

Equity Crowdfunding in The Digital Age: Evaluating The Impact on Firm Performance in The Malaysian Context

Siti Fatimah Mohd Kassim¹, Zurina Shafii², Siti Noradibah Md
Zain³ and Bayu Arie Fianto⁴

^{1,3}Management and Science University, Malaysia, ²Universiti Sains Islam Malaysia, Malaysia,

⁴Universitas Airlangga, Indonesia

Email: sitifatimah_mohdkassim@msu.edu.my, siti_noradibah@msu.edu.my,
zurina.shafii@usim.edu.my, bayu.fianto@feb.unair.ac.id

To Link this Article: <http://dx.doi.org/10.6007/IJARAFMS/v14-i1/20700> DOI:10.6007/IJARAFMS/v14-i1/20700

Published Online: 21 February 2024

Abstract

Business-related entities' competency to manipulate existing resources and seize available opportunities is advantageous in ensuring the business's continued expansion, competitiveness, and sustainability. Small and medium-sized businesses often face financial constraints. Equity crowdfunding (ECF) has expanded Malaysian alternative financing. Since 2015, 77 issuers have obtained ECF financing. ECF digital platforms (PP) let fundraisers raise funds, and investors profit in the ECF ecosystem. This research focuses on the ECF ecosystem using the PP. The hypothesis claims that PP improves business performance. Financial metrics (Model 1) and customer performance (CP) (Model 2) track this performance. Because it depends on the past, financial performance evaluation cannot guarantee a firm's future sustainability. Thus, measuring performance based on current and future client performance may benefit the organization. This study used quantitative methods with 231 participants. 101 respondents, representing 77 issuers who raised ECF money, completed digital surveys. This work uses the Theory of Financial Bricolage as a foundation. This study evaluated the data using SPSS 20.0 and Smart-PLS 3.0. The results show that the PP significantly affects issuers' performance. The hypothesis claims that PP improves business performance. Financial metrics (Model 1) and customer performance (CP) (Model 2) track this performance. Because it depends on the past, financial performance evaluation cannot guarantee a firm's future viability. Thus, measuring performance based on current and future client performance may benefit the organization. This study used quantitative methods with 231 participants. 101 respondents, representing 77 issuers who raised ECF money, completed digital surveys. This work uses the Theory of Financial Bricolage as a foundation. This study evaluated the data with SPSS 20.0 and Smart-PLS 3.0. The results show that the PP significantly affects issuers' performance.

Keywords: Equity-based Crowdfunding, Alternative Funding, Digital Platform, Sustainability

Introduction

Background

Malaysia is taking many steps, including the development of entrepreneurship programs, to help SMEs in all industries thrive. In 2017, Malaysia hosted 168 SME development programs. These programs have assisted around 600,000 SMEs from a variety of industries. With ongoing government support, SMEs will be able to enter (Jayakrishnan et al., 2018; Buttice & Vismara, 2021). According to Megginson (2004), the global value chain drives SMEs to be more creative, particularly in the era of digitalization and the Industrial Revolution 4.0 expansion of global technologies, industries, and markets. As a result, they expand opportunities for job generation and, indirectly, poverty elimination.

The government and its agencies have ensured, and will continue to ensure, that Malaysian SMEs thrive and develop in line with the current scenario. Financial assistance is available, as is the construction of several incubator programs and schemes for budding companies. To achieve the goal of boosting SMEs, such activities must be extensively evaluated and supervised (Abraham & Schmukler, 2017). In Malaysia, SMEs continue to have a small role in obtaining ECF. As a result, this study examines the performance of ECF-funded firms from 2016 to 2019. The investors who join the platform's campaigns determine the success of SMEs in acquiring ECF. Various factors, however, influence investors' decisions to invest in a company. Among these factors are patents Hsu & Ziedonis (2013), publicly available financial data (Di Pietro et al., 2020; Shahzad et al., 2019), product certification Bapna et al (2017); Ahlers et al (2015), business models Ahlers et al (2015); Lukkarinen et al (2016), the founding team's background Lim & Busenitz (2020); Ahlers et al (2015); Bernstein et al (2017), and governance (Cumming et al., 2021; Sanders & Boivie, 2004).

According to Ebashi et al (1997), the primary obstacles that SMEs confront are a lack of financial resources and poor financial management skills. SMEs cannot succeed without sufficient capital and management skills (Everett & Watson, 1998). Large companies are likewise affected by a shortage of operating capital, but the effects are amplified when SMEs and new firms are involved (Capocchi, 2019). Without enough capital and management skills, SMEs cannot succeed (Everett & Watson, 1998). Big organizations are also suffering from a lack of operating capital, but the impacts are exacerbated when SMEs and new businesses are involved (Capocchi, 2019). Start-ups face the most difficult financial challenges since they lack the financial history, business records, and past assets that can be used as collateral to support bank loan applications (Burke & Hanley, 2006). Banks, like other traditional financial institutions, are focused on increasing profits. As a result, small businesses and start-ups are not viable options of the question (Chapra, 2011).

The same problem impacts both established businesses, SMEs and start-ups (Archibugi et al., 2013; Storey & Greene, 2010). Due to their high-growth, imaginative, and risky nature, start-ups require large amounts of money, according to Vaznyte and Andries (2019). Nonetheless, a large proportion of start-ups rely on savings, credit cards Aydin (2016), family and friends Conti et al (2010), bootstrapping Ye (2017), and grants to fund their operations, which is insufficient. However, if these funds are wasted, the firm will suffer another financial crisis, jeopardizing its survival and performance. For these SMEs and start-ups, crowdfunding (CF) is seen as a lifeline. CF can potentially expand Lee et al (2015) and operate as an economic growth and employment creation catalyst (OECD, 2013). CF is also one of the "fast-growing markets" that promotes shared value (Mazzocchini & Lucarelli, 2023; Baumgardner et al., 2017; Desa & Basu, 2013).

The Objectives of the Study

The main aim of this research is to investigate the impact of ECF on firm performance. However, the study also provides the respondents' demographic analysis. This study measures the performance from two perspectives:

- To investigate the impact of ECF on the financial performance of the firm
- To investigate the impact of ECF on the non-financial (customer performance) performance of the firm

The demographic analysis is done to understand the sample composition, identify patterns and trends, and be used for comparative analysis between the different backgrounds of the respondents.

Literature Review

This section is about the study's literature review. Subsections 2.1 to 2.5 focus on the characteristics of crowdfunding, motivational reasons, risks, the platform provider, particularly the ECF platform, and the justification for utilizing both financial and non-financial measures to examine the performance of issuers.

Characteristics of Crowdfunding

The cross-border notion of crowdfunding is a novel strategy to raising funds for business endeavors, project execution, and charitable projects Schwartz (2020), as well as the ability to penetrate the open market Landscape (2015), and the implementation of innovative ideas (Schwartz, 2020; Beaulieu et al., 2015). Simultaneously, equity and lending-based crowdfunding face economic and regulatory constraints (Pazowski & Czudec, 2014). The innovation in crowdfunding alters the entrepreneur's approach to introducing new products to the market. It also enables hundreds of inventive entrepreneurs to collect funds, increase brand awareness, and participate in larger conversations with many prospective investors while their products are still in development (Stanko & Henard, 2016).

The nobleness of crowdfunding stems from technology that promotes the communication between entrepreneurs and potential investors regardless of geographical location or cultural background (Agrawal et al., 2011). Crowdfunding has been introduced and developed in the United Kingdom, United States, Italy, France, Sweden, Canada, New Zealand, Germany (Aschenbeck-Florange et al., 2013), and Europe (Brüntje & Gajda, 2016). Indeed, in Europe, crowdsourcing has become a significant source of capital for unserved or neglected companies. In 2013, the ECF market in Europe raised approximately one billion euros. The estimate also shows an increase in 2020. (Biancone et al., 2019).

Crowdfunding is increasing and gaining traction as more people explore for alternative finance via the internet, allowing them to reach people all over the world. Crowdfunding comes in many forms. Aside from ECF and P2P, there are contribution, rewards, and hybrid-based crowdfunding options that can meet the needs of the entrepreneur (Ahlers et al., 2015; Kraus et al., 2016; Marzban et al., 2014; Rahman et al., 2016). The most prevalent and effective type of crowdfunding is reward-based, followed by donation, lending, and equity-based. Nonetheless, till date, no legislation on the donation and rewards-based crowdfunding platforms exists.

Only the ECF, P2P and real-estate based crowdfunding models are currently regulated (Securities Commission Malaysia, 2023). Because of the nature of the models and the necessity to preserve investors' or lenders' rights. Title III of the JOBS Act in the United States is one example (Ahlers et al., 2015; Freedman & Nutting, 2015). The FCA of the United

Kingdom, or its predecessor, the Financial Services Authority (Aschenbeck-Florange et al., 2013), is the regulatory authority in charge of monitoring and facilitating equity- and lending-based crowdfunding. Germany, for example, enforces the German Retail Investor Protection Act. Italy was the first country in the European Union to regulate equity crowdfunding, although it is prohibited in Canada (Mitra, 2012). In 2013, Canada will only accept accredited investors. However, ECF became available to all Canadian investors in late 2015. (GetSmarterAboutMoney.ca, 2020). Despite the fact that it was allowed in 2016, government intervention is critical to protect investors (Rémillard, 2017). However, the existence of these restrictions will have a significant impact on the spirit of crowdfunding, which is to alleviate the financial challenges of SMEs and entrepreneurs (Borello et al., 2015).

The Motivation Factors of Crowdfunding Platforms

Crowdfunding platforms (intermediaries) share the same fundamental goal of connecting others. It refers to the joining of one party with another. Howells (2006) researched intermediation innovation and discovered that intermediation grew with time. Intermediaries broaden their focus from a narrow specialty to acquire new essential skills and specialties, hence adding value and energy to the system. Intermediaries not only connect parties, but also improve them by encouraging new chances and passion. Evaluating the impact of intermediary innovation is difficult due to its indirect and direct effects on the corporate value chain. Fortunately, as the number and distance of actors in the system increase, so do the benefits they bring to their customers and the broader innovation system. However, the richness and success of intermediation in the overall system can contribute to institutional momentum, which can lead to long-term problems with the system's strength and survival (Meulen & Rip, 1998). According to Haas et al (2014), it is justified to examine the viability of crowdfunding platforms as intermediaries because research on crowdfunding platforms is limited. According to Haas et al (2014), the value propositions of the platforms differ based on the crowdfunding models (i.e., hedonism as a reward, altruism as a donation, and profit). Salomon (2016), on the other hand, sees the growth of crowdfunding platforms as a manifestation of decreased support from VC firms and private equity (PE) funds. As a result, this shows that VCs and PEs are quitting the early-stage entrepreneurial market since it is difficult to uncover viable startup ventures for a profitable portfolio. As a result, they only focus on current and developing businesses that already have successful products and market stability (Lindstrom & Olofsson, 2001).

Risks Concerning ECF Crowdfunding

ECF enables entrepreneurs to get feedback on their products, create their brand names, and build a loyal customer database. Customers can turn into investors when the entrepreneur convinces them. Alalwan et al (2022); Ibrahim (2015) opine that knowledge in ECF gives the entrepreneurs a broader picture of the ecosystem as it could provide asymmetrical information. Crowdfunding is not a "market for lemons" that leads to potential risks. Hence, investors become prudent in understanding and evaluating the entrepreneur's investment portfolio. It is a known fact that the ECF is highly risky and, at the same time, provides high returns (Estrin et al., 2018). According to Stack et al (2017), platforms risk exposure includes business risks such as money laundering, fraud, illiquidity, and dilution of shares. Therefore, governance interference is of importance in the operation of the platforms.

Furthermore, in order to lessen the agency cost, Cumming et al (2021) have designed a conceptual framework of governance, considering every stakeholder to minimize the risk

exposure that could become a conflict between the entrepreneur as the issuer and funder. However, is not yet empirically tested. As for ECF, investors filter the investment proposal based on market perception and acknowledge the possibility of agency risks that might occur (Mamonov & Malaga, 2018). However, female investors appear to be less cooperative than male investors as they have a low-risk appetite (Mohammadi & Shafi, 2018). Nevertheless, female participation increases when the social networks are good (Hervé et al., 2016). These show that the equity-based crowdfunding ecosystem is prone to risks at many levels; the entrepreneur or founder, platform, and investors. Thus, due diligence on the entrepreneur will disclose their readiness to penetrate the crowdfunding market and warn the possible risk engagement (Agrawal et al., 2014). A study by Meoli and Vismara (2021) discover that more than 10% of investors' revoke their investment prior end. This finding contradicts that of previous studies which show other investors' investment attract other investors to follow. However, nowadays, they discover that the visible information online is prone to manipulation.

In one point, ECF platforms begin to show drawbacks with their tendency in disclosing investors' information (risk of data stolen). Internet retrieval through social networks. However, from another angle, disclosing investors application enables data information also has it advantage. High-profile investors' information can potentially attract other investors to join in the crowdfunding event (Vismara, 2016). Also, the risk of copying may haunt the startup founders. Even though this type of risk is considered harmful for nascent businesses, some founders do not regard this as a threat (Hagedorn & Pinkwart, 2016).

At the platform level, the adherence to the ECF regulations is to ensure the investors are protected (Cholakova & Clarysee, 2015; Giudici, 2016). A further need is to initiate the risk-reducing measure approach to safeguard the ECF administration (Turan, 2015). On the other hand, investors would benefit from knowledge on investment, the platform's information and capability (Freedman & Nutting, 2015), project campaign details (Hervé et al., 2016), and investment portfolio diversification before participating in the crowdfunding event. This will minimize the risks of the investment (Turan, 2015). Nevertheless, equity crowdfunding appears to be a promising avenue for financing entrepreneurs, democratizing both the demand and supply sides of investments, and contributing to economic growth, despite ongoing debates about its risks (Yasar, 2021).

Digital Platform Provider

Technology is the core element in crowdfunding. It enables interaction within the ecosystem. The fact is that technology cannot perform by itself. Therefore, in crowdfunding, the platform (website) provider plays an important role. Other than connecting the people (i.e., entrepreneur and investors), it acts as an inspector by conducting due diligence to ensure the validity of the creator in terms of its existence and project proposal (Hamermesh & Tsoflias, 2013; Sigar, 2012). As a marketing platform, it promotes the project, and as a trustee, it collects the investors' investment money and distributes it to the project creator (Ordanini et al., 2011).

The dynamic nature of technology evolves the platform's business model. Therefore, to ensure optimum income streaming, the provider would consider upgrading its website and increasing its functions in the future (Braet et al., 2013). Often, technology is associated with displaying transparency. Unfortunately, under the crowdfunding perspective, the transparent level is limited to the information displayed on the platform or disclosed during the crowdfunding campaign. In other words, the information merely serves specific stakeholders,

and that limits its transparency. The website is where the deal is structured, and the legal obligation enforced to heighten the importance of the platform providers in the crowdfunding ecosystem (Gelfond & Foti, 2012).

While India invented the crowdfunding platform activity, the concept has spread worldwide (Lin & Chen, 2013). Lin et al (2020) argue on two main observations in the current literature related to the crowdfunding platform. Firstly, it is still searching for the best framework to connect the new ventures and the fund providers. Secondly, it has taken the crowdfunding platform's significance in terms of the proposed projects too lightly. The US successful crowdfunding platform Kickstarter was established in the year 2009. The platform became the best space for entrepreneurs to reveal their talented projects and creative ideas. As a result, the platform has caught the attention of funders from any locality. The popularity of Kickstarter has been continued, and in 2011, it was the most extensive platform used by the entrepreneur to find funding and the investor to fund project, respectively.

In 2013, the crowdfunding market raised more than USD five billion in the US. It then increased to 188 per cent for the following year (Montini, 2014). A survey by Chang (2016) reported that the crowdfunding platform growth rate has achieved 457 per cent from 2007 to 2012. The increase in the US crowdfunding market was promoted by the inability to penetrate the traditional banks, failure to get government funding assistance, culture, and financial practice. The platforms establish chances for start-ups and SMEs to obtain money by bridging the entrepreneurs and investors. At the same time, they maintain the secrecy that ties them up (Mollick, 2014; Ordanini et al., 2011). As crowdfunding forms are different, the platforms' role also differs from each other. They shift from non-pecuniary to pecuniary motives (Calic & Mosakowski, 2016).

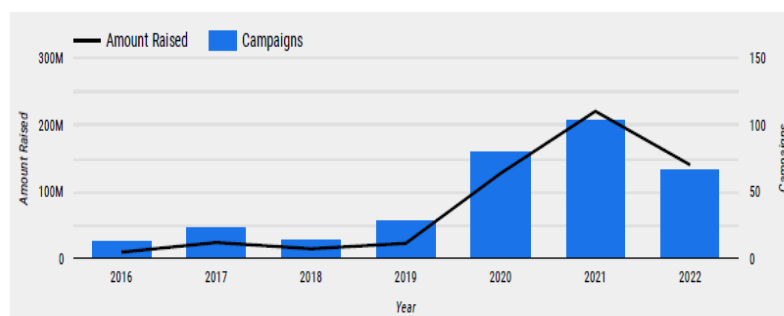
Lacan and Desmet (2017) demonstrate that platform providers potentially attract the investor's willingness to participate in the project launched on the platform rather than the word-of-mouth attraction. The platform's popularity might attract more campaigns (Moine & Papiasse, 2020), and promotes collaborations and establishes start-ups' funding opportunities (Greenberg et al., 2013). Liao et al (2015) opine that relationship between the issuers and the platforms providers creates internal social networks. This network shares the determination and purpose of the group under similar guidelines, which are related to mutual actions of members that are likely to generate opportunities between them (Huber, 2009). Helmer (2014) posits that building credible relationships within the crowdfunding population for funding success is crucial.

According to Zheng et al (2014), most websites display the number of backers and investors supporting the campaigns. Theoretically, another founder 'likes' and 'supports' another member's project could attract potential investors to invest in the project too. It shows the need for others to support other people's future projects in the group, showing closeness and trust. Closeness and trustworthiness drive performance and social capital (Kang et al., 2016; Kshetri, 2018; Moran, 2005). As a result, projects are believed to attract potential investors and increase the likelihood of being funded (Liao et al., 2015). In addition, Skirnevskiy et al (2017); Hervé et al (2019); Nitani et al (2019) proved that internal social networks could promote creator-supporter relationships that provide a competitive advantage in the future. This thus enables the creation of a loyal supporter community for the issuer's future campaigns. This dedicated CF community acts as a resource to the venture. These studies also argued the possibility of internal networks replacing external "family and friends" relationships for future campaign success. Nigama, Benetti and Johan (2020) opine that digitalization and networking positively impact a firm's financing opportunities.

Unfortunately, conventional human capital signals do not significantly affect the funding access process. However, a study by Mazzocchini and Lucarelli (2023) shows the opposite findings, where both soft and hard information such as firm characteristics, financial standing, description of the campaign, firm's human resources, networking, and social capital are among the factors that catch the investors' attention and trust.

Malaysia Digital ECF Performance

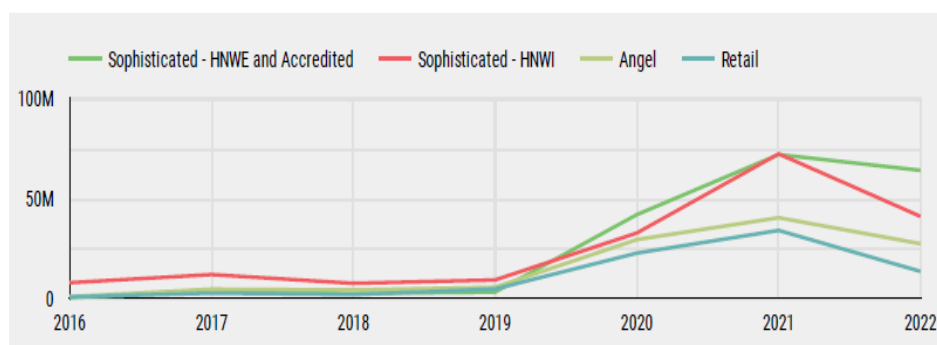
Malaysia's ECF market illustrates that issuers approach the platform progressively in order to get alternative finance. Local and foreign investors, on the other hand, contributed more money after 2019. Figure 1 depicts the campaigns and total money raised from 2016 to 2019 (after the COVID-19 pandemic) and 2020 to 2022 (following the COVID-19 pandemic). Malaysia ECF Results.



Source (Securities Commission Malaysia, 2023)

Figure 1. Campaign Activities and Money Raised from 2016 to 2022

Meanwhile, Figure 2 shows the total amount invested as well as the various types of investors who participated. After 2019, the anticipated investors increased in number, with sophisticated and accredited investors leading the way. Even if there is a downward slope from 2021 to 2022, the data demonstrate positive results when compared to the early days.



Source (Securities Commission Malaysia, 2023)

Figure 2. Types of Investors and Amount Invested in MYR

The Justification of Using Non-Financial Performance

In determining the influence of ECF on the performance of the issuer, this study employs two approaches. Model 1 uses financial metrics (ROA and ROE), though Model 2 utilizes customer performance (loyalty, satisfaction, and growth) as a non-financial performance indicator. Non-financial measures, according to Harif et al (2012), would supplement financial measures as a performance measure because they can transmit better information through

"information sharing" to achieve a firm's strategic planning, which conventional financial measures cannot explain (Dossi & Patelli, 2010). This is especially crucial during uncertain times since it leads to more accurate firm performance evaluations (Hoque, 2005).

Non-financial metrics have been identified as a distinct measurement tool used in efforts to improve quality or strategic planning (McNair et al., 1990). According to Cumby and Conrod (2001), the limitations of financial measurements in evaluating company performance in a new economy require the inclusion of non-financial variables. Non-financial variables, according to Fullerton and Wempe (2009), mediate the firm's strategy and financial performance.

Studies by Sun and Kim (2013); Williams and Naumann (2011) found that customer satisfaction significantly impacts the profitability of firms. Valuable consumers may be able to increase sales. Firms must consider the client in order to maximize sales, which can lead to higher profits in the long run. Businesses that employ customer-centric strategies seem to increase sales and, as a result, maintain their competitive advantage. However, businesses must be able to integrate strategy and business models in order to create value (Vera & Crossan, 2003). Therefore, customer performance serves as a proxy for non-financial performance in the context of this study, which takes place within the ECF business environment.

Development of Hypotheses

In order to construct the hypotheses for this research, subsections 3.1 to 3.2 of this section address the connection between the platform and the campaign, as well as how the platform affects the firms of the related issuers.

ECF Platform versus Campaign Performance

In the ECF, government intervention towards the crowdfunding platform increases the herding effect of the investors. The government provides standard operation and enforces the platform to disclose information on the website. Consequently, the herding effect reduces the investor's risk exposure, hence increasing the investor's level of confidence (Borst et al., 2018; Jiang et al., 2018). Meanwhile, Fang and Chang (2019) empirically reveal that platform information disclosures on project attractiveness, for example, the value of the project, the project team, the promoter, the crowdfunding result, and project comments have different implications. In reality, potential investors are more concerned about quality information disclosure and project comments. Meanwhile, the project comments are significant for all crowdfunding-related projects. However, social networks play important roles for financial-based crowdfunding in attracting more funders and stimulating the herding effect.

Platforms with many investors subsequently attract other potential investors (Mazzocchi Lucarelli, 2023; Jiang et al., 2018). Younkin and Kuppuswamy (2018) recommend the platform providers reduce the bias effect on campaign success. According to their research, the African-American founder success rate in obtaining funding is lower than the white founders. Amazingly, the success rate of the white founder of the founder's race and the picture do not appear on the platform's site during the funding campaign. When another African American founder supports their campaign, this increases the success rate as it reduces the bias. This moves from the technological innovation perspectives such as big data. Crowdfunding allows entrepreneurs, investors and businesses to retrieve the opportunities and information via the platform provider's website. In contrast, the traditional financial ecosystems lack this feature. Due to that, it enhances the platform competency in connecting fundraisers and funders

(Wilson & Testoni, 2014). A study by Nunes, Alturas and Fernandes (2021) also demonstrate that technology, such as fintech and blockchain, can potentially upgrade the ECF platform's purpose by creating value and mitigating the associate risks.

The Impact of ECF platform on Firm Performance

Martin and Hofmann (2017) and Silvestro and Lustrato (2014) argue that most past studies have focused on the role of banks and financial institutions in assisting SMEs. The study also found that studies on the role of alternative fund providers in helping SMEs obtain funds have not received adequate attention. The existence of technology, among the causes of the entrepreneurial financial environment, has changed. This for instance includes the presence of digital financial platforms. Hofmann and Belin (2011); Mollick (2014) argue that online platforms have provided additional options for SMEs to obtain financing. In addition, Song, Yu and Lu (2018) discovered that digital platform providers could improve SME performance. Using the services of digital providers Song et al (2018) and big data application Song et al (2021) can reduce information asymmetry, thus increasing the competitiveness of each company. As a results, SMEs tend to get more funds. However, to monitor the performance of firms on an ongoing basis is very crucial. According to Gomm (2010) and Tagoe et al. (2005), in essence, this performance is closely related to their ability to raise adequate funds and their ability to bear high financial costs. Many SMEs, especially those just starting to grow, face difficulties obtaining finance from traditional institutions as they rely on standard information systems. In contrast, these digital platform providers could depend on the firm's operating information to help SMEs obtain the funds they need. Further, Yáñez-Valdés and Guerrero (2023) opine that technology advancement and the firm's future direction are factors that actively engage investors in business model transformation. In addition, Buttice & Vismara (2021) also emphasized the need to study an ECF platform with limited attention as it could play a vital role in accelerating growth and innovation.

Therefore, based on the discussion, this study investigates the digital financial provider from the perspective of ECF in Malaysia. ECF platform is responsible for bridging the funders and the issuers. Upon success, the issuers then could materialize the purpose of the funding. Thus, investigating the relationship between the ECF platform and the performance of the ECF-funded firms would give insight on ECF potential in Malaysia. Thus, the hypotheses developed for this study

H1 – ECF platform provider has a positive significant impact on the firm financial performance.
H2 - ECF platform provider has a positive significant impact on the firm non-financial performance.

Research Methodology

The study was carried out using positivist epistemology. The study's design is experimental and descriptive, with data collected via a survey questionnaire. It is a purposeful sampling of successful ECF issuers from 2016 to 2019. The study's unit analysis includes enterprises that have successfully acquired ECF funding from 2016 to 2019. Due to MCO and WFH order, the author has converted the hardcopy edition to an electronic version and used authority of sender approach Kassim & Shafii (2023) to reach the respondents.

The SPSS version 20.0 was used to clean the data before using the PLS-SEM version 3.0 to assess the measurement and structural models. Subsections 4.1 to 4.2 detail the research unit analysis, theoretical framework, and supporting hypotheses employed in the research. The

study objective is to investigate if ECF platform could contribute to the well-being of the firms. In this respect, the authors evaluate the firm's performance from two angles; the financial performance (ROA and ROE) and non-financial performance which is customer performance (customer loyalty, satisfaction and growth).

Theoretical Framework

The framework developed for this research aims to help the researcher investigate the impact of ECF platforms on the financial and non-financial performance of the successful ECF firms in Malaysia (Figure 3). This framework has been used to its potential benefits to help researchers make sense of the following findings. The ECF platform as an independent variable is hypothesized to have significant relationships on the dependent variables (DVs), that is, the financial (Model 1) and non-financial (Model 2) performance of the ECF-funded firms.

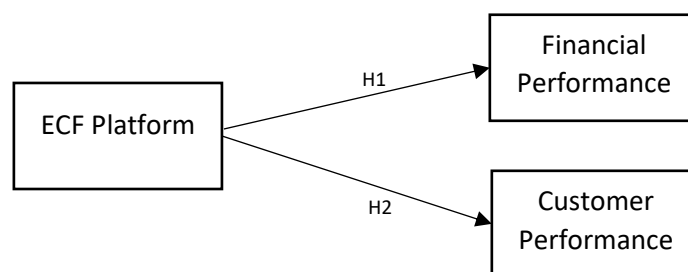


Figure 3. Theoretical Framework

The Financial Bricolage as Underpinning Theory

Levi-Strauss (1966), an anthropologist, was the first to invent the term bricolage. Bricolage refers to the ability to mix and match the available resources that are possible to exploit new opportunities or solve an existing problem. Previous studies acknowledge bricolage as a firm strategy, especially for firms with constraints in resources (Baker, 2007; Baker et al., 2003; Senyard et al., 2011). The three characteristics of bricolage include bias in action when confronting opportunities and tackling crisis, creating value to futile resources, and creatively conjoining resources for greater outcomes (Baker & Nelson, 2005). These include, for instance, innovation (Anderson & Kupp, 2008; Garud & Karnøe, 2003). However, Desa and Basu (2013) argue that further research should be done to examine the bricolage effect on performance, and specifically, innovation.

Findings

Essentially, this part discusses the study's findings. Subsections 5.1–5.3 address the response rate, the demographic study, and how the ECF platform affected the performance of the business.

Response Rate

The rate of response increased from 0.02% to 43.72%. According to Liu and Inchausti (2017), the duration of the survey and the difficulty of the questionnaire are crucial considerations. The longer it takes to complete the survey and the more difficult the questions are to understand, the less likely respondents are to participate. In fact, Ramayah et al. (2005)

contend that a 10% - 20% response rate is typical in the Malaysian survey research environment.

Demographic Analysis: ECF Background of the Respondents

60.9% of respondents raised their campaigns using PitchIN Platform Sdn Bhd, 18.5% through Ata Plus Sdn Bhd, 14.1% through Crowdplus Sdn Bhd, and 6.5% through Crowdplus Sdn Bhd (FBM Crowdtech Sdn Bhd). 9.8% were funded in 2016, 26.1% in 2017, 44.6% in 2018, and 19.6% in 2019. According to Skirnevskiy, Bendig, and Brettel (2017), improving the creator-platform network greatly boosts future campaign success. This network potential has been bolstered by Fan-Osuala, Zantedeschi, and Jank (2018)'s research on post-crowdfunding events. The study looked at the creator's relationship with the investors. The outcome demonstrates a positive link because the prior campaign's success will aid the issuer's future advancement.

When the issuer, on the other hand, is unable to fulfil or entirely abandons the promised project, the post-campaign relations between the two entities will end (Fan-Osuala et al., 2018; Kuppuswamy & Roth, 2016; Skirnevskiy et al., 2017). Nasafi et al (2020) demonstrate that the ECF platform's effectiveness in securing investment in campaigns run on its platform is driving an increasing number of Jakarta entrepreneurs to use the ECF platform as a vehicle to raise funds. Furthermore, according to Barbi and Mattioli (2019); Mazzocchini and Lucarelli (2023), the ECF platform's human capital functions as a signal and plays an essential role in attracting investors to their platforms.

This research also identified the various goals of increasing the ECF. 56.5% raised ECF for operating capital, 70.7% for marketing expenses, 69.6% for incorporating technology into their businesses, 23.9% for remodelling costs, 20.7% for product development, and 5.4% for research and development. In ECF, issuers exchange ownership of their businesses with financiers. Some of the firms in this study provided ordinary shares (87%), preference shares (4.3%), and a combination of both (8.7%). In the case of ECF, however, if the creator gives substantial equity to the crowdfunders, it will be less likely to entice potential backers to contribute because it signals the quality of the founder's organisation or the crowdfunded project (Vismara, 2016). According to Table 1, 53.3 percent of these enterprises received additional investment following ECF. Kuppuswamy and Roth (2016) evaluated the post-campaign effect on new external investment. They discovered that the outcomes of the first-round campaign have a substantial influence on additional investment from external sources such as business angel (BA) and venture capital (VC) (Fili, 2014).

Even though ECF funds are not an absolute source of funding for entrepreneurs, they will provide more alternatives for future investment, such as venture capital (Baumgardner et al., 2017; Ljumovic & Pejovic, 2020; Strausz, 2017). According to Yang et al (2021), the firm has earned the trust of venture capitalists by being inventive, proactive, and risk takers. For example, in ECF, enterprises deliberately approach the platform with novel ways of doing things, unconcerned of the possibility of someone stealing or copying their ideas.

The 'proof of concept' crowdfunding campaign entices potential investors to engage in the future campaign. According to Kuppuswamy and Roth (2016), after the campaign successfully raises \$75,000, the marginal effect of adding further funds declines. According to the survey respondents, 82.6% agreed that financing costs in ECF were lower (82.6%) and processing time was faster (77.2%) than in traditional banks. Aside from that, 98.9% of respondents' businesses had an exit strategy. Furthermore, 65.2% of respondents agreed that ECF had

aided their performance. Three of the respondents' companies have successfully exited, which means they have been purchased by or merged with other large corporations. According to Wulandari et al (2020), investors are more interested in the return on their investment than in the ownership offered, the social impact, or the stress-free procedure. In contrast to Wasiuzzaman et al (2021), they discovered that investors choose to invest in ECF for a variety of reasons, including aesthetic value, emotional value, novelty, trust, and willingness to support the ECF project. Table 1 displays the respondents' ECF backgrounds.

Table 1
Respondents' ECF Background

Variable	Categorization	Frequency	Percentage %
ECF Platform	Ata Plus SB	17	18.5
	Crowdplus SB	13	14.1
	FBM Crowdtch SB	6	6.5
	PitchIN Platforms SB	56	60.9
Year funded	2016	9	9.8
	2017	24	26.1
	2018	41	44.6
	2019	18	19.6
ECF for working capital	No	40	43.5
	Yes	52	56.5
ECF for marketing	No	27	29.3
	Yes	65	70.7
ECF for tech. dev	No	28	30.4
	Yes	64	69.6
ECF for renovation	No	7	76.1
	Yes	22	23.9
ECF for prod. Dev.	No	73	79.3
	Yes	19	20.7
ECF for R&D	No	87	94.6
	Yes	5	5.4
Types of shares offered	Ordinary Shares	80	87.0
	Preference Shares	4	4.3
	Hybrid	8	8.7
Funding after ECF	No	43	46.7
	Yes	49	53.3
Financing cost cheaper than traditional banks	No	16	17.4
	Yes	76	82.6
Processing time faster than traditional banks	No	21	22.8
	Yes	71	77.2
Have exit strategy	No	1	1.1
	Yes	91	98.9
ECF overall performance	No	32	34.8
	Yes	60	65.2
Experience exit	No	90	97.8
	Yes	2	2.2

The Relationship between ECF Platform and Firms' Performances

The objective of the study was to investigate whether the ECF platform has impacted the ECF-funded firm performance. This study hypothesized that an equity crowdfunding platform positively impacts firm performance (H1 and H2). Model 1 did not support hypothesis H1 ($\beta = -0.116$, T Value=1.007, P value=0.314, BCI LL=0.344, and BCI UL=0.108). Meanwhile, Model 2 supported hypothesis H2 ($\beta = 0.525$, T value=5.291, P value=0.000, BCI LL=0.306, and BCI UL=0.702). Meaning that in Model 1, the P Value indicates that the coefficient is not statistically significant at the significance level of 0.05. This means that there is insufficient evidence to support a significant relationship between the ECF platform and firm performance (ROA and ROE) based on the data analyzed. Whereas, in Model 2, based on the results, there is strong evidence to support the hypothesis that improvements in customer loyalty, satisfaction, and growth positively impact overall customer performance. The coefficient of 0.525 suggests that for every unit of improvement in the composite measure of customer loyalty, satisfaction, and growth, there is an estimated increase of 0.525 units in the customer performance metric. This result aligns with common business intuition where firms that focus on enhancing customer loyalty, satisfaction, and growth are likely to experience improved overall performance in terms of customer performance (Sun & Kim, 2013; Williams & Naumann, 2011).

This research proved that the ECF platform could attract customers to approach the issuers. In line with Ordanini, Miceli, Pizzetti and Parasuraman (2011), the ECF platform is not only the intermediary that connects financiers and fundraisers. It also acts as a marketing platform for the ventures to introduce and promote their products and services. When the products or services offered meet their expectation, investors can also eventually become consumers. Thus, it helps to increase the number of customers, increase sales, and encouraging performance.

Greenberg et al (2013) argue that, in general, the crowdfunding platform positively promotes collaborations and establish chances for start-ups and SMEs to narrow down their financing gap (Mollick, 2014; Ordanini et al., 2011). However, the roles of crowdfunding platforms vary according to their motives, either pecuniary or non-pecuniary (Calic & Mosakowski, 2016). Ruschmeyer (2013) explains that equity crowdfunding platforms receive 4%-10% fees from successful funded campaigns. Thus, certainly, the platform seeks to create a win-win situation for issuer- funders as it will also reap the rewards from the transactions. Furthermore, Lacan and Desmet (2017) opine that platform roles are more influential than word of mouth attraction when marketing the entrepreneur's project on the platforms. Importantly, platforms with a higher number of investors subsequently attract other investors to participate in the campaign activities (Jiang et al., 2018). McMahan (2001) opines that external funding is vital for SMEs future growth and profitability. However, it may lead to liquidity issues.

The ECF crowdfunding platform, according to the researcher's insight, could be the answer for start-up companies looking to get capital. When requesting for financial help, start-up enterprises are unable to furnish collateral, and they are having difficulty. To stimulate SME engagement, the government should give greater facilities and help. More significantly, closer to the ECF is a millennium venture rather than a company led by baby-founders. Therefore, government intervention is needed to encourage these ventures to be included in the current mainstream of alternative funding to remain competitive. This research also shows that 95% of the respondents are graduates of universities. Exposing students to the crowdfunding is beneficial since it will provide them with the necessary knowledge to pursue

entrepreneurship after graduation. Surprisingly, almost 80% of the respondents have participated in entrepreneurship programs. Entrepreneurs who participate in these programs gain exposure, information, knowledge, and networking opportunities.

It is critical to emphasize that the ECF is intended not only for well-established businesses, but also for young start-ups with strong prospects, such as Kakitangan.com, an digital HR software. It was founded in 2015 and launched its ECF campaign at the end of 2016, raising more over MYR1.5 million in a single day (PitchIN, 2017). As a result, the study's practical implication addresses important and reasonable conclusions for more SMEs to use the ECF for their future development.

Discussion

In Malaysia, there are almost one million SMEs registered under SSM. However, only a few managed to get their funding goals through ECF (Ab Rashid et al., 2021). Statistics provided by Securities Commission Malaysia show that from the year 2016 to 2019, the ECF platform successfully raised 77 campaigns (approximately 0.008%) (Securities Commission Malaysia, 2023). The successful issuers were dominated by the campaigns related to technology activities (PitchIN, 2020). Unfortunately, a study conducted by Robson and Bennett (2000) reveals that technology greatness does not significantly influence firm performance.

However, under the ECF, the most funded business activities are technology- related activities. Battaglia et al (2020) adds that technology-related and R&D industries are the most financed by investors during Covid-19. Calic and Shevchenko (2020) argue that technology projects are tangible as they have a clear business plan and expected delivery time. Investors are pleased and confident during the launching events on the ECF platform. Thus, entrepreneurial orientation in technology-based firms' signals influences their campaign success and, eventually, their firm's performance in the end. The quality signals can reduce information asymmetry and vagueness that the fundraisers transmit to the funders in crowdfunding (Di Pietro et al., 2020).

The venture's previous successful round in fundraising from the crowdfunding campaign is an advantage which will secure the high net-worth and far-reaching investors' interest (Brown et al., 2020). ECF alters the traditional business model to the new one that embraces the internet of thing (IR4.0) that is borderless. Beyond the geographical and cultural norm, traditional financing is irrelevant in the future (Hong, 2018) unless the founders/managers revisit their business model (Ritter & Pedersen, 2020; Wirtz et al., 2010). Furthermore, the pandemic implication also signals those the traditional banking systems are not user-friendly to entrepreneurs (Kuckertz et al., 2020).

CF, particularly ECF, has greatly expanded the ability for SMEs and start-ups to fill funding gaps through digital platforms. Depending on the ability of the founder/manager to seize the potential of ECF, which might bring in more than money into the firm. To enter the ECF market, the firm's human capital and intellectual capital require a strategy. Aside from human capital, rapid responses to changes and the ability to implement the proper plan are linked to a firm's performance (Pea, 2002). Strategy in business informs stakeholders on how the firm will achieve its goals, continue to operate in a competitive market, and so improve firm performance (Teece, 2010; Poister, 2010). According to Coakley and Lazos (2015), when a company follows excellent practises, it sends a positive signal to its stakeholders. In fact, according to current research conducted by Mazzocchini and Lucarelli (2023), the entrepreneur's and firm's demographic information influence the success of the campaign, which signals the money provider.

The findings of the study are consistent with previous research. The financial resource is an economic resource that enterprises require. For example, banks. Banks and other financial institutions have a significant impact on business performance. Bank-firm relationships boost loan availability Agrawal & Elston (2001), business angels and their impact on firm success (Andersson & Lodefalk, 2020; Politis, 2008). Wang (2013) found that enterprises that used microfinance loans performed better in terms of boosting sales and net profits. To expand, survive, and thrive, all businesses require working capital. The availability of cash, particularly for SMEs, contributes to their success.

Contribution of the Study

Practical Contribution

This study is one of several empirical studies based on Malaysia's ECF backdrop that highlight the roles of the ECF platform in assisting issuers to perform better. It is consistent with earlier studies that investigated the positive impacts of bank loans, microloans, and cooperatives on accelerating the performance of SMEs. In short, external funding is a resource that is vital for MSMEs to grow. However, the sources for external funding could vary across technological advancements. This study shows that the ECF platform opens up greater opportunities for SMEs to develop a network consisting of investors as well as customers who have the potential to become investors.

Literature Contribution

According to the study, ECF could be one of the answers to the financial gap for the majority of Malaysian SMEs, particularly those with viable business plans. Malaysian SMEs must be informed and kept up to date on contemporary information and knowledge. As technology has evolved, business approaches have gotten increasingly diverse. As a result, Malaysian SMEs should benefit from digital financial platforms that connect investors and SMEs. The investor's role may move from financier to adviser, providing insight for the growth of SMEs. More importantly, looking at the demographic of the respondents, it is a millennium venture rather than a company founded by baby-boomer entrepreneurs, which is closer to the ECF. As a result, government involvement is required to encourage these projects to join the current mainstream of alternative funding in order to remain competitive. According to the findings of this study, 95% of the respondents are university graduates. Exposing students to crowdfunding is advantageous since it will provide them with the knowledge they need to pursue business after graduation.

In terms of performance measurement, the firms in Malaysia should take the key performance indicators seriously. Rather than solely relying on financial metrics, which are historical in nature, the firm should measure performance based on customer's satisfaction, loyalty, and growth, which are other indicators of firm performance, based on future projection.

Methodology Contribution

A survey questionnaire was the instrument used to reach out to the respondents. Due to the pandemic, participation was limited. However, in this study, the sender's authority was used as a tactic to increase respondents' participation (Kassim & Shafii, 2023). It is found that this technique is appropriate, especially when the researcher is facing difficulties in getting the data due to unforeseen circumstances such as a pandemic or perhaps when the respondents are reluctant to participate.

Theoretical Contribution

Bridging the theory of financial bricolage in a study involving the crowdfunding in Malaysia environment could be a good approach. The actor's capacity to mix and match available resources to capitalize on new opportunities or solve current problems.

Limitations

In Malaysia, the number of entrepreneurs using the ECF platform to earn money is still low. The ECF platform acts as a double-edged sword. It not only connects money seekers with money givers. It also works as a marketing platform (Ordanini et al., 2011). Issuers who launch their project campaigns online show their ability to manipulate ECF platforms to obtain finance according to the bricolage theory of finance, which assumes that entrepreneurs creativity and credibility make their firms survive, grow, and be competitive.

All entrepreneurs should have equal exposure to the new emergence of digital funding, especially those firms with a concrete business model. Even though ECF is one of the opportunities they can penetrate, the impact of this funding will probably allow them to partner with a more prominent firm (Woköck, 2019). Hence, despite the risk factors associated with ECF, inculcating ECF into SMEs agendas seems to open vast opportunities. For instance, Skolafund Skolafund launched its campaign on the AtaPlus platform. Malaysia's first ECF-funded firm was bought over by Kitafund and became more accessible in Southeast Asia. Then came Mycash Online, followed by Skolafund. It launched its funding campaign on the PitchIn platform. Meanwhile, Green Lagoon launched its campaign on the Crowdplus.Asia platform and is the latest exit case on the ECF platform in Malaysia (Sidhu, 2019). Silicon Valley, as another example, started from nothing to something (Klepper, 2009; Moore & Davis, 2004).

According to Ata Plus founder in an interview with Gomez (2020), "Historically, at the early stage, major shareholders tend to be on the founding team and perhaps a financial backer. But issuers have to convince investors that the company has the potential to make money for them." He added that the lack of supporting research into and analysis on issuers will become even more acute if the Securities Commission Malaysia approves a secondary market for the trading of ECF shares." In the future, companies that list on a secondary market, which we want to develop for Ata Plus, would need to provide investors with periodic updates." Thus, the process of penetrating the ECF capital market should be enlightened to encourage potential ventures to pursue this kind of entrepreneurial funding for the future development and sustainability of SMEs and other businesses (Owusua & Owusu-Ansah, 2020). This applies not only to ventures but also to platforms.

NST Business (2021) broadcasts that the PitchIN platform initially managed to get MYR5.50 million from 322 investors on the Leet Capital ECF Platform. PitchIN is also seeking an additional MYR 5 million from VC investors for its expansion plans. PitchIN's crowdfunding demonstrates that crowdfunding has become a crucial tool for anyone who wishes to raise funds. According to the Pecking Order Theory, if a firm needs financing, stock will be the last resort. However, with the advent of ECF, more start-ups and young businesses have expressed a desire to participate because the expected cost is cheaper than debt funding (Estrin et al., 2021). With the success stories of many Malaysian digital funding platforms, the bank should have a comprehensive engagement with digital funding platforms so that the participation of SMEs is not biased toward those who already have strong business credentials.

Future Research

According to SME Info, there are almost one million SMEs in Malaysia (SME, 2020). However, as per the ECF statistic report by the Securities Commission Malaysia, as of the end of December 2022, the number of successful campaigns launched on the ECF platforms by SMEs was around 330, involving 305 issuers and raising a total of MYR560.34 million (Securities Commission Malaysia, 2023). Thus, future research should investigate the factors that will influence entrepreneurs' participation in ECF activities. Even though ECF funds are not absolute funding for entrepreneurs, they will open up more opportunities for future funding, for instance, venture capital (Ljumovic & Pejovic, 2020; Strausz, 2017). According to Yang et al. (2021), by being innovative, proactive, and risk-takers, the firm has actually inculcated the venture capitalists' trust at first glance. Such as in ECF, where the firm proactively approaches the platform with new ideas about doing things regardless of whether someone might steal or copy their ideas.

In Malaysia, the most outstanding ECF platform providers are PitchIN Platform, Ata Plus, and CrowdPlus. These platforms have been actively connecting fund seekers and prospective investors, even during the COVID-19 pandemic. The COVID-19 pandemic has triggered numerous reactions among various sectors of the economy, especially the entrepreneurial ecosystem (Leung et al., 2020). This gives a new perspective on ECF potential when traditional banking cannot accommodate entrepreneurs funding goals amidst the pandemic (Kuckertz et al., 2020). Furthermore, future research should also investigate Sharia-compliant ECF or P2P-based crowdfunding, since these will contribute to a better understanding of Malaysia's financial-based crowdfunding (ECF and P2P) ecosystems.

Further, as technology advances and distracts individuals and corporations, entrepreneurship students and all existing SMEs that are unaware of ECF crowdfunding availability should be introduced to the flexibility of crowdfunding, which appears to be one of the products under the umbrella of financial technology (fintech). Last but not least, to examine if non-family and family-based businesses have an impact on the ECF's success. According to Rossi, Vanacker, and Vismara (2023), a family-based firm tends to offer voting rights later, after the prior campaign was not successful.

References

- Agrawal, A., Catalini, C. & Goldfarb, A. (2014). Some simple economics of crowdfunding. *Innovation Policy and the Economy*, 14(1), 63-97.
- Agrawal, A., Catalini, C., & Goldfarb, A. (2011). *The geography of crowdfunding*. NBER Working Paper Series, 16820, 1-61.
- Agarwal, R., & Elston, J. A. (2001). Bank firm relationships, financing and firm performance in Germany. *Economics Letters*, 72(2), 225-232
- Abraham, F., & Schmukler, S. L. (2017). Addressing the SME finance problem. *World Bank Research and Policy Briefs*, (120333).
- Ahlers, G. K., Cumming, D., Günther, C., & Schweizer, D. (2015). Signaling in equity crowdfunding. *Entrepreneurship Theory and Practice*, 39(4), 955-980.
- Alalwan, A. A., Baabdullah, A. M., Mahfod, J. O., Jones, P., Sharma, A., & Dwivedi, Y. K. (2022). Entrepreneurial e-equity crowdfunding platforms: antecedents of knowledge acquisition and innovation performance. *European Journal of Innovation Management*, (ahead-of-print).
- Andersson, F. W., & Lodefalk, M. (2020). *Business Angels and Firm Performance: First Evidence from Population Data* (No. 15/2020). Working Paper.

- Anderson, J., & Kupp, M. (2008). Serving the poor: Drivers of business model innovation in mobile. *Info*, 10(1), 5-12.
- Archibugi, D., Filippetti, A., & Frenz, M. (2013). Economic crisis and innovation: Is destruction prevailing over accumulation? *Research Policy*, 42(2), 303-314.
- Aschenbeck-Florange, T., Blair, D., Beltran, J., Garcia, A., Nagel, T., Piattelli, U., & Quintavalla, L. (2013). Regulation of crowdfunding in Germany, the UK, Spain and Italy and the impact of the European single market. *European Crowdfunding Network*, 1-35.
- Aydın, N. (2016). Startup-Stage Financing of Innovative Ventures: The Case of UNNADO. com. *International Journal of Education and Social Science*, 2(12).
- Baker, T. (2007). Resources in play: Bricolage in the Toy Store(Y). *Journal of Business Venturing*, 22(5), 694-711.
- Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329-366.
- Baker, T., Miner, A. S., & Eesley, D. T. (2003). Improvising firms: Bricolage, account giving and improvisational competencies in the founding process. *Research Policy*, 32(2), 255-276.
- Bapna, R., Gupta, A., Rice, S., & Sundararajan, A. (2017). Trust and the strength of ties in online social networks: an exploratory field experiment. *Mis Q.*, 41(1), 115-130.
- Barbi, M., & Mattioli, S. (2019). Human capital, investor trust, and equity crowdfunding. *Research in International Business and Finance*, 49, 1-12.
- Baumgardner, T., Neufeld, C., Huang, P. C. T., Sondhi, T., Carlos, F., & Talha, M. A. (2017). Crowdfunding as a far expanding market for the creation of capital and shared value. *Thunderbird International Business Review*, 59(1), 115-126.
- Beaulieu, T., Sarker, S., & Sarker, S. (2015). A conceptual framework for understanding crowdfunding. *Communications of the Association for Information*, 37, 1-31
- Bernstein, S., Korteweg, A., & Laws, K. (2017). Attracting early-stage investors: Evidence from a randomized field experiment. *The Journal of Finance*, 72(2), 509-538.
- Biancone, P. P., Secinaro, S., & Kamal, M. (2019). Crowdfunding and Fintech: Business model sharia compliant. *European Journal of Islamic Finance*, 12, 1-9.
- Borello, G., De Crescenzo, V., & Pichler, F. (2015). The funding gap and the role of financial return crowdfunding: some evidence from European platforms. *The Journal of Internet Banking and Commerce*, 20(1), 1-20.
- Borst, I., Moser, C., & Ferguson, J. (2018). From friendfunding to crowdfunding: Relevance of relationships, social media, and platform activities to crowdfunding performance. *New Media & Society*, 20(4), 1396-1414.
- Braet, O., Spek, S., & Pauwels, C. (2013). Crowdfunding the movies: a business analysis of crowd-financed moviemaking in small geographical markets. *Journal of Media Business Studies*, 10(1), 1-23.
- Brüntje, D., & Gajda, O. (Eds.). (2016). *Crowdfunding in Europe. State Of the Art in Theory and Practice*. Springer.
- Burke, A., & Hanley, A. (2006). Bank interest margins and business start-up collateral: Testing for convexity. *Scottish Journal of Political Economy*, 53(3), 319-334.
- Buttice, V., & Vismara, S. (2021). Inclusive digital finance: the industry of equity crowdfunding. *The Journal of Technology Transfer*, 1-18.
- Calic, G., & Mosakowski, E. (2016). Kicking off social entrepreneurship: How a sustainability orientation influences crowdfunding success. *Journal of Management Studies*, 53(5), 738-767.

- Capocchi, A. (2019). Starting and running a business. In A. Capocchi (Ed.), *Economic Value and Revenue Management Systems* (pp. 1-20). Palgrave Macmillan.
- Chang, J. L. (2016). Big data analysis and feedback key factors for successful crowdfunding. *Taiwan Econ. Res. Monthly*, 39(2), 27-37.
- Chapra, M. U. (2011). The global financial crisis: Can Islamic finance help? In J. Langton, C. Trullols, & A. Q. Turkistani (Eds.), *Islamic Economics and Finance: A European Perspective* (pp. 135-142). UK: Palgrave Macmillan.
- Cholakova, M., & Clarysse, B. (2015). Does the possibility to make equity investments in crowdfunding projects crowd out reward-based investments? *Entrepreneurship Theory and Practice*, 39(1), 145-172.
- Conti, A., Thursby, M., & Rothaermel, F. T. (2010). Show me what you have: Signaling, angel and VC investments in technology startups. *Academy of Management Proceedings*, 2010(1), 1-6.
- Cumby, J., & Conrod, J. (2001). Non-financial performance measures in the Canadian biotechnology industry. *Journal of intellectual capital*, 2(3), 261-272.
- Cumming, D. J., Vanacker, T., & Zahra, S. A. (2021). Equity crowdfunding and governance: Toward an integrative model and research agenda. *Academy of Management Perspectives*, 35(1), 69-95.
- Desa, G., & Basu, S. (2013). Optimisation or bricolage? Overcoming resource constraints in global social entrepreneurship. *Strategic Entrepreneurship Journal*, 7(1), 26-49.
- Di Pietro, F., Grilli, L., & Masciarelli, F. (2020). Talking about a revolution? Costly and costless signals and the role of innovativeness in equity crowdfunding. *Journal of Small Business Management*, 1-32.
- Dossi, A., & Patelli, L. (2010). You learn from what you measure: Financial and non-financial performance measures in multinational companies. *Long Range Planning*, 43(4), 498-526.
- Ebashi, M., Sakai, H., & Takada, N. (1997). Development policy on SMEs and supporting industries in Vietnam. *Journal of Small Business Management*, 32(2), 95-103.
- Estrin, S., Gozman, D., & Khavul, S. (2018). The evolution and adoption of equity crowdfunding: Entrepreneur and investor entry into a new market. *Small Business Economics*, 1-15.
- Everett, J., & Watson, J. (1998). Small business failure and external risk factors. *Small Business Economics*, 11(4), 371-390.
- Fan-Osuala, O., Zantedeschi, D., & Jank, W. (2018). *Talk Your Way to Serial Success: Creator Post-Campaign Interaction in Crowdfunding*. Retrieved from <https://aisel.aisnet.org/Amcis2018/Virtualcc/Presentations/4/> [Assessed 10 Apr. 2019].
- Fang, G., & Chang, Q. (2019, December). *Research on the Influence of Information Disclosure and Project Popularity on the Results of Incentive Crowdfunding*. In 2019 International Conference on Economic Management and Model Engineering (ICEMME) (pp. 569-576). IEEE.
- Fili, A. (2014). Business angel venture negotiation in the post-investment relationship: the use of the good cop, bad cop strategy. *Venture Capital*, 16(4), 309-325.
- Freedman, D. M., & Nutting, M. R. (2015). *Equity Crowdfunding for Investors: A Guide to Risks, Returns, Regulations, Funding Portals, Due Diligence, and Deal Terms*. John Wiley & Sons.
- Fullerton, R. R., & Wempe, W. F. (2009). Lean manufacturing, non-financial performance measures, and financial performance. *International journal of operations & production management*, 29, 214-240.

- Garud, R., & Karnøe, P. (2003). Bricolage versus breakthrough: Distributed and embedded agency in technology entrepreneurship. *Research Policy*, 32(2), 277- 300.
- Gelfond, S. H., & Foti, A. D. (2012). US \$500 and a click: Investing the “crowdfunding” way. *Journal of Investment Compliance*.
- GetSmarterAboutMoney.ca. (2020). *Equity Crowdfunding in Ontario: Regulation in Canada*. [Online] Available at <https://www.getsmarteraboutmoney.ca/protect-your-money/investor-protection/regulation-in-canada/equity-crowdfunding-in-ontario/> [Accessed 18 Jan. 2020].
- Giudici, G. (2016). Equity crowdfunding of an entrepreneurial activity. In D. B. Audretsch, E. Lehmann, M. Meoli, & S. Vismara (Eds.), *University Evolution, Entrepreneurial Activity and Regional Competitiveness* (pp. 415-425). *Springer International Publishing*.
- Gomm, M. L. (2010). Supply chain finance: Applying finance theory to supply chain management to enhance finance in supply chains. *International Journal of Logistics: Research and Applications*, 13(2), 133-142.
- Greenberg, M. D., Hui, J., & Gerber, E. (2013). *Crowdfunding: A Resource Exchange Perspective*. In CHI'13 Extended Abstracts on Human Factors in Computing Systems (pp. 883-888).
- Haas, P., Blohm, I., & Leimeister, J. M. (2014). *An Empirical Taxonomy of Crowdfunding Intermediaries*. [Paper presented]. At the 35th International Conference on Information Systems, Auckland.
- Hagedorn, A., & Pinkwart, A. (2016). The financing process of equity-based crowdfunding: an empirical analysis. In D. Brüntje, & O. Gajda (Eds.), *Crowdfunding in Europe: State of the Art in Theory and Practice* (pp. 71-85). *Springer International Publishing*.
- Hamermesh, L. A., & Tsoflias, P. I. (2013). An Introduction to the Federalist Society's Panelist Discussion Titled Deregulating the Markets: *The JOBS Act*. *Del. J. Corp. L.*, 38, 453.
- Helmer, J. (2014). 8 ways to cut through the crowdfunding clutter. *Entrepreneur*, 42(6), 86-90.
- Hervé, F., Manthé, E., Sannajust, A., & Schwienbacher, A. (2016). *Investor Motivations in Investment-Based Crowdfunding*. Available at SSRN 2746398.
- Hofmann, E., & Belin, O. (2011). *Supply Chain Finance Solutions*. pp. 644-645). Velag Berlin Heidelberg: Springer.
- Hoque, Z. (2005). Linking environmental uncertainty to non-financial performance measures and performance: a research note. *The British Accounting Review*, 37(4), 471-481.
- Howells, J. (2006). Intermediation and the role of intermediaries in innovation. *Research Policy*, 35(5), 715-728.
- Huber, F. (2009). Social capital of economic clusters: Towards a network based conception of social resources. *Tijdschrift Voor Economische En Sociale Geografie*, 100(2), 160-170.
- Hsu, D. H., & Ziedonis, R. H. (2013). Resources as dual sources of advantage: Implications for valuing efirm patents. *Strategic Management Journal*, 34(7), 761-781.
- Ibrahim, D. M. (2015). Equity crowdfunding: a market for lemons. *Minnesota Law Review*, 100, 561-607.
- Jayakrishnan, M., Mohamad, A. K., & Abdullah, A. (2018). Digitalization approach through an enterprise architecture for Malaysia transportation industry. *International Journal of Civil Engineering and Technology (IJCIET)*, 9(13), 834- 839.
- Jiang, Y., Ho, Y. C., Yan, X., & Tan, Y. (2018). Investor platform choice: Herding, platform attributes, and regulations. *Journal of Management Information Systems*, 35(1), 86-116.

- Kang, M., Gao, Y., Wang, T., & Zheng, H. (2016). Understanding the determinants of funder investment intentions on crowdfunding platforms: a trust-based perspective. *Industrial Management and Data Systems*, 116(8), 1800-1819.
- Kassim, S. F. M., & Shafii, Z. (2023). Pandemic Chaos: Equity-based Crowdfunding in Malaysia.
- Kraus, S., Richter, C., Brem, A., Cheng, C. F., & Chang, M. L. (2016). Strategies for reward-based crowdfunding campaigns. *Journal of Innovation and Knowledge*, 1(1), 13-23.
- Kuppuswamy, V., & Roth, K. (2016). *Research on the Current State of Crowdfunding: The Effect of Crowdfunding Performance and Outside Capital*. US Small Business Administration Office of Advocacy White Paper.
- Kshetri, N. (2018). Informal institutions and internet-based equity crowdfunding. *Journal of International Management*, 24(1), 33-51.
- Lacan, C., & Desmet, P. (2017). Does the crowdfunding platform matter? Risks of negative attitudes in two-sided markets. *Journal of Consumer Marketing*, 34(6), 472-479.
- Landscape, F. S. (2015). *Financial Technology Fintech Sector Landscape*, (June), 1-11.
- Lee, N., Sameen, H., & Cowling, M. (2015). Access to finance for innovative SMEs since the financial crisis. *Research Policy*, 44(2), 370-380.
- Levi-Strauss, C. (1966). *The Savage Mind*. Chicago, IL: University of Chicago Press, 18.
- Liao, C., Zhu, Y., & Liao, X. (2015). The role of internal and external social capital in crowdfunding: Evidence from China. *Revista De Cercetare Si Interventie Sociala*, 49, 187-204.
- Ljumovic, I., & Pejovic, B. (2020). Financing of innovation: are crowdfunding and venture capital complements or substitutes? *PaKSoM 2020*, 111.
- Lim, J. Y. K., & Busenitz, L. W. (2020). Evolving human capital of entrepreneurs in an equity crowdfunding era. *Journal of Small Business Management*, 58(1), 106-129.
- Lin, X.-Y., & Chen, Y.-Z. (2013). The challenges of the crowdfunding platform development. *Taiwan Econ. Res. Monthly*, 36(3), 98-105.
- Lin, X.-Y., & Chen, Y.-Z. (2013). The challenges of the crowdfunding platform development. *Taiwan Econ. Res. Monthly*, 36(3), 98-105.
- Lin, T., V. Pursiainen. (2018). "Fund What you Trust? Social Capital and Moral Hazard in Crowdfunding". University of Hong Kong Working Paper, 55.
- Lindstrom, G., & Olofsson, C. (2001). Early stage financing of NTBFs: an analysis of contributions from support actors. *Venture Capital: An International Journal of Entrepreneurial Finance*, 3(2), 151-168.
- Liu, M., & Inchausti, N. (2017). Improving survey response rates: the effect of embedded questions in web survey email invitations. *Survey Practice*, 10(1), 1-6.
- Lukkarinen, A., Teich, J. E., Wallenius, H., & Wallenius, J. (2016). Success drivers of online equity crowdfunding campaigns. *Decision Support Systems*, 87, 26-38.
- Mamonov, S., & Malaga, R. (2018). Success factors in title III equity crowdfunding in the United States. *Electric Commerce Research and Application*, 27, 65-73.
- Martin, J., & Hofmann, E. (2017). Involving financial service providers in supply chain finance practices: Company needs and service requirements. *Journal of Applied Accounting Research*, 18(1), 42-62.
- Marzban, S., Asutay, M., & Boseli, A. (2014). *Shariah-Compliant Crowd Funding: An Efficient Framework for Entrepreneurship Development in Islamic Countries*. [Paper presented]. At the 11th Harvard International Islamic Finance Forum, Boston.
- Mcnair, C. J., Lynch, R. L., & Cross, K. F. (1990). Do financial and nonfinancial performance measures have to agree? *Strategic Finance*, 72(5), 28-39.

- Megginson, W. L. (2004). Toward a global model of venture capital? *Journal of Applied Corporate Finance*, 16(1), 89-107.
- Meoli, M., & Vismara, S. (2021). Information manipulation in equity crowdfunding markets. *Journal of Corporate Finance*, 67, 101866.
- Mohammadi, A., & Shafi, K. (2018). Gender differences in the contribution patterns of equity-crowdfunding investors. *Small Business Economics*, 50, 275-287.
- Harif, M. A. A., Hoe, C., & Ahmad, M. I. (2012). The financial and non-financial performance indicators of paddy farmers' organizations in Kedah. Available at SSRN 2130415.
- Mitra, D. (2012). The role of crowdfunding in entrepreneurial finance. *Delhi Business Review*, 13(2), 67-72.
- Moine, A., & Papiasse, D. (2020). Evidence from France: How crowdfunding is being used to support the response to Covid-19. LSE European Politics and Policy (EUROPP) Blog. Available at <https://blogs.lse.ac.uk/europpblog/2020/04/24/evidence-from-france-how-crowdfunding-is-being-used-to-support-the-response-to-covid-19/>.
- Mollick, E. R. (2014). The dynamics of crowdfunding: an exploratory study. *Journal of Business Venturing*, 29(1), 1-16.
- Montini, L. (2014). in 2013. Retrieved from <https://www.inc.com/Laura-Montini/The-Rapid-Rise-Of-Crowdfunding.html>.
- Moran, P. (2005). Structural vs. relational embeddedness: Social capital and managerial performance. *Strategic Management Journal*, 26(12), 1129-1151.
- Mazzocchini, F. J., & Lucarelli, C. (2023). Success or failure in equity crowdfunding? A systematic literature review and research perspectives. *Management Research Review*, 46(6), 790-831.
- Nasafi, F., Pangemanan, F., & Sfenrianto, G. W. (2020). Factors affecting society intention to use the equity crowdfunding platform. *International Journal of Emerging Trends in Engineering Research*, 8(6), 2245-2248.
- Nigama, N., Benetti, C., & Johan, S. A. (2020). Digital start-up access to venture capital financing: What signals quality? *Emerging Markets Review*, 100743.
- Nitani, M., Riding, A., & He, B. (2019). On equity crowdfunding: Investor rationality and success factors. *Venture Capital*, 21(2-3), 243-272.
- NST Business. (2021). PitchIN raises RM5.5 mil from 322 Investors through Equity Crowdfunding Campaign. New Straits Times. <http://https://www.nst.com.my/business/2021/06/700766/pitchin-raises-rm55mil-322-investors-through-equity-crowdfunding-campaign>
- Nunes, R., Alturas, B., & Fernandes, A. L. (2021). *Creating value in equity crowdfunding platforms using blockchain technology*. 16th Iberian Conference on Information Systems and Technologies (CISTI) (pp. 1-6). IEEE.
- OECD. (2013). *Technology and Industry Scoreboard. Innovation for Growth, Organization for Economic Cooperation and Development*. Retrieved from <https://www.oecd.org/Sti/Scoreboard.htm>.
- Ordanini, A., Miceli, L., Pizzetti, M., & Parasuraman, A. (2011). Crowd-funding: Transforming customers into investors through innovative service platforms. *Journal of Service Management*, 22(4), 443-470.
- Pazowski, P., & Czudec, W. (2014). Economic prospects and conditions of crowdfunding. *Proceedings of the Management, Knowledge and Learning International Conference*, 1079-1088.

- Rahman, M. P., Duasa, J., Kamil, M., & Kamil, N. (2016). *Factors Contributing to the Success of Crowdfunding: The Malaysian Case*. [Paper Presented]. At the Asia- Pacific Conference on Economics and Finance, Ah Hood Road Singapore.
- Politis, D. (2008). Business angels and value added: What do we know and where do we go? *Venture Capital*, 10(2), 127-147.
- Ramayah, T., Yan, L. C., & Sulaiman, M. (2005). SME e-readiness in Malaysia: Implications for Planning and Implementation. *Sasin Journal of Management*, 11(1), 103-120.
- Rémillard, R. (2017). Government intervention in venture capital in Canada: toward greater transparency and accountability. *C. D. Howe Institute Commentary*, 466.
- Rossi, A., Vanacker, T., & Vismara, S. (2023). Unsuccessful equity crowdfunding offerings and the persistence in equity fundraising of family business start-ups. *Entrepreneurship Theory and Practice*, 47(4), 1327-1355.
- Salomon, V. (2016). Emergent models of financial intermediation for innovative companies: From venture capital to crowdfundering platforms in Switzerland. *Venture Capital*, 18(1), 21-41.
- Sanders, W. G., & Boivie, S. (2004). Sorting things out: Valuation of new firms in uncertain markets. *Strategic Management Journal*, 25(2), 167-186.
- Schwartz, A. (2020). Inclusive crowdfunding. [Online] Colorado Law Scholarly Commons. Available at <https://scholar.law.colorado.edu/articles/21/> [Accessed 16 Jan. 2020].
- Securities Commission Malaysia. (2023) *Digital. ECF Dashboard*. <http://https://www.sc.com.my/analytics/digital>
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill Building Approach* (7th ed.). John Wiley & Sons.
- Senyard, J., Baker, T., Steffens, P., & Davidsson, P. (2011). Bricolage as a path to innovativeness for resource-constrained new firms. *Journal of Product Innovation Management*, 31(2), 211-230.
- Shahzad, F., Rehman, I. U., Hanif, W., Asim, G. A., & Baig, M. H. (2019). The influence of financial reporting quality and audit quality on investment efficiency. *International Journal of Accounting & Information Management*, 27(4), 600-614.
- Sigar, K. (2012). Fret no more: inapplicability of crowdfunding concerns in the internet age and the JOBS Act's safeguards. *Admin. L. Rev.*, 64, 473.
- Silvestro, R., & Lustrato, P. (2014). Integrating financial and physical supply chains: the role of banks in enabling supply chain integration. *International journal of operations & production management*.
- Skirnevskiy, V., Bendig, D., & Brettel, M. (2017). The influence of internal social capital on serial creators' success in crowdfunding. *Entrepreneurship Theory and Practice*, 41(2), 209-236.
- Song, H., Yu, K., & Lu, Q. (2018). Financial service providers and banks' role in helping SMEs to access finance. *International Journal of Physical Distribution & Logistics Management*, 48(1), 69-92.
- Song, H., Li, M., & Yu, K. (2021). Big data analytics in digital platforms: how do financial service providers customise supply chain finance?. *International Journal of Operations & Production Management*.
- Srroj, S., & Walde, J. (2020). Getting ready for EU single market: the effect of export- oriented grant schemes on firm performance. *Structural Change and Economic Dynamics*, 52, 279-293.

- Stack, P., Feller, J., O'Reilly, P., Gleasure, R., Li, S., & Cristoforo, J. (2017). Managing risk in business centric crowdfunding platforms. *Proceedings of the 13th International Symposium on Open Collaboration* (p. 24). ACM.
- Stanko, M. A., & Henard, D. H. (2016). How crowdfunding influences innovation. *MIT Sloan Management Review*, 57(3), 15-17.
- Storey, D. J., & Greene, F. J. (2010). *Small Business and Entrepreneurship*. Financial Times/Prentice Hall.
- Strausz, R. (2017). A theory of crowdfunding: a mechanism design approach with demand uncertainty and moral hazard. *American Economic Review*, 107(6), 1430- 1476.
- Sun, K. A., & Kim, D. Y. (2013). Does customer satisfaction increase firm performance? An application of American Customer Satisfaction Index (ACSI). *International journal of hospitality management*, 35, 68-77.
- Tagoe, N., Nyarko, E., & SMEs under financial sector liberalization in Ghana. *Journal of Small Business Management*, 43(3), 331-343.
- Turan, S. S. (2015). Stakeholders in equity-based crowdfunding: Respective risks over the equity crowdfunding lifecycle. *Journal of Financial Innovation*, 1(2), 1-6.
- Van Der Meulen, B., & Rip, A. (1998). Mediation in the Dutch science system. *Research Policy*, 27(8), 757-769.
- Vaznyte, E., & Andries, P. (2019). Entrepreneurial orientation and start-ups' external financing. *Journal of Business Venturing*, 34(3), 439-458.
- Vera, D., & Crossan, M. (2003). Organizational learning and knowledge management: toward an integrative framework. In M. Easterby-Smith, & M. A. Lyles (Eds.), *The Blackwell Handbook of Organizational Learning and Knowledge Management* (pp. 122-142). Wiley-Blackwell.
- Vismara, S. (2016). Equity retention and social network theory in equity crowdfunding. *Small Business Economics*, 46(4), 579-590.
- Vismara, S. (2018). Information cascades among investors in equity crowdfunding. *Entrepreneurship Theory and Practice*, 42(3), 467-497.
- Wang, Y., Li, J., & Furman, J. L. (2017). Firm performance and state innovation funding: Evidence from China's Innofund program. *Research Policy*, 46(6), 1142-1161.
- Wang, X. (2013). *The Impact of Microfinance on the Development of Small and Medium Enterprises: The Case of Taizhou, China*. The Johns Hopkins University, Baltimore, MD, USA.
- Wilson, K. E., & Testoni, M. (2014). Improving the role of equity crowdfunding in Europe's capital markets. Available at SSRN 2502280.
- Wasiuzzaman, S., Lee, C. L., Boon, O. H., & Chelvam, H. P. (2021). Examination of the motivations for equity-based crowdfunding in an emerging market. *Journal of theoretical and applied electronic commerce research*, 16(2), 63-79.
- Williams, P., & Naumann, E. (2011). Customer satisfaction and business performance: a firm-level analysis. *Journal of services marketing*, 25(1), 20-32.
- Wulandari, T., Saeedi, M., & Meskaran, F. (2020). Factors affecting equity crowdfunding investment in Kuala Lumpur, Malaysia. *International Journal of Management (IJM)*, 11(10), 1816-1823.
- Yang, H., Zhang, L., Wu, Y. J., Shi, H., & Xie, S. (2021). Influence of entrepreneurial orientation on venture capitalists' initial trust. *Front. Psychol.*, 12, 633771. DOI:doi:10.3389/fpsyg.

- Yáñez-Valdés, C., & Guerrero, M. (2023). Equity crowdfunding platforms and sustainable impacts: encountering investors and technological initiatives for tackling social and environmental challenges. *European Journal of Innovation Management*.
- Yasar, B. (2021). The new investment landscape: Equity crowdfunding. *Central Bank Review*, 21(1), 1-16.
- Ye, Q. (2017). Bootstrapping and new-born startups performance: the role of founding team human capital. *Global Journal of Entrepreneurship*, 1(2), 53-71.
- Younkin, P., & Kuppaswamy, V. (2018). The colorblind crowd? Founder race and performance in crowdfunding. *Management Science*, 64(7), 3269-3287.
- Zheng, H., Li, D., Wu, J., & Xu, Y. (2014). The role multidimensional social capital in crowdfunding: a comparative study in China and US. *Information and Management*, 51(4), 488-496.