighted by Ryu and Kim (2016) who assert that "Whereas young investors expect higher returns by investing in profitable projects like art and gaming, older people with high levels of agreeableness—a measure of compassion and interpersonal orientation—are more likely to be driven by altruistic motives" (Ryu & Kim, 2016). As per the findings of Bretschneider and Leimeister (2017) "Investors seek recognition from others for their participation in crowdsourcing. As they form personal preferences and invest just because they like the firm, they also indicate that investors are motivated by prosocial goals."

This study attempts to identify the variables that affect young people's willingness to engage in crowdfunding campaigns and the degree to which those variables affect their desire to invest.

This paper is divided into five parts. The first part offered a detailed introduction and background. Part two delves into the literature review followed by the research methodology discussed in part three. Part four illustrates the results, the findings, and the discussion and ends with part five with a conclusion, limitations, and recommendations.

### **1.3. Research Question**

What are the factors that influence the attitude of young people to participate in crowdfunding campaigns?

## **2. Literature Review**

### **2.1. Crowdfunding**

A comprehensive definition of crowdfunding is hard to find (Jovanović, 2019). Despite that, many varied and overlapping definitions exist because of multiple authors, standpoints, and characteristics including operation, resources used in it, benefits and purpose, and the actors engaged. Ordanini (2009) posits that "One definition of crowdfunding is an individual's use of small to medium-sized resources to support multiple people's new ventures." Mollick (2014) asserts that "Crowdfunding is a process of funding through the Internet that is based on a large crowd for small donations, without geographical boundaries." As for the forms of funding, Kuppaswamy and Bayus (2015) enumerate "debt, donation, or equity." By including several individuals for funding (Ordanini, Miceli, Pizzetti, & Parasuraman, 2011) where depending on a large crowd to fund, "crowdfunding democratized access to capital and shortened the role of biased mediators" (Mollick & Robb, 2016). In addition, Brown, Boon, and Pitt (2017) contend that "crowdfunding is a less time and easy procedure for raising funds, in comparison with conventional sources." Moreover, Kleemann, Voß, and Rieder (2008) and Belleflamme, Lambert, and Schwienbacher (2010) assert that "Key elements of crowdfunding, such as open appeals for rewards or voting rights made via the Internet, were outlined and the process itself was established." Belleflamme et al. (2014) clarified further about key characteristics of crowdfunding including the terms "reward or future product", as crowdfunding rewards are always future-oriented. Belleflamme et al. (2010) assumed that "crowdfunding facilitates direct crowdsourcing of capital without the need for middlemen, omitting crowdfunding's role that compromises its mechanism." Furthermore, Mollick (2014) included all types of projects, key actors, and forms of contribution." While pointing out that there are no conventional financial mediators, Mollick discussed the function of service platforms as mediators in the crowdfunding process.

Funding goals have been set by the ideas that have been launched on the crowdfunding platforms. Kromidha and Robson (2016) assert that "These ideas are transmitted and shared through videos or pictures to reach the most accessible people by electronic word of mouth (eWOM) using different ways of communication such as Twitter, Facebook, and E-mail." Howe (2008) adds, "If the backers meet the financing target, they provide funding for the project, and the campaign is deemed successful. Instead of depending on opinions, collective wisdom, or inventiveness, crowdfunding seeks to draw in more investment."

According to Brown et al. (2017) "There are certain marketing benefits related to crowdfunding other than raising funds." Crowdfunding is used to build and validate product concepts, generate and extend market demand, make grids/form connections, and build brand awareness in addition to facilitating direct sales (Brown et al., 2017; Debbabi & Kaplan, 2022). In addition, it assists ventures for not continuing in case initiators are aware that there are no benefits from the venture at an early stage where money and time are priceless (Mollick, 2014). As a result, crowdfunding may be viewed as an inexpensive method of conducting marketing research for new businesses.



2.1.1. Engagement in Crowdfunding

Economic and social resources that human beings had, were integrated and exchanged for common benefits, where it is not considered in general a conventional buyer-seller relationship (Vargo & Lusch, 2004). According to Vargo, Maglio, and Akaka (2008) "humans work as economic and/or social agents who collaborate to pool their resources for value creation. This approach is known in marketing literature as service-dominant (S-D) logic." Crowdfunding involves human and organizational actors combining their resources to create a co-creation value based on shared advantages; this is a "win-win" situation for all involved (Rotem Shneor, Zhao, & Flåten, 2020). Crowdfunding is defined as "the interaction of social and/or economic actors with their surroundings" (Lehner & Harrer, 2019; Ordanini et al., 2011). This interaction might take the form of actors engaging in the crowdfunding process.

2.1.2. Engagements Levels in Crowdfunding

According to Archad (2021) "Backers can be identified at four different levels during this voyage. Interpersonal involvement at the Meso level, industry engagement at the Macro level, individual engagement at the Micro level, and engagement with various projects at the Meta level." Giving input to other backers is an example of an interpersonal level activity (Meso), whereas reviewing the enterprise and making funding decisions is done at a personal level (Micro). Additionally, on a larger scale (Macro), engaging in several campaigns is considered at this level, and they have additional responsibilities in addition to crowdfunding (Meta).

2.2. Crowdfunding Models and Activity

The interactivity between the group of entrepreneurs in need of funding and the group of contributors interested in financing them is facilitated by crowdfunding which is mediated by online platforms. Crowdfunding is about models with some features that can differ from one to another.

Tillberg (2019) introduces two categorizations which consist of four crowdfunding models: reward-based, donation-based, lending-based, and equity-based, aligning with previous studies (Ferreira & Pereira, 2018; Méric, Maque, & Brabet, 2016; Mollick, 2014). There are five models in the second category. Researchers categorize these models as either "nonfinancial return" or "financial return." The non-financial return form consists of two models: the reward-based model and the donation-based model. The financial return form includes three types of crowdfunding: Royalty-based, equity-based, and lending-based. The "non-financial return form" and "financial return form" are two higher-level categories that differ because the former does not provide financial benefits, while the latter gives the crowd-funder a return on the investment (Candelise, 2015; Massolution, 2015; Wilson & Testoni, 2014). Table 1 presents a summary of the aforementioned crowdfunding categories.

Table 1. Crowdfunding categories.

Crowdfunding category	Remarks	Reward	Example
<b>Non-financial category</b>			
Donation-Based	Funders contribute money (Donation) with no expectation of receiving anything in return (Sponsoring). Usually, they use the money they raise to support independent projects or efforts that attract people with similar interests.	Autograph, thank-you note  Marketing to the sponsor	Kickstarter, experiment, donorschoose  Sponsorise.me Hemer (2011)
Reward-Based	Funders provide support to entrepreneurs in return for gifts, early access to items (Purchases), or a heightened sense of self-worth.	Product or service	Kickstarter
<b>Financial type</b>			
Lending-based (Loan) a. Microfinancing b. Peer-to-peer	Lenders provide capital in exchange for a principal payback in the future, either with or without interest (Peer-to-Peer and microfinancing).	Pay back loan	Kiva, seed out
Equity-based (Capital/Investment)	Funders make investments and are rewarded with shares that are either equity or equity-like.	Share is profit/Loss	ArtistShare, SellABand
Royalty-based (Investment)	Funders make investments in and are rewarded with a portion of the profits.	Percentage of sales	SellABand, SellanApp, AppsFunder

The most common are as follows: (1) The Reward-based model that does not require a financial contract (Mollick, 2014) where the entrepreneur is predicted to give a small token of appreciation, a non-monetary reward as gratitude, or a product in return (e.g., thankfulness note, eat out with the initiator, or an invitation to a movie premiere). This model applies to campaigns that either have a financial objective (a minimum capital requirement is set to bring the project to life) or a presale objective (to start the production process, a product is presented for which a minimum presale is needed by the entrepreneur). Reward-based platforms charge a commission rate (~ 5%) that is applied to the amounts collected by successful campaigns; (2) the Equity-based model requires a financial contract (Vulkan, Åstebro, & Sierra, 2016). Projects pitched on an equity-based platform offer equity shares directly from the business. In this latter, the platform acts as the legal shareholder representing investors where they are the beneficial owners of the shares unlike the reward-based, where investors are the legal shareholders of the business. Equity-based platforms charge a fee (around 6%) to entrepreneurs on the amount they successfully raise. Also, according to Hemer (2011) "the contributors get a share of future profits or royalties, equity, dividends, and/or voting rights. Platforms like ArtistShare, Wefunder, and SellABand provide this type of crowdfunding"; and, (3) the lending-based model that is commonly referred to as Peer-to-Peer (P2P) lending permits entrepreneurs to raise debt directly from lenders.

Mediation happens in an online marketplace though the product is a simple term loan (Morse, 2015). The lending-based crowdfunding has evolved from P2P lending into “marketplace lending”. For an entrepreneur to get a loan, he/she should make a loan proposition by publishing a list that consists of the amount and aim of the loan in addition to providing other application information to the platform. These platforms study loan proposals using scalable algorithms to measure their riskiness and set an interest rate for these loans (Vallee & Zeng, 2019). For example, different platforms, such as Kiva or Seed Out, provide microfinancing to people from low-income countries to alleviate poverty. Furthermore, Gordon Burtch, Anindya Ghose, and Sunil Wattal (2014) and Paravisini, Rappoport, and Ravina (2017) posit that “In peer-to-peer lending, contributors offer small loans to initiators on platforms like Zopa or Prosper.”

Table 2. Worldwide crowdfunding activity.

Region	Reward-based			Equity-based			Lending-based		
	2108	2019	2020	2108	2019	2020	2108	2019	2020
Asia-Pacific	0.28	0.36	0.59	0.50	0.45	0.74	5.34	8.73	7.59
China	0.01	0.00	0.01	0.02	0.00	0.00	215.37	84.34	1.15
Europe	0.24	0.33	0.58	0.88	0.97	1.13	6.60	10.94	8.23
Latin America & the Caribbean	0.04	0.11	0.07	0.05	0.05	0.04	1.70	4.68	5.17
Middle East	0.01	0.02	0.01	0.04	0.01	0.01	0.75	0.73	0.57
Sub-Saharan Africa	0.01	0.06	0.06	0.01	0.02	0.01	0.18	1.03	1.15
United Kingdom	0.08	2.12	5.84	0.87	0.62	0.66	9.31	8.27	6.15
United States & Canada	0.86	0.76	1.26	2.59	1.90	1.83	58.38	49.21	70.84
Total	1.53	3.76	8.41	4.96	4.02	4.41	297.63	167.93	100.85
Total (Excluding China)	1.52	3.76	8.40	4.94	4.02	4.41	82.26	83.59	99.70

Source: Ziegler and Shneor (2020) and Ziegler et al. (2021).

### 2.2.1. Market Overview

One may observe the results in Table 2 and assert that the reward-based activity in the US and Canada in 2018 was \$0.86B then it increased to reach \$1.26B in 2020 and in which equity-based and lending-based have experienced a decline in 2019 then started to rise again in 2020. However, one important point to shed light on is activity in the Middle East where the reward-based, equity-based, and lending-based have the lowest numbers among all other countries in common with Sub-Saharan Africa (SSA). Moreover, by taking a look at the total, one observes that lending-based activity has the highest numbers among the three (3) activities which means the world counts on lending-based activity.

### 2.3. Crowdfunding Actors

The efficiency of crowdfunding and its implications for funders and businesses are not well known because of its recentness. Regarding the reasons behind crowdsourcing engagement, the purpose of platforms, and the actual role funders play in crowdfunding campaigns, there are still a lot of unsolved questions. The foundation of crowdfunding practice is the assumption of a "win-win" game, as shown in Figure 1, in which all parties gain from their participation in the process. Shneor et al. (2020) identify three key players in crowdfunding models: Fundraisers, Backers, and Platforms (see Figure 1 & 2, and Table 3).

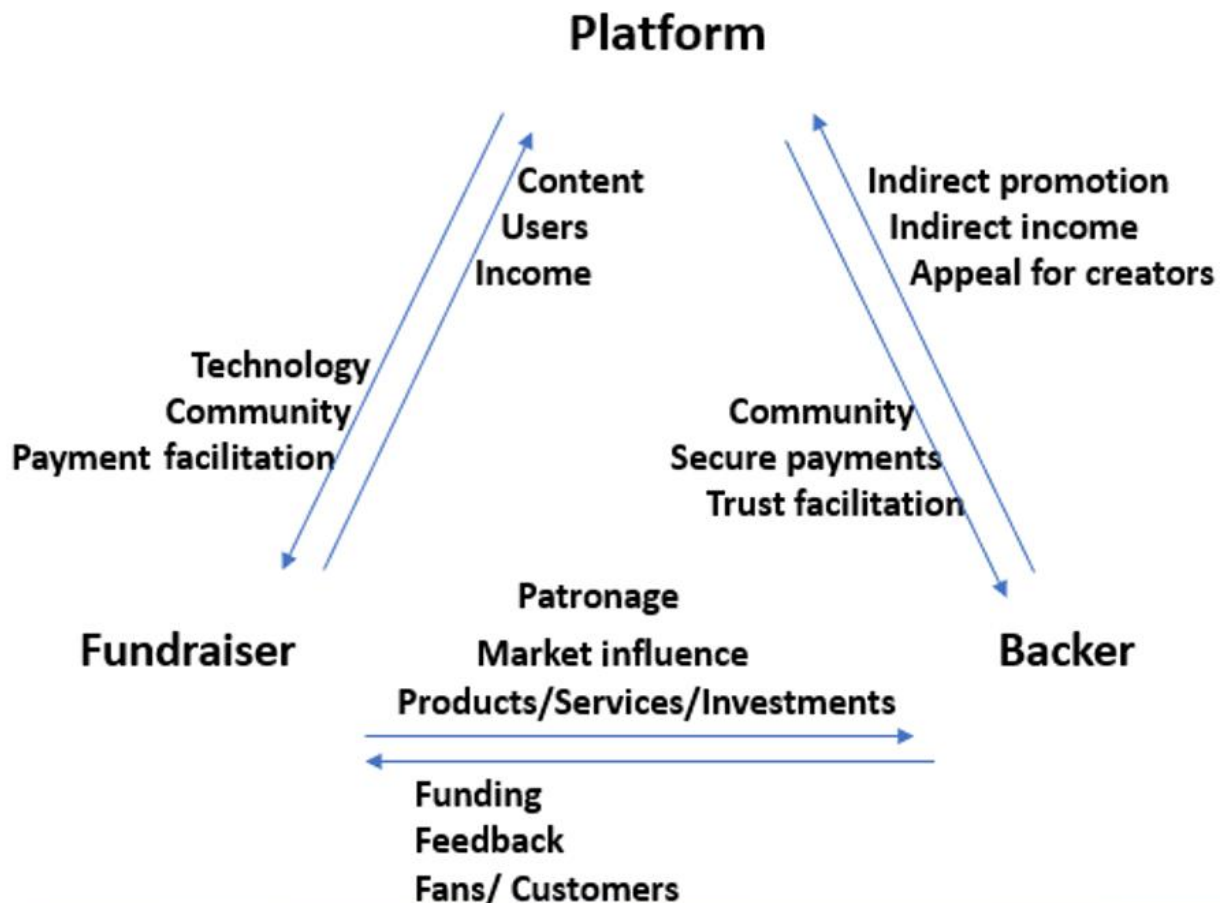


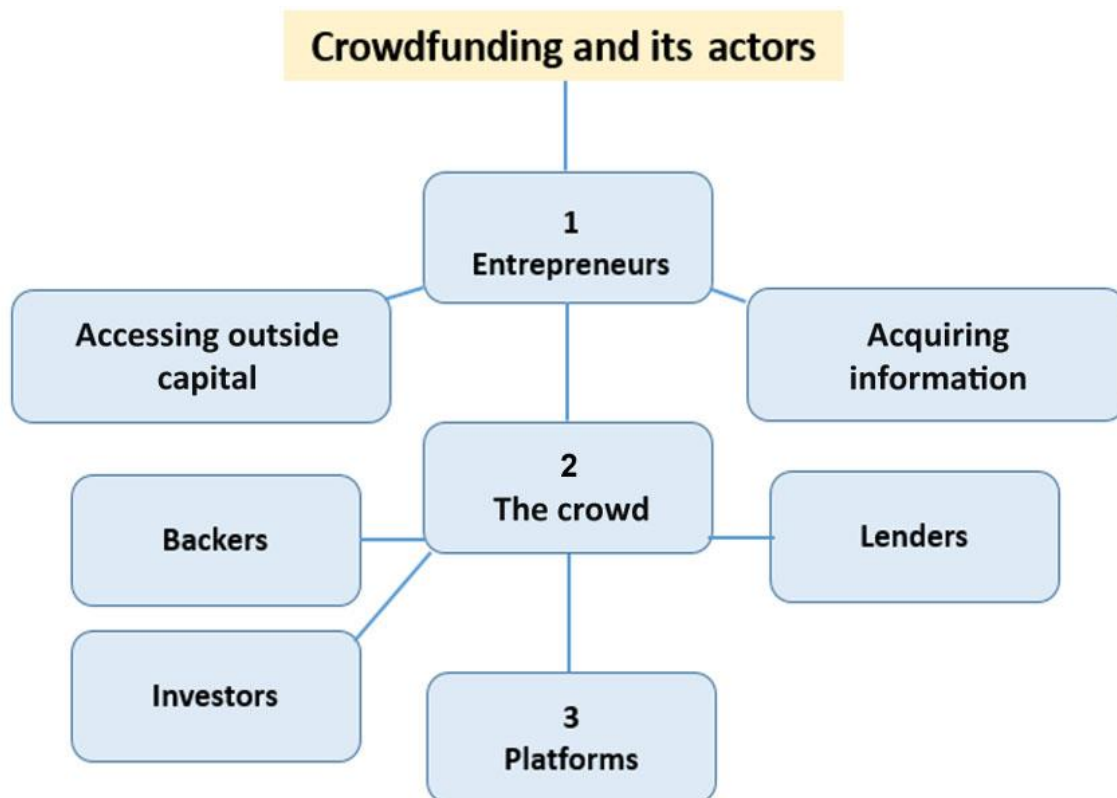
Figure 1. Win-win crowdfunding dynamics.

Source: Shneor et al. (2020).

**Table 3.** Crowdfunding stakeholders.

Stakeholders	Definition	Different names & sources
Fundraiser	Anyone making a public call to finance a project for specific aims	Fundraiser: Wang, Liu, Kang, and Zheng (2018) Creator: Ryu and Kim (2018) Campaigners: Hobbs, Grigore, and Molesworth (2016)
Backer	Anyone providing finance in answer to a public call for a project	Backer: Shneor and Munim (2019) Supporter: Gerber and Hui (2013) Donor: Carvajal, García-Avilés, and González (2012) Sponsor: Ryu and Kim (2016) Investor: Dorfleitner et al. (2018) Lender: Chemin and De Laat (2013)
Platform	An internet application serving as a link between fundraiser(s) and backer(s) based on an exchange according to specific conditions	Shneor and Flaten (2015)

Note: Table created by the authors. Information extracted from Shneor et al. (2020).



**Figure 2.** Crowdfunding and its actors.

Figure 2 shows three principal actors in crowdfunding, i.e., entrepreneurs, crowd, and platform.

### 2.3.1. Entrepreneurs

The crowdfunding process polarizes them for two reasons:

- i. Access to outside capital.
- ii. Information acquisition.

(i) Accessing outside capital: outside capital can be reached by different investors, including angels, banks, friends and family members, and venture capitalists. Through crowdfunding, they choose to raise capital since under specific conditions, they can obtain capital at a lower cost. Entrepreneurs face difficulties in obtaining funds from venture capitalists and early-stage investors. This can be done by finding and reaching the appropriate investors, convincing them, discussing an investment price, and working with lawyers on contractual terms (Da Rin & Hellmann, 2020). In addition, crowdfunding overcomes some geographic frictions correlated with offline sources of financing.

(ii) Acquiring information: Entrepreneurs should show a lot of information for potential contributors (product, business plan, about their innovation) that represents a possible risk in terms of competitiveness. Strausz (2017) developed a model that suggested an important informational advantage: Investors and banks can use information from the campaign that is produced by crowdfunding. He confirmed that crowdfunding and other conventional sources of funding are highly complementary. Consumer demand unreliability is mitigated by crowdfunding, while entrepreneurial moral hazard is controlled by venture capitalists.

### 2.3.2. The Crowd

There are two reasons why contributors engage in crowdfunding:

- i. Expand economic opportunities.
- ii. Enjoy community benefits.

a) Backers: contributors support art-related or product-oriented projects in the reward-based model. In other words, contributors are backers and their contribution is rather small. They are either part of the entrepreneur's social network or individuals not connected to the entrepreneur. Contributors enjoy community benefits linked to their experience as consumers (Belleflamme et al., 2014). They adhere to capital

also to adopt early a new product or have a direct and privileged interaction with the consumer community and the entrepreneur (Stanko & Henard, 2017).

- b) Investors: they are mainly retail investors who are attracted by the equity-based model. Early-stage investors engage in equity-based crowdfunding and invest huge amounts (Wang, Mahmood, Sismeiro, & Vulkan, 2019). The relationship between the entrepreneur and professional investors is formalized by such platforms as “Syndicate-Room” through facilitating syndicates like crowdfunding (Frydrych & Bock, 2018). Specialized investors get restitution by syndication for bringing in their expertise and knowledge (Agrawal et al., 2016). One of the benefits for both specialized and retail investors linked with equity-based crowdfunding is the availability of a much wider deal flow than what they reach offline in which they make investment decisions based on their expectations about the business’ profitability (Cholakova & Clarysse, 2015).
- c) Lenders: contributors who are lenders in the lending-based model, are either institutional investors such as specialized lenders and banks or individuals lending small amounts in which institutional lenders lend for the whole loan amount on the platform. Lending-based crowdfunding introduces the asset class of business and consumer loans to lenders, who seek a riskier fixed income rather than corporate bond funds or savings notes. Non-borrowing members may assign a group on some platforms and become group leaders enhancing the “community environment” within the group (Freedman & Jin, 2017; Hildebrand, Puri, & Rocholl, 2017).

### *2.3.3. Platforms*

The role of these platforms is essential as they create value by correlating the demand of the entrepreneurs and the contributor groups. Moreover, these platforms facilitate that correlation more efficiently than bilateral relations between the members of the group do.

### *2.4. Advantages and Disadvantages of Crowdfunding*

Hazam, Karimova, and Olsson (2017) list a number of advantages of crowdfunding, including the following: “(1) engagement creation—allowing social enterprises to reach a wider audience; (2) Viable funding—that is, crowdfunding is a viable option for social enterprises that recognize that they are having trouble finding traditional investors to fund their projects. Additionally, the framework of bank financing may be rigid, whereas a crowdfunding platform offers a more “hands-on” approach; (3) Assessing market viability, i.e., investing through crowdsourcing entails offering a chance to receive market validation. A prosperous crowdsourcing effort provides “a seal of approval; (4) Increased firm valuation: Compared to what traditional investors would have offered, crowdfunding may lead to a higher valuation; (5) Access to impact-minded investors: Crowdfunding makes it possible to reach out to private investors who are concerned with a company’s mission and goals. On the other side, social entrepreneurs that use crowdsourcing to acquire capital come into contact with investors who are driven primarily by the desire to see good ideas realized” (pp. 27-33).

Nonetheless, several obstacles might exist, as stated by Hazam et al. (2017): “(1) Inexperienced investors: Pose a risk as their lack of awareness of the risks associated with the investment could result in resentment toward the management team of the company, should the venture fail; (2) Public exposure: A crowdsourcing effort results in the company’s public exposure, which may cause the management group some stress; (3) A big number of investors: Social enterprises may not benefit from this. This may prevent business owners from using equity crowdfunding. Venture capitalists that wish to invest at a later stage and would rather not have a “complicated cap table” may find this concerning; (4) Concerns about efficiency: As a result of a finance structure that relies heavily on investors. This makes it more difficult to communicate, seek potential investors, and market the idea; (5) Higher cost: If the interest required to entice crowd investors is higher than what a bank, for instance, would need, lending crowdfunding may be more expensive” (pp. 34-38).

### *2.5. Theoretical and Empirical Background*

#### *2.5.1. Investment Intention in Crowdfunding Campaign*

Ajzen (1991) suggests that intentions are defined by capturing motivational factors that impact behavior. As per Sashikala and Chitramani (2018) investment intentions encompass both short-term and long-term asset investments, the associated risks of investment returns, and the investment’s liquidity. Furthermore, Sashikala and Chitramani claim that “short-term assets consist of debentures, cash, and shares typically held for less than a year. Long-term assets consist of cash, real estate, bonds, and stocks, typically held for over a year.” (p. 185).

Short et al. (2017) argue that research on crowdfunding has centered on studying factors that impact the success and failure of campaigns, whereas Macht and Weatherston (2015) suggest that other studies have explored the viewpoint of individuals who back crowdfunding projects. Nevertheless, some researchers (Burtch, Ghose, & Wattal, 2014; Gerber & Hui, 2013; Ordanini et al., 2011; Ryu & Kim, 2016) argue that there has been insufficient research on backers’ perspectives separate from the outcome of the campaign (whether successful or unsuccessful). Supporters in non-investment crowdfunding models are driven by various reasons, such as wanting to receive rewards, assist others, back causes, and enhance their communities.

Ajzen (1991) posits that “Capturing motivational factors that influence a behavior is what intentions are defined by.” According to Sashikala and Chitramani (2018) “Investment intentions refer to any short-term or long-term asset investment, the risk attached to the investment returns from the investment, and the liquidity of the investment.” In addition, Sashikala and Chitramani assert that “Some of the short-term assets include debentures, cash, and shares that are usually held for a shorter period, less than a year. Long-term assets include cash, real estate, bonds, and stocks, usually for more than a year” (p. 185).

Short et al. (2017) contend that “Crowdfunding research has focused on analyzing factors influencing campaign success and failure”, while Macht and Weatherston (2015) posit that “some other research tried to examine the perspective of those who support the conduct of crowdfunding contributions.” However, several researchers (Gordon Burtch et al., 2014; Gerber & Hui, 2013; Ordanini et al., 2011; Ryu & Kim, 2016) assert that “limited research has addressed backers’ views independently of campaign results (success or failure). Backers in non-investment



crowdfunding models are motivated by many factors, including a desire to collect rewards, help others, support causes, and improve their communities.”

According to Belleflamme et al. (2014) “factors other than financial returns are more important when investing through the specific tool of equity crowdfunding”; this finding has implications in several fields, ranging from analyzing an (irrational) investment decision-making process to a new regulatory perspective in consumer protection.

Investors in investment crowdfunding models are driven by a desire to help entrepreneurs, as well as by the possibility of financial rewards, the chance to improve their reputations, the chance to support causes that address their needs, and the chance to network with businesses in similar fields (Bretschneider & Leimeister, 2017; Ordanini et al., 2011). In addition, Zhang and Liu (2012) and Hornuf and Schwienbacher (2015) find “evidence of herding behavior in peer-to-peer lending and crowd-investing”. Bretschneider and Leimeister (2017) believe that “Herd behavior has a strong moderating effect on backers' incentive motivation, according to recent research on equity crowdfunding backers.”

In a study that considered both investment-based and non-investment crowdfunding models, Cholakova and Clarysse (2015) discovered that “financial incentives were the main driving force behind people's decisions to pledge, with non-financial motives simply playing a supporting role.” Lukkarinen, Wallenius, and Seppälä (2017) add that “According to their motive to support equity crowdfunding campaigns in Finland, three investor clusters were found in a separate study that was undertaken in the investing context of crowdfunding.” Lukkarinen et al. (2017) define supporters as “Donation-oriented, who are primarily driven by the chance to get involved and contribute; return-oriented, who are driven by both financial gains and the chance to get involved and contribute, and pure investors, who are driven primarily by financial gain.”

Several studies, based on the cognitive foundation of the trust approach (Chen, Dai, Yao, & Li, 2019; Zhao et al., 2017) looked at the elements influencing intentionality in the setting of crowdfunding make up another area of investigation. Kang, Gao, Wang, and Zheng (2016) investigated the investors' desire to invest in two Chinese stock platforms. They found “that math trust and relationship trust have a direct impact on readiness to invest.”

In a recent study, Daskalakis and Yue (2017) examined how varying risk perceptions impact individuals' willingness to invest in equity and lending crowdfunding in Spain, Germany, and Poland. Worries about deceitful borrowers impact investment confidence in Germany, with similar repercussions for concerns about deceptive platforms in Spain and Poland, as well as worries about inadequate campaign information in Poland.

### *2.5.2. Theories of Crowdfunding Contribution Intention*

Crowdfunding contribution intention research is still relatively new and eclectic. In this section, several studies are reviewed based on the specific theory utilized by the researchers.

Ahlers, Cumming, Günther, and Schweizer (2015) studied the efficacy of signals utilized by entrepreneurs to encourage (small) investors to invest financial resources in an equity crowdfunding situation, using Signaling theory. An examination is conducted to explore the correlation between the quality of ventures and their success in fundraising. Ahlers et al. (2015) discovered that maintaining ownership and offering in-depth risk details can serve as powerful indicators, affecting the probability of successful financial support. Contrarily, funding success is not significantly influenced by social and intellectual capital.

In a study conducted by Rotem Shneor and Munim (2019) in Finland, they found that intentions to make financial contributions were positively associated with attitudes, self-efficacy, and subjective norms, as suggested by the theory of planned behavior (Ajzen, 1991). Different findings suggest an unexpected connection between intentions and perceived behavior control, possibly due to these factors being viewed as the capacity to withstand influence from others to participate.

In their research, Chen et al. (2019) aimed to achieve theoretical integration by combining aspects of the theory of planned behavior (Ajzen, 1991) norm activation theory (Onwezen, Antonides, & Bartels, 2013) and social presence theory (Cyert, Feigenbaum, & March, 2007). Chen et al. found that attitude and perceived control were linked to donation intentions in crowdfunding, but subjective norms were not. Moreover, these intentions were linked in a positive way with trust, personal norms, and social presence.

In their research on Taiwanese users of a reward crowdfunding platform, Zhao et al. (2017) found that according to social exchange theory (Homans, 1958) the most significant predictor of funding intentions was backer commitment. Nonetheless, Chen et al. (2019) discovered two surprising outcomes: a lack of significant connection between trust and funding intention, and a favorable correlation between risk perception and funding intention. The first was clarified by the conflicting impacts of two regulatory perspectives with opposing attitudes towards risk's influence on intention: a preventive orientation had a strong adverse impact on risk, whereas a promotional orientation had a favorable impact. The reason for this discovery was that trust influenced funding intention through commitment and risk perceptions.

Rodriguez-Ricardo et al. (2018) carried out research in Spain utilizing social identity theory (Tajfel, 1974) and discovered that the level of backers' social identification with the crowdfunding community was positively linked to their intentions to engage in crowdfunding. This identification also played a role in mediating the impacts of interpersonal connectivity and attitudes toward helping others on these intentions. Moreover, they found that the creativity of the funders had a positive correlation with these intentions.

Zhang and Chen (2019) carried out research in the USA utilizing self-determination theory (Deci & Ryan, 1985) and found that “self-orientation had a positive correlation with intention to provide funding, while other orientations did not. Despite this, when taking gender into account, both orientations had a significant association with funding intentions. Self-focus is more closely linked to males, while other focuses are only significant for female supporters and not male supporters.

Zhang and Chen (2019) research in the United States utilized self-determination theory (Deci & Ryan, 1985) and found that self-orientation correlated positively with funding intention, while other orientations did not show a similar association. However, once gender was taken into account, both orientations showed a significant correlation with funding intentions. Self-orientation is more strongly linked to males, while other orientations are only significant for female supporters and not male supporters.



Wang and Yang (2019) applied the elaboration likelihood model (ELM) (Petty & Cacioppo, 1986) to explore the funding intentions of backers in reward crowdfunding, a model commonly utilized to understand attitude changes. Their research shows that funding intentions of backers are positively influenced by both central (product innovativeness, perceived product quality, and creator ability) and peripheral (webpage visual design) factors. The research found that having knowledge about the product has a positive impact on all three main ways of thinking, but a negative impact on one less important way.

In his 2021 study, Baber examined how Islamic banking customers' intention to utilize crowdfunding can be further understood by expanding the technology acceptance model (TAM). Baber's research reveals that any crowdfunding platform aiming to attract this market segment must adhere to Islamic Shariah laws. The ease of use of crowdfunding impacts how useful it is and, in turn, affects one's perception of it. Having a positive outlook on crowdfunding will lead to a willingness to utilize it while adhering to Shariah principles.

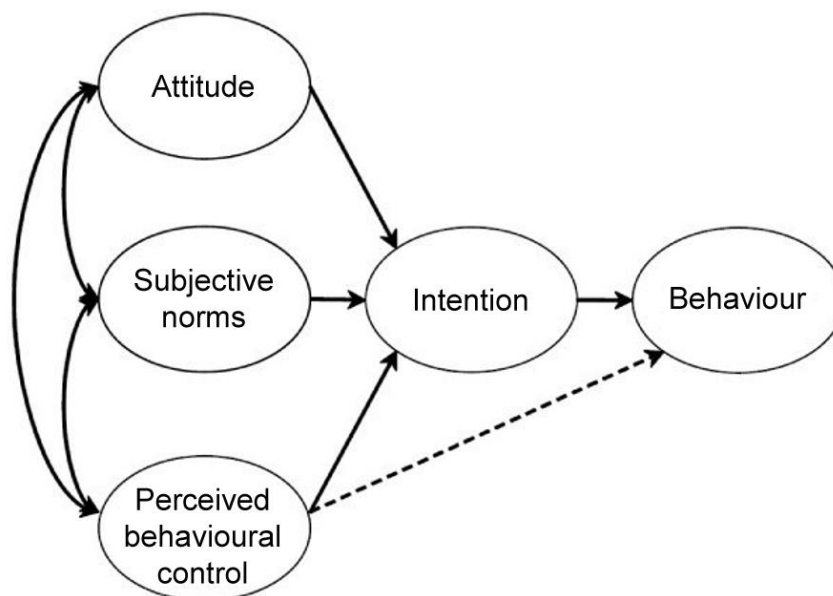
### 2.5.3. The Theory of Planned Behavior (TPB)

The current study is theoretically based on the Theory of Planned Behavior. The authors (of this study) adopted Rotem Shneor and Munim (2019) suggestion that “crowdfunding contribution intention and the roles played by its antecedents, to be planned behaviors” (p. 56). For this study, the assumption is that, given the relative novelty of crowdfunding's digital manifestations and the financial implications for participants, individuals are unlikely to contribute to crowdfunding campaigns without some preliminary thought. TPB has been extensively used to assess how prospective consumers intend to utilize several Internet-based services and marketplaces in different contexts; adoption of e-banking (Shih & Fang, 2004) adoption of e-commerce (Grandón, Nasco, & Mykytyn Jr, 2011) online social networking (Baker & White, 2010) spreading of e-WoM (Fu, Ju, & Hsu, 2015) and co-creating in social media (Cheung & To, 2016).

Therefore, the authors of this study, based on the aforementioned solid evidence showing that TPB can be used to explain user behavior in various digitally mediated marketplaces and networking sites, the theory of planned behavior in the context of contributor behavior in crowdfunding is used.

Ajzen (1991) originally created TPB and later updated it in 2002. Ajzen (1991) suggests that the intention behind an individual's behavior is where that behavior originates. The factors that influence intentions are attitudes towards behavior, perceived behavioral control, and subjective norms. Additionally, as stated by Ajzen and Fishbein (2005a) and Ajzen (2012) individuals' actions are influenced by their beliefs on the expected outcomes of their behavior, how they assess these outcomes, the expectations of significant others, the motivation to meet these expectations, and the availability and perceived impact of facilitating or hindering factors on behavior.

Numerous researchers have conducted empirical tests and confirmed the TPB's validity since it was first introduced. Krueger Jr, Reilly, and Carsrud (2000) as well as (Liñán, Urbano, & Guerrero, 2011) concentrated on the desire to begin a business. Steinmetz, Knappstein, Ajzen, Schmidt, and Kabst (2016) acknowledged that TPB is valuable for creating interventions and evaluating their effectiveness in altering beliefs that influence behavior efficacy. Ajzen (2005) depicted “the three theoretically separate influencers of intentions in the TPB” in a diagram presented in Figure 3.



Source: Ajzen (2005).

Figure 3. TPB model.

#### 2.5.3.1. Attitude toward the Behavior

According to Ajzen and Fishbein (2005b) and Ajzen and Cote (2008) “Attitude toward the behavior imputes the degree to which an individual has an advantageous or disadvantageous assessment or valuation of the behavior in question.” Also, Ajzen and Cote (2008) contend that “The beliefs people hold about the consequences of doing the behavior are pivotal in shaping their attitudes. Therefore, attitudes towards a behavior are the result of a person’s appraisal of the results associated with that behavior and the strength of the associations with these appraisements.” Thus, it is concluded from the above that people’s attitude towards crowdfunding derives from their expectations and beliefs about the personal effects of outcomes resulting from the behavior.

#### 2.5.3.2. Subjective Norms

Figure 3 shows that subjective norms are the second component that influences behavior. Ajzen (2005) posits that “Subjective norms are the social pressures that an individual experiences to engage in or refrain from engaging in a behavior. The theory refers to this aspect as subjective norms because social pressure is a perceived one.” Ajzen

and Fishbein (2005b) assert that “Subjective norms originate from individuals’ beliefs that important social referents or groups agree or disagree with executing a given behavior.” Socially important referents consist of parents, husband/wife, close friends, colleagues, and experts in the behavior of interest.

2.5.3.3. Perceived Behavioral Control

Ajzen and Cote (2008) contend that “A person’s feeling of self-efficiency or ability to carry out the behavior is implied by perceived behavioral control.” According to Ajzen, Brown, and Carvajal (2004) and Ajzen and Cote (2008) “Perceived behavioral control consists of assessments of individuals’ capacity to perform a specific action and the degree to which they possess the necessary tools and convictions to overcome any obstacles they may encounter. As a result, this is seen as a reflection of their experience as well as the presence of elements that either facilitate or hinder the behavior’s performance.” Moreover, Ajzen and Fishbein (2005b) claim that “People should feel more in control of their actions the more opportunities and resources they seize and the fewer obstacles or roadblocks they anticipate.”

Furthermore, internal (information, skills, capabilities, sentiments, and coercions) and external factors impact a person’s control over the behavior and can affect the successful performance of an intended action. On the contrary, Ajzen and Fishbein (2005b) note that “people who are overborne by emotions or do the behavior under stress cannot be held accountable for results. External factors such as opportunities and dependence on others may ease or hinder the behavior’s performance.”

Perceived behavioral control can directly impact behavior through intentions and it can on the other hand, “it can estimate behavior directly by acting as a proxy for actual control” (Ajzen & Cote, 2008).

2.6. The Research Conceptual Model

This study will extend TPB to capture the main precedents for the behavior of the backers in crowdfunding. Figure 4 illustrates the intended conceptual model with the suggested factors that will affect the intention to invest and make a decision.

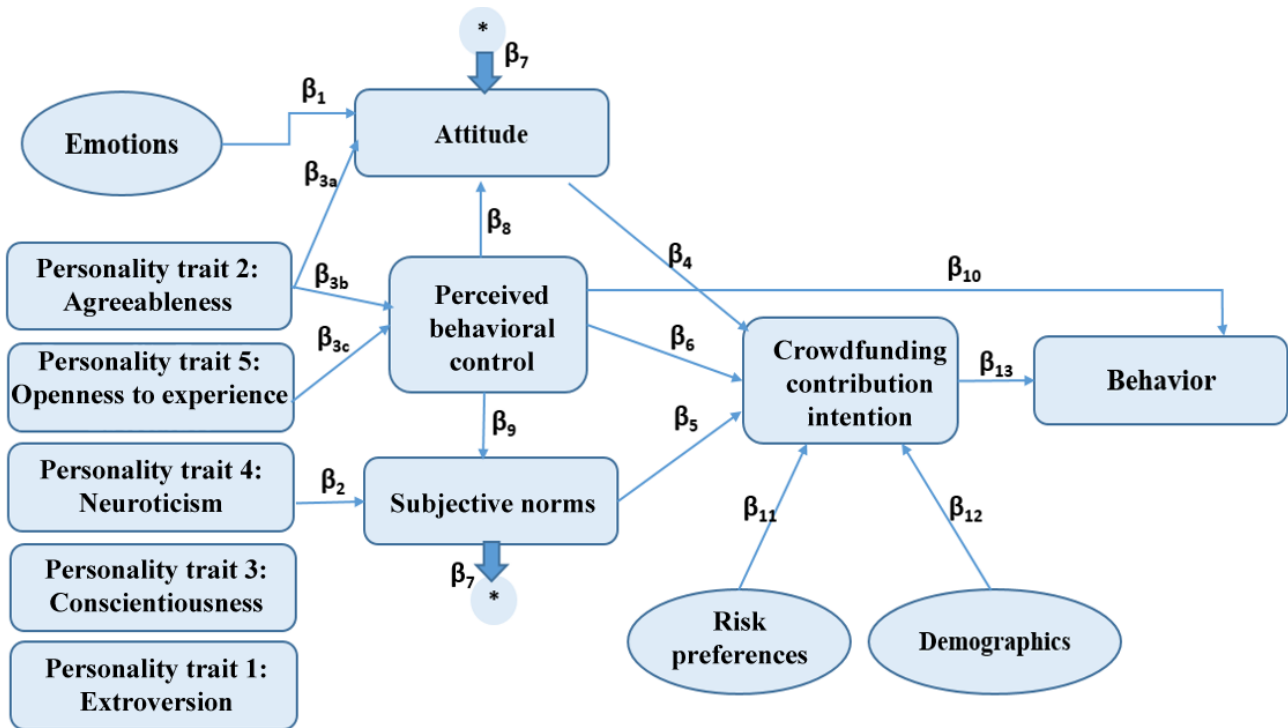


Figure 4. Research conceptual model.

Note: The asterisk symbol [\*] represents the relationship between Subjective norms (where it starts) and Attitude (where it ends). Instead of drawing a line through the diagram.

2.6.1. Emotions

Li (2011) argues that Emotion and mood are not the same. It has a lasting effect and is not as strong; it is not intended for behavior, object, or target. Specific emotions lead to specific reactions in response to specific occurrences. Coleman, Williams, Morales, and White (2017) suggested that consumer choice is impacted by fear that occurs randomly. People who aim to earn money are more content and willing to take risks. Loewenstein, Weber, Hsee, and Welch (2001) argue that including emotions and personal mood in decision-making is important. In Ekman and Friesen (1986) identified six fundamental emotions: Happiness, sadness, fear, anger, surprise, and disgust. Furthermore, Aren and Akgüneş (2018) discovered four basic emotions - fear, sadness, anger, and hope - in their two studies on financial decisions and emotions. The four emotions mentioned earlier were used in this research. Consequently, additional information is included to enhance clarity and comprehension.

- (1) Fear: According to Aren and Akgüneş (2018) “This is an individual’s reaction when sensing danger, emotional, physical, and complex past experiences. Reimann, Nenkov, MacInnis, and Morrin (2014) add, “Fear is the opposite of hope. It is a negative feeling that the coveted goal cannot be achieved.”
- (2) Sadness: Dijk (2017) relates “sadness with overestimating the prospect of negative results and underestimating the prospect of positive results, with clearer information about losses.”
- (3) Anger: Selim Aren and Hamamci (2020) contend that “Anger is a negative feeling for an individual who misbehaves by choice. An event must precede anger to occur. Moreover, anger is related to certainty.” While Li (2011) states that “anger is related to losing control and is considered an undesired feeling.”

- (4) Hope: According to [Aren and Akgüneş \(2018\)](#) “Hope is a feeling that brings desire and belief for a future outcome that wants to occur.” [\(Hayenhjelm, 2006\)](#) stated that “only the best result creates a sense of hope.” In addition, [Reimann et al. \(2014\)](#) claim that “Fear and hope cannot occur at the same time.”

### 2.6.2. Personality

[Barańczuk \(2019\)](#) explains personality as “differences between people’s emotions, thoughts, and action patterns.” Moreover, [Roberts and Mroczek \(2008\)](#) assert that “a trait of individual personality refers to feelings and behavior patterns that one person from another can be differentiated.” Researchers like [Durand, Newby, Peggs, and Siekierka \(2013\)](#); [Brown and Taylor \(2014\)](#) and [Kourtidis, Šević, and Chatzoglou \(2016\)](#) contend that “Several variables that are cognitive and emotional affect individual investors’ investment decisions and risk reluctance.” Therefore, according to [Aren and Hamamci \(2020\)](#) “Personality traits have been the focal point of many research studies and are considered an important factor.” Five personality traits are discussed next, including (1) Agreeableness (A), defined by [McCrae and Costa Jr \(1997\)](#) as “Warmth, friendliness, and the capacity for cooperation in social situations are all associated with the agreeableness trait.” Agreeable people take risks and value other people's perspectives. Moreover, [Dhiman and Raheja \(2018\)](#) posit that “those who possess this feature are more risk-tolerant.” (2) Extraversion (E), expressed by several researchers ([Brown & Taylor, 2014](#); [Pinjisakikool, 2018](#)) as, “One of the personality traits that are social, energetic, assertive, seeking innovation, and engaged in the external world.”

[Becker, Deckers, Dohmen, Falk, and Kosse \(2012\)](#) and [Pinjisakikool \(2018\)](#) state that “Extraversion requires greater risk,” while Conscientiousness (C) is characterized by being cautious, responsible, goal-driven, disciplined, and competent according to [Becker et al. \(2012\)](#); [Pinjisakikool \(2018\)](#) and [Tauni, Fang, Mirza, Memon, and Jebran \(2017\)](#). Furthermore, according to [Tauni et al. \(2017\)](#) individuals characterized by neuroticism are able to obtain more precise and trustworthy information regarding qualifications, leading to a likelihood of taking additional steps. As per [Becker et al. \(2012\)](#) and [Tauni et al. \(2017\)](#) an individual characterized by neuroticism trait encounters adverse feelings like anxiety, pessimism, vulnerability, and absence of self-regulation. [Becker et al. \(2012\)](#) emphasize that individuals with this personality characteristic tend to shy away from taking risks. In contrast, [Pinjisakikool \(2018\)](#) claims that individuals with neuroticism personality traits tend to make risky investment decisions. Many researchers ([Akhtar & Batool, 2012](#); [Durand, Newby, & Sanghani, 2008](#); [Pinjisakikool, 2018](#); [Tauni et al., 2017](#)) argue that “individuals with openness traits are open-minded, creative, intellectual, and receptive to innovation and knowledge.” [Hunter and Kemp \(2004\)](#) state, “People who possess traits of openness have a greater ability to engage in risky behavior.” Furthermore, [Mayfield, Perdue, and Wooten \(2008\)](#) discovered that “individuals possessing characteristics of openness excel in financial situations by embracing risk and opting for long-term investments.”

### 2.6.3. Risk Avoidance, Intention, and Preference for a Risky Investment

Per [Aren and Hamamci \(2020\)](#) risk aversion refers to how much risk individuals are unwilling to take. [Faff, Mulino, and Chai \(2008\)](#) argue that there are three primary approaches for assessing financial risk tolerance: conducting surveys, studying investor behavior in controlled settings, and analyzing actual investment decisions. “Assessing risk attitudes is accomplished through risk attitude surveys, which are valuable and dependable instruments” ([Lönnqvist, Verkasalo, Walkowitz, & Wichardt, 2015](#)). [Aren and Hamamci \(2020\)](#) highlight that “emotions can also be attributed to individual variations in risk aversion and risky investment behavior. In ordinary circumstances, individuals who steer clear of risks often find themselves wanting to take more risks due to their emotions such as anger, fear, joy, sorrow, or hope” (p. 2658). [Weber, Blais, and Betz \(2002\)](#) claim that individuals' willingness to invest in a risky market or asset is referred to as risky investment intention. [Tull \(2023\)](#) suggests that the level of risk-taking might differ depending on the circumstances. Therefore, [Aren and Hamamci \(2020\)](#) suggest that investment preference is distinct from both risk aversion and intentions for risky investments.

### 2.6.4. Demographic Factors

[Aren and Hamamci \(2020\)](#) performed an in-depth review of the “effect demographic factors have on risk behavior” (p. 2660). Several studies ([Dawson, 2023](#); [Harris & Jenkins, 2006](#); [Pinjisakikool, 2018](#)) propose that “men take more risks than women.” Likewise, evidence ([Aydemir & Aren, 2017](#); [Hariharan, Chapman, & Domian, 2000](#)) has been provided that “men have riskier investment intentions than women,” however, [Durand et al. \(2008\)](#) posit that “Psychological sex is more important in explaining risky behavior than physiological sex.” As for the age factor, researchers like [Dulebohn \(2002\)](#); [Pinjisakikool \(2018\)](#) and [Aren and Hamamci \(2020\)](#) assert that “young people are taking more risks than the elderly” whereas other studies ([Brooks, Sangiorgi, Hillenbrand, & Money, 2018](#); [Wang & Hanna, 1997](#)) show that “elderly people are taking more risks.”

## 2.7. Formulation of Research Hypotheses

Based on the literature review and the research conceptual model, the following hypotheses are formulated and to be tested.

*H<sub>1</sub>: Emotions have a positive effect on attitude.*

*H<sub>2</sub>: Personality types have a positive effect on subjective norms.*

*H<sub>3</sub>: Personality types have a positive influence on perceived behavioral control.*

*H<sub>4</sub>: Attitudes have a positive impact on Engagement (Crowdfunding Contribution) Intention.*

*H<sub>5</sub>: Subjective Norms have a positive influence on Engagement Intention.*

*H<sub>6</sub>: Perceived behavioral control has a positive impact on Engagement Intention.*

*H<sub>7</sub>: Subjective norms have a positive impact on attitudes.*

*H<sub>8</sub>: Perceived behavioral control has a positive influence on attitudes.*

*H<sub>9</sub>: Perceived behavioral control has a positive impact on subjective norms.*

*H<sub>10</sub>: Perceived behavioral control has a positive impact on Behavior.*

*H<sub>11</sub>: Risk Preferences have a positive effect on Engagement Intention.*

*H<sub>12</sub>: Demographic factors have a positive influence on Engagement Intention.*

*H<sub>13</sub>: Engagement Intention has a positive influence on Behavior.*



### 3. Research Methodology

#### 3.1. Research Philosophy and Approach

Empirical social science research is frequently supported by an ontological assumption about the underlying nature of reality and an epistemological expectation about how knowledge of reality becomes ratified (Blaikie, 2000). Because knowledge and reality are both objective, the Würzburg School tradition of critical rationalism supports this empirical study. Critical rationalism maintains that every scientific and empirical investigation should be questioned and that claims about the nature of objective knowledge should be normatively assessed (Popper, 2002). This study, therefore, employs critical rationalism's philosophical foundations and deductive reasoning to carry out the empirical inquiry. Critical rationalism emphasizes that preliminary scientific ideas should be challenged through hypothesis testing and data comparison. Consequently, the set of research hypotheses that support the proposed research TPB model is statistically tested and validated.

#### 3.2. Research Strategy

A survey approach is the foundation for the necessary quantitative-deductive analysis (Hejase & Hejase, 2013). One advantage of employing a quantitative approach is the ability to explanatorily and descriptively pinpoint particular areas of interest, such as crowdfunding. To examine behavioral content related to attitudes and beliefs, the present research uses a cross-sectional design survey. Data are systematically collected from a sample population for a specified goal and within a limited time frame.

#### 3.3. Data Collection Methods

An online, controlled social attitude survey (standardized psychometric questionnaire) was administered for primary data collection. Typically, these components are evaluated directly using standard scaling techniques (Ajzen, 2006). As a result, the current TPB Questionnaire was created with intermediate response categories each utilizing a 7-point Likert scale format to provide dichotomous descriptions (such as "disagree/agree"). This will be used to evaluate each participant's metric answers, which will be used to create an aggregate scale of each TPB variable in a manner like Armitage and Conner (1999). This enables the methodical gathering of primary data, which is then coded and included in a structured dataset.

#### 3.4. Sampling Procedures

The sampling was based at Al Maaref University, a new university founded in 2015, situated in the capital Beirut, Lebanon. The total student population in its Business Faculty is about 700 students, and this study's sample size included 74 students. By deriving approximation reliability error values from Hardwick (2022) the researchers utilized the methods of other works by Chehimi and Hejase (2024); Rammal, Hejase, and Hazimeh (2024); Masoudi and Hejase (2023); Hejase, Fayyad-Kazan, Hejase, Moukadem, and Danach (2023) and El Takach, Nassour, and Hejase (2022). Table 4 indicates that for a population size of 500–1000 (at  $\alpha = 5\%$ ) and an acceptable reliability error of  $10\% \pm 0.7\%$ , the sample size would be 74. Therefore, the 74-person sample size (at the 95% confidence level) in this study corresponds to a reliability error of about  $\pm 10.7\%$ . That indicates that in 89.3 out of 100 survey repetitions, the findings will not differ by more than 10.7%. Such reliability is adequate for this exploratory study.

Table 4. Statistical reliability versus sample size.

[50/50% proportion characteristics]				
Sample size	Population			
	500	1000	5000	10000
30	$\pm 17.1\%$	$\pm 17.3\%$	$\pm 17.6\%$	$\pm 17.7\%$
50	$\pm 13.1\%$	$\pm 13.5\%$	$\pm 13.8\%$	$\pm 13.9\%$
75	$\pm 10.4\%$	$\pm 10.9\%$	$\pm 11.3\%$	$\pm 11.4\%$
100	$\pm 8.8\%$	$\pm 9.3\%$	$\pm 9.7\%$	$\pm 9.8\%$

Note: At a 95% confidence level (Standard error is 5%).

Source: Modified from Hardwick (2022).

#### 3.5. Questionnaire Design

Blaikie (2003) contends that when "all variables are measured at the same time," it benefits the use of a cross-sectional design to manage the sampling process. The guidelines offered by Agresti and Finlay (2009) have been integrated into the survey psychometric questionnaire design to reduce the potential for non-response bias when disseminating the survey. The survey questionnaire has been designed using additional formats, besides the 7-level Likert scale questions, including "completely true/false". In addition, the TPB model will consist of extensions that include: Emotions, personality, risk avoidance, intention for risky investment, preference for risky investment, and demographic factors.

##### 3.5.1. Measures

The TPB model was deconstructed into composite elements (attitudes, subjective norms, PBC, etc.). Each measure was then compared to those created by Armitage and Conner (1999) evaluation study of TPB's efficacy in crowdfunding participation and those developed in Rotem Shneur and Munim (2019) work, which evaluates TPB's usefulness while participating in crowdfunding campaigns. This was done to test how successful (Ajzen, 2006) psychometric metrics are for generating predictions in various empirical contexts. As an outcome, the following scale measures were created and included in the psychometric questionnaire used in this study. Worth noting that the different measures are assessed using a seven-point Likert scale (1 to 7).

##### 3.5.1.1. Attitude [ATT]

A direct measurement of attitude was taken using four items. Participants were asked to respond to six pairs of mono adjectives (Table 5). It is noted that items ATT 1-4 were adopted and modified from Hsu and Lin (2008) and items ATT 2-3 were adapted and modified from Hsu, Yen, Chiu, and Chang (2006).

**Table 5. Measure of attitude.**

No.	Construct	Item
1.	ATT <sub>1</sub>	I would like to participate in crowdfunding campaigns.
2.	ATT <sub>2</sub>	I have a positive point of view about engaging in crowdfunding campaigns.
3.	ATT <sub>3</sub>	I believe that participating in crowdfunding campaigns is profitable for me.
4.	ATT <sub>4</sub>	I will probably feel good about donating to a crowdfunding campaign.

### 3.5.1.2. Subjective Norms [SN]

A measure of subjective norms was recorded from four items (see Table 6). Items {1-2} with an injunctive quality are to be included when developing a measure consistent with subjective norms. However, to alleviate positivity or 'leniency bias' (Ajzen, 2006) posits that "others are generally perceived to approve of desirable behaviors and disapprove of undesirable behaviors." It is also recommended to include items {Items 3-4} with a descriptive quality as (Ajzen, 2006) contends "whether important others themselves perform the behavior in question." It is to be noted that items SN 1-2 were adapted and modified from Hsu, Kang, and Lam (2006) work. Items SN 3-4 were adapted and modified from (Ajzen, 2006) paper.

**Table 6. Measure of SN.**

No.	Construct	Item
1.	SN <sub>1</sub>	Most people who are important to me think that I should engage in crowdfunding campaigns
2.	SN <sub>2</sub>	People in my life whose opinions I respect would encourage my participation.
3.	SN <sub>3</sub>	Many people like me engage in crowdfunding campaigns.
4.	SN <sub>4</sub>	I feel under social pressure to participate in crowdfunding campaigns.

### 3.5.1.3. Perceived Behavioral Control (PBC)

A direct measure of PBC was developed using four scale items to assess whether participants felt they were capable of performing the behavior under investigation: In this empirical context, contributing through participating in crowdfunding campaigns (Table 7). PBC should be divided into two components as suggested by Ajzen (2006) based "on whether respondents perceive themselves as capable of performing the behavior and whether they believe they have control over the behavior." PBC's sub-components were re-coded as capability (items 1-2) and controllability (items 3-4). It is worth noting that items PBC 1-2 were adapted and modified from Casaló, Flavián, and Guinalú (2010) paper and items PBC 3-4 were adapted and modified from Hsu et al. (2006) study.

**Table 7. Measure of PBC.**

No.	Construct	Item
1.	PBC <sub>1</sub>	My engagement in contributing to crowdfunding campaigns is within my control.
2.	PBC <sub>2</sub>	The decision to contribute to crowdfunding campaigns is entirely mine.
3.	PBC <sub>3</sub>	Whether or not I contribute to crowdfunding campaigns is entirely up to me.
4.	PBC <sub>4</sub>	I feel that whether I contribute or don't to crowdfunding campaigns is beyond my control

### 3.5.1.4. Intention [Represented by Engagement Intention or EI]

Table 8 assessed the intention to contribute to a crowdfunding campaign. The response categories used by Armitage and Conner (1999) study were adopted due to their high internal reliability scores. It is noted that items INT 1-3 were adapted and modified from Armitage and Conner (1999) study.

**Table 8. Measure of intention.**

No.	Construct	Item
1.	EI <sub>1</sub>	I intend to participate in crowdfunding campaigns
2.	EI <sub>2</sub>	I plan to engage in crowdfunding campaigns
3.	EI <sub>3</sub>	I want to be part of crowdfunding campaigns

### 3.5.1.5. Behavior [Represented by Financially Contributing to Crowdfunding Initiatives or FINC]

Table 9 shows the measure of behavior and its statements. Financially contributing to crowdfunding initiatives Items are coded FINC. FINC 1-2 were adapted and modified from "eWoM Participation" in Yoo, Sanders, and Moon (2013).

**Table 9. Measure of behavior.**

No.	Construct	Item
1.	FINC <sub>1</sub>	I spend much effort in financially contributing to crowdfunding initiatives.
2.	FINC <sub>2</sub>	I frequently contribute financially to crowdfunding initiatives.

### 3.5.1.6. Model Extensions

#### 3.5.1.6.1. Emotions (EMO)

As mentioned earlier, an extension of the TBP model has been modified by adding the factors: Emotions, personality, risk, and demographic factors. Table 10 shows the measures of emotions (four of them) and their statements. Worth noting that items EMO 1-3 were adapted and modified from (Harms, 2007) study, and item EMO 4 was adapted and modified from (Moysidou & Spaeth, 2016) research.

**Table 10. Measure of emotions.**

No.	Construct	Item
1.	EMO <sub>1</sub>	Supporting the initiatives would be positive for me.
2.	EMO <sub>2</sub>	These are initiatives that I would enjoy supporting.
3.	EMO <sub>3</sub>	I would appreciate the actual process of supporting these initiatives.
4.	EMO <sub>4</sub>	I would invest in crowdfunding initiatives purely for the enjoyment of doing them.

### 3.5.1.6.2. Personality

Table 11 demonstrates that the sample of respondents possess agreeableness as the highest representation with a mean = 28.50 and std. dev. of 4.124 followed by Openness with a mean = 28 and std. dev. of 3.240, Conscientiousness (mean=27; std. dev.=4.111), Neuroticism (mean=25.50, std. dev.=6.34440, and least is Extroversion (mean=25, std. dev.=5.424). Personality traits help understand why a participant acts the way he/she does to engage in crowdfunding campaigns and how the personality is structured, where these items consist of sets of sub-categories measured on a 5-level Likert scale style (coded 1 for strongly disagree up to 5 for strongly agree). This section is sourced, adapted, and modified from <https://openpsychometrics.org/>

Table 11. Distribution of personality types.

Central tendency measures	Personality trait 1: Extroversion	Personality trait 2: Agreeableness	Personality trait 3: Conscientiousness	Personality trait 4: Neuroticism	Personality trait 5: Openness to experience
Mean	19.88	27.81	26.95	23.58	27.09
Median	20.00	28.50	27.00	25.50	28.00
Mode	22	28	29	26	28
Std. deviation	5.424	4.124	4.111	6.344	3.240

Source: This study's results.

### 3.5.1.6.3. Measure of Risk

Understanding one's attitude toward investing risk is critical when making financial decisions. This study's questionnaire is intended to assess the participant's emotional reaction to changes in his/her investment values (i.e., investment risk tolerance). Table 12 demonstrates a set of ten items measured with a 7-level Likert scale. The set of statements will help the participant understand his/her attitude toward investment risk. It is to be noted that this set of questions was adapted and modified (from a 5-level to a 7-level Likert scale) from "Oxford Risk Rating Questionnaire" by Standard Life Aberdeen (2020): <https://www.abrdn.com/library/oxford-risk-questionnaire.pdf>

The questionnaire ends with a demographic set of questions including age, sex, affiliation, marital status, and income group.

Table 12. Measure of risk.

No.	Construct	Item
1.	R <sub>1</sub>	I have been extremely risky in the past with financial investments.
2.	R <sub>2</sub>	Even if I could get high returns, I would prefer not to invest my money in something that might decline in value.
3.	R <sub>3</sub>	Being financially cautious is important to me.
4.	R <sub>4</sub>	I would never make a high-risk investment.
5.	R <sub>5</sub>	My objective is to maximize the value of long-term investments, and I am ready to accept substantial short-term declines in value to do so.
6.	R <sub>6</sub>	My friends would say that I am cautious.
7.	R <sub>7</sub>	I prefer my money to be safe from risk.
8.	R <sub>8</sub>	I would invest my money in a risky venture.
9.	R <sub>9</sub>	I would experience a considerable gain from a risky investment.
10.	R <sub>10</sub>	I would take a significant financial risk.

Source: <https://www.abrdn.com/library/oxford-risk-questionnaire.pdf>.

## 4. Data Analysis Methods

The acquired data will be analyzed using the "Statistical Product and Service Solutions" (Hejase & Hejase, 2013) IBM SPSS 27.0 version. The different statistical analysis techniques used in this study include 'univariate descriptive analysis' using descriptive statistics to indicate the dispersion of the frequency of each scale. This will be performed by utilizing a One-Sample T-test "to compute a measure of central tendency and dispersion: The mean and standard deviation (SD)" (Hejase & Hejase, 2013). Then, Bivariate analysis will be the second, and lastly, inferential analysis to study variable relationships. Multiple regression analysis will be very useful in determining the model fit efficacy by creating behavioral models using a multivariate method. Testing is based on 'statistical significance' ( $p < \text{standard } \alpha \text{ of } 5\%$ ).

### 4.1. Reliability, Validity, and Ethical Considerations

#### 4.1.1. Internal Reliability

The Cronbach Alpha recorded adequate values (number of items = 29, Table 13) with an overall value of 0.860. In addition, Cronbach's Alpha, if an item is deleted, varies between 0.844 and 0.875, which according to Chehimi, Hejase, and Hejase (2019) is "considered to be very good, statistically significant, and reliable" (p. 46). Moreover, the aforementioned indicates according to Chehimi et al. (2019) "a very good strength of association and supports the suitability and selection of the questions for the questionnaire purpose" (p. 1915). In addition, the overall questionnaire with 29 statements is divided into seven statement partitions. The subjective Norm and the Risk partitions (marked with \*\*\*) resulted in smaller Cronbach's alpha values of 0.602 and 0.635, which may raise concern since it indicates a moderate strength of association of the questionnaire's questions leading to unsuitable selection of the questions. However, further investigation found that Taber (2018) showed low concern. Taber quoted Griethuijzen et al. (2015) justification for using an overall Cronbach's alpha of 0.446, i.e., "slightly increasing the number of items would lead to acceptable values for Cronbach's alpha" Griethuijzen et al. (2015). Therefore Griethuijzen et al. (2015) low value of Cronbach alpha (0.446) is lower than this research's alpha values of 0.602 and 0.635. In addition, Hejase and Hejase (2013) consider "these values to be moderate and, therefore, adequate within the questionnaire." Moreover, it is worth noting, that when considering the twenty-nine items, a very good value of Cronbach's alpha of 0.860 is obtained.



**Table 13. Internal reliability test.**

Factor	No. of items	Cronbach's alpha	Range if item deleted
Overall	29*	0.860	$0.844 < \alpha < 0.875$
Attitude	4	0.871	$0.810 < \alpha < 0.850$
Subjective Norm	4	0.602***	$0.373 < \alpha < 0.673$
PCB	3**	0.895	$0.804 < \alpha < 0.906$
Intention	3	0.788	$0.582 < \alpha < 0.851$
Behavior	2	0.855	-
Emotions	4	0.745	$0.652 < \alpha < 0.703$
Risk	9**	0.635***	$0.504 < \alpha < 0.730$

**Note:** \* Two items were eliminated due to their negative impact on the total group of items (out of a total of 31 items). \*\* One item was eliminated due to its negative impact on the group of items in PCB (one from the original 4 items of PCB and the other from the original 10 items of risk). \*\*\* refer to small values of Cronbach's alpha.

#### 4.2. Validity

The design of this paper was performed without compromising its validity. This design increases external validity, allows for more authentic participants' reactions, and allows the generated data to support the findings. A group of three experts validated the content of the evaluation. The primary statements are clearly stated, devoid of any opportunity for an answer, and compliant with research regulations. Since the questionnaire was built based on published instruments, as shown earlier, their validity is guaranteed. However, certain corrections were suggested and upon running the survey on ten students, who do not form part of the sample, the final form and state of the survey was defined. Construct validity will be evaluated to see how well the results obtained by this study agree with the results resulting from similar TPB studies. Throughout the hypothesis testing method, this measure of validity will be very valuable for this study. This is because the study hypotheses were formulated using the TPB model. If additional research findings are found to be consistent with this study's outcomes, it will confirm that the TPB model is suitable and functional when applied to the empirical study of crowdfunding behavior, making it easier to generalize findings to the rest of the population. In addition, construct validity is assessed by the adjusted R squared value. This will help to determine the model fit efficacy of the proposed behavioral model.

#### 4.3. Ethical Considerations

Respondents were adequately informed about this study's subject. The researchers informed them that their participation is voluntary, their identities are kept undeclared, and they have the "right to withdraw" with no questions asked. Also, participants were kept assured that the confidentiality of the participant's information captured and the anonymity of there are respected (e.g., name and IP address) and that results will be only used for academic research. To avoid any instances of ethical impeachment, participants were made aware of these standards in the preparatory survey instructions.

### 5. Results and Findings

#### 5.1. Demographics

Results show that males constituted 44.6% of the respondents, while females formed 55.4% of the sample. Respondents' age has three (3) ranges. 36.5% of them were older than 24 years of age, 32.4% were 18 to 20, and 31.1% were 21 to 23. Also, 52.7% of the respondents were in the faculty of business, 10.8% in the faculty of communication and arts, 4.1% in the faculty of sciences, 1.4% in the religions and humanities faculty, and 31.1% did not declare their faculty affiliation. Moreover, 64.9% of the sample were single and 35.1% were married. Furthermore, the respondents' employment status showed that 50% were unemployed students, 24.3% were part-time employees, and 25.7% were full-time employees. In terms of the respondents' income, results show that 20.3% of them have an income range between \$100 and \$150, 17.6% have less than \$100, 23% have an income greater than \$300, 21.6% have an income in the range of \$150.01 to \$210, 14.9% have an income range between \$210.01 and \$300, and 2.6% did not declare their earning range.

#### 5.2. Psychometric Analysis

The 7-level Likert scale results (Tables 14 to 16) were condensed around the indifference base by grouping the three highest levels of agreement (i.e., somehow agree, agree, and strongly agree) into an agreement level and by grouping the lowest three disagreement levels (i.e., somehow disagree, disagree, and strongly disagree) into a disagreement level for the sake of simplifying the analysis of results.

**Table 14. Five sections of statement results.**

Construct	A	I	D	Mean	Standard deviation
ATT1	79.7	13.5	6.8	5.46	1.295
ATT2	78.4	9.5	12.1	5.38	1.372
ATT3	68.9	16.2	14.9	5.01	1.429
ATT4	82.5	12.1	5.4	5.47	1.137
SN1	25.7	27.0	47.3	3.50	1.407
SN2	70.3	20.3	9.4	4.85	1.069
SN3	32.5	37.8	29.7	4.00	1.293
SN4	10.8	10.8	78.4	2.50	1.455
PBC1	83.8	4.1	12.1	5.64	1.558
PBC2	81.1	8.1	10.8	5.78	1.519
PBC3	83.8	4.0	12.2	5.80	1.414
PBC4	23.0	5.4	71.6	2.78	1.946
EI <sub>1</sub>	41.9	40.5	17.6	4.32	1.304
EI <sub>2</sub>	71.6	20.3	8.1	5.07	1.275

Construct	A	I	D	Mean	Standard deviation
EI <sub>3</sub>	73.0	18.9	8.1	5.11	1.340
FINC <sub>1</sub>	21.6	6.8	71.6	3.00	1.655
FINC <sub>2</sub>	13.5	10.8	75.7	2.64	1.477

To start with, the first four factors from Table 14, related to “Personal attitude: ATT1-4”, scored an agreement of 79.7%, 78.4%, 68.9%, and 82.5%, respectively, with means higher than 5.0 and standard deviations varying from 1.137 to 1.429 which keep the level of attitude at a positive agree zone.

The second four statements related to the subjective norm (SN1-4), demonstrate that the respondents are not influenced by social pressure (SN4: 78.4% disagree with mean=2.50 and std. dev. of 1.455) nor by externally forced invitation to participate in crowdfunding (SN1: 47.3% disagree and third statement 32.5% agree), while the second statement “SN2: People in my life whose opinions I respect would encourage my participation” got a 70.3% agreement. Results show that respondents could be influenced externally by experts, professionals, and people trusted.

The third factor is perceived behavioral control (PBC1-4) which constitutes four statements. Results in this case support the respondents’ voluntary and self-controlled decision (first three statements; with 83.8%, 81.1%, and 83.8% agreement level) and the rejection of the external influence (PBC4 with 78.4% disagreement level). This dimension showed that respondents are conscientious about their decision to engage in crowdfunding campaigns as long as the decision is self-controlled.

The fourth factor which is “Crowdfunding Contribution Intention or Engagement Intention EI” demonstrated more wishful thinking to the intention as supported by the results of the first three statements. A fourth statement disqualifies the respondents’ serious efforts to participate in crowdfunding initiatives leading to its removal from the next stage of analysis. Therefore, the overall intention reflected by the respondents is kept at the level of no action taken.

The fifth factor which is “Behavior” was divided into two statements. Results show high disagreement levels regarding putting much effort into financially contributing to crowdfunding initiatives (FINC1: 71.6%) and contributing financially to crowdfunding initiatives (FINC2: 75.7%). The behavior in this case is a result of not having a serious intention to contribute to crowdfunding initiatives as shown above.

Table 15. Emotions statements results.

Construct	Statement	A	I	D	Mean	Std. dev.
EMO <sub>1</sub>	Supporting the initiatives would be positive for me.	81.1	13.5	5.4	5.69	1.238
EMO <sub>2</sub>	These are initiatives that I would enjoy supporting.	77.0	10.8	12.2	5.53	1.464
EMO <sub>3</sub>	I would appreciate the actual process of supporting these initiatives.	70.3	16.2	13.5	5.30	1.459
EMO <sub>4</sub>	I would invest in crowdfunding initiatives purely for the enjoyment of doing them.	78.4	16.2	5.4	5.70	1.202

Table 15 strongly demonstrates the positive emotions toward supporting crowdfunding initiatives evidenced by the high agreement levels of the four statements describing the enjoyment of the exercise (81.1%, 77.0%, 70.3%, and 78.4% agreement values).

Table 16. Risk statements results.

Construct	A	I	D	Mean	Standard deviation
R2	66.2	14.9	18.9	4.93	1.743
R3	83.8	10.8	5.4	5.90	1.260
R4	50.0	29.7	20.3	4.53	1.334
R5	76.7	15.1	8.2	5.25	1.289
R6	75.6	12.2	12.2	5.37	1.467
R7	78.3	14.9	6.8	5.34	1.204
R8	14.9	21.6	63.5	3.01	1.429
R9	64.8	17.6	17.6	4.51	1.335
R10	27.0	31.1	41.9	3.66	1.511

Note: R1 was eliminated due to experts’ suggestions (Validity exercise).

This section describes the respondents’ attitudes toward risk-taking in investment decisions and actions. The overall average of 4.72 (std. dev. = 1.397) indicates a cautious stance towards risk and a desire for safe investments (Table 16).

### 5.3. Factor Analysis

Initially, principal component analysis (PCA) was used as a first test followed by rotation. Seven factors with a total cumulative variance of 73.104% resulted from the analysis of the 31-construct questionnaire and the elimination of two demographic variables.

### 5.4. PCA with Promax Rotation

The resulting correlation matrix was examined, suggesting that the matrix of components could be simplified. The Chi-square test of Sphericity (Bartlett's test:  $\chi^2 = 1671.885$ ,  $df = 465$ ,  $Sig. = 0.000$ ) is deemed significant, while the Kaiser-Meyer-Olkin measure of sample adequacy at 0.773 is considered highly adequate. Furthermore, analysis of the 'anti-image correlation matrix' revealed that, as stated by Coakes (2013) “all measures of sampling adequacy (MSA) exceed the acceptable level of 0.50” (p.133). The range of communalities observed in factor analysis was between 0.563 to 0.839. According to Burns and Burns (2008) “communalities represent the proportion of variance in each variable that can be explained by each factor extracted” (p. 455). An example is the statement "I desire to join crowdfunding campaigns," explaining 83.9% of the variability. Among other instances, the phrase "These are projects

that I would be happy to back' explained 56.3% of the variability. Table 17 shows the cumulative percentages and the total amount of explained variation. Seven variables showing eigenvalues higher than one were identified through the eigenvalue analysis presented in Figure 5. Seven factors would explain it, representing 73.104% of the variation.

In accordance with Burns and Burns (2008) the seven components are maintained following Kaiser's Rule. Figure 5 demonstrates and displays the Scree plot. The current statistical findings require us to analyze additional data to examine possible correlations among the variables. Therefore, rotation is essential. Hejase et al. (2014) stated that "rotation decreases complex variables and enhances interpretation" (p. 1573). The researchers employed Direct Oblimin following rotation with Varimax (specifics not provided due to space constraints), and then used Promax with Kaiser Normalization to achieve favorable results with proper weighting of the seven criteria. Therefore, the final valid elements of the seven factors were identified. Therefore, it is possible to retrieve the weights associated with each element. These weights are then used to modify the variables and perform a regression analysis, which will be used to assess our research hypotheses. Worth noting that 'variable transformations via SPSS' are required to produce weighted variables that represent the independent (explanatory) variables in the suggested research framework. Each variable is made up of a collection of statements. When transforming data using SPSS version 27.0, the independent (explanatory) variables are represented more precisely and better than when grouping statements based on average means.

Table 17. Total variance explained.

Component	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings <sup>a</sup>
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total
1	9.009	29.060	29.060	9.009	29.060	29.060	8.062
2	5.549	17.901	46.961	5.549	17.901	46.961	4.481
3	2.557	8.247	55.209	2.557	8.247	55.209	5.165
4	1.805	5.823	61.032	1.805	5.823	61.032	6.038
5	1.348	4.348	65.379	1.348	4.348	65.379	6.088
6	1.281	4.133	69.513	1.281	4.133	69.513	2.758
7	1.113	3.591	73.104	1.113	3.591	73.104	2.408

Note: Extraction method: Principal component analysis.  
 a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

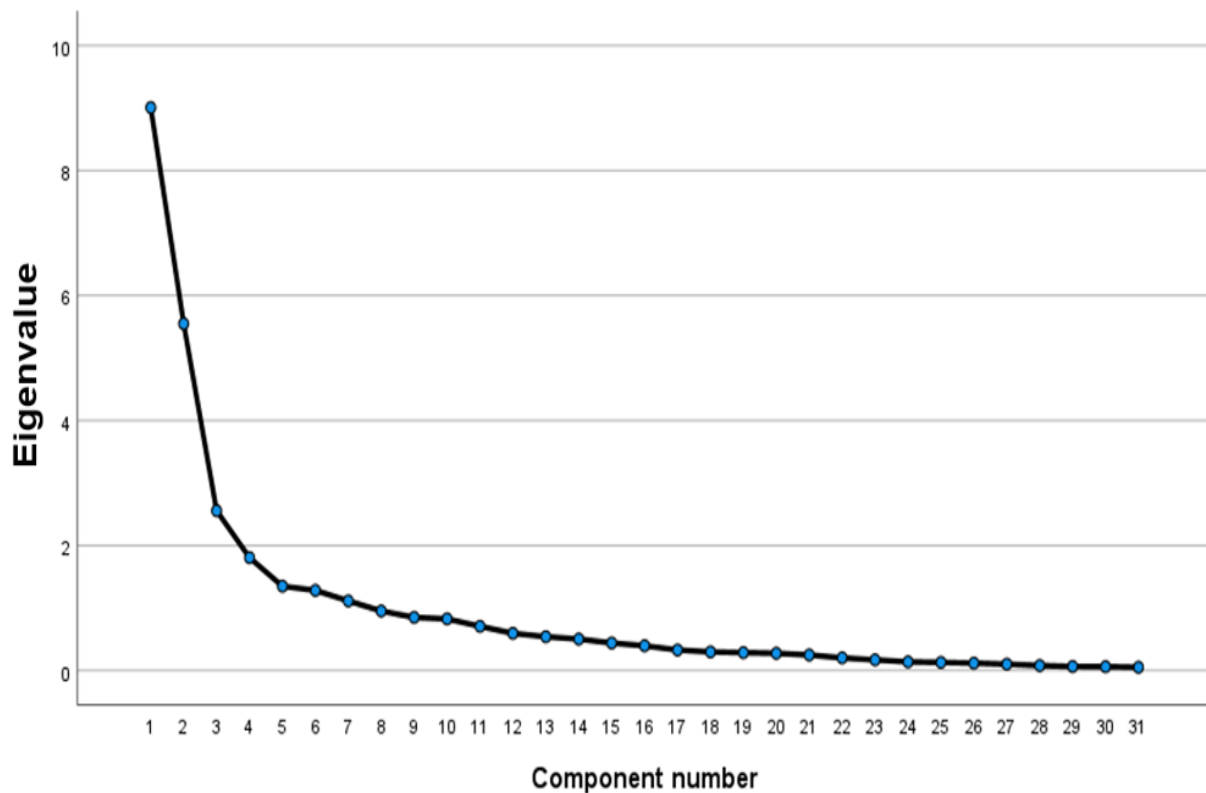


Figure 5. Scree plot.

Table 18 depicts the transformational equations using factor analysis weights, extracted from the Structure Matrix, to create the regression explanatory variables.

Table 18. Variables transformation.

COMPUTE ATT=SUM (Attitude1*0.904, Attitude2*0.770, Attitude3*0.781, Attitude4*0.817).
EXECUTE.
COMPUTE SN=SUM (SubjNorm1*0.777, Subj Norm2*0.756, SubjNorm3*0.665, Subj Norm4*0.608).
EXECUTE.
COMPUTE PBC=SUM (PercBehavCtrl1*0.853, Perc Behav Ctrl2*0.854, Perc Behav Ctrl3*0.749).
EXECUTE.
COMPUTE EI=SUM (CrdfundCtrbIntn1*0.626, Crdfund CtrbIntn2*0.763, Crdfund CtrbIntn3*0.885).
EXECUTE.



COMPUTE FINC=SUM (BehFinContrib1*0.823, Beh Fin Contrib2*0.737).
EXECUTE.
COMPUTE EMO=SUM (Emotions1*0.881, Emotions2*0.649, Emotions3*0.669, Emotions4*0.835).
EXECUTE.
COMPUTE Risk=SUM (Risk2*0.754, Risk3*0.851, Risk4*0.724, Risk5*0.805, Risk6*0.821, Risk7*0.771, Risk8*0.733, Risk 9*0.623, Risk10*0.747).
Execute.

**Note:** Each equation in Table 18 represents the sum of weighted elements whereby each element is multiplied by its unique loading or weight extracted from Factor Analysis. The symbol [\*] represents a multiplication sign.

5.5. Regression Analysis Results

Tables 19 to 21 demonstrate nine multivariable regression models. All of them are appropriate for fitting the data with a moderate to good Pearson’s Coefficient of Correlation (R) and acceptable Coefficients of Determination (Adj. R<sup>2</sup>), respectively; the models are qualitatively suitable with significant probabilities of p < 0.001 (p < α = 0.05). Table 5.29’s ANOVA test reveals F-values of 52.359 with a significance level of probabilities below the standard error α of 5%, indicating the regression equations predict better than random chance. As for the standardized Beta coefficients of the regression equations’ explanatory variables, most of the Beta values ranging from small to moderate (0.2 to 0.5) are statistically significant since its Sig. p values are smaller than the standard error of 5%.

Those Sig. p values that are larger than 5% correspond to explanatory variables that are eliminated from the multi- variable regression equations. The Durbin-Watson statistics falling within the range of 0 to 4. A value close to 2.0 indicates absence of autocorrelation in the sample according to Al Sayed, Hejase, Hamdar, Hatoum, and Hejase (2022). Additionally, Table 21 shows that multicollinearity is not a problem since the Variance Inflation Factors (VIFs) are under 4. This indicates that the explanatory variable is appropriate for identifying a cause-and-effect connection using regression analysis (Chehimi et al., 2019; Hashem, Sfeir, Hejase, & Hejase, 2022; Hejase et al., 2024; Hejase et al., 2023; Younis, Hejase, Abdallah, Haddad, & Hejase, 2021).

Table 19. Summary of regression analysis.

Model	Dependent variable	Independent variables	R	R square	Adjusted R square	Durbin-Watson	Sig.
1 (1 cycle)	(EI)	(PBC); (SN); (ATT)	0.752	0.565	0.547	1.943	0.000
2 (1 cycle)	(EI)	(PBC); (SN); (ATT); Sex; Risk	0.762	0.581	0.550	2.053	0.000
3 (4 cycles)	(EI)	(PBC); (SN); (ATT); ‘I would experience a considerable gain from a risky investment’	0.775	0.601	0.578	2.138	0.015
4 (1 cycle)	(FINC) Behavior	(PBC), (EI), ‘I feel that whether I contribute or don’t to crowdfunding campaigns is beyond my control’	0.639	0.408	0.383	1.691	<0.001
5 (1 cycle)	(ATT)	(EMO), (SN), (PBC)	0.906	0.820	0.812	1.831	0.000
6 (1 cycle)	(SN)	Extroversion, agreeableness, Conscientiousness, neuroticism, openness to experience)	0.566	0.320	0.270	1.717	<0.001
7 (1 cycle)	(PBC)	Agreeableness neuroticism openness to experience	0.681	0.464	0.441	2.013	0.000
8 (1 cycle)	(PBC)	(SN), (ATT)	0.643	0.414	0.397	2.380	<0.001
9 (1 cycle)	(SN)	(PBC), (ATT)	0.430	0.185	0.162	1.823	<0.001

Table 20. ANOVA results.

Model	Dependent Variable	Independent variables	F	Sig.
1 (1 cycle)	EI	(PBC); (SN); (ATT)	30.324	0.000
2 (1 cycle)	EI	(PBC); (SN); (ATT); Sex; Risk	18.857	0.000
3 (4 cycles)	EI	(PBC); (SN); (ATT); ‘I would experience a considerable gain from a risky investment’	25.614	0.000
4 (1 cycle)	(FINC) Behavior	(PBC); (EI), ‘I feel that whether I contribute or don’t to crowdfunding campaigns is beyond my control’	16.076	<0.001
5 (1 cycle)	ATT	(EMO), (SN), (PBC)	106.418	0.000
6 (1 cycle)	SN	Extroversion, agreeableness, conscientiousness, neuroticism, openness to experience	6.405	<0.001
7 (1 cycle)	(PBC)	Agreeableness neuroticism openness to experience	20.194	0.000
8 (1 cycle)	(PBC)	(SN), (ATT)	25.054	<0.001
9 (1 cycle)	(SN)	(PBC), (ATT)	8.064	<0.001

Table 21. Coefficients.

Model	Dependent variable	Independent variables	Standardized beta	t	Sig.	Tolerance	VIF
1 (1 cycle)	(EI)	(PBC),	0.365	3.620	0.001	0.609	1.641
		(SN),	0.213	2.443	0.017	0.815	1.227
		(ATT)	0.472	4.588	0.000	0.586	1.706
2 (1 cycle)	(EI)	(PBC),	0.313	2.963	0.004	0.551	1.815
		(SN),	0.254	2.796	0.007	0.747	1.339
		(ATT)	0.425	3.877	0.000	0.513	1.95
		Sex,	0.167	1.603	0.113	0.568	1.762
		Risk	0.036	0.426	0.672	0.871	1.148
3 (4 cycles)	(EI)	(PBC);	0.373	3.617	0.001	0.551	1.814
		(SN)	0.214	2.497	0.015	0.801	1.249
		(ATT)	0.303	3.028	0.003	0.585	1.708
		'I would experience a considerable gain from a risky investment'	0.274	3.143	0.002	0.771	1.297
4 (1 cycle)	(FINC) Behavior	(PBC)	-0.242	-1.839	0.070	0.487	2.055
		(EI)	0.413	3.494	<0.001	0.607	1.648
		'I feel that whether I contribute or don't to crowdfunding campaigns is beyond my control'	0.520	4.915	<0.001	0.754	1.326
5 (1 cycle)	(ATT)	(PBC)	0.172	2.740	0.008	0.649	1.541
		(SN)	0.109	1.989	0.051	0.859	1.164
		(EMO)	0.793	12.932	0.000	0.682	1.466
6 (1 cycle)	(SN)	Extroversion	0.172	1.64	0.106	0.912	1.097
		Agreeableness	0.101	0.89	0.376	0.777	1.286
		Conscientiousness	-0.124	-0.939	0.351	0.578	1.73
		Neuroticism	-0.527	-4.41	0.000	0.700	1.429
		Openness to experience	0.093	0.813	0.419	0.762	1.312
7 (1 cycle)	(PBC)	Agreeableness	0.245	2.513	0.014	0.805	1.243
		Neuroticism	0.483	5.23	0.000	0.897	1.115
		Openness to experience	0.171	1.779	0.080	0.830	1.205
8 (1 cycle)	(PBC)	(SN)	-0.344	-3.736	<0.001	0.975	1.026
		(ATT)	0.601	6.527	<0.001	0.975	1.026
9 (1 cycle)	(SN)	(PBC),	-0.419	-3.736	<0.001	0.702	1.425
		(ATT)	0.478	3.275	0.002	0.702	1.425

### 5.6. Hypotheses Testing

Based on the aforementioned Tables 19 to 21, and capitalizing on a 95% confidence and statistical significance with  $\alpha=5\%$ , Table 22 demonstrates the status of the research hypotheses.

Table 22. Hypotheses tests findings.

H <sub>i</sub>	Hypotheses Statements	$\beta_i$	t	Sig.	Decision
H1	Emotions (EMO) have a positive impact on attitude (ATT).	0.793	12.932	0.000	Accept
H2	Personality types have a positive impact on subjective norms (SN): Neuroticism	-0.527	-4.410	0.000	Reject. Accept alternative hypothesis with a negative relationship with only one personality trait
H3	Personality types have a positive impact on (PBC)				Accept. But with 3 out of 5 personality types
	Agreeableness	0.245	2.513	0.014	
	Neuroticism	0.483	5.230	0.000	
	Openness to experience	0.171	1.779	0.000	
H4	Attitudes have a positive impact on (EI)	0.303	3.028	0.003	Accept
H5	(SN) have a positive impact on (EI)	0.214	2.497	0.015	Accept
H6	(PBC) has a positive impact on (EI)	0.373	3.617	0.001	Accept
H7	(SN) have a positive impact on (ATT)	0.109	1.989	0.051	Reject at 5% statistical significance
H8	(PBC) has a positive impact on (ATT)	0.172	2.740	0.008	Accept
H9	(PBC) has a positive impact on (SN)	-0.419	-3.736	<0.001	Reject.

H <sub>i</sub>	Hypotheses Statements	$\beta_i$	t	Sig.	Decision
					Accept alternative hypothesis with a negative relationship
H10	(PBC) has a positive impact on (FINC) Behavior	- 0.242	- 1.839	0.07	Reject. Accept alternative hypothesis with a negative relationship
H11	Risk Preferences (Risk) have a positive impact on (EI)	0.274	3.141	0.002	Partial acceptance. Only one risk preference out of nine statements: I would experience a considerable gain from a risky investment
H12	Demographic factors have a positive impact on (EI): Sex	0.167	1.603	0.113	Reject (All other demographic variables failed the test)
H13	(EI) has a positive impact on (FINC) behavior	0.413	3.494	<0.001	Accept

Table 22 shows that hypothesis 11 is partially accepted (with one risk factor out of 9 being statistically significant at 5%), where 64.8% (mean = 4.51, s. d. = 1.335) of the respondents agreed they would experience a considerable gain from a risky investment which asserts their crowdfunding contribution intention. Crowdfunding contribution intention will increase by 27.4% of a standard deviation if such risk increases by one-unit standard deviation. Also, hypothesis 12 is statistically insignificant ( $p = 0.113 > 0.05$ ) supporting no impact of demographic variables (including sex) on crowdfunding contribution intention. The next finding shows that hypotheses 1, 4, 5, 6, 8, and 13 are statistically significant at 95% confidence. Hypothesis 1 was accepted supporting that emotions have a positive relationship with attitude. The result demonstrates that respondents' attitudes towards crowdfunding increase by 79.3% of a standard deviation when emotions positively increase by one standard deviation. Coleman et al. (2017) stated that "individuals who hope to make money are happier and have the intention to take risks." Therefore, as posited by Loewenstein et al. (2001) "emotions and individual moods are added to the decision process as input to the decision-making process." Hypothesis 4, 5, and 6 are supported statistically confirming the positive relationships between Attitudes, Subjective Norms, Perceived Behavioral Control, and crowdfunding contribution intentions (EI). Results show that there are increases of 30.3%, 21.4%, and 37.3% of a standard deviation when each variable increases by one unit standard deviation, respectively. Such results are supported by the theory of planned behavior (TPB). Ajzen and Cote (2008) justified that "the attitudes towards the contribution intention are the result of the participants' appraisal of the crowdfunding." In addition, Ajzen and Fishbein (2005b) justified "the positive relationship between Subjective Norms and the crowdfunding contribution intention (EI) to the respondents' beliefs that important social referents or groups agree with executing contribution intention." Finally, the positive perceived behavioral control and its direct relationship with intention, according to Ajzen and Fishbein (2005b) is "supported by the controlling faith in the availability of opportunities and resources." Hypothesis 8 that there is a positive relationship between Perceived Behavioral Control and Attitudes is statistically valid, is supported by Ajzen and Cote (2008) who claim "that a person's feeling of self-efficacy or ability to carry out the behavior is implied by perceived behavioral control." The aforementioned relationship is supported by De Vries, Dijkstra, and Kuhlman (1988) who posit that "Self-efficacy highly reflects the actual control and that self-efficacy expectations will significantly increase the prediction of behavioral intentions." This last justification supports hypothesis 13 that Crowdfunding Contribution Intention has a positive impact on Behavior, in this case, the financial contribution to crowdfunding initiatives.

Next, Table 22 shows that hypothesis 3 is partially valid since results support only three personality types to positively influence PBC. When there is an increase in one unit of standard deviation, Agreeableness, Neuroticism, and Openness to Experience contribute 24.5%, 48.3%, and 17.1% of a standard deviation to PBC. According to Dhiman and Raheja (2018) "Agreeable persons are more risk-tolerant." While Becker et al. (2012) stress that "People with neuroticism traits would avoid more risk." On the other hand, Pinjisakikool (2018) stated that "People with neuroticism personality traits have risky investment choices." Moreover, Hunter and Kemp (2004) assert that "Individuals with openness traits are more capable of taking risks." In addition, Mayfield et al. (2008) contend that "Individuals with openness traits are successful in financial matters where they do not avoid risk and turn to long-term investments."

Hypothesis 2 was rejected as findings indicate that personality traits do not positively impact subjective norms. Instead, the alternative hypothesis was supported, demonstrating a negative association with only one personality trait, Neuroticism. Becker et al. (2012) suggest that "individuals with this personality trait tend to steer clear of taking excessive risks." Meanwhile, according to Pinjisakikool (2018) "individuals with neurotic personality characteristics tend to make risky investment decisions." Ajzen and Fishbein (2005a) explained that "subjective norms come from what individuals believe about whether important social groups agree or disagree with performing a specific behavior, like making risky investments."

However, the respondents of this research have shown a cautious stance against risk (see Table 17), demonstrating the justification that this hypothesis supports the inverse relationship, that is, the more respondents show neuroticism (risky choices), the less respondents' attraction towards risk is.

Also, this research's hypothesis H7 that states '*Subjective norms have a positive impact on attitudes*' is rejected at a 5% statistical significance. In addition, the results of hypothesis H9, '*Perceived behavioral control has a positive impact on subjective norms*' and hypothesis H10, '*Perceived behavioral control has a positive impact on Behavior*' are both rejected and their alternative hypotheses are accepted, that is, Perceived behavioral control has statistically significant negative relationships with subjective norm and behavior. The first relationship justifies that the more the respondents are influenced by external referent individuals' advice the less the respondents' controlling faith in the



availability of opportunities and resources. The second relationship demonstrates that perceived behavioral control alone without strong intentions does not lead to contributing financially to crowdfunding initiatives.

Finally, hypothesis H12 is rejected which demonstrates that the demographic variables do not have any effect on crowdfunding contribution intention.

As a summary, the statistically tested proposed framework for the current research is depicted in Figure 6.

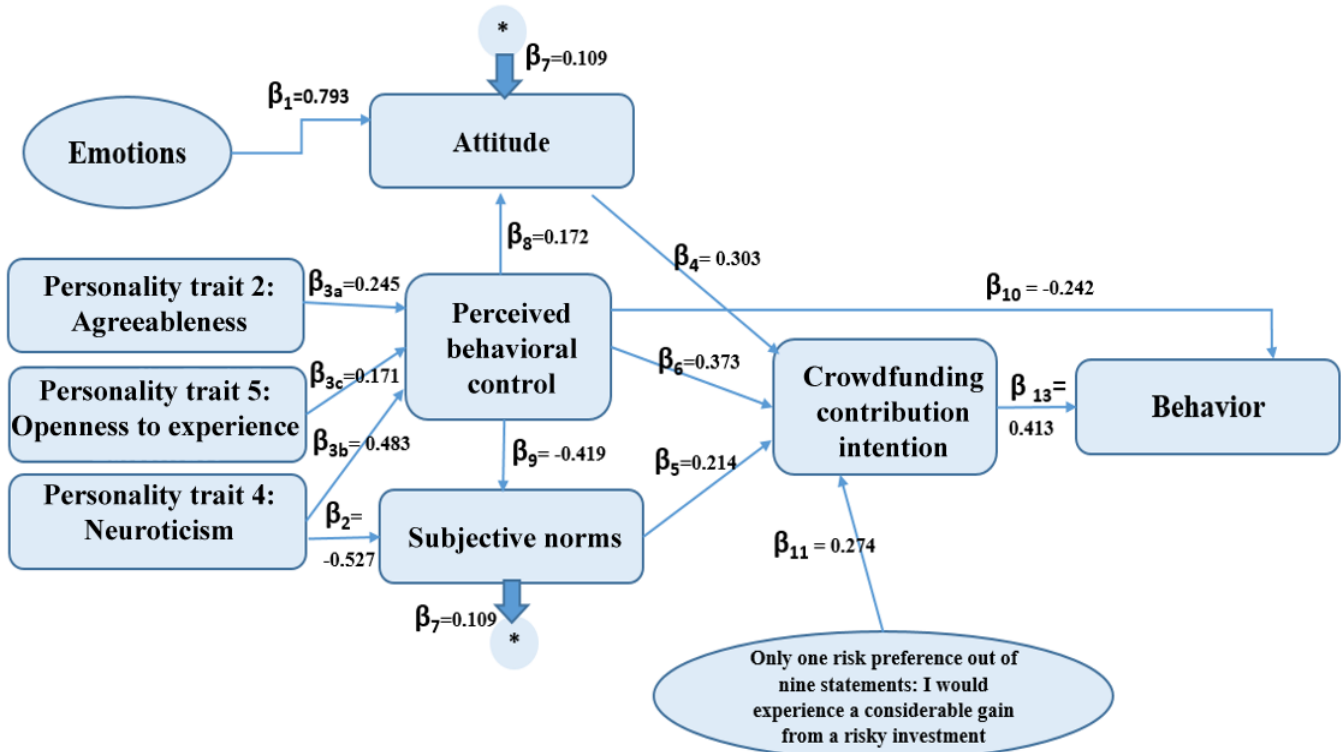


Figure 6. Tested research framework.

Note: Figure 6 illustrates the final outcomes of regression analysis used to test the hypotheses. The figure shows the standardized beta values that explain the strength of the relationship between each pair of variables. These Beta values were extracted from Table 22 after being analyzed for statistical significance.

## 6. Conclusion

This study aimed to identify the variables that affect young people's attitudes on taking part in crowdfunding projects. Finding new variables outside of the original model that can affect these attitudes was one of the study's other goals. The quick expansion of crowdfunding provides more platforms for entrepreneurs to introduce their innovative ideas to the public. Further dynamic research on crowdsourcing is needed to assist its progress. To aid in the creation of a crowdfunding system, this study attempted to expand on previously conducted research on the subject. This work presents preliminary findings about the variables affecting participants' attitudes. Using the "Theory of Planned Behavior" to understand the reasons behind participants' intentions to participate in crowdfunding campaigns is one of the study's more important conclusions. A survey was created to learn more about the factors influencing Al Maaref University students' decisions to invest through crowdsourcing. This study of investment intentions discovered that only one out of nine risk preferences had a positive impact on engagement intention EI at a 5% significance level, subjective norms had a positive impact on EI, emotions had a positive impact on attitude, and PBC had a positive impact on attitudes. Personality types (A, N, and O) also had a positive impact on PBC at a 5% significance level.

However, subjective norms do not have a statistically significant positive impact on attitudes, PBC does not have a positive impact on subjective norms, PBC does not directly positively impact behavior, risk preferences do not have a positive impact on EI at a 5% significance level, and demographic factors do not have a statistically significant positive impact on EI. In contrast, neuroticism does not positively impact subjective norms, and subjective norms do positively impact engagement intention EI at a 5% significance level. By confirming previous findings, we were able to support the use of TPB in understanding intentionality in crowdfunding, as suggested by Shneur and Munim (2019).

## 7. Limitations

This research's limitation lies in the collection of data required to study the factors for a minimum number of participants, so we ended up collecting less than the required rate of participants due to not responding to all the samples. Even though this research tested only 74 respondents, with a reliability error of approximately  $\pm 10.7\%$ , results provide a positive insight into the outcomes. The findings may not be generalized but do act as a motivator for HRM specialists, researchers, and decision-makers to build up further on the findings by carrying out future research.

### 7.1. Suggestions for Future Investigation

The association between variables and the TPB hypothesis has been shown by this research. Since a lot of earlier research on crowdfunding concentrated on donors' intentions using planned behavior theory, this study makes a significant contribution by offering a fresh angle on these variables. Crowdfunding is expanding quickly, with a huge number of projects being published worldwide. Further research on crowdfunding is advised in the future, as it is still in its early stages of development.

Future studies must increase the number of participants to collect more data both within and between institutions, to address the issue addressed in the preceding section. Furthermore, further research is required to

evaluate a comprehensive set of statements that similarly characterize taking risks using a personality rubric that included fifty 5-level Likert scale statements developed by previous researchers ([https://ipip.ori.org/new\\_ipip-50-item-scale.htm](https://ipip.ori.org/new_ipip-50-item-scale.htm)) and whose reliability has been thoroughly examined. Because no other research of a similar nature was done, this study has an additional advantage in that it exposes the findings within the Lebanese cultural context. Therefore, adding to the corpus of information regarding the theory and applications of crowdfunding in general and the research platform in Lebanon specifically.

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