CHAPTER 3

LITERATURE REVIEW

3.1 INTRODUCTION

The previous chapter has provided an overview concerning entrepreneurship development, financial management and landscape, regulations about SMEs, and crowdfunding in Malaysia. This chapter aims to review previous studies on the concept of financial management and its practices from the broad literature that developed along investment-based crowdfunded SMEs in terms of selected practices. The following section addresses crowdfunding, particularly investment-based crowdfunding, equity, and P2P lending for SMEs. Next, the sub-sections explain the financial management roles and practices, social networks, the ECF platform, and business intelligence mediation in examining firm performance. Also enfolded is the theoretical groundwork of this study with the determinants or variables and the ECF performance.

3.2 PREVIOUS STUDIES ON FINANCING AND FIRM PERFORMANCE

Many conclusions can be drawn from studies of financing and firm performance. Alsos, Isaksen and Ljunggren (2006) investigate the financial gap and the growth of start-ups enterprises. The study only involved start-ups that had been operating for 19 months. Survey questionnaires were distributed and followed by phone calls for interview sessions. Only 360 respondents qualified for the selected study.

The findings reveal that the gender of the founder statistically influences the behavior and perceptions of financial providers. The results also show that male founders obtain equity capital and business loans better than their female counterparts. Thus, it reveals why women's business ventures are challenging to grow. However, further investigation of the entire funding process is needed to help determine why financial providers supply fewer funds for women start-ups.

Small businesses need to access adequate funding to grow (Storey, 1994). Funding affects the resources' acquisition and firm operations. Thus, financing is a basic need of firms to develop locally or abroad. A study by Smolarski and Kut (2011) investigated the method of venture capitalist funding and its effect on SMEs performance and going international. In the study, 186 respondents fulfilled the survey criteria. The variables included the methods of financing received by the SMEs and consisted of the staged mode of payment and the lump-sum mode of payment. The study also monitored the type of external investor who participated in a single round of financing. Syndication financing happens when there are two or more outside investors involved in a particular funding round. Non-syndication refers to financing involving a single investor in a specific funding round. The dependent variables were annual turnover and annual sales growth as the proxies of performance. The findings showed that performance was higher when releasing funding was based on staged and involved syndication. However, non-syndication involvement during the disbursement of VC funds negatively affected the firm performance.

This is because the former was more effective as it involved more control mechanisms and, in the latter, an investor controlled the whole funding process. When there was a variance between the actual and targeted performance, the venture capitalists withheld the injection of the subsequent funding until the problem was

solved. This mechanism encouraged the firm to achieve the goals of the business. However, the inspiration of venture capitalists to meet their financial goals must not affect the operation of the firms. The bank repayment policies imposed on the firms which successfully secure loan applications should not be burdening (Storey, 1994).

A study on microloan impact on the growth of SMEs in the Ibadan metropolis, Nigeria was conducted by Olowe, Moradeyo and Babalola (2013). The study used the simple purposive random sampling technique. 82 respondents that consist of founder and managers were selected. The study's findings showed that loan disbursement, loan interest rate, loan repayment, loan duration, and loan collateral significantly impacted SMEs growth. In addition, the lower loan repayment frequency, loan interest, and collateral to secure the loan increased the growth. However, the effect of loan duration was not significant statistically, even though showing a positive relationship. The funding for SMEs should not only concern banking institutions. Non-financial institutions also have a responsibility to assist SMEs in access to funding.

Further, a study on lease financing on SMEs performance in Bangladesh by Salam (2013) shows lease financing was statistically and significantly affected the ROE and ROA of the medium-sized enterprises. The study examined 53 respondents from Munshigang and Kushtia, Bangladesh, consisting of 30 small and 23 medium-size enterprises. It was a quantitative content analysis and referred to SMEs' 2012 annual reports. The results showed a relationship between the sizes of the enterprises and the use of lease financing. The bigger the size of the enterprises, the higher the ROE and ROA return when using the lease financing. Meanwhile, the effect of using lease financing in small-size enterprises showed a significant positive relationship in measuring the ROA. However, it negatively impacted the ROE of the small enterprises.

Although there were slightly different outcomes, the use of lease financing did affect the overall performance of the SMEs in Bangladesh.

The impact of microfinance lending on SMEs performance in Kenya reported similar findings. A study conducted by Wanambisi and Bwisa (2013) investigated a total of 120 respondents. The respondents comprised wholesalers, retailers, restaurants, and delivery services under micro and small enterprises (MSEs). The semi-structured questionnaire was distributed, verified, and coded using a computerized system. The findings showed that 44 firms that used microfinance lending had better performance. The sales and income of those firms also increased. Thus, it explains that the loan generates more revenue for the firms. However, firms without microfinance lending did not progress in sales and income. Reasons for the micro and small firms not approaching microfinance lending institutions included fear of rejection, poor loan accessibility, and limited loan availability in Kenya. Thus, to overcome this issue, good training programs have to be designed for the entrepreneur to absorb the knowledge that would enhance their understanding of the benefits of borrowing through microfinance to their firms. Most importantly, the policy of microfinance institutions must not burden the borrower, and more money should be made available for the benefit of the micro and small firms.

Wang (2013) investigated the effect of microfinance lending on the development of SMEs in China. The study examined 211 SMEs in Taizhou, Zhejiang. The distributed questionnaire aimed to gather information on the SMEs' characteristic and financing resources. The study revealed that firms that used microfinance loans had better performance in increasing their revenues and net profits. Thus, it reflected firm growth. Also, human capital played an essential role in generating revenues. In theory, the high level of labor produces more productivity. However, the findings also

revealed that firms with microfinance showed an adverse result in revenue growth. Furthermore, the study elaborated the possibility of the SMEs already receiving borrowing through microfinance to seek further borrowings in the future. The characteristics of the firms played an important role in increasing the chances to obtain financing.

Oladele, Oloowokere and Akinruwa (2014) studied the impact of several sources of financing on SMEs' firm performance. The sources of financing consisted of the owner's personal savings via banking and daily contribution, the owner's informal financing sources via family, friends, cooperatives and money lenders, and the owner's formal sources of financing via commercial banks and microfinance banks as the independent variables towards the performance of the firms. A total of 225 respondents from SMEs in Ado-Ekiti metropolis, Nigeria, were selected. The structured questionnaires were used to collect the data. The study showed that all types of financing resources positively affected the performance of the firms in terms of business growth and development (Gilbert *et al.*, 2006). However, it also discovered that microfinance as the formal source of financing significantly influenced the firms' performance more than other sources of financing. Thus, the government should play its role to ensure that microfinance borrowings continue to provide enough funds to support SMEs. The interest rates and other terms and conditions on the borrowings should portray a win-win situation for both borrowers and lenders.

Another study in Nigeria was conducted by Oleka, Maduagwu and Igwenagu (2014). It examined the impacts of microfinance loans and the advances on SMEs performance. Data was collected from the year 2003 to 2013, consisting of primary and secondary data. The questionnaires were used to collect the primary data from the microfinance banks. The results of the study resemble prior studies discussed in this

section. The microfinance credits and advances were statistically significant in inducing the SMEs' growth and performance. Besides that, the demography of the firms such as size, age, and location and the loan maturity positively influenced the growth of the enterprises. As a consequence, microfinance institutions are urged to take advantage of the findings and improve their loan volume to patronage the SMEs' growth and expansion plans.

In line with technological advances, entrepreneurial finance also seems to be innovating. Eniola and Entebang (2014) conceptually discussed the importance of SMEs in Nigeria to explore crowdfunding as alternative financing. Statistically, in 1992-2013, the accessibility of SMEs for loans from commercial banks has decreased significantly from 48.80% to 0.1%. There is a reason why most entrepreneurs use internal financing and microfinance loans for their business. As SMEs are the economic drivers in Nigeria, there is a need for the government to provide facilities that support crowdfunding initiatives, including regulations on crowdfunding, relevant knowledge, and motivation. Their failure to diversify financial resources to include crowdfunding will result in SMEs continuing to rely on internal financing and microfinance as the main sources of financing.

Thies, Huber, Bock, Benlian and Kraus (2019) investigated a well-known platform provider, Kickstarter. Kickstarter is known as the world's leading platform for rewards-based crowdfunding. The study aimed to investigate crowdfunding campaigns on venture capital financing against campaigns launched on the platform. The study collected two data sources. First, from the Kickstarter platform to collect campaign-level data from 2009 to June 2016 with 56,000 campaigns asking for money from the public. Second, Crunchbase to track information on 100,000 investments in the same period. The Kickstarter platform offered 15 categories, but the study selected

only three categories: games, design, and technology because these categories corresponded to entrepreneurial activity. The results of this study confirmed that reward-based crowdfunding campaigns positively influenced VC's decision to make future investments in a particular enterprise. The number of investors participating in this campaign can also reduce information asymmetry, further signaling VCs to participate. The study also showed that the platform provider's emphasis on a product or service can positively influence VC's investment in an enterprise. Thus, it revealed that reward-based crowdfunding can fill the financial gaps faced by entrepreneurial firms.

In their special issue paper, Bruton, Khavul, Siegel and Wright (2015) showed the influence of microfinance and financial innovation (crowdfunding and P2P) as an alternative financial source for seed entrepreneurs. The findings revealed that institutional background for microfinance, crowdfunding, and peer-to-peer lending had significant effects on the origin, distribution, and acceptance of the financial alternatives for seeds enterprise and start-ups around the globe. The paper also suggested that the institutional setting should be an important component of any framework to understand these new alternative sources of entrepreneurial finance.

Furthermore, there is no concrete evidence on the performance outcomes of microfinance efficiency in reducing poverty rates (Harrison, 2013; Khavul, 2010). Recent findings also show that it has only a minimal effect in eradicating poverty (Duvendack *et al.*, 2011; Tarozzi *et al.*, 2015). Crowdfunding studies have demonstrated that reward-based crowdfunding has been shown to provide funding for seed entrepreneurial activities. On average, the reward-based funded enterprises increase human resources by 2.2 per cent, as many enterprises record annual revenues above $ 100,000, and 90 per cent of reward-based CF enterprises still survive after one

to four years of getting crowdfunding (Mollick & Kuppuswamy, 2014). In terms of ECF and P2P, not many studies have been done to study its effects. Perhaps these fundings are still at the early stage of their emergence. However, Mollick (2014) revealed that 25 per cent of launched projects are successfully completed on time (Mollick, 2014).

To date, empirical evidence on the performance of the ECF-funded firms is still lacking. However, research on ECF performance is vital to provide insight to determine the post-crowdfunding outcomes. The findings also would determine if ECF effectively provides funds for seed enterprises, start-ups, and others. According to Kourabas, Ramsay and Upadhyaya (2020), when the ECF reaches maturity level, only then can a study on ECF-funded firms be conducted.

The current study positions itself with the opinion that a study can still be conducted without waiting for the ECF market maturity. It depends on the focus of the study (investigating variables) towards the ECF-funded firms that may influence their performance. These include, for instance, the strategy they used to improve performance, such as the financial management practices employed, their social networks, ECF platform selection, and business intelligence adoption. From the researcher's initial glimpse, what differentiates SMEs funded with ECF and non-ECF-funded is financial innovation, ownership in the investment firm, and use of ECF platform to acquire funding instead of solely depending on the traditional funding institutions. Therefore, this study takes the initiative to study the ECF-funded firm's performance in Malaysia and provide empirical results in this field.

3.3 CROWDFUNDING

The Statue of Liberty is most notably tied with the history of crowdfunding. In 1885, the French government presented the statue to the United States government. Money, on the other hand, is necessary to erect the statue. For this reason, the US government requested contributions from its citizens. The campaign was begun by Joseph Pulitzer and his fundraising team, who successfully raised USD300,000 through newspaper advertisements (Pulitzer, 2013).

3.3.1 Definition of Crowdfunding

There are several definitions of crowdfunding that share more or less a similar meaning. Crowdfunding is a small amount of money collected from a large pool of people. Crowdfunding is defined as a collective of virtual activity involving an individual, institution, non-profit organization, or company which convinces the crowd or a group of individuals of different education background, characters, and experiences through a flexible open call. It is the voluntary undertaking of a task that always entails mutual benefit, and the crowd participates by bringing in work, money, knowledge, and experiences (Estellés-Arolas & González-Ladrón-De-Guevara, 2012). It is also known as the "social model of financing" (Brzozowska, 2013) or "collective financing" (Biancone *et al.*, 2019).

Crowdfunding money helps finance a project, business, personal loan, and other purposes (Kirby & Worner, 2014). Belleflamme, Lambert and Schwienbacher (2014) derive the idea of crowdfunding from the crowdsourcing concept. They assert that it acknowledges many people's (crowd) ideas, comments, and suggestions for entrepreneurial development. In general, crowdfunding refers to collecting a small amount of money from the crowd through the internet (Green *et al.*, 2015).

In simpler words, crowdfunding means collecting money from the crowd online. Internet use has incorporated the skills and knowledge that leads to the success of the crowdfunding. For the internet-savvy individuals, crowdfunding is attractive. The campaigns posted via social media and online applications such as Instagram, Facebook, WhatsApp, and others help the initiator to attract citizens to donate, provide correct and fast information about the crowdfunding stages, and the kinds of reward they will get (Baeck & Collins, 2013; Bernardino *et al.*, 2020; Gierczak *et al.*, 2015, 2016). Freedman and Nutting (2015) uphold that the existence of social media enables the collection of small money from many people, especially when the project has social value.

The crowdfunding definition is a manifestation of globalization and internet openness where a group of people share resources with the community with the same objectives, mission, and obligations (Beck, 2017). Thus, entrepreneurial internalization is possible under the crowdfunding setting (Cumming & Johan, 2017). It further has the potential to overcome the funding issues of entrepreneurial ventures. Additionally, it encourages entrepreneurs to go beyond the typical entrepreneur's standard approach in doing business. Furthermore, crowdfunding promotes new business ideas and develop significant skill and knowledge. It demonstrates trust as a factor that increases public confidence (Swart & Milner, 2015).

3.3.2 Types of Crowdfunding

Discussions on crowdfunding types focus on donation-based, rewards-based, equity-based, and peer-to-peer or P2P-based crowdfunding. However, it is doable to tailor the crowdfunding based on the fundraisers' needs. The following subsections 3.3.2.1 to 3.3.2.4 discuss the types of crowdfunding.

3.3.2.1 Donation-based crowdfunding

Historically, crowdfunding started with the donation model (Meyskens & Bird, 2015; Mollick, 2014). The main aim of donation crowdfunding is to collect money. Though sounding ordinary, what makes it different from the common donation is the interference of online mechanism (Kraus *et al.*, 2016). Under this model, the donors participate because of the social value that triggers their spirit to invest and not material returns. Thus, it is the reason why social enterprises are familiar with the donation model in which the core social value is most important rather than the reward or return (Kraus *et al.*, 2016; Lehner, 2013). Hence, when the project is high in social value but low in economic value, the most suitable crowdfunding model is the donation type. That is why most charities and non-profit organizations prefer to engage with the donation model. Besides, it has been proven to help fundings for social causes, events, or campaigns, and people tend to act fast (Swart & Milner, 2015).

A variety of factors influence the success of the newly launched campaign. Among the factors that can influence crowdsourcing financing success is an entrepreneur's mindset (Shepherd& Patzelt, 2011). An entrepreneur with a sustainability mindset who focuses on community projects, natural life conservation, and Mother Nature protection has a better chance of succeeding in a crowdfunding campaign. It considers the well-being of society. As a result, the contribution model's success element may serve as a wake-up call for certain donors, who may then consider that some recognition would be great. As a result, rewards-based crowdfunding emerges as a new type of crowdsourcing. Thus, rewards-based crowdfunding is eventually developed as another type of crowdfunding.

3.3.2.2 Rewards-based crowdfunding

The model entitles the participating donors to a reward that matches the donation they have made in the crowdfunding event. It can be a thanking mail, printed name on a t-shirt, or the donor's name in the project acknowledgement book (Hemer, 2011). There is also pre-selling in which priority is given to the investor or early-bird customers who contribute to the pre-production of the product (Frydrych *et al.*, 2014; Mollick, 2014). The nature of the investment serves both parties, the entrepreneur and the investors, where the entrepreneur receives the money for his/her product at the pre-order stage, and the investors have a chance to receive either material or immaterial rewards for the investments they make (Kraus *et al.*, 2016). The purpose of the reward is to appreciate the investors' participation and encourage them to continue participation in the project (Swart & Milner, 2015). However, the entrepreneur's sustainability orientation still plays an important role to ensure the target funding success. According to Calic and Mosakowski (2016), the entrepreneur's sustainability orientation and target funding success have a positive impact, as investors' motivation shifts from monetary returns to other forms of returns. Next is equity-based crowdfunding.

3.3.2.3 Equity-based crowdfunding

The purpose of donation-based crowdfunding is to help others without any intention to obtain returns. The expansion of donation-based crowdfunding becomes rewards-based crowdfunding. The reward can be in the form of t-shirts, mugs, books, tickets, goodie bags, and as simple as the printed name in flyers. When the company they funded (via donation or reward) begins to grow, increase revenues, and attract other investors, the former donors would wonder if they should receive some

appreciation for the company's success. Unfortunately, donation and rewards-based crowdfunding do not allow such an intention, and the company has no obligation to fulfil the purpose. Thus, equity crowdfunding (ECF) comes into the picture.

ECF is the most complex crowdfunding model. It enables the investors to have ownership in the business, gain income when profitable, and share risks (Belleflamme *et al.*, 2010; Freedman & Nutting, 2015; Nunes *et al.*, 2021). Equity crowdfunding allows young business ventures and commercial projects to get money from social virtue investors by transferring the company's ownership in the form of shares (Estrin *et al.*, 2018; Hagedorn & Pinkwart, 2016; Tuomi & Harisson, 2017). The equity crowdfunding alternative financing emerges at the meeting point where public equity intersects with private equity that finances the business ventures, especially those at the startup business level. However, since the shares of the individual investors are relatively small, they have no power to exercise due diligence. To minimize the risk, the platform as an intermediary has to play its role to exercise due diligence before marketing the entrepreneur's campaign to attract the investors' intention to invest (Audretsch *et al.*, 2016).

It has been reported that equity crowdfunding in the UK has taken over traditional financing for early-stage businesses (Estrin *et al.*, 2018). It provides the entrepreneur with a marketing place and getting recognition. Interestingly, potential investors and customers could analyze the entrepreneur's project campaign online. Even though investors are new to this type of financing, they enter the market with proper investment knowledge (Baumgardner *et al.*, 2017). Thus, they are aware of the potential risks that are involved. Despite this, ECF is not always the entrepreneur's first choice in securing funding. There are circumstances where unprofitable companies with huge debts and highly intangible assets approach the ECF platform to improve

their internal financing and debts volume. The companies are transferring the risk to the crowd investors for their better performance (Walthoff-Borm *et al.*, 2017).

Therefore, it is vital to undergo a thorough due diligence process and recognize the firms seeking funding via ECF. These processes will help disseminate clear information, reduce asymmetrical information, and prepare essential policy design that abet crowd investors to understand the risks involved. This will lessen the risk because the crowdfunded company may fail after receiving the crowd's money (Ahlers *et al.*, 2015). Protecting the crowd investor is the main reason for the high regulation of the ECF (Belleflamme *et al.*, 2010). Despite that, the *4th European Alternative Finance Benchmarking Report* of the Cambridge University (2019) reported that the ECF has shown rapid growth in most countries in Europe (Ziegler *et al.*, 2019).

3.3.2.4 Peer-to-peer lending (debt-based) crowdfunding

P2P is debt-based crowdfunding. Funders advance the money to an individual fundraiser or a company that short of cash to run the business (Kraus *et al.*, 2016). It involves a group of people pooling their money as debts to entrepreneurial business startups or small companies in return for interest. Here, P2P bypasses banks and other financial institutions as an intermediary. P2P attracts both borrower and lender where the borrower pays lesser interest, and the lender can earn more interest since the borrower's overhead is reduced (Beaulieu *et al.*, 2015). The P2P gains its success stories for its capability to overcome early development problems. The ranking of P2P has jumped to second place after the rewards-based crowdfunding. Furthermore, the volume of P2P for business lending in the UK for the last five years had reached £1,490m (Nesta, 2012). Table 3.1 summarizes the four main categories of crowdfunding.

Table 3.1: Main Types of Crowdfunding

Types of CF	Description
Donation CF	Purely philanthrope without any expected future compensation to the backers.
Reward CF	An appreciation is given to the contributor for supporting the product or service developed
Lending (P2P) CF	An investment vehicle through which crowd investors provide loans to startups or small enterprises to support their ventures and will receive interest payment in exchange
Equity CF	Crowd investors are supporting startups or small enterprises and will receive some portion of shares in the ventures. This type of crowd investing is parallels with the venture capital industry.

Sources: Kuti & Madarász (2014), World Bank (2013)

3.3.3 Crowdfunding Ecosystem

The crowdfunding ecosystem involves three leading players; the creator, the investor, and the platform (Aschenbeck-Florange *et al.*, 2013; Agrawal *et al.*, 2014; Brüntje & Gajda, 2016). Each of them has different functions and practices in the crowdfunding ecosystem. As a result, their influences on the ecosystem also differ. To have a better understanding is a need to know the crowdfunding ecosystem as a whole unit. Thus, it is necessary to identify who are the stakeholders in the crowdfunding ecosystem. This section examines the components that constitute the crowdfunding ecosystem, their contributions, and expectation from the system. The main actors are the entrepreneur, investors, platform provider, and legislation.

3.3.3.1 Platform providers

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).

In ECF, the platform provider as the 'middle man' connects the entrepreneur who is looking for funding and the investors who have the money. In return, the platform will charge the platform fees ranging between 3% - 10% out of the funds raised. On the whole, the platform provider is the centre of the crowdfunding ecosystem that creates, controls, and ensures the efficiency of the crowdfunding's overall process for the benefit of all stakeholders (Beaulieu *et al.*, 2015). It also has continuously disrupted traditional banking and financing sectors (Horvát *et al.*, 2015). The crowdfunding platforms can cut costs related to communication, underwriting, and transaction costs un-avoided in traditional banking, thus attracting investors eyeing low-costs portfolio (Baumgardner *et al.*, 2017). However, empirically, the platform's website is most visited by entrepreneurs rather than investors (Gedda *et al.*, 2016).

3.3.3.2 Founders

The literature has exposed the different terms used to reflect the founder. Among those used include the issuer, entrepreneur, firm, owner, startup, creator, and borrower. A founder can be an individual or a group of people who aims to execute a particular project. The founder comes from different background and experiences, from qualified people to individuals without experience. However, there are two founder criteria to be considered. Firstly, those with business proficiency. The founder of such experiences can understand the business processes from the idea stage to the execution stage. Secondly, those are directly involved in product development and distribution. Such experiences help market and distribute the product. Therefore, a founder with various experiences (i.e., excellent in both aspects, good at either one of them, and may have some experience in both parts) approaches the website provider to seek capital. For that matter, the founder comes up with a project's or product's proposal and introduces the idea via the provider's website. This phase is known as the crowdfunding campaign (Beaulieu *et al.*, 2015).

During the campaign, the introduction of vibrant and convincing ideas is enough to attract prospective investors. At this time, the prospective investor can access the information. It is the founder's responsibility to ensure its transparency so that the prospective investor can make a well-informed judgment before investing (Beaulieu *et al.*, 2015). In raising the funding, a crowdfunding website is where the founder can have public feedback for the project or ideas launched (Gerber *et al.*, 2012; Helmer, 2014). It further encourages interaction between the founder and investors (Gerber *et al.*, 2012) and secure future financing (Dingman, 2013). However, in the case of equity-based crowdfunding, if the founder offers high equity to the crowd funders, this will

less likely attract the potential backers to invest as it signals the quality of the founder's organization crowdfunded project (Vismara, 2016).

3.3.3.3 Backers or investors

The literature also highlights the terms used for crowdfunding backers (Wang *et al.*, 2018; Kuppuswamy & Bayus, 2018; Bretschneider & Leimeister, 2017). Other than backers, they are also referred to as funders, investors, lenders, crowd funders, and contributors. They are also one of the crowdfunding ecosystem's backbones since they are the supporters of the crowdfunded project. They are not merely fulfilling the required capital but are responsible for testing the market and providing an opinion on whether the project is worthwhile to carry out. Besides that, through social media, backers use their network to spread information on the project (Bernardino *et al.*, 2020). Therefore, their roles are more than just the monetary aspect. Backers from different demographic backgrounds would approach the website provider depending on the crowdfunded project they are interested in, which they consider worth funding and trustworthy (Hui *et al.*, 2014; Lehner, 2013). However, this demographic aspect varies depending on which crowdfunding models they approach. For example, high net-worth backers are more interested in equity-based crowdfunding where they have ownership in return (Beaulieu *et al.*, 2015).

There are several discussions on backers' motivation to crowdfund. One of them discusses the egoism or altruism-behavioral aspect of the crowd funders. In the egoism perspective, an individual is motivated to contribute for his/her benefits, such as getting rewards and being recognized when involved in the project (Gerber *et al.*, 2012; Haas *et al.*, 2014). On the other hand, altruism explains one's act of self-satisfaction when helping others (Andreoni, 1990; Burtch *et al.*, 2013; Haas *et al.*, 2014). Thus, in reality,

the combination of both factors may likely influence the spirit to contribute, which will in return, fulfil the extrinsic rewards (material satisfaction) and intrinsic rewards (spiritual satisfaction) (Beaulieu *et al.*, 2015). Putting aside the geographical vicinity, backers' and BAs' motivation to invest is similar (Hornuf & Schwienbacher, 2016).

Furthermore, different sorts of investors have distinct motivations, such as angel investors, venture capitalists, and banks. These traditional funders pick and select which founders to support. Banks select the founders that meet their five C's criteria before the loan application is processed (Beaulieu, 1994; Beaulieu, 1996; Beaulieu *et al.*, 2015; Jankowicz & Hisrich, 1987). The five C's are the founder's character, the capacity of the founder's organization, the collateral the founder and his/her organization have to secure the application, the availability of capital the organization has for its operation, and the condition the founders have to fulfil (Beaulieu *et al.*, 2015).

Shark tank is a US-based reality TV program in the United States that features business founders proposing their business ideas to safeguard investment from a group of venture capitalists (Keren, 2016). The show illustrates the competition for VC funding which is high. In most cases, founders struggle to convince their business ideas in front of the VC panel. Only a select few business plans are successfully funded via venture capital funds (Dos Santos *et al.*, 2011; Lavinsky, 2011). VC tends to participate in managing the firm receiving VC fund (Fried & Hisrich, 1995).

Online crowdfunding, instead, shows founders independently funding their enterprises using 'crowd' money. In other words, crowdfunding has substantially changed the traditional process of acquiring entrepreneurial funding (Beaulieu *et al.*, 2015). The founder who has successfully raised money through crowdfunding has a proven track record that shows his/her product or service has public demand. Venture

capitalists may fund this kind of enterprise (Burns, 2013; Hsu, 2004). In circumstances where the enterprise is a startup or at the growing stage and has no proven record to convince the traditional funder, or when the product is below the expectation of VC or angel, or when the project has less commercial value, conventional financing is impossible. Hence, crowdfunding is the solution (Levin *et al.*, 2013; Macht & Weatherston, 2014; Manchanda & Muralidharan, 2014).

3.3.3.4 The legal/ethics

The uniqueness of crowdfunding is that founders, backers, and platform providers can be at different locations when the crowdfunding campaign is taking place. The advancement in information technology permits this global interaction to occur. Therefore, there is a need to impose rules and regulation to protect the stakeholders under the crowdfunding ecosystem. A literature review shows that investment-based crowdfunding (i.e., equity-based and debts-based) has attracted the most attention than other crowdfunding models because most accredited backers approach this model to invest. For example, in the USA, equity-based crowdfunding is governed by the JOBS Acts 2012 (Ahlers *et al.*, 2015; Freedman & Nutting, 2015; Levin *et al.*, 2013; Sigar, 2012). In the UK, it is governed by the Financial Services and Market Acts (Aschenbeck-Florange *et al.*, 2013), and in Malaysia, by the GRMS 34 of the CMSA 2007 (Securities Commission Malaysia, 2016). The state's law in the US and licensing may govern crowdfunding (Gelfond & Foti, 2012). Also, the introduction of consumer protection litigation, in case the founder fails to deliver as promised (Fan-Osuala *et al.*, 2018), where earlier, VC corporations are responsible for handling most of the ethical and legal related matters crowdfunding. However, the ethical issue is still debated (Beaulieu *et al.*, 2015).

3.3.4 Crowdfunding Characteristics

The cross-border concept of crowdfunding is a new approach to generate money for business ventures, project execution, and benevolent projects (Schwartz, 2020), as well as the possibility to penetrate the open market (Landscape, 2015), and the implementation of innovative ideas (Beaulieu *et al.*, 2015). At the same time, equity and lending-based crowdfunding face economic and legal requirements (Pazowski & Czudec, 2014). The invention lies in crowdfunding, changing the entrepreneur's perspective in introducing new products to the market. It also enables thousands of innovative entrepreneurs to raise money, build brand awareness, and join broader conversations with many prospective investors even though they are still in the process of product development (Stanko & Henard, 2016).

The nobleness of crowdfunding comes with the technology that facilitates the connection between the entrepreneurs and potential investors regardless of geographical location and cultural background (Agrawal *et al.*, 2011). The current perspective of crowdfunding has been introduced and established in the United Kingdom, United States, Italy, France, Sweden, Canada, New Zealand, Germany (Aschenbeck-Florange *et al.*, 2013), and Europe (Brüntje & Gajda, 2016). In fact, in Europe, crowdfunding has become an important funding provider to unserved or underserved ventures. In the year 2013, the ECF market in Europe raised about one billion euros. The projection also indicates the amount increase in 2020 (Biancone *et al.*, 2019).

Crowdfunding is growing and gaining momentum as more and more people search for alternative financing through the internet, enabling them to reach people around the globe. There are various types of crowdfunding. Other than ECF and P2P, there are donation, rewards and hybrid-based crowdfunding that can fulfil the

entrepreneur's requirement (Ahlers *et al.*, 2015; Kraus *et al.*, 2016; Marzban *et al.*, 2014; Rahman *et al.*, 2016). Reward-based crowdfunding is the most common and successful type, followed by donation, lending, and equity-based. Even so, until today, specific legislation on the donation and rewards-based crowdfunding models is still absent.

Currently, only the ECF and P2P models are regulated. Due to the nature of the models and the need to protect the rights of investors or lenders. These include, for example, Title III of the JOBs Act in the US (Ahlers *et al.*, 2015; Freedman & Nutting, 2015). The FCA of the UK, or its predecessor, the Financial Services Authority (Aschenbeck-Florange *et al.*, 2013), is the respective regulatory body to monitor and facilitate equity-based and lending-based crowdfunding. For instance, Germany enforces the German Retail Investor's Protection Act. Italy is the first country in the European Union that imposed the regulation on equity crowdfunding, whereas it is restricted in Canada (Mitra, 2012). Canada opens only to accredited investors in 2013. However, in late 2015, ECF has been available for all investors in Canada (GetSmarterAboutMoney.ca, 2020). Although legalized in 2016, government intervention is vital to safeguard the investors (Rémillard, 2017). However, the existence of those regulations will seriously influence the spirit of crowdfunding that is to lessen SMEs' and startups' financial problems (Borello *et al.*, 2015).

3.3.5 Motivation in the Crowdfunding Ecosystem

In practise, crowdsourcing has shown to be a useful instrument for promoting financial inclusion (Muneeza et al., 2018). The existing crowdfunding literature reveals the reasons why people participate in crowdfunding activities all across the world.

Among the participants are the issuer, investors, and platform provider. The reason in the crowdfunding ecosystem is further explained in the sub-topics 3.3.5.1 to 3.3.5.3.

3.3.5.1 Issuer (Entrepreneur or capital seeker)

Afuah and Tucci (2012) broadened the idea of crowdsourcing. Crowdfunding involves mobilizing people to finance projects advertised by their supporters either on a private page or on a specific website, known as a crowdfunding platform. Financing is provided by web users in exchange for some monetary claims on the projected income, for economic benefits, or just for donations. Its' supporters welcome suggestions and inputs for the project. Also, crowdfunding can succeed the traditional funding practices concerning entrepreneurship and startup projects by completing the funding provided by professional investors such as venture capitalists, business angels, or equity providers (Giudici *et al.*, 2012). Companies are becoming more attracted and motivated towards crowdfunding from year to year (Massolution, 2013). Table 3.2 lists the factors which motivate and attract entrepreneurs to seek capital through crowdfunding.

Table 3.2: Types of Crowdfunding, Returns & Motivation of Funders

Types of Crowdfunding	Form of Contribution	Form of Return	Motivation of Funder
Donation	Donation	Intangible benefits	Intrinsic and social motivation
Reward	Donation/Pre-purchase	Reward and intangible benefits	Combination on intrinsic, social motivation and rewards
Lending	Loan	Repayment of loan plus interest. Socially motivated lending is interest free.	Combination on intrinsic, social and financial motivation
Equity	Investment	ROI in time if business making profit. Rewards and intangible benefits also attract investors.	Combination on intrinsic, social and financial motivation

Source: Pazowski & Czudec (2014)

Entrepreneurs tend to participate in crowdfunding because it is the fastest and easiest way to generate public funds for their projects. Also, it enables the public's recognition to get the fastest products or services response, networks building, more freedom in terms of maintaining control over the project, and learn new skills (Aprilia & Wibowo, 2016; Gerber & Hui, 2013). These factors motivate the entrepreneur to participate in crowdfunding fundraising (Pichler & Tezza, 2016).

3.3.5.2 Supporters, investors or funders (capital giver)

Harms (2007) exposes investors' motivation to the different components of value, namely, emotional value, social value, quality performance value, and financial value. However, Gerber and Hui (2013) emphasize enthusiasm between the supporters and the creators and parents, family, and friends, which motivates funding of the project. Supporters are willing to support for the sake of helping others. Some may keep it because they want to collect the rewards offered (i.e., mugs, notebooks, CDs, and t-shirts). Meanwhile, trust motivates supporters to participate because confidence is there. Listing down the supporters' name on the platforms increases the supporters' trust. There are, of course, others who merely support the cause that they like.

3.3.5.3 Platforms

Intermediaries and mediators reflect the same primary purpose that is connecting others. It refers to joining one party with another party. Howells (2006) investigated the intermediation innovation and found out that intermediation grew as time passed. Intermediaries diversify from focusing on particular specialization to acquire new required skills and specialties, thus creating values and vitality within the system. Intermediaries function not to merely connect parties but to also enhance them

by promoting new opportunities and passion. Evaluating the impact of intermediary innovation is challenging given its indirect and direct effects on the value chain of business. However, the growth of the number and distance of perpetrators in the system denies the benefits they make to their customers and the whole innovation system. Nevertheless, the richness and success of intermediation in the overall system can create institutional inertia, which can cause problems in the strength and longevity of the system in the long run (Van der Meulen & Rip, 1998).

According to Haas, Blohm and Leimeister (2014), it is reasonable to investigate the crowdfunding platforms' potential as intermediaries since research on crowdfunding platforms is still lacking. Haas *et al.* (2014) found that intermediaries' value propositions differ depending on the crowdfunding models (i.e., hedonism as a reward, altruism as a donation, and profit). On the other hand, Salomon (2016) views the emergence of crowdfunding platforms as the manifestation of declining support from VC industries and private equity (PE) funds. Hence, this suggests that VCs and PEs are abandoning the early-stage entrepreneurial market as it is difficult to identify sound startup projects to build a successful portfolio. Thus, they merely concentrate on the existing and growing businesses that already have profitable products and stability in the market (Lindstrom & Olofsson, 2001).

3.3.6 Risks in Crowdfunding

Understanding the risks incorporated in crowdfunding is essential to avoid fraud, IP theft, money laundering, and "failure by success" since there are decent and decadent fund seekers and investors in the crowdfunding platform (Stack *et al.*, 2017). Mitchell (1992)'s argument on the decision to buy or not to buy is dependent on how the consumers perceive risk when observing the crowdfunding players' reaction. This

is because consumers tend to avoid making mistakes rather than just fulfil their buying desire (Mitchell, 1999). The increase in risks diminish the customers' buying desire (Forsythe & Shi, 2003). Often, information asymmetry is the reason for risk occurrence, simply because the supplier has more information than the buyer (Pavlou & Gefen, 2004; Vismara, 2018).

Therefore, perceived risk is determined as one factor influencing one's decision to invest in crowdfunding (Gierczak *et al.*, 2014). However, in crowdfunding, predetermining the possible risks at pre-launch and during the campaign would assist in planning and implementing the strategic risk program for both the website platform and the crowdfunded project. For instance, prior to approaching the platform provider, the issuer must meet the prerequisites for participation. The concerns must go through the due diligence procedure to ensure the company's, founder's, and product or service's existence, capacity, and viability. Thus, it will attract the crowdfunding campaign spectators to become investors, increasing the success rate and investors' database (Mollick, 2014). Because the ECF is at the centre of this study, it's important to understand the dangers that come with equity crowdfunding. The risks associated with ECF are discussed in subtopic 3.3.6.1.

3.3.6.1 Risks in Equity-Based 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. Ibrahim (2015) argues 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.

The OSC (2016) discloses that startups are highly prone to various types of risks. The main risk is the high risk of loss. OSC has reported that 90% of ECF startups would fail. The voluntary information disclosed on the website is limited and if any, to verify the available information is challenging indeed. When investors enter the market, they expect to gain as many possible returns. Unfortunately, the reality is that for the startup to produce the promised income is doubted.

As an ECF entrepreneur, understanding the potential risks that might distract the investors' investment appetite is an added advantage. Bijkerk (2014) highlights the systemic risk issues (cross-jurisdictional). Such happens when the platform is opened to people of other nationalities to participate in the funding to initiate the cross-border complexities. The OSC (2016) further lists some possible risks that will influence the prospective investor's decision to invest, as follow:

i. High risk of loss: startups or early-stage businesses are exposed to this type of risk since 90% of this kind of business tend to fail;

ii. Liquidity risk (locked-in investment): most investors invest in a startup, hoping that the business will grow and be listed on the stock exchange. Unfortunately, this may not happen;

iii. Lack of information: equity crowdfunding is not like the public-listed company where the information is provided in detail and adequate for the prospect to make decisions to invest. Information accessibility for equity crowdfunding is limited.

According to Chen, Huang and Liu (2016), verifying the disclosed information is also challenging;

iv. No income: when the investor intends to gain income from the investment made, the reality of a startup hardly paying a dividend is a risk to be considered;

v. Fewer protection (no approval and limited legal rights): legal rights that protect the investors in equity crowdfunding are not the same as the rights for securities under stock exchange. The securities regulator does not review equity crowdfunding investments as the platform providers review them;

iv. No investment advice: the information might be limited to what info provided on the platform provider's website. Thus, engagement with the registered provider is important;

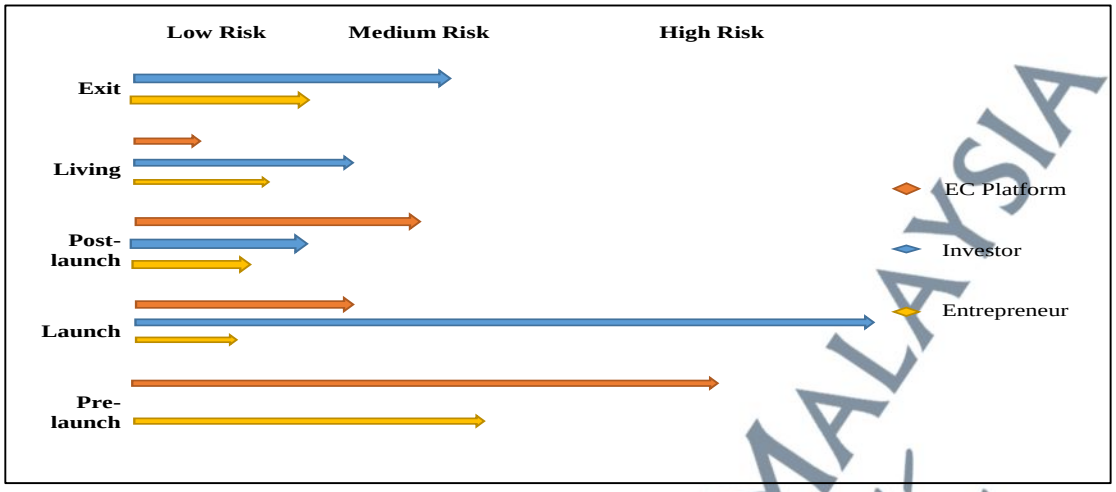
vii. Potential for fraud: investors invest based on the information they gather from the provider's and the entrepreneur's portal; and

viii. Dilution risk: If the startup issues another new share to make more capital, the existing shareholder shares will dilute or reduce value.

In one angle, ECF platforms begin to show drawbacks with their tendency in disclosing investors' information (risk of data stolen). Internet application enables data retrieval through social networks. However, from another angle, disclosing investors' 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).

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 very recent 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.

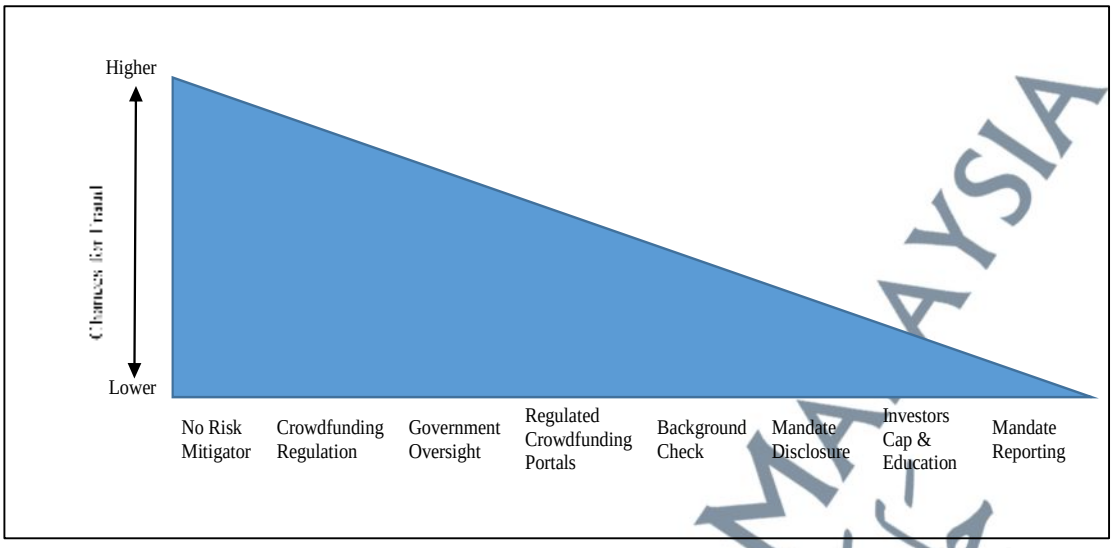
At the platform level, the adherence to the ECF regulations is to ensure the investors are protected (Cholakova & Clarysee, 2015; Giudici, 2016). A further need is to initiate the risk-reducing measure approach to safeguard the ECF administration (Turan, 2015). On the other hand, investors would benefit 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). Figure 3.1 shows the risks encountered by stakeholders during the equity crowdfunding process. Investors encounter the risk when the startup is launching the products or services on the platform. Meanwhile, the entrepreneur and platform face risks during the pre-launch stage.



Source: Turan (2015)

Figure 3.1: Stakeholders' Risks during Equity Crowdfunding Process

The Government is the central entity that can prevent malicious fraud and protect both the entrepreneurs and the investors. The various risk mitigation techniques will substantially help reduce or eliminate the risk occurrence (World Bank, 2013). Figure 3.2 shows that the chance of minimizing fraud from happening. The Government imposes rules and regulation, and standards to be adhered to by the crowdfunding actors. However, too many restrictions or limitations and law will distort the original aim of crowdfunding from the social perspective.



Source: World Bank (2013)

Figure 3.2: Techniques to Mitigate Risks

Table 3.3 below outlines the international enactments that act as a protective mechanism to mitigate the possibility of fraud (World Bank, 2013).

Table 3.3: Mechanism to Protect against Potential Fraud

Type	Risk	Rationale	Mitigation Tactic
Business	Fraud	The securities markets have examples of fraud.	Need to have background checks for the issuers. Mandatory auditing, financial disclosures and business reviews. Requiring all-or-nothing financing (prevents fraudsters from raising money and then disappearing when donors ask difficult questions). Restricting or monitoring social media communication about offerings. Requiring all crowdfund raising to take place on portals that are registered with a national regulatory body that oversees securities. Providing investor education to learn how fraud has been perpetrated in the past so that investors can identify it in future. Mandatory holding periods to prevent pump-and-dump schemes.
	Failure	Crowdfund investments offer no guarantee of return.	Educating investors about portfolio diversification as a means to prevent total loss of investment(s).
	Anti-money laundering	Using businesses as a cover for illegal money transfers.	Placing caps on amounts that may be raised in specific time periods. A "cooling off period" between reaching the funding target and funds transfer to allow for further diligence by investors and regulators.
	Sector risk	Crowdfunding has had the most traction in consumer products and extensions of popular brands or games.	Build on small successes in areas like science and energy. Raise small amounts of capital to show market interest and customer validation. Consider leveraging the crowd for only a small part of the overall capital raise to identify interest and de-risk the bigger investment.
	Subsequent funding failure	Bringing on crowdfund investors create a more complicated investor table that may deter subsequent investors.	Consider the use of a Special Purpose Vehicle (SPV) to group all crowdfund investors into one voting group to ease communication and voice. Offer to buy out crowdfund investors at subsequent rounds of financing at the current price.

Table 3.3 ***Cont.***

Type	Risk	Rationale	Mitigation Tactic
Investor	Investor liquidity & losses	Crowdfunded stocks are not liquid, businesses do fail and investor can lose their investments.	Investment limits for nonaccredited investors. Allowing for crowd vetting and crowd diligence to discuss the merits/ risks of the offering in a public manner. Promote the creation of secondary markets after a 12-month holding period where shares may be traded based on supply and demand..
Entrepreneur	Lack of issuer experience	Entrepreneurs do not always have all the experience needed to build, run, and raise capital for a business.	Create education programs about how to build a business. Create education programs about how to raise money from the crowd and follow through with a plan once funded. Requiring the participation of either a securities broker/dealer, an attorney or accountant.
Regulatory		Regulatory bodies may resist or reject the argument that crowdfunding is an appropriate and effective method of financing early-stage companies.	Work with local governments prior to offering crowdfund investing. Engage with local regulatory and policy constituents to build crowdfunding frameworks.
Industry	Market rejection	Investor community might not have an appetite for this new emerging asset class.	Leverage the media to share success stories of businesses that have been successful with crowdfunding investing and jobs that have been created. Share early financial engagement stories of investors who have backed crowdfunded companies and why. Offer crowdfund investments in tandem with more traditional investments to act as an honest broker.

Source: World Bank (2013)

3.3.7 Benefits of Equity Crowdfunding to the SME

An entrepreneur planning to start a business requires external help and support on their potential services or products. Under the traditional funding processes, the feedbacks would typically come from the business angels or commonly the venture capitalist. However, the process would almost always generate negative feedbacks due to thorough checking on the SME and entrepreneur. Therefore, crowdfunding is the alternative because the "wisdom of the crowd" offers SMEs and the capital providers, which are at the same time potential consumers of products or services (Eldridge *et al.*, 2019; Gajda & Walton, 2013; Schwienbacher & Larralde, 2010).

SMEs use crowdfunding to obtain financing, survey the market, get public feedback, and market purposes (De Buysere *et al.*, 2012; Mollick, 2013). Crowdfunding capability boosts the European economy as more jobs are created, showing better GDP performance. A contributing factor is the availability of the required capital in a faster and efficient manner than traditional financing (Golić, 2014; Obiora & Csordás, 2017). Crowdfunding preserves the controlling power within the organization from outside interference. Thus, it differs from venture capitalists and angel investors who can participate in the organization's decision-making processes (Valanciene & Jegeleviciute, 2013).

The borderless features held by crowdfunding is an advantage over other types of financing. Thus, crowdfunding allows investors to penetrate businesses outside their home country (Belleflamme *et al.*, 2013; Li & Zahra, 2012), and fulfil their own community's projects for prolonged economic development and sustainability (Valanciene & Jegeleviciute, 2013). In addition, crowdfunding is a sort of cost saver to the company. Because the investors' participation indirectly increases the value of the company, they help in creating the product and design from the feedback they provide

to the company. Thus, this shortens the product development timeframe and subsequently reduces the costs (Schwienbacher & Larralde, 2010). Crowdfunding is a form of investment that accelerates advanced market research, mouth-to-mouth promotion, and sales of the products before the mass production occurs (Golić, 2014). It further increases networking, hence granting the SMEs essential intangible benefits (Brown *et al.*, 2019).

3.3.8 Crowdfunding Moral Hazard

Moral hazard is a circumstance in which one party participates in a risky event with the knowledge that it will be sheltered from the risk while the other will bear the cost. It occurs when both parties have insufficient information about one another (The Economic Times. 2018).

Crowdfunding, however, complements traditional entrepreneurial financing that involves financial intermediaries such as banks and venture capitalists. It is an innovative way to collect money that involves a screening process. Subjected to projects with positive net present values will be selected. At this point, the entrepreneur is already able to know the potential demand and the profitability of the project in advance, thereby reducing demand uncertainty and thus, minimizing moral hazard or risk while at the same time creating economic value. On the other hand, entrepreneurial moral hazard threatens this perception (Strausz, 2017).

Therefore, the design of the All-or-Nothing crowdfunding platform is to provide significant safety measures and lessen moral hazard. It features the funding target, and it is a highly in-demand products that achieve the funding target. If the entrepreneur cannot meet a minimum amount of the funding target, theoretically speaking, the demand is enough to generate the income but not enough to overcome

the agency costs related to the moral hazard under the crowdfunding umbrella. The entrepreneur may then approach the venture capitalist for further funding (Strausz, 2017).

A study on Kickstarter, a rewards-based crowdfunding platform, shows that social networks help mitigate disputes during the crowdfunding campaign, especially in the time of economic uncertainty. Social networks favor firms or a group of people over individual entrepreneurs since individual entrepreneurs without any track record are more prone to be involved in fraudulent actions than a company or a group of people. It symbolizes the relationship between social networks (Huber, 2009) and moral hazard in crowdfunding (Lin & Pursianen, 2018). Thus, by adhering to the rules and regulation, the moral hazard can be reduced, good ethics pursued, and finance morality ehanced (Looft, 2014). In Islamic finance, the protection of social relations among people is an obligation to The Almighty Allah SWT. Hence, fulfilling that obligation can avoid moral hazard (Erragraguy *et al.*, 2014). Therefore, to avoid the upcoming risks, the whole crowdfunding ecosystem should understand the risks involved.

The previous sections and subsections have explained the alternative funding, crowdfunding from the definition, types, ecosystems, characteristics, motivational factors, associated risks, benefits of ECF, and CF's effects on entrepreneurship. CF, especially ECF, has widely opened the opportunity for SMEs and start-ups to fulfil their funding gap through online platforms. Depending on the founder/manager capability to seize the potential of ECF, which could bring in more than money into the firm. The firm's human capital and intellectual capital need a strategy to embark on the ECF market. Besides the firm's human capital, prompt responses to changes and the ability to implement the right strategy are associated with its performance (Peña, 2002).

Strategy in business informs the stakeholder how the firm will accomplish its goals, continue its operation in a competitive market (Teece, 2010), hence, increase the firm performance (Poister, 2010).

The following sections discuss on financial management and its practices. Often, most SMEs and small firms would only employ certain practices and neglect the others. According to Wolmarans and Meintjes (2015), WCM, FAM, FAR and FPC are often practiced by the SMEs. However, WCM and FAM are preferred than FAR and FPC. They discover that previous studies on SMEs adoption on FMP throughout South Africa have similar findings signalling insufficient application and practices of FMP. Further, these studies did not investigate specifically the financial management practices by the owner-managers of SMEs, nor on the frequency with which these practices are used.

ECF at one point resembles the concepts of corporate finance (Coakley & Lazos, 2015), hence, maintaining adequate practices will convey a good signal to the crowd stakeholder.

3.3.9 Effects of Crowdfunding on Entrepreneurship

Entrepreneurs from both developed and developing countries show the same trend in the entrepreneurial approach in handling financing matters. The entrepreneurial financial cycle, which features seed and startup stages, requires the appropriate amount of money to start (Burchardt *et al.*, 2016; Paschen, 2017). They tend to combine traditional debts and the startup's equity such as families and friends (Ennico, 2002), moneylenders, credit cards, personal loans, angel investor and micro-financing (Calopa *et al.*, 2014; Edelman *et al.*, 2016; Khavul, 2010), bootstrapping (Waleczek *et al.*, 2018; Ye, 2017), peer-to-peer and other innovative financial products (Moenninghoff & Wieandt, 2012) such as crowdfunding (Belleflamme *et al.*, 2013). Undeniably,

financial capital is vital to all levels of entrepreneurial ventures, especially at the nascent stage as it speeds up the formation process (Hechavarria *et al.*, 2016).

Robb and Robinson (2014) stated that startups depend heavily on external debt as a source of capital. Thus, ensuring the credit market's liquidity for the formation and success of young startups is indeed vital. However, banks tend to impose an abundance of terms and conditions on startups that depend on external debt, hence putting them at a disadvantage, whilst startups backed by the VC and BA have favorable performance (Denis, 2004).

Understanding the appropriate time for further capital injection in the case of nascent firms could be an added advantage as it will affect their development speed. Therefore, it is crucial to ensure that the resources are secured and managed according to competitive advantage. Thus, it shows that the integration of human capital, social capital, and financial capital would potentially facilitate the nascent firm and encourage the creation of new firms (Sirmon & Hitt, 2003). Besides creating new businesses, the emergence of new financing resources encourages the firm performance because it facilitates capital availability and company growth. The previous literature on entrepreneurial finance shows an abundance of research concerning venture capital and angel financing and less on new emergent funding sources such as crowdfunding (Bellavitis *et al.*, 2017).

Nowadays, innovation in entrepreneurial financing is parallel with the vast development of entrepreneurship. Through technology transfer, other countries could replicate the financing approach used. For example, when micro-lending was well-accepted and successful in Africa, the concept was then adopted by America (Freedman, 2000). Thus, the benefits of innovation, research, and development promote growth and community enhancement by creating more suitable jobs,

connecting more people, introducing potential ideas, and marketing good products and services regardless of the demographic barriers (Swart & Milner, 2015).

The development of internet technology and social media enables alternative financing to assign the platform provider as an intermediary to raise funds. The concept is that everyone can invest even a minimal amount of money. The money accumulated from many people will provide a significant amount, especially for a project with social value (Meyskens & Bird, 2015; World Bank, 2013). Despite the benefits, not all entrepreneurs can match with crowdfunding financing. Firms engaging in a crowdfunding campaign commonly reveal information associated with the founders' demography, social networks, company progress, financial status, services, or products (Ahlers *et al.*, 2015; Vismara, 2016). The entrepreneurs' ambition and approach influence the entrepreneur-investor relationship and the kind of benefit they will receive (Green *et al.*, 2015).

Social networks help entrepreneurs obtain embedded resources by disseminating information faster, consequently attracting a broader group in the society. Moreover, the information is more trustable and convincing (Dunu & Uzochukwu, 2015). The crowdfunding platform portrays mechanism that could influence the development of business ventures and financial decisions. An increase in the number of platforms also shows an increase in the number of entrepreneurs seeking financing (Taha & Macias, 2014).

Social networks depict the elements for trust, reciprocity, norms, and networks, hence to include human, physical, and financial capitals. The trust exists in the institution and communities. Meanwhile, networks refer to the size of the networks, either formal or informal (Hunecke *et al.*, 2017). Despite this, the size of a social

network matter when it can contribute to the success of the funding campaign (Hekman & Brussee, 2013), and in the end, the firm performance ((Di Pietro *et al.*, 2020).

The platform-intermediary approach begins to include equity-based crowdfunding and peer-to-peer lending that uses the power of social media for entrepreneurial development by bridging the entrepreneur's financing gap and providing investment opportunities for investors (Breedon, 2012; Bernardino *et al.*, 2020). Salomon (2016) discloses that many venture capitals and private equities are reluctant to invest in early-stage and startup business ventures. Their avoidance of high-risk ventures to the low risks reflects the weakness of their traditional business model, which focuses on businesses already equipped with products and have market expansion. Therefore, one of the solutions is via crowdfunding. Crowdfunding does not merely reflect financial innovation. Far from traditional financial innovation, it has many facets that make it innovative. For instance, the collaboration between equity crowdfunding and other landscapes makes it an exclusive model (Nasrabadi, 2016).

Most of the studies concentrated on the pre-implementation stage of crowdfunding, for example, the interaction between external social capital and internal social capital with the crowdfunding campaign success (Butticè *et al.*, 2017; Colombo *et al.*, 2015; Cordova *et al.*, 2015; Kuppuswamy & Bayus, 2018), crowdfunding platform success (Qiu, 2013; Zvilichovsky *et al.*, 2015), and crowdfunded ventures' success and failure (Mollick, 2014; Wasiuzzaman & Nurdin, 2019). However, empirical studies on the 'after' crowdfunding success are lacking. A recent study conducted in Spain measures the relationship between crowdfunding and employment (Ramos & Gonzalez, 2016). There is huge opportunity to study the equity crowdfunding impact on other factors such as business performance (Tiberius & Hauptmeijer, 2021).

3.4 FINANCIAL MANAGEMENT PRACTICES AND FIRM PERFORMANCE

Financial management is one of SMEs' most vital management skills because it concerns every aspect of the entrepreneurial venture (Watson, 2007). It aims to plan and control the firm's financial assets, minimizing the costs and maximising the profit (Bloom & Boessenkool, 2002). Thus, it serves to explain why financial management is the most crucial aspect and needs serious attention. Sound financial management practices could lessen the challenges encountered by SMEs (Salikin *et al.*, 2014). Gitman (2000) states that financial management deals with making decisions, precisely, the decision related to finance and investment. It reflects the planning, directing, controlling, monitoring, and organizing of the firm's financial resources (Gitman, 2007; Weston & Brigham, 1996).

Rajaram and O'Neill (2009) posit that financial management skills are crucial for SMEs growth, survival, and sustainability. SMEs are known as the economic booster in most countries in the world. The contribution made by this sector is vast, especially in increasing occupation rates in the rural area and urban labor force, cherishing innovation and maintaining the sustainability of the overall economy (Chung & Chuang, 2016). Financial management practices have become one of the factors that influence the performance of any firm, regardless of the private or public sectors (Gyaase *et al.*, 2013). Many studies have measured the performance of SMEs in various fields. One of them is from the perspective of financial management practices adopted by SMEs. For instance, in Kenya dairy industries, Kamande (2015) opines those practices which include working capital policies, financial analysis, capital structure management, and fixed assets have strong influences on the firms' performance. He stresses that the sound analysis of the financial matter significantly increases the firms' performance. Further, Muneer, Ahmad and Ali (2017) statistically

proved that accounting information, financial reporting, and working capital management positively affect SMEs' performance in Pakistan.

Having excellent and insightful financial management practices allow the firm to effectively overcome any financial difficulties that occur. The more a company grows, the crunchier the financial problems it faces. Thus, a more comprehensive financial management is needed, and therefore, requires the employment of more practices (Erambo *et al*., 2016). Nevertheless, most companies overlook this matter (McMahon, 2001). Profound financial management also helps a firm meet its objectives and goals, especially in improving an organization's liquidity and profitability or services and productivity. These are possible through robust control of financial mechanisms, for instance, financial ratio analysis, cost volume profit analysis, and budgetary control (Paramasivan & Subramaniam, 2009).

Many researchers examine the financial management practices and their relationship with small firms' performance worldwide (Herzallah *et al.*, 2014; Karadag, 2015; McMahon, 2001; Padachi, 2006; Selvanayaki *et al.*, 2016; Waweru & Ngugi, 2014; Yang *et al.*, 2018; Musah *et al.*, 2018; Kiiru *et al.*, 2019). The typical components of financial management practices used to understand the relationship between financial management and a firm's performance are working capital management (Chung & Chuang, 2016; Harif *et al.*, 2010; Rajaram & O'Neill, 2009; Wolmaran & Meintjes, 2015; Musah *et al*, 2018; Afrifa *et al*., 2014; Kamande, 2015; Erambo *et al.*, 2016), accounting information system (Chung & Chuang, 2016; Hailu & Venkarteswarlu, 2016; Ismail & King, 2014; Tamoradi, 2014; Musah *et al*., 2018; Widyaningdyah, 2019), financial planning and control (Eniola & Ektebang, 2014; Hailu & Venkarteswarlu, 2016; Harif *et al.*, 2010; Wijewardena & de Zoysa, 2001), and financial reporting and analysis (Chung & Chuang, 2016; Halabi *et al.*, 2010; Harif

et al., 2010; Kumar, 2007; McMahon, 2001; Randøy & Goel, 2003;Kamande, 2015; Erambo *et al.*, 2016; Musah *et al*., 2018). In examining these components, most previous studies relate a positive relationship between financial management and a firm's profitability (Chung & Chuang, 2016; Hailu & Venkarteswarlu, 2016).

Musah, Gakpetor & Pomaa (2018) investigated 100 SMEs from Accra, Ghana. The study focused on four components of financial management practices: information system and financial reporting, working capital management, fixed asset management and capital budgeting, and capital structure management. The data were analysed using the Pearson Correlation analysis and descriptive analysis. The dependent variables were return on assets (ROA) and growth (sales growth and total assets growth) as the proxies of the firm's performance. The findings indicated that all components positively impacted the ROA and growth.

In Malaysia, Harif *et al.* (2010) highlight six financial management components that positively impact the performance of the small and medium enterprises in the country. However, they discovered that most SMEs in Malaysia focused on working capital management, financial accounting, and financial planning and control in managing their finances. Only a few SMEs used financial analysis and management accounting as financial management tools. Consequently, they suggest that the Government and its agencies need to set a standard so that SMEs can follow and help them better understand the benefits of having and maintaining proper financial management practices in their organizations. Furthermore, the ability of the firms to realize the need to adapt financial management practices to changing circumstances and then practice them are more likely to grow successfully, thereby improving their performance compared to the opposite group (McMahon, 2001).

Wolmarans and Meintjes (2015) argue that previous studies investigate different practices of the FMP, which means that there are no specific components. In their study, they investigated working capital management, financial analysis, and financial planning employed by the respondents. The findings from their research showed that only 43% of the respondent firms employed the practices. They also found that working capital and profitability management were regarded as more important than analyzing and planning, meaning that the practices that directly relate to cash flow and decision-making process are the priority over other practices.

Akande (2011), Chung & Chuang (2016) and Widyaningdyah (2019) also emphasize the importance for SMEs to have skills in accounting if they want to accomplish their business goals. These skills are necessary, especially in the fast-changing entrepreneurship environment (Roodt, 2005). Moreover, having a full spectrum of convincing financial information signals the firm valuation to the stakeholder. Eventually, this will increase the trust of potential funders (e.g., traditional financial institutions or private investors), which will ease the future funding acquisition process (Di Pietro *et al.*, 2020).

Carraher and Van Auken (2013) studied the use of financial statements in the decisions making process. They argued that financial statements give essential information that serves to improve the decision-making process. The study investigated the variables that influence the use of financial statements and founders' satisfaction in evaluating financial statements. The findings of the study revealed that founder satisfaction in utilizing financial information in the decision-making process was indirectly linked with the frequency of preparation and straightforwardly connected with performance. The results also revealed that whether the founder utilizes financial decisions during the decision-making process was indirectly connected with education

background and preparing the statements externally. It was further directly associated with owner satisfaction in translating the information to financial statements. The results should significantly help the founders of SMEs and the providers of services to SMEs to determine which factors influence the use of financial statements and how financial statements are included in the decision-making process.

Selvanayaki, Sivakumar, Rohini and Mani (2016) study the FMP of rice milling firms in Tamil Nadu. They classify WCM as short-term planning and FPC as long-term planning. Meanwhile, AIS and FAR as accounting practices. The authors found WCM and FPC statistically significant on the ROE using the factor analysis. In contrast, AIS and FAR are insignificant.

Meanwhile, Kiiru et al. (2019) used financing, dividend, liquidity, and investment decisions as the components of FMP employed by Kenya Airways. Only financing decision shows a negative statistical significance, and other variables are statistically insignificant towards the ROA.

Table 3.4 shows previous studies on FMP. Thus, based on the previous researches, this study justifies the investigation on FMP practices, namely working capital management (WCM), financial planning and control (FPC), financial reporting and analysis (FAR), and accounting information system (AIS).

Table 3.4: Components of Financial Management Practices

	Author(s)	WCM	FPC	FRA	AIS
1	Chung & Chuang (2016)	√		√	√
2	Eniola & Ektebang (2014)		√		
3	Wolmaran & Meintjes (2015)	√	√	√	
4	Hailu & Venkarteswarlu (2016)		√		√
5	Halabi *et al.* (2010)			√	
6	Harif *et al.* (2010)	√	√	√	
7	Ismail & King (2014)				√
8	Kumar (2007)			√	

Table 3.4 ***cont***

9	McMahon (2001)			√	
10	Rajaram & O'Neill (2009)	√	√	√	
11	Randøy & Goel (2003)			√	
12	Tamoradi (2014)				√
13	Widyaningdyah (2019)				√
14	Wijewardena & de Zoysa (2001)		√		
15	Musah *et al.* (2018)	√		√	√
16	Selvanayaki *et al.* (2016)	√	√	√	√

WCM working capital management
FRA financial reporting and analysis
AIS accounting information system
FPC financial planning and control

Source: Self-illustration

3.5 PREVIOUS LITERATURE ON FINANCIAL MANAGEMENT PRACTICES IN SMEs AND FIRM PERFORMANCE

Past studies on accounting information systems, financial analysis and reporting, financial planning and control, and working capital management are discussed in the subsections below. The impact of the topics on the firm's performance is also discussed. The accounting information system is explained in subtopic 3.5.1. Financial analysis and reporting are discussed in sub-topic 3.5.2. Financial planning and control are discussed in subtopic 3.5.3. Working capital management is clarified in subtopic 3.5.4.

3.5.1 Accounting Information System (Computerized Accounting System)

Munteanu *et al.* (2011, p.63) describes the accounting information system as

"… the set of assumption postulates, principles, norms and evaluation rules of an organization by means of which the economic-financial operations are processed through accounting technical instrumentations. The accounting information system identifies correlates, calculates, analyzes, registers, and provides all information regarding transactions or events that took place in a management centre, given a certain time period. This system allows identifying, analyzing, calculating, classifying,

registering, and running back over events and transactions. The accounting information system is influenced by the nature of the activity and its operations, by its size, by the volume of processed data, and the management and external users' information necessities".

Moreover, computerized accounting enables smooth management of other FMP such as WCM, FAR, FPC, and other strategic financial management (Rajaram & O'Neille, 2009; Wolmarans & Meintjes, 2015; Musah *et al.*, 2018). Therefore, it serves as a valid reason to keep financial and accounting records via the computerized approach (Chung & Chuang, 2016; Hailu & Venkarteswarlu, 2016; Ismail & King, 2014; Tamoradi, 2014; Widyaningdyah, 2019). In other words, the computerized system enables reporting efficiency and effectiveness. It facilitates the analysis and reporting of financial statements on a timely basis and is more accurate, vital for decision-making in the firms (Hartono *et al.*, 2019; Ismail & King, 2009; McMahon, 2001).

Nandan (2010) emphasizes that in business entities, accounting information is crucial. It can assist the firms in managing their short-term financial difficulties, especially in critical domains such as cash flow, expenditure, and cost-accounting by providing information to strengthen monitoring and control activities. As budgets become stingier at all organizational levels, there is a significant need for financial management action to directly contribute to presenting timely, reliable, and factual financial information to assist management decision-making.

Further, Aladejebi and Oladimeji (2019) opine that due to fast-changing technology in the entrepreneurial landscape, SMEs should use computerized accounting systems that enable tracking the transactions faster and assist in preparing

the financial report for decision making. Often, the failure to use AIS is connected to founder-manager-related knowledge (Thottoli, 2020), firm size, industry types, perceived usefulness, ease of use, and cost (Jusoh *et al.*, 2018). Nowadays, SMEs can afford to buy computerized software because it is cheaper than previous years (Aladejebi & Oladimeji, 2019). When the firm's founders or managers lack the necessary knowledge, some companies prefer to hire outside experts to assist them (Widyaningdyah, 2019).

3.5.1.1 Impact of accounting information system on firm performance

A computerized system enables reporting efficiency and effectiveness. Thus, it facilitates the timely analysis and reporting of financial statements and is more accurate. Financial reporting is essential for decision-making, affecting the firms' performance (Hartono *et al.*, 2019; McMahon, 2001). A study by Swarnapali and Rathnayaka (2016) demonstrated that AIS did not affect firm performance. However, Khan (2017) conducted a study on Procter and Gamble's 174 employees. The study investigated the relationship between the AIS and firm's performance. The proxies for the performance included financial performance, staff performance, and marketing performance. He revealed that AIS significantly influenced all performance measures. He concluded that AIS helps the manager make reliable decisions, addresses the clients' needs quickly, and expedites the transformation process.

Empirically Salehi, Rostami and Mogadam (2010) studied the Accounting Information System (AIS) influence in chosen firms in Iran. Five-point likert scale survey questionnaires were distributed to the financial manager of the respective firms. Data from 498 respondents revealed that AIS directed to better financial statements and reliable financial reporting.

Grande, Estebanez, and Colomina (2011) investigated the link between small businesses' use of Accounting Information Systems (AIS) in Spain. The findings revealed that companies who deploy AIS across their entire business make a big profit. In terms of effectiveness, Onaolapo and Odetayo (2012) found that AIS boosted the firms' effectiveness significantly. Five construction enterprises in Ibadan, Nigeria, were given questionnaires to see how accounting information systems affect organisational effectiveness. Nzomo (2013) came to the same conclusion. The study looked into the Kenyan car sector and found a statistically significant link between AIS and business success.

Ahmad and Alrjoub (2014) discovered that accounting information systems strongly impacted managerial decisions in selected banks. Hence, the banks should constantly improve accounting information systems because of its positive function in the investment and decision-making process.

In addition, Amanamah, Morrison and Asiedu (2016) and Aladejebi and Oladimeji (2019) proved that computerized systems enable good record keeping, producing timely financial report, hence, positive and significantly improve SMEs performance. Kharuddin, Ashhari and Nasir (2010) investigated the AIS on the Klang Valley SMEs' performance. Questionnaires to 205 SMEs were distributed. The research found that firms that used AIS had better performance as compared to firms without AIS. The researchers also proposed that SMEs should use AIS in their firms. This is crucial because SMEs face rival pressure from within the SME enterprises and from the larger firms. Up-to-date decisions would permit SMEs to enhance firm performance and continue to be competitive. The above studies have proved the importance of AIS in improving the effectiveness and performance of various types of organizations. AIS helps provide timely and reliable financial reports, facilitates

transformation, control, and decision-making processes. Thus, this study aims to investigate if AIS in ECF-funded firms positively impact its performance.

3.5.2 Financial Analysis and Reporting

Financial reporting and analysis of the firm would help govern the firm's activities and, thus, performance in the long run (Randøy & Goel, 2003). Shahwan (2008) opines that the fundamental purpose of financial statements is to provide essential information for financial decision-making. In addition, it affirms that information is helpful if it explicates the economic certainty of the financial statements and is appropriate and sound to the stakeholders.

Wolmaran and Meintjes (2015) distributed survey questionnaires in Western Cape, Africa, to explore the FMP used by successful SMEs. The researchers employed descriptive analysis to investigate the link between the FMP and firm success. According to the report, inadequate financial management practises were linked to 90% of SMEs failures in Africa. Financial and accounting information, according to Halabi and Lussier (2014), is one of the firm's success drivers because both are essential determinants that assist gauge SMEs' performance. Furthermore, the production of FAR becomes faster, more precise, and more dependable with the computerised accounting system (McMahon, 2001; Hartono et al., 2019; Rajaram & O'Neille, 2009).

3.5.2.1 Impact of financial reporting and analysis on firm performance

The firm's financial reporting and analysis would help govern the firm's activities and, thus, performance in the long run (Randøy & Goel, 2003). Unfortunately, lack of financial literacy among founders-managers in understanding the importance of providing helpful information about the financial position of firms causes many small

and medium enterprises fail to provide financial reports, thus affecting their performance (Halabi et al., 2010).

Financial and accounting information is one of the firm's success drivers as it is a critical determinant that helps measure SMEs' performance. Thus, the Government as the policymaker should encourage SMEs by providing tax incentives. It further needs to furnish SMEs with the less prerequisite requirement of the Inland Revenue Department (Halabi & Lussier, 2014).

Wolmarans and Meintjes (2015) investigated working capital management, financial analysis and financial planning employed by the respondents. The findings from their research showed that only 43% of the respondent firms employed the practices. They also found that working capital management (57% - 100%) and profitability management (64% - 100%) were regarded as more important than analyzing (53% - 60%) and planning (57% - 83%), meaning, the practices that directly relate to cash flow and decision-making process are prioritized over other practices. However, they also discovered that firms employing more financial practices eventually perform better.

Matuszyk and Rymkiewicz (2018) found integration reporting as the best tool to interact with the organization’s stakeholders. The study was based on qualitative approaches. They analyzed previous literature on the topics and publications, and conducted a comparative investigation. The findings revealed that most of the traditional reporting techniques were unable to penetrate the stakeholder expectations. Most of the financial reporting were unable to portray the business information, associated risks, the ongoing project, and investment information. Connecting FAR with AIS enable the integration of both the firm’s financial and non-financial information and make the interaction with the stakeholders better.

Sarapaivanich and Kotey (2006) conducted a study that used a quantitative approach. Survey questionnaires were distributed to trading-based SMEs in three provinces in Thailand (Khon-kan, Bangkok and Chiang Mai). The study successfully collected 407 respondents. It hypothesized that quality financial information positively influenced the ability to access external financing and, subsequently, firms' performance. Their authors employed structural equation modeling (SEM) to analyze the outcomes. They opined that the quality of financial information significantly influenced performance and founder-managers' perception of their strength to obtain external funds. The study further found a significant positive effect of their perception on accessing funds and, subsequently, the firms' performance.

In short, all the above studies indirectly showed the importance of having quality and valuable financial information, which increases the chances to access external fundings as future fundings are essential to provide enough financial capital for business growth and continuation.

3.5.3 Financial Planning and Control

Financial Planning and Control (FPC) is one of the FMP that is important for the success of the firms (Rajaram & O'Neille, 2009; Wolmarans & Meintjes, 2015). FPC ensures the use of the firm's financial resources to meet the firm's objective. The lack of sound financial planning is one of the contributors to the failure of most firms. In contrast, conducive financial planning helps improve the firm's growth and performance. It is due to the former exposing the firm to the high cost of capital and excessive collateral requirement, making the firm unable to obtain the required information and lessening market exposure. On the other hand, the latter enables the founder-managers to create a trail that helps them monitor the firm's business plans. It

permits real-time forecasting and consolidation for future expansion planning (Drolet & LeBel, 2010; Eniola & Ektebang, 2014; McMahon & Holmes, 1991).

Planning in business becomes even more critical, especially when faced with uncertainty for the sake of company survival (Vanhuyse *et al.*, 2021). One of the financial planning tools is budgetary control systems. Budgetary control aims to estimate revenues and expenditures by creating a model of how the firm may accomplish financially if certain plans or strategies are carried out (Churchill & Coster, 2001). Budgetary controls allow the founder-manager to make plans by executing and monitoring those plans, and it's essential to notify any arising problems that need to be rectified at once (Kiringai, 2002).

Before the year 2000, most of the research conducted focus on general planning and control, and not many discuss its relationship with the small firms' performance. Theoretically, to accomplish the planning, efficient management must minimize unforeseen events that might tarnish the firm's performance. According to Mengel and Wouters (2015), most financial planning and control adoption in the firms are related to the founder-managers' educational background. In addition, some studies highlight that their working experiences also influence the adoption of financial planning and control into the firms. Later, financial planning and control are associated with firm performance.

Even though previous studies demonstrate that the application of sophisticated financial planning and control in small and new firms do not benefit from them, the studies show contradictory findings. Apparently, small and newly start-ups also benefit from financial planning and control activities. However, these practices' impact varies from one firm to another depending on how the organizations exercise financial planning and control. Financial planning and control enable the detection of variances

and faster recovery action (Wijewardena *et al.*, 2004). The micro-organization and SMEs might not fully observe the financial planning and control at the beginning stage (Wolmarans & Meintjes, 2015). However, when the company ages, it starts to employ comprehensive financial planning and control in its premise (Masurel & Smit, 2000). Planning is recognized as a vital driver for firm progress and improvement (Fernández-Serrano & Romero, 2013). Block and MacMillan (1985) and Quinn (1979) opine that previous literature had identified planning as the critical factor determining the firm's success. This is especially the case for start-up firms where preliminary planning is essential for their success (Schulte, 2009). Moreover, planning has a very close relationship with firm survival and performance (McKenzie, 2017). Firms generally prepare comprehensive plans and budgets, including sales, production, cost, expense, and budgeted income statements and balance sheets. These budgets are significant to anticipate the future in advance. Planning will assist in minimising risks, hence, improving profitability after offsetting the risk and return. Consequently, preparing a detailed financial plan or budget will positively influence the firm's profitability (Horngreen *et al*., 2006 as cited by Bailey *et al.*, 2009), hence it is a prerequisite practice for firm performance (Harif *et al.*, 2010).

Troise (2020) investigated planning towards the ECF performance. In the ECF context, it is essential to display continuing planning activities because this could affect the decision-making process of potential investors and limit information asymmetries related to the development of the company. In this way, entrepreneurs could persuade a higher number of investors to invest more financial resources. Therefore, it is reasonable to argue that planning can be a success determinant of crowdfunding campaigns. The company's lack of planning activities and proactive actions can be seen as a form of inactiveness (Lumpkin & Dess, 1996).

3.5.3.1 Impact of financial planning and control on firm performance

The majority of earlier research focused on the impact of financial planning and control on the performance of large businesses. Overemphasizing financial planning and control in start-up enterprises, according to the start-up theory, is probably useless. Wijewardena and De Zoysa (2001) and Mengel and Wouters (2015), on the other hand, discovered the opposite. According to the study, financial planning and control in small and start-up businesses boosts sales income. The impact of financial planning and control on return on investment (ROI) is, nevertheless, unclear.

A study by Troise (2020) investigated 134 projects launched on seven ECF platforms in Italy. The objective of the study was to investigate the impact of entrepreneurship on ECF performance. The independent variables signifying the entrepreneurship were product innovation, planning, and ownership offered. Funding size and investors' size represented ECF performance. The findings revealed product innovativeness (beta coefficient of 0.350, P-value 0.10), planning (Beta coefficient 0.679, p-value 0.001), and equity offered (beta coefficient -2.147, p-value 0.001) in Model 1 (funding size). Meanwhile, Model 2 (investor size) encompassed product innovativeness (beta coefficient of 0.151, P-value 0.001), and planning (Beta coefficient 1.059, p-value 0.001), and ownership offered (beta coefficient -2.518, p-value 0.05). This depicted that planning and product innovativeness significantly influenced ECF performance in both models, whereas the ownership offered negatively impacted the ECF performance in both models.

In strategic management research, an entrepreneur's characteristics and skills influence the ability to realise the opportunities. Then, the recognised opportunities are tabled in the strategic planning. The success in following the stipulated direction will eventually influence the organisation's performance (Alharafsheh et al., 2021).

According to Panahi et al. (2020), strategic planning sets priorities in achieving the aimed goals by enhancing the resources and strengthening the organisation's human capital. Kenno et al. (2021) opine the need to have a check and balance among the top management teams to ensure strong enthusiasm in achieving the firm's goals.

3.5.4 Working Capital Management

Working capital represents the financial health of any firm (Sagner, 2014). The common definition for working capital refers to the cash available to meet a firm's daily operations. It also refers to total investment in the firm's current assets or cash convertible assets that the firm can convert immediately to meet the daily operational needs (Eljelly, 2004; Keown *et al.*, 2005). On the other hand, working capital management (WCM) refers to managing the firm's overall cash receipt and disbursement (Lieberman & Wagstaff, 2009). In the corporate finance theories, working capital management is the most crucial element that deals with the firm's short-term financing management and investment decision (Sharma & Kumar, 2011). It has a significant impact on creating value for its shareholders (Padachi, 2006; Shin & Soenen, 1998; Stretcher *et al.*, 2013). WCM is more crucial to SMEs (Harif *et al.*, 2010; Rajaram & O'Neille, 2009; Wolmarans & Meintjes, 2015).

Most studies empirically investigated the effect of WCM on the firm's profitability (García-Teruel & Martinez-Solano, 2007; Lyngstadaas & Berg, 2016; Pais & Gama, 2015; Singh & Kumar, 2017; Ullah *et al.*, 2018; Eton *et a*l., 2021), and liquidity (Sagner, 2014). Since working capital directly affects the firm's daily operations, it is vital to balance its growth, profitability, and liquidity (Adekola *et al.*, 2017; Eljelly, 2004; Singh & Kumar, 2017; Ullah *et al.*, 2018). Liquidity is a prerequisite to ensure the firm fulfils its daily operation obligations. However, a low

level of liquidity shows that the firm has problems in paying its current liabilities. On the other hand, excess liquidity leads to poor cash management (Van Horne & Wachowicz, 2000). Therefore, regular monitoring of the firm's working capital level can determine the cash surplus and investment for more profit generation (Hailu & Venkateswarlu, 2016). Managing working capital would prevent unnecessary cash inflow and outflow (Singh & Kumar, 2017). This suggests the effectiveness of working capital management as it is essential for the longevity and survival of the firm (Karaduman *et al.*, 2010; Panda, 2012).

According to Ukaegbu (2014), there are three methods in managing working capital. First is the conservative approach. Firms with this approach tend to utilize their short-term sources during persuasive situations and almost all long-term finance for operational needs. The second method is the aggressive approach. Under this approach, the firm maintains less cash, accounts receivables, and inventories. However, the drawback is that it promotes illiquidity (Van Horne & Wachowicz, 2004). Meanwhile, the third method is the moderate approach that is in-between the earlier approaches.

The moderate approach distinguishes the current assets into the fluctuating current assets and the permanent current assets. Short-term finance is responsible for the fluctuating current assets, and long-term financing is accountable for the permanent current assets. However, the working capital management policies employed depend on the nature of the firm. For example, the way a manufacturing firm handles its inventories could be different from the food vendors. Manufacturing firms invest heavily in raw materials such as spare parts and components in making the finished products for sales. Food vendors, on the other hand, depend on a considerable amount of goods for resale. The former firms maintain several accounts receivables, and the latter firms maintain few accounts receivables. The implication is that the low inventory

level might show the inability to meet customer demand, while a high inventory level could lead to additional handling and storage costs. Therefore, depending on the firm's nature, size and policies, the need to have efficient monitoring to keep the optimum level of accounts receivables, account payable, and finished goods inventories are vital for its growth, liquidity, and profitability.

Managing working capital indicates handling the firm's receivables' accounts, payable accounts (Kitonga, 2013), and cash conversion cycle (Gracia-Teruel & Martinez-Solano, 2007; Ullah *et al.*, 2018), and inventories (Ukaegbu, 2014). According to Ukaegbu (2014), cash conversion cycle has been widely investigated by most researchers as a comprehensive measure in determining the firm's efficient working capital. The use of cash conversion cycle is more thorough than the traditional measure such as the quick ratio and current ratio. It has been regarded as the most influential performance measure in evaluating how sound the firm manages its working capital. The cash conversion cycle is the number of days the firm takes to convert its investment in inventory into cash. The cash conversion cycle is the number of days it takes a firm to convert inventory to cash. This measurement involves three parts; the number of days it takes a firm to sell its merchandise, plus the number of days it collects money from a debtor's account, and subtract the number of days it has to pay off creditors (Ebben & Johnson, 2011; Richards & Laughlin, 1980).

Therefore, continuous monitoring of this component is essential (Karaduman *et al.*, 2010; Afrifa *et al.*, 2014). According to Petersen and Rajan (1997), an increase in inventory levels is related to increasing sales volume and lower transaction costs, thus fostering profitability. But a study of meta-analytical techniques conducted by Singh, Kumar and Colombage (2017) on effective working capital management and profitability confirmed the negative relationship between the two. Specifically, the

effect of the cash conversion cycle has been negatively associated with firm performance among the components of working capital management mentioned. Thus, extending the cash conversion cycle will reduce the firm's profits (Deloof, 2003; Nobanee & Abraham, 2015; Nobanee et al., 2011; Raheman & Nasr, 2007).

In contrast, Padachi (2006), Sharma and Kumar (2011) and Abuzayed (2012) determined that the cash conversion cycle positively affects firm profits. According to Abuzayed (2012), a negative relationship is due to profitable firms maintaining inefficient working capital management. The effects of WCM deficiency become worse when it involves small firms, often leading to firm losses and causing high failure rates (Storey *et al.*, 2016).

3.5.4.1 Impact of working capital on firm performance

The central purpose of working capital management is to achieve an optimal balance between working capital management components (Gill, 2011). Managing working capital indicates handling the firm's available cash in hand and banks, receivables accounts, payable accounts, cash conversion cycle (Gracia-Teruel & Martinez-Solano, 2007; Ullah *et al.*, 2018), and inventories (Ukaegbu, 2014). Previous studies empirically relate working capital management with the firm's profitability (Garcia-Teruel & Martinez-Solano, 2007; Lyngstadaas & Berg, 2016; Pais & Gama, 2015; Singh & Kumar, 2017; Ullah *et al.*, 2018), and liquidity (Sagner, 2014). Hence, firms need to equalize growth, profitability, and liquidity (Singh & Kumar, 2017; Ullah *et al.*, 2018). Such is significant as it affects the creation of the firm's value (Padachi, 2006).

Liquidity, for instance, is a prerequisite in ensuring the firm's capability in meeting its daily operation obligation. At the same time, profitability is to ensure the

longevity and sustainability of the firm in the long run. The level of liquidity reflects the health of the firm. The low level of liquidity means the firm has difficulties meeting its short-term obligations, such as paying current debts or creditors. However, excess cash shows the firm's poor cash management practice (Van Horne & Wachowicz, 2000). A firm's competency in administrating its cash conversion cycle would determine its efficient working capital. It quickly measures using the liquidity ratios, such as quick ratio and current ratio. The liquidity ratios are the most effective performance measure in evaluating how sound the firm manages its working capital.

Vural, Sökmen and Çetenak (2012) use panel data analysis to examine 75 manufacturing firms listed on Istanbul Stock Exchange. The authors exposed WCM components; the debtor collection period and cash conversion cycle increase the gross profit as a proxy of performance when shortened the collection period. Meanwhile, leverage as a control variable shows a significant negative effect on firm value and gross profit. Meaning, the decrease in the level of leverage will increase profitability. However, other WCM components measured such as inventory holding period, creditor payable period and operating cycle are insignificant towards the performance.

Afrifa, Tauringana & Tingbani (2014) used panel data to study the impact of WCM on 141 SMEs that were listed on UK's Alternative Investment Market from 2007-2014. These SMEs were categorized into small firms and medium firms. The findings indicate that WCM impacted the performance of SMEs. However, WCM appeared to be more important to the performance of the small firms than the medium firms. Therefore, the government needs to address financial issues of between the two differently.

Wolmaran and Meintjes (2015) conducted an empirical study to determine the adequacy and frequency of financial management procedures in successful SMEs in

the Western Cape of South Africa. Financial management practises were linked to financial management themes, and then to financial management skills, according to the research. Only 43% of those polled kept some routines, according to the report. Preparing the cash flow statement, variance analysis on actual and past cashflow statements, statement of banks analysis, variance analysis between actual and forecasted cash flow, and preparing creditors and debtors' lists were all practises used by the respondent's firm in terms of working capital. The researchers also discovered that different SMEs had varied practises that they considered to be important to their businesses. Working capital practises, on the other hand, include preparing creditors and borrowers, as well as managing cash flow.

Therefore, the current study investigates the WCM constructs, including having a WCM system, maintaining optimal cash balances, recording payables, and monitoring the cash conversion cycle on the ECF-funded firms' performance.

3.6 SOCIAL NETWORK

Social capital is resources that emerge from social networks. Social networks can increase the entrepreneur value. It fosters the realization of opportunities and resources. Social networks diversification creates different types of social capital that would benefit the entrepreneurs (Hanlon & Saunders, 2007; Kwon & Arenius, 2010).

Social capital network from crowdfunding perspective indicates the substantial connection between the sizes of the social media network with the success of the funding campaign (Mollick, 2014). Mollick distinguishes social networks into two types. First, the internal social networks social that refers to social networks with the crowdfunding platform. Second, external social networks that refers to the creators' developed social networks afar from the platforms.

Fatoki (2011) emphasizes that persevering robust network connection with the stakeholder can improve social capital. To ensure it works, the founder-managers must play their roles in strengthening their ties by participating in exhibitions, seminars, trade associations, and trade fairs. The founder-managers' competency enables the building of networks (Ozcan & Eisenhardt, 2009; Tamyez *et al.*, 2018). On top of that, Fatoki and Oni (2014) contend that the domination of network connections (i.e., social, official, and business) lies in which phase the firm is in. At the start-up level, the social networks dominate official and business networks.

On the other hand, business network dominates social network ties during the establishment phase of business, even though the social network still plays a role in providing resources by family members and acquaintances who are also the firm's employees. Social networks have two facets; structural and cognitive dimensions. The structural dimension is represented by the entrepreneur's social connections or networking, for example, Facebook and Instagram. Contrastly, the cognitive dimension is discovered from the number of words used by the creator during the crowdfunding campaign as displayed on the platform. Both are capable of influencing crowdfunding performance. The higher the number of social media followers and words used during the campaign, the higher is the crowdfunding success rate and vice versa (Aprilia & Wibowo, 2016). Bernardino *et al.* (2020) found that social media and word of mouth via the internet known as e-WOM play an important role and significantly influence the crowdfunding success rate.

In addition, Bian (2002) opines that established private firms have a better social network than government-linked firms. Refinery firms and firms with qualified CEOs in terms of rank and education also have a good level of social engagement. This series becomes social capital for the firm, thus, affecting performance. Further, the

interconnection between social capital and human skills provides a clearer understanding of the construction of one's social capital towards the decision on technology application. The interaction between social capital networks and the crowdfunding ecosystem considers the different components of social capital, including innovative behavior, empathy, and teamwork between the entrepreneurship and crowdfunding platform (see Hunecke *et al.*, 2017).

Meanwhile, Lin and Pursiainen (2018) argue that the social network is crucial in reducing moral hazards in crowdfunding-related businesses. Even though social networks tend to create trustworthy conduct, they say that highly social network communities cannot deter the entrepreneur from committing fraud. In most literature, network-related competency is referred to as the founder's ability to network personally (Jones *et al.*, 2011).

Network-related capabilities of SMEs under the crowdfunding umbrella need further exploration, as the issue is concerned with the possibility of the funding to go international due to internet application rather than product, services, or establishment. Also, the social capital network indicates a substantial connection between the sizes of the social media network concerning the success of the funding campaign (Bernardino *et al.*, 2020; Mollick, 2014).

Troise, Tani and Jones (2020) also agreed that studies on networks involving ECFs are still less explored. In their research, they investigated the social network using three dimensions; structural, relational and cognitive. The structural dimension is more to the entrepreneur-firm network (external network) such as social media followers.

In the field of CF, previous studies have emphasized social capital in shaping third-party social network relationships (Giudici *et al.*, 2013; Mollick, 2014; Zheng *et al.*, 2014) and family-friends (Kuppuswamy & Bayus, 2018; Ordanini *et al.*, 2011)

where these networks influence funding outcomes. Thrikawala (2011) argues that these family-friend relationships significantly affect SMEs in identifying business opportunities. This is because, during the early stages, SMEs receive support, guidance, and capital injections from these types of ties. This tie is concluded as the first-time sponsor (Agrawal *et al.*, 2015; Bygrave, 2004; Bygrave *et al.*, 2003). Further, Hekman and Brussee (2013) explore 31,371 successful and unsuccessful projects launching on the Kickstarter platform. The authors opine that the social networks of the successful initiators have many friends, but they have limited networks. It shows that having a small number of networks with various backgrounds and qualities assist the project's campaign. Compared to the unsuccessful initiator, who usually has more networks. But, these networks typically have similar attributes that have less impact on winning the donors' attention.

3.6.1 Social Networks and Firm Performance

Kuppuswamy and Bayus (2018) empirically opine that early-stage SMEs supported by private networks form strategic plans. These plans significantly influence the success rate of obtaining immediate funding (Lehner, 2013; Ordanini *et al.*, 2011). Furthermore, under investment-based crowdfunding projects, network plays a positive influence on a company's performance. Therefore, it is essential for one founder to support another founder's crowdfunding project, as this can help their project in the future. However, as Surin and Wahab (2013) argued, family-friend networks and network concentrations, even if they show a positive relationship, are not enough to influence firm performance. A study by Liao *et al.* (2015) also found a similar finding; family-friend and network concentration significantly influence the crowdfunding campaign's success, but it is not enough to affect the firm's performance.

In their empirical study, Surin, Edward, Hussin & Ab Wahab (2016) concludes that strategic business networks positively affect the firm's performance. Further, the effect on performance increases when considering the business environment and the firm's human capital. The authors opine that regardless of the firm's establishment, the business network has its essential mission, being a nascent or established firm.

Pratono (2018), in his study, extended a structural equation model to reveal the multifaceted link connecting social networks and firm performance. He introduced the mediator variables consisting of trust element, capability to sell, and ability to set a price. A total of 380 SMEs in Indonesia were selected based on random sampling. The findings showed that the adoption of social media in the administration process would not affect the betterment of the firm performance except when the firms developed trust in their social networks. The social network with trust permitted the firms to set a price and increase their selling capability, hence, positively impacting firm performance. Regarding the impact of networks on the funding process, Nguyen (2020) used social capital networks as a moderating variable. The results empirically show that networking significantly increased a firm's access to informal funding and increase enterprise investment opportunities. However, this study does not indicate that firms with large networks can obtain loans than companies with small networks. The findings also show that network uniqueness positively correlated with the firm's performance.

Thus, the previous studies depict the importance of social networks capability in providing more opportunity in doing businesses and the access to funding that are important for the firm growth and long-term performance. This study investigates the impact of the social networks in ECF-funded firms in Malaysia in influencing their performance. Table 3.5 shows the related literature on social networks under ECF topics.

Table 3.5: Literature Reviews on Social Capital Networks in ECF

Author(s)	Country / Platform	Measurement Variable
Li *et al.* (2016)	China: Dajiatou	Updates (number/ frequency), Video (dummy), Words of Project Introduction
Nevin *et al.* (2017)	UK: Crowdcube	Social media usage, appropriation and selectivity
Block *et al.* (2018)	Germany: Seedmatch, Companisto	Updates posted on platforms
Dorfleitner *et al.* (2018)	Germany: Seedmatch, Companisto	Updates posted on platforms
Hornuf and Schwienbacher (2018)	Germany: Seedmatch, Companisto, United Equity, Innovestment	Updates posted by entrepreneurs and comments of other crowd investors
Kang *et al.* (2016)	China: Angelcrunch, Zhongchou	Trust (calculus-based and relational ship trust)
Kshetri (2018)	Multiple platforms worldwide (most USA)	Trust (thin trust and trust in online transactions)
Brown, Mawson & Rowe (2019)	UK ECF Platforms	Pre-crowdfunding phase (before the official campaign launch); active crowdfunding phase (campaign launch to campaign completion); and post-crowdfunding phase (after campaign closure)
Vulkan *et al.* (2016)	UK: Seedrs	Social media contacts
Troise *et al.* (2020)	Italian ECF market	Multi-dimensional social network- description length, video length
Ahlers *et al.* (2015)	Not available	The share of non-executive directors on the venture's board
Lukkarinen *et al.* (2016)	Finland: Investor	Facebook activity of the company (dummy = 1 for posts)
Vismara (2016)	UK: Crowdcube, Seedrs	The number of proponents' LinkedIn connections prior to the campaigns
Nitani & Riding (2017)	Finland: Invesdor; Germany: Companisto; Sweden: FundedByMe; UK:Crowdcube	Social network activity (number of social network contacts)
Günther *et al.* (2018)	Australia (Assob)	The percentage of non-executive Board members

Table 3.5 ***cont***

Vismara (2018)	UK: Crowdcube	The share of non-executive team members (on ventures' boards)
Piva & Rossi-Lamastra (2018)	Italy: SiamoSoci	Entrepreneurs' LinkedIn connections
Polzin *et al.* (2018)	Netherlands: National Crowdfunding Research	Relationship strength between entrepreneurs and investors
Hervé *et al.* (2019)	France: WiSeed	Social networks and interactions (with the founders or other investors)

Adopted from Troise *et al.* (2020)

3.7 ECF PLATFORM PROVIDER

While India invented the crowdfunding platform activity, the concept has spread worldwide (Lin & Chen, 2013). Lin, Chen and Yang (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, in particular, 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, Zhu and Liao (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, Li, Wu and Xu (2014), most platforms' 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; Rau, 2017). 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) and 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. A recent study by Nigama, Benetti and Johan (2020) also argued that digitalization and networking positively impact a firm's financing opportunities. Unfortunately, conventional human capital signals do not significantly affect the funding access process.

3.7.1 ECF Platform and Campaign Performance

In the ECF, government intervention towards the crowdfunding platform increases the herding effect of the investors. The government provides standard operation and enforce 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 implication. 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 (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-America 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 recent study by Nunes, Alturas and Fernandes (2021) also demonstrates that technology, such as fintech and blockchain, can potentially upgrade the ECF platform's purpose by creating value and mitigating the associate risks.

3.7.2 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 online financial platforms.

Hofmann and Belin (2011) and Mollick (2014) argue that online platforms have provided additional options for SMEs to obtain financing. In addition, Yu and Lu (2018) discovered that online platform providers could improve SME performance. The researchers argued that using the services of online providers 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 online platform providers could depend on the firm's operating information to help SMEs obtain the funds they need. In addition, Buttice & Vismara (2021) also emphasised the need to study an ECF platform with limited attention as they could play a vital role in accelerating growth and innovation.

Therefore, based on the discussion, this study investigates the online 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.

3.8 BUSINESS INTELLIGENCE ADOPTION

In this dynamic world with countless challenges, many organizations that struggle to achieve better financial performance turn to information technology for

more precise decision-making and faster response. The current business settings are distinguished based on economic dominance and global politics (Lenssen *et al.*, 2012). Due to the fast-changing technology, firms face various challenges from the complexity of new emergent information, free-market trading, and competition concentration among the players (Al-ma, 2013; Chi *et al.*, 2009). These are why the business environment is increasingly becoming more chaotic and forces the SMEs to decide from their routine (Cavalcante *et al.*, 2011). Most of the time, this leads to innovation. However, innovation in the business environment initiates new opportunities and, at the same time, pressures firms' performance (Stodder, 2013).

Thus, the firm attempts to use various strategies at the minimum costs to achieve the stipulated goals, and it could be easier with the information technologies tools. One of these tools is business intelligence (BI). BI refers to an information system capable of translating unprocessed data into refined information and, significantly, assist in minimizing the information failure while making the decision (Clark *et al.*, 2007). It is also known as environmental scanning, market intelligence, competitive intelligence (Bouthillier & Jin, 2005), information system (Miah, 2018), and business analytics (Ajah & Nweke, 2019). Some define it as a process that combines culture, technologies, policy, storing, analyzing and manipulating the collected data (Foley & Guillemette, 2010). However, it is not easy to differentiate between BI and analytics as they are closely related. Only their technical abilities' gap makes them unalike. Most of the time, both terms are combined in the reports (Sallam *et al.*, 2014; Torres *et al.*, 2018). On the other hand, Davenport and Harris (2017) emphasize that business analytics is one of the components of business intelligence.

The application of business intelligence in the organization could overcome the challenges and complexity of new information (Maffock *et al.*, 2019). Business

intelligence has become a strategic business tool in many organizations (Kappelman *et al.*, 2017), and continually becomes a substantial component for better firm performance (Ransbotham & Kiron, 2017). Niu, Lu, Zhang, and Wu (2013, p.835) developed a business intelligence system known as FACET, "a cognitive decision support system developed based on situation retrieval model". They found that the system was capable of accelerating the firm's performance. The manager makes a wise decision using the information retrieved from business intelligence output, thus overcoming the drawbacks of ill-structured decision-making. Such is achieved by increasing situational awareness towards achieving competitive advantage, especially in the ambiguous business environment (IşıK *et al.*, 2013). However, Robson and Bennett (2000) contend that technology greatness does not significantly influence the firm performance.

Data is crucial in today's consumer-driven environment. People all across the world contribute massive amounts of data every day, which businesses use to improve their products or services. Organizations can use business intelligence BI to not only put this massive data into a usable format, but also to analyse it and derive relevant business insights (Sheikh Attar *et al.*, 2018) and to predict the behaviour of the customer for better decision. Organizations can not only evaluate past and present proprietary data, but also estimate future patterns and trends (Syadzali et al., 2020). Many of these products are accessible for a fee; nevertheless, many software customers prefer free business intelligence solutions since they adequately meet their demands. Data analytics features are available in free BI applications, for instance, Qlikview, Tableau Public, Zoho Analytics and Power BI. These BI tools provide better business insight (The SMB Guide, 2022).

Users can use QlikView to construct complex data visualisation apps for guided analytics. Power users, such as developers and business analysts, can design data models and dashboards to share with end users, who can drill down and filter the data to gain more focused business insights. Tableau Public is an excellent choice for those who wish to generate beautiful visual data representations without spending any money. Its online gallery contains a large collection of publicly available ready-to-use dashboards and data visualisations that were built and shared by a large online community of data analysts and business intelligence aficionados. Meanwhile, Zoho Analytics is a web-based analytics tool enables users to analyse historical and current business statistics in order to detect and display trends via dashboards and reports. Further, Power BI is a business intelligence tool that allows you to draw data from practically any source. It looks and feels like Excel because it uses the same data modelling engine. It's available in the cloud and on-premises, and it's compatible with iOS, Android, and Windows mobile devices. It is equally successful as a self-service analytics tool and as an enterprise data analytics solution because it is easily embeddable within business systems.

Table 3.6 lists some of the definitions available in the literature. In general, business intelligence refers to an information technology system that can transform, process, integrate, store, analyze, and manipulate the raw data into useful information to make sound decisions. All these definitions lead to the main purpose of getting valuable information that can be communicated, creating knowledge, and help to encounter an emerging issue (Ajah & Nweke, 2019).

Table 3.6: Definitions of Business Intelligence

Definition	Author(s)
Set of expertise and mechanism to transform raw data into significant and productive information for organization competitive growth and analysis purposes	Kohtamäki & Farmer (2017)
Information system led application that integrates the process and technology to lead to the decision making for managers and end users	Miah (2018)
A combination of processes, policies, culture and technologies for gathering, manipulating, storing and analyzing data collected, in order to communicate information, create knowledge, and inform decision making"	Foley & Guillemette (2010)
Seeks to answer questions such as what is happening now and where, and also what business actions are needed based on prior experience	Ajah & Nweke (2019)

Source: Self-illustration

3.8.1 Business Intelligence and Firm Performance

Currently, with the profound changes in the business environment, the collaboration of business intelligence and SMEs could provide a better solution to many emergent challenges (Ali *et al.*, 2017). It is already in use in corporate and SMEs (Guarda *et al.*, 2013). Business intelligence has become a corporate strategy to respond to arising issues in an organization (Benlian *et al.*, 2011). Its main functions include monitoring and controlling activities, integrating data from scarce resources, data warehouse technology activities, decision-making, and firm performance (Singh & Singh, 2013). Currently, it is used widely as an evaluation tool (Dedić & Stanier, 2017) that oversees the decision-making process under an uncertain environment ((IşıK *et al.*, 2013). Also, it is used as a medium to grab emergent opportunities that arise from the ambiguous surrounding (Guarda *et al.*, 2013).

Park, Fables, Parker and Nitse (2012), opine that business intelligence can unite social networks from various geographical and demographical backgrounds. In fact, under the fluctuating economy, business intelligence could expedite the firm to change their organization formation instantly (Ali *et al.*, 2017), and, thus, result in better performance (Maffock *et al.*, 2019). However, most of the previous studies were conducted based on a qualitative approach.

Additionally, Torres, Sidorova and Jones (2018) empirically argue that business intelligence and analytics act as detection mechanisms that significantly impact the firm performance. The reasons are the ability of these components to identify and seize the opportunities if the infrastructure, such as proven management and technical support systems, are available in the organizations. Then only the transformation of business intelligence output into meaningful performance can be materialized.

Nevertheless, Osei-Bryson, K.M and Ko (2004) conclude that business intelligence towards firm performance has two implications. It is positive statistically significant if it can surpass certain criteria set by the organization. Meaning, any results below show that business intelligence has no impact on performance.

From the perspective of customer performance, Phan and Vogel (2010) claim that most firms nowadays are segment-based and customer-centric. As a result, business intelligence is adopted. The technology allows the company to look into more prospective customer relationships in order to assure client happiness and loyalty, both of which are significant for business success. As a result, business intelligence improves customer relationship management systems, which are critical for achieving and maintaining a competitive edge. Furthermore, business intelligence can reduce stock volatility and minimize financial risk (Rubin & Rubin, 2013), hence, creating firm value (Ramakrishnan *et al.*, 2018).

In addition, the effectiveness of business intelligence is shown to have partial mediation towards firm's strategy, culture, process, and structure (Arefin *et al*., 2015). Not only that BI positively upgrades the data and information quality as its mediates data completeness, correctness, and consistency and become manifest the quality data for decision making (Wieder & Ossimitz, 2015). Aydiner *et al.* (2019) strengthened the previous findings on the adoption of business analytic into the firm. The results show that business analytic positively mediates the business process and the firm performance.

Loukis, Janssen and Mintchev (2019) sent questionnaires to 600 CEOs of the Dutch companies that use the financial cloud-computing service, SaaS. They managed to collect 102 completed questionnaires. The result showed that adopting SaaS helped create more operational and innovation benefits to the firm and firm outcomes.

The empirical study conducted by Cheng, Zhong and Cao (2020) integrates mediating and moderating variables in exploring the business intelligence between the firm's agility towards the speediness of going global. The results show that business intelligence significantly fosters the speediness of business internationalization. Business intelligence as a moderator towards culture indifference affects the firm's agility and internalization.

A different study by Zraqat (2020) also examines business intelligence as a third variable. The study concludes that a firm that adopts business intelligence will have reliable financial reporting. The big data components such as "volume, velocity, variety and veracity" will be improved, producing quality reports of firm financial and accounting. The finding shows that business intelligence has become the digital economy's main source that enables processing a huge volume of data and scrutinizing the recorded monetary activities in real-time. It enhances the quality of the reports and

strengthens decision-making for a large group of stakeholders. Salur and Kattar (2021) also agree with Zraqat. The authors opine that business intelligence enhances the audit process and reporting, leading to better decisions in an organization. In a competitive market, the firms have no choice but to ensure efficiency in planning and analysis for future development (Venkatesh & Namana, 2012).

Ab Rashid, Hasim and Zainal Abidin (2021) investigate the roles of Shariah-based crowdfunding in Malaysia and the effect of technology advancement on the SMEs. They used a random sampling approach and managed to get 259 feedbacks from SMEs in Selangor. The results show that Islamic-based crowdfunding has the potential in helping SMEs' sustainability, especially with the mediating impact of the technology adoption. Nowadays, with the availability of cloud computing, SMEs and start-ups can invest in business intelligence at a lower cost, hence, improving its performance (Nedunchezhian *et al.*, 2012) and decision making (Malaysia Administrative Modernisation and Management Planning Unit (MAMPU), 2021).

Hatta, Miskon and Abdullah (2017) summarize the previous studies' findings on BI adoption and argue that depending on the firm alertness and going innovative, the adoption relatively gives an advantage in exploiting external resources. Thus, the research propose the acceptance of BI into SMEs in Malaysia. As a result, this study takes the initiative to investigate how BI affects SMEs involved in ECF. The influence of using BI as a mediator on analysis and reporting, as well as financial planning and control of organisations with performance, is then examined in this study.

3.9 FIRM PERFORMANCE AS USED IN THE STUDY

The term 'performance' is widely discussed in the management field. Commonly, performance is synonymous with effectiveness and efficiency (Corvellec,

1994; Neely *et al.*, 1995). Often, the performance dimension is linked with profitability, growth, and going international (Robb & Watson, 2012; Zahra *et al.*, 2000). It also relates to value creation, employment creation, growth, competitiveness, survival continuity, cost reduction, and lean production (French Ministry of Industry, as cited in Neely, 2007).

On this point, Lebas and Euske (2002) argue that performance does not refer to a particular definition. It depends on which performance context applied. In the context of a business, the gain received from an investment reflects the performance. In the context of small firms, there is no single accepted standard to measure performance (Keats & Bracker, 1988; Naman & Slevin, 1993; Rasiah, 2002; Sandberg & Hofer, 1987). According to Lebas and Euske (2002), the significance of performance lies simply within a decision-maker from inside and outside the company that can associate with the present strategic action to benefit the firm's future achievement (Neely, 2007). Meanwhile, Leminen and Westerlund (2012) argue that small firms' growth measurement and growth strategy vary depending on the type of business venture.

Table 3.7 details the various meanings of performance that firms use based on Lebas and Euske's perspective. Thus, to have a broader and comprehensive understanding of firm performance, the outcomes have to be evaluated from both financial and non-financial perspectives. High concentration on financial information statement does not provide a complete insight into the firm's performance.

Table 3.7: The Various Meanings of Performance

Measurable by either a number or an expression that allows communication (e.g., performance in management is a multi-person concept)
To accomplish something with a specific intention (e.g., create value)
The result of an action (the value created, however measured)

Table 3.7 ***cont***

The ability to accomplish or the potential for creating a result (e.g., customer satisfaction seen as a measure of the potential of the organization for future sales)
The comparison of a result with some benchmark or reference selected or imposed – either internally or externally
A surprising result compared to expectations
Acting out, in psychology

Source: Lebas & Euske (2002)

Growth realization refers to the accumulative process in which the firm's representatives build their human capital abilities, knowledge, and competency (Penrose, 1995). According to Penrose (1995), firm growth relates to the market opportunity in the industrial environment. In penetrating market opportunity, the firm must be able to exercise its entrepreneurial judgement. According to Ghoshal, Hahn and Moran (2001), firm growth, as per Penrose's ideology, combines organizational abilities and entrepreneurial judgement that latter determines its dynamic opportunity that lies within the firm's valuable construct and market opportunities.

The entrepreneur's human capital qualities (i.e., educational background, experience, and motivations) play essential roles that positively reflect firm performance. The more knowledgeable, skilled, and highly motivated the entrepreneurs are, the better their performance (Peña, 2002). However, in crowdfunding, the investor translates the entrepreneur's skill and high confidence level on the project launched as an excellent signal to participate in the campaign (Piva & Rossi-Lamastra, 2018).

Eldridge *et al.* (2019) empirically tested UK's small firms' post-crowdfunding event. The findings show that ECF positively affects the growth opportunity of small firms. They used return on assets models, controlled firm matching models, and propensity score to confirm the findings. The results strongly supported the findings. However, in terms of innovation, Eldridge *et al.*'s study (2019) disagrees with previous

studies by Mollick and Robb (2016), Stanko and Henard (2016), and Paschen (2017), which claim that crowdfunding spurs innovation.

The following subsections discuss the financial and non-financial performance of the firms. Previous studies show that financial and non-financial measures can reduce agency cost (Ghosh & Wu, 2012). Meanwhile, Devi & Kamyabi (2012) measure performance from two dimensions; the financial performance based on sales growth, cash flow, return on assets and profitability, and non-financial performance, including lifestyle, job security, and independence. Since this study employs financial and non-financial performance models, they are explained further in the following subsections.

3.9.1 Financial Performance

Performance evaluation is critical for ensuring that a company is on track to achieve its objectives. Depending on what is to be accomplished, performance can be measured in a variety of ways. Companies, for example, assess performance both financially and non-financially. Nandan (2010) and Wood and Sangster (2008) define financial performance as a specific measure to determine the efficiency of a firm in using its assets in generating income. Some use this term to measure a firm's whole financial strength over some time or to compare similar firms in a similar industry. It is also used to compare the industries or sectors in total and foster competitiveness (Iswatia & Anshoria, 2007). In the context of financial management practices, using accounting information can help determine a firm's financial performance.

Basically, measurements of financial performance have two perspectives, the profitability and financial efficiency (Li & Wang, 2010). The profitability measures include net profit margin and return on sales, whereas financial efficiency refers to return on investment and return on equity. Some literatures refer to financial

performance as accounting-based measures (Ibrahim & Lloyd, 2011). However, it may initiate accrual manipulation. In addition to these, Sam and Hoshino (2013) assert that financial management performance is described based on three aspects; assets management, debt management, and profitability. Profitability is determined by the return on equity (ROE), and return on assets (ROA). Kharuddin, Ashhari and Nasir (2010) investigated the AIS impact on Klang Valley SMEs' firm performance. The study used ROA as a proxy to measure financial performance and revealed that AIS significantly affected SMEs performance.

From the perspective of turnover, growth rate, profit to turnover ratio, and assets to turnover ratio can also measure financial performance (Covin *et al.*, 1990). Other studies measuring the firm's financial performance used ROA (Alfredo *et al.*, 2013; Bharadwaj, 2000; Dedrick *et al.*, 2003; Minichilli *et al.*, 2010; Ramadan & Ahmad, 2018; Musah *et al*., 2018), sales growth (Musah *et al*., 2018), return on sales (Ramadan & Ahmad, 2018), market value ratio (Afrifa et al., 2014), and the debt-equity and liquidity ratios (Nthenge & Ringera, 2017). The current study uses sales growth, ROA, and ROE as proxies to firm performance.

3.9.1.1 Sales growth as a proxy for firm performance

According to Wiklund (2006) and Hoy *et al.* (1992), the sales growth measure is commonly used and was agreed by previous researchers as the best measure of firm growth. Theoretically, the increase in sales over time may reflect the ability of the firm to capture an increase in market demand, or rather, it may be due to improvements in the processing methods or the product quality (Delmar, 1997). Other than easily accessible, sales growth measure reflects both short- and long-term changes in the firm. Typically, sales will increase before the firms are able to acquire additional resources

such as employees and others (Flamholtz, 1986). However, the increase in sales is not necessarily followed by the increase in the employment rates. Delmar (2006) argues that the firms may select to find external resources to increase production, thus showing the high generality of sales growth as firm performance.

3.9.1.2 Return on assets (ROA) as a proxy for firm performance

The second performance measure used in this study is the return on assets (ROA). It has been widely used in financial management research (Alfredo *et al.*, 2013; Bharadwaj, 2000; Dedrick *et al.*, 2003; Kamande, 2015; Minichilli *et al.*, 2010; Ramadan & Ahmad, 2018; Zahra & Covin, 1995; Zahra & Garvis, 2000; Kitonga, 2013; Musah *et al.*, 2018; Kiiru *et al*., 2019; Eton *et a*l., 2021). ROA is a financial ratio that describes a company's efficiency in generating profit from its total assets (Gitman, 2005). The higher the ROA, the more the company profits because the company earns more money for fewer investments.

3.9.1.3 Return on equity (ROE) as a proxy for firm performance

The third performance measure used in this study is return on equity (ROE). Return on equity measures a company's profit with respect to the number of shares invested in the company by shareholders. It can be used by investors to investigate shareholder investment returns or to evaluate management's internal performance. Apart from measuring profit, it also measures the efficiency and effectiveness of management. Usually, ROE is calculated by dividing Net Income by Shareholders' Equity (Total Assets minus Total Liabilities). When ROE increases, it is a positive indicator. ROE increases due to an increase in Net Income indicates positive growth in ROE or return of profit per share (Alvi & Ikram, 2015). However, a decrease in ROE

usually poses a problem as the firm moves towards debt financing that can cause more problems and can lead the organization towards liquidity. When the firms only possess financial assets in their balance sheet, the operational activities do not significantly impact the ROA and ROE (Deloof, 2003; Vural *et al.*, 2012).

3.9.2 Non-Financial Performance

In the perspective of new ventures, determining performance is even more crucial (Robinson, 1999). Many researchers argue that growth elements are the most suitable variables to measure new venture performance. Anyadike-Danes and Hart (2018) argue that a firm's size, success, or failure can also determine performance, especially for new ventures.

Kaplan and Norton (1996) argued that using the non-financial measure such as that from a customer perspective of performance would complement the financial performance measures that are short-term oriented. The customer-related performance measures can be used to quantify customer contacts (Shoemaker & Lewis, 1999), and differentiate worthy customers (Noone *et al.*, 2003). Customer differentiation requires firms to identify their customers, differentiate them, interact with them, and customize their services. Through customer rather than product differentiation, the firms can concentrate on strategic customers who add value and increase profitability. To concentrate on fewer but profitable customers, the firms need to use a customer-related performance approach to measure, assess, and manage performance. Subedi (2021) opines that entrepreneurship scholars should use multidimensional scales to measure entrepreneurial performance.

The inclusion of non-financial performance indicators would complement the financial metrics as a performance measure (Mohd Harif *et al.*, 2012). The non-

financial indicators (customer performance) can communicate better information through "information-sharing" to accomplish a firm's strategic planning that cannot be explained by the conventional financial measures (Dossi & Patelli, 2010). This is especially during uncertainty, as it helps lead to better firm performance analysis (Hoque, 2005). The non-financial measures have been regarded as a separate measurement system used in quality enhancement attempts or strategic planning (McNair *et al.*, 1990). According to Cumby and Conrod (2001), the limitations of the financial measurements in evaluating firm performance in a new economy demand the inclusion of non-financial measures. A study by Fullerton and Wempe (2009) highlights those non-financial measures which mediate the firm's strategy and financial performance.

3.9.2.1 Customer performance as proxy of firm non-financial performance

Thus, in the context of the current study which is within the ECF business environment, it is essential to have worthy customers who can increase sales. As sales can increase profits in the long run, firms need to look at the customer factor to increase sales. Thus, firms need to use customer-focused strategies to increase sales and, thus, maintain their competitive advantage. However, aligning strategy and business models is critical in creating value for firms (Vera & Crossan, 2003).

Customer performance measures includes number of new customers, number of sales to new customers, customer profitability, percentage of market share, percentage of repeat customers, growth of existing customers, feedback from customer evaluation surveys, customer retention, and customer satisfaction (Kasim & Minai, 2009). Many previous studies have also measured performance using customer satisfaction (Gupta & Zeithaml, 2006; Ittner & Larcker, 1998; Li & Wang, 2010; Prieto

& Revilla, 2006). In their study, Obeng, Robson and Haugh (2014) also found the most substantial relations between the customers and firm performance in Ghana.

With increasing competitiveness, companies should prioritize customer satisfaction to ensure firm profits both short-term and long-term. Therefore, this study employs customer performance measures adopted from Kasim and Minai (2009) to measure aspects of non-financial performance. In addition, good internal control mechanism such as AIS in the organization has an impact of a firm's customer and financial performance (Hariyati *et al*., 2019).

Moreover, firms should abstain from merely focusing on measuring performance by utilising financial performance measures, such as profitability and growth. It could probably be due to inadequate quality of financial data, the weaknesses and delays in financial information, the complexity of using ratio analysis, the lack of proper disclosure requirements and regulation. Consequently, the financial performance measures only represent previous performance and do not reflect the present and the forthcoming performance. In short, using only financial measures to determine the performance are insufficient. Comparatively, non-financial performance measures promote the integration, continuousness and reputation of the owner and the firms. Indeed, counting small firms' performance using non-financial measures depicts more promising performance than big firms measured by profitability and growth. Thus, based on the complementary functions of the financial and non-financial information in providing previous and projecting future performances, firms should integrate these two performance measures to provide sound, meaningful and quality performance reports (Agbim, 2019).

In addition, nowadays, competitiveness is essential to survival in the global business environment. Thus, as customers have the right to select their suppliers'

worldwide, external competency has become as important as internal cost control. Therefore, business strategies that focus on building relations and customer satisfaction have been given priority over the existing cost-control regime. Thus, there is a rising demand for new measures to assess business performance from the external perspective. Quality and customer satisfaction have been recognized as new types of variables in measuring firm performance. In short, the common ways for managerial control need to be complemented by non-financial for better monitoring business performance (Lind *et al.*, 2000).

Based on the literature, the determinants of performance (financial and non-financial) defined in the literature will be applied in this study. Therefore, this study aims to contribute and extend the ECF literature in this field by developing and proposing a conceptual framework for the entire structure of the model (refer to Figure 3.4).

3.10 THEORETICAL FOUNDATION OF THE STUDY

Theory helps in understanding a particular event, situation, or behavior. To produce practical and robust research both require theory and strategic approaches appropriate to a particular situation. Although research on company performance has long existed, there is no specific theory derived from the field of entrepreneurial financing. Researchers often borrow popular theories from other disciplines and adapt them to studies of various entrepreneurship (Zahra, 2007). According to Weick (1995), theorizing is not simply a "selection, explanation, synthesis, and idealization" theory. It depends on how it is debated, looking from a new perspective and sharing new insights.

Thus, choosing different theories can help us better understand the units of analysis studied, such as organizations, individuals, and groups. Therefore, the current study selects an appropriate theory to help shape the overall structure of the research. This structure can support the researcher in providing a comprehensive view of the issue and data analysis (Grant & Osanloo, 2014).

In the context of this study, the investigation concentrates on financial management practices, specifically, accounting information systems, financial analysis and reporting, financial planning and control, and working capital management. These are the internal factors that influence the firm performance. Whilst social networks and ECF platform providers act as the external factors that affect the performance of ECF-funded firms. In addition, this study also examines the mediation effect of business intelligence in influencing the relationship of the independent and dependent variables. However, this study only investigates the influence of business intelligence on financial analysis and reporting, financial planning and control, and social networks.

Adopting the small firm performance theory by Storey, this study integrates the Theory of Resource-based View (RBV), Theory of Social Capital Network, Financial Theory of Bricolage, and Theory of Signaling into practical and comprehensive models to understand firms' strategies (FMP, SN, PP, and PP) and BI as mediator towards the performance. The RBV is used as an underpinning theory which aids in explaining the direct effect of the strategies on the firm performance. The social capital network theory explains the impact of the network on firm performance. At the same time, the signaling theory is used to describe the effect of financial information and the networks' affiliations that transmit signals to the stakeholders of the firms' business environment. Further, the current study develops its conceptual framework using Storey's small firm performance model as it is practical to the study of new emergent ECFs in Malaysia.

All of the theories adopted in this study are often used in social science research to predict and understand the performance of a particular sample population. Furthermore, the discussion centrally focuses on the discourse, applicability, and rationale for adopting the theories.

3.11 RESOURCE-BASED VIEW OF THE FIRMS

This study examines firm performance and uses RBV as the guiding underpinning theory. Investment-based crowdfunding in Malaysia is considered a new emergent phenomenon. The assumption behind this study is that the firms would select factors that fit their resources and capabilities. These factors would probably have different costs or value to the performance of the firms. Gupta and George (2016) emphasize research-based theory which stresses on the importance of an organization as a pool of resources and capable of uniting various types of resources for the greater benefit. According to the resource-based view (see Penrose, 1959), the resources in an organization determine its long-standing competitive advantage. The RBV interprets firms as places with many resources (Amit & Schoemaker, 1993; Rumelt, 1984). These resources are classified as valuable, rare, inimitable, and non-substitutable (VRIN).

The VRIN resources are the constitution of five forms of capital; human capital, manufactured capital, financial capital, social capital, and natural capital. When classified as VRIN, these capitals have higher chances of performance. The variation in firms' resources and capabilities influences the performance of the firm, the competitive advantages, and sustainability (Barney, 1991). However, Bowman and Ambrosini (2000) argue what has been defined as valuable resources. They added that "a theory of value generation is set out which concludes that the source of value and

hence profits (as the proportion of value captured by the firm) is the combination and deployment of labor with other resources" (p.1).

Accomplishing competitive advantage and boosting firm performance does not require the use of the entire class of resources. The RBV approach assumes that the distribution of strategic resources across an organization is heterogeneous (Fahy, 2000). Thus, under this theory, resources and capabilities are vital for the organization's performance (Barney, 2001). Porter (1985) talked about resources creation and utilization, revealing that external forces strategically influence the firm. These factors include competition concentration (intensity), other stakeholders, the buyers and sellers, and structural change due to market, and industry change. Organizations need inputs to operate. The inputs can be in the form of property-based resources (tangible) and knowledge-based (intangible) resources. The acquisition of both resources has a significant influence on the organizational performance, especially in generating the firm's competitive advantage.

However, environmental changes could influence this relationship (Miller & Shamsie, 1996). In the case where the stability period and predictability are known, the property-based is favored. In contrast, under uncertainty, even if the same firms are used as models, the knowledge-based resources are the best (Barney, 1986). However, it also reveals the fragility of property-based resources when industry changes occur, thus, legal protection is needed to protect the firm. However, that action is beyond their reach (Barney, 1986; Heil *et al.*, 1991).

The acquisition of the resource involves two aspects; capability and outcomes. Resource acquisition capability refers to the ability of the firm to obtain all types of resources, tangible and intangible, within the organization or the environment. Meanwhile, resource acquisition outcome highlights the organization's resources for its

long-term performance and maintain competitiveness. The RBV helps organizations realize their strategic resources for optimum output (Zhang *et al.*, 2010). Human capital, structural capital, and relational capital are a firm's intangible assets. Human capital refers to human resource factors such as the attitude, skills, tacit knowledge, competencies, and innovation of the support staff.

On the other hand, structural capital refers to the process of gaining knowledge and the learning curve of the organization from time to time. Relational capital, as such, refers to the organization's formal and informal social interaction with the external stakeholders and their opinion towards the organization. In reality, all of the capitals are interdependent.

However, human capital acts as the core element in developing structural and relational capital. Previous studies demonstrate the relationship between human capital efficiency and numerous types of firms' sustainability, firm performance, competitive advantage, value creation, and firm's efficiency (Kong, 2007; Barney, 1991; Mertins & Orth, 2011; O'Donnell *et al.*, 2006). However, intellectual capital does not foster innovation directly. Intellectual capital impacts knowledge acquisition, then only impacts innovativeness (Obeidat *et al.*, 2017).

The entrepreneurship guru, Schumpeter (1934), explained the five ways that enable value creation; the organization's orientation, marketing channels, available resources, the technology used, and the most crucial product or service that fulfil customers' satisfaction. Value creation is a manifestation of companies' performance created over a specific time frame (Lebas & Euske, 2002). It depends on the ability of the companies to utilize these resources to create value (Fischer & Sojer, 2015). Nevertheless, the process of value creation must consider sustainable cash flows. As a

result, there is a need to have an assets selection procedure to choose which assets improve the firm's value (Eniola & Ektebang, 2014).

Under the resource-based concept, the firm's value determines the firm's profitability (Makadok & Coff, 2002). That shows the importance of distinguishing between the values created and the value captured (Becker & Gerhart, 1996; Hsu & Ziedonis, 2013). However, according to Fisher and Sojer (2015), value creation is similar to value capture. They conducted a quantitative study on 108 Greentech industry firms in Germany, and the finding revealed that firms could either concentrate on value creation or value capture to achieve competitive advantage. Furthermore, maintaining a competitive edge depends on market-demand steadiness, the ability to grow internally, and awareness of replication by opponents. Hence, it is essential to monitor decision-making, organizational, and technological adoption closely, especially when it involves technology that quickly changes. Failure to do so will decrease the competitive advantage (Teece *et al.*, 1997).

Through entrepreneurial ability, the organization can select the strategic resources and coordinate them to create fresh new opportunities. It shows that the opinion of RBV entrepreneurship is parallel with the principles of RBV (Akingbola, 2013). Akingbola (2013) emphasizes that the entrepreneurship process involves three stages:

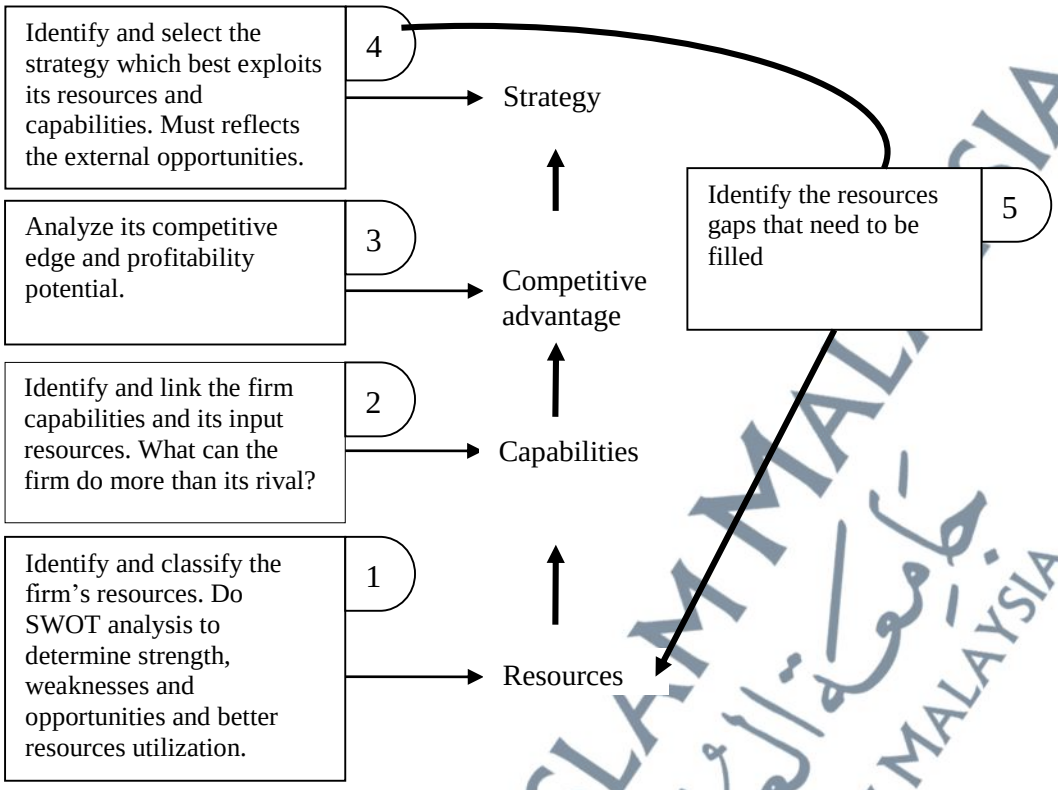
a) Ability to recognize the available opportunities.

b) Ability to acquire specific resources to develop the opportunities.

c) Ability to transform similar (homogeneous) inputs into various (heterogeneous) outputs.

While Senyard *et al.* (2011) link the RBV and the theory of bricolage, the former goal is to maintain competitive advantage. The latter involves manipulating resources, internal and external. Also, when uncertainty occurs, the bricolage spirit comes up with unplanned action (Baker & Nelson, 2005). A study by Runyan, Huddleston and Swinney (2007) broadens the RBV concepts. It focuses on small firm performance. Eisenhardt (2013) argues that new firms and small firms possess more opportunities to structure their firms than well-established firms (Eisenhardt, 2013).

Meanwhile, Grant (1991) studied the RBV and linked the capabilities of the resources with strategy formulation, competitiveness, and profitability determination. He formulated a five-stage process for strategy construction that assumed external circumstances creates the opportunities and risks. Figure 3.3 depicts Grant's idea. Finally, there are recent studies that extend the business intelligence notion into RBV standpoint. The studies examine the technology capabilities and effectiveness towards the success factors of business intelligence and the firm's performance (Ramakrishnan *et al.*, 2018; Seddon *et al.*, 2017). The implication of technologies to the firm strategy formulation in determining the firm performance can be connected to Grant’s idea.



Source: Grant (1991)

Figure 3.3: Grant's Practical Framework: Approach for Strategy Analysis

3.11.1 The RBV Theory and Financial Management Practices in the Firm

Di Giuli *et al.* (2011) and Sirmon and Hitt (2003) argue that financial management and accounting can be resources for firms in influencing their future competitiveness and long-term survival ability. However, it depends on how these resources are managed. Hiebl (2012) argues that the firm orientation influences the resources management practices; non-family or family-based in his study. The findings in a non-family oriented firm show, firstly, the employment of efficient financial management and accounting practices. Secondly, the financial manager can provide financial advice to superiors. However, in family-based firms, the study found that the firm tends to practice the most straightforward financial and accounting management. In addition, the financial support staff lacks financial and accounting management

current knowledge (Hiebl, 2017). This type of firm also tends to assign resources to sales and marketing that could contribute to faster results (Tokarczyk *et al.*, 2007). In contrast, Becker *et al.* (2011) argue that family-based firms and their size do not influence management accounting employment.

The RBV model underlines how effective management of current internal resources can boost a company's competitiveness and long-term performance. In general, the RBV theory assumes that a firm's competitive advantage is determined by the resources available to it and how they are managed (Mahoney, 1995; Wernerfelt, 1984). In addition, combining RBV theory and behaviour will generate firm-wide internal knowledge. This understanding can help management devise realistic techniques for diverting surplus but unproductive sources. As a result, internal disputes are reduced, earnings are increased, and operating costs are reduced, resulting in internal growth and a cycle of innovation (Penrose & Penrose, 2009).

Therefore, this study justifies the use of the RBV theory as the theoretical framework to evaluate the firm's resource utilization. However, in analyzing the FMP, this study does not classify the firms based on their orientation; family or non-family.

3.12 SOCIAL CAPITAL THEORY

Social capital emerges from the actual and potential source from a social network institutionalized and continuously supports its members in reciprocal recognition and identification (Bourdieu, 2011). It consists of two properties, first, the aspect of social structure, and second, it facilitates individual action in the social network. The concept of social capital involves obligations and expectations, which depend on the trustworthiness of the social environment, the information-flow capability of the social structure, norms accompanied by sanctions, and networks as a

system of social linkage (Coleman, 1988). Social capital becomes the most debatable topic due to its nature as a stock of trust, mutual understanding, shared values, and socially-held knowledge (Goodwin, 2003; Huber, 2009).

The social capital's structural dimension refers to the impersonal relationship among the actors, people and units, and the network relationship (Tichy *et al.*, 1979). The structural dimension of social capital persuades information benefits due to its accessibility, timely, relevancy, and ability to be traced (Burt, 1992; 2004; Troise *et al.*, 2020), creating relational social capital with trust and obligation is significant (Håkansson & Snehota, 1995). However, the fact is, the relational dimension of social capital relies on the superiority of the social knots, which is a process that is built over time (Nahapiet & Ghoshal, 1998). Lin (2002) differentiates between social capital and social networks. Social capital depends on social networks to access the implanted resources. Thus, when the interaction parties share a common language, trust is built, and the mobilization of information becomes broader and faster (Woolcock, 1998).

Looking at the advantages of the social network from the macro perspective would narrow down the disputes in the literature. The current settings of social capital should include the geographical aspect. The importance of including the facet of geography in social capital has been highlighted by several scholars (Huber, 2009). Nowadays, under the knowledge-based economy, social capital promotes regional externalities (Iyer *et al.*, 2005), innovation, and local knowledge spill-over (Capello & Faggian, 2005; Huggins & Thompson, 2015; Tura & Harmaakorpi, 2005). Social capital strategically streamlines other growth potential resources that lead to economic fortune (Huber, 2009; Lang & Wittig-Berman, 2000; Sadler-Smith *et al.*, 2000).

On the other hand, the lack of social networks would cease the penetration of implanted resources. Human capital, financial capital, and social capital have a

significant positive liaison to firm performance (Fatoki, 2011). The interconnections between social capital, physical capital, and financial capital promote project development and economic wellbeing. Unfortunately, after a certain period, the social capital's influence would depreciate (Noor *et al.*, 2013). It is because social capital fluctuates based on the ties built within and among its dwellers. A strong connection tends to create better surroundings and communities resilient to the upcoming crisis by developing trust and enhancing social interconnection (Aldrich & Meyer, 2015). Therefore, good management practices and effective planning can obtain sound social capital, which requires balanced internal and external interaction (Hunecke *et al.*, 2017; Masik, 2005).

From the entrepreneurial landscape perspective, social capital is strong and successful when an entrepreneurs can interact with the required resources through their social networks. However, if they fail, the consequence is social capital destruction. Social capital promotes entrepreneurship when the entrepreneur can recognize opportunities. Meanwhile, social capital obstruction occurs when the social networks deny the entrepreneur's accessibility to the required resources and information, jeopardizing the entrepreneur's safety and risks as the nature of social capital can go beyond the entrepreneurial boundaries (Dana & Light, 2012; Spigel, 2015).

At the startup phase of business, the entrepreneurs, surrounded by their entrepreneurial family and friends, have an advantage from the strong ties that enable them to gather accurate business information, substantial financial back-up, and easy access to existing business relations (Bouk *et al.*, 2013; Thrikawala, 2011). During the 2008-2009 economic turbulence, firms with high social capital gave higher dividend pay-outs, increased profitability, observed better growth, and improved sales per employees than the low social capital firms. The strong trust relationship between the

firms and their stakeholders is meaningful regardless of the economic downturn. In short, the wide-ranging social network is one of the ECF campaign success factors. On top of that, firms' financial reporting and founder-manager demography such as educational background and management experiences positively influence the campaign success. However, risk alert and other unreliable disclosure prerequisite do not support the campaign success (Lins *et al.*, 2017; Nitani & Riding, 2017).

3.12.1 The Social Capital Network and Firm Performance

Grant (1991) defined strategy as the match an organization executes among its domestic sources, abilities, risks, and opportunities formed by its external setting. Typically, strategy is associated with increasing the organization's role in the broader ecosystem or achieving its goals. The implementation of a strategy is within the jurisdiction of strategic management. Once a strategy has achieved a goal, it should no longer be in the program unless the strategy is essential to reach the next goal and relates to how the organization continues its business operations. If this is the case, an ongoing performance management process is required to validate it. In other words, effective strategies help improve company performance (Poister, 2010). Ideally, the strategy used can synergize the internal and external resources of a firm. It does not matter whether it is a large or small company (Beard & Dess, 1981).

O'Brien and Maracas (2008) opine that the strategy is crucial for any organization to continue its performance, as Michael Porter modelled in his classic competition model. The model focuses on "product differentiation strategies" and "low-cost strategies" because the primary objective of each organization is to deliver value to their customers. Finding strategies that can optimally benefit the organization is essential. However, Peña (2002) argues that apart from the human capital of

entrepreneurs, the ability of a company to react immediately to changes that occur and its ability to implement the right strategies correlate with positive performance.

In today's competitive market, business strategy indicates how a company might achieve its goals and stay in business (Teece, 2010). From an ECF perspective, Fang and Chang (2020) show that the words used in a campaign and the quality of information disclosure positively impact the success of crowdfunding campaigns. Further, the study, based on social capital theory and signal theory, also found that crowdfunding platform providers play an essential role, such as establishing new techniques to broadcast project campaigns raised on their platforms involving social networks. This signal is significant because it affects three relationships that influence the purpose of crowdfunding - (i) the crowdfund seeker-funder relationship; (ii) the platform-funder seeker relationship; and (iii) the platform-funder relationship. In ECF, the success of each CF campaign affects the firm's performance because firms mainly seek ECF funding for working capital, marketing purposes, product creation, technology development, and their development plans.

3.13 THE THEORY OF FINANCIAL BRICOLAGE

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.

Bricolage in entrepreneurship happens when an entrepreneur tries to improvise existing resources by utilizing other external resources that might have been overlooked by others (Baker & Nelson, 2005). According to Stenholm and Renko (2016), passionate entrepreneur tends to have bricolage spirit that is able to transform for a better performance. They argue that what differentiate between the failure and the surviving start-ups is the bricolage spirit. Higher spirit of bricolage can be found in the survival firms.

The concept of bricolage is to take advantage of entrepreneurial opportunities. It can thus be internal and external. Internal bricolage refers to the entrepreneur's characteristics; experience and knowledge of the market, customers' issues, and other attributes that will help to encounter issues and capture emerging opportunities. External bricolage, on the contrary, indicates the entrepreneur's behavior to fully utilize the external resources available at that time (Vanevenhoven *et al.*, 2011). Nevertheless, both serve the purposes of generating new combinations of resourceful inputs with the intention to foster firm performance (Brush *et al.*, 2001; Foster *et al.*, 2008; Kariv & Coleman, 2015; Sirmon & Hitt, 2003). A previous study by Kariv and Coleman (2015) adopts RBV with the extension of the theory of bricolage from the perspective of microloan. The study found that entrepreneur's motivations are the prime factor for finding financial assistance. The present study will investigate the matter from the perspective of equity crowdfunding. This theory helps to explain the founder-director's or top management team's behavior or ability to take up opportunities from the equity crowdfunding event for the benefit of the firm.

3.13.1 Previous Studies on Financial Bricolage Theory and Firm Performance

A study conducted by Kariv and Coleman (2015) examines the push or pull types of entrepreneurs. The push or necessity-based is when the entrepreneur is lacking of something such as resources, minor races, unemployed, whilst the opportunity-based entrepreneur is its opposite. The finding shows that the theory of finance bricolage is persistent with liberal feminist theory. According to liberal feminist theory, women entrepreneurs are at the disadvantage side in securing financing compared to male entrepreneurs. Thus, the entrepreneur competency in obtaining financing from the right funder at the right time will affect the firm's present and future performance (Said *et al.*, 2003).

The most recent study by Tsilika, Kakouris, Apostolopoulos and Dermatis (2020) explains the act of bricolage in SMEs during crisis, for instances, the financial crisis in late 90's and Covid-19. They emphasize that financial and resource constrain are factors that stimulate the bricolage in Greece's SMEs. During crisis, SMEs integrate the bricolage process in all of their strategy rather than focus on a specific area. The study also highlights that policy-makers should accommodate their existing support-system to assist those SMEs facing limited resources.

3.14 SIGNALING THEORY

The signaling theory, which Spence (1973) introduced, can be applied to various fields; economics, accounting, finance, entrepreneurship, and education. It is a theory that helps to elaborate the behavior of organizations or individuals when dealing with asymmetric information—in other words, reducing the information asymmetry between the interest groups. The receiver needs to interpret the signal sent by the

sender, hence lessening the asymmetric information between the involved parties (Spence, 2002).

Connelly, Certo, Ireland and Reutzel (2011) argue about the dynamic of the signaling theory. They claim that the theory can be applied in many fields such as entrepreneurship, strategic management, and human capital management. Karasek and Bryant (2012) discuss the application of signaling theory in the past, present, and future and highlight the importance of the theory in anthropology, psychology, and management areas.

In current practice, ECF, for instance, observes that investors as the receiver tend to show an interest in the startup that signals "signal fit" and "low degree of ambiguity." Substantially, these two signals of the human capital of the sender (entrepreneur) influence the success of the campaign by convincing the investors' motivation to participate (Piva & Rossi-Lamastra, 2018). Especially for startups, the signaling strategies can help them get noticed by potential investors. Throughout the business cycle, the startups develop from the conceptual ideas to the commercialization of their products or services. These signals could be the award-winning grants from the Government or a list of patented products or services. Some potential investors, such as venture capitalists, tend to approach the firm granted government awards. Spence (1974) emphasized that quality signals are evidence that conveys information on unobservable attributes of new firms. However, some prefer considering the less patented firm than well-patented firms as the lesser have more potential (Islam *et al.*, 2018).

However, from the perspective of prior financing, firms with financing history with sophisticated or retail investors, business angels, project grants (Wang *et al.*, 2017), and venture capitalists portray quality relationships. This relationship will

positively influence the equity crowdfunding campaign success. When a firm's social capital and human capital are at par, this tends to make its crowdfunding campaign successful (Kleinert *et al.*, 2018; Signori & Vismara, 2016). The formal financial management practices employed by the firm also signal to the stakeholder regarding the firm's financial health (Sagner, 2014; Waweru & Ngugi, 2014). Thus, it is justified that this theory fits the current study on ECF-funded firms on their strategies such as financial management practiced, engagement with the platform, and social network. Table 3.8 depicts the previous studies on signaling theory.

Table 3.8: Previous Articles on Signaling Theory

Affected Field	Seminal Article	Construct Signaled	Signal
Management			
Career	Rosenbaum (1979)	Career mobility	Early career path
	Forbes (1987)	Promotability	Prior promotion
			Background
			Prior jobs
Strategy	Marcus & Goodman (1991)	Crisis management	Crisis communication
	Certo (2003)	IPO future success	Financial reports
	Ross (1977)	Quality	Debt
	Bhattacharrya (1979)		Dividend
Recruiting	Chapman et al (2005)	Organizational fit	Recruiter behaviors
			Recruitment activities
Psychology			
Consumer psychology	Boulding & Kirmani (1993)	Product superiority	Warranty
	Kirmani (1990)	Product position	Advertising
	Davis (1991)	Product quality	Brand names
Anthropology	Bird & Smith (2005)	Generosity, Wastefulness	Communication patterns
	Sois & Bressler (2003)	Religious practices	Various selective pressures

Source: Karasek & Bryant (2012) page 93

A study conducted by Yuniningsih, Hasna, Wajdi and Widodo (2018) examined the impact of debt variable, size of the firm and growth on firm performance using

signaling theory as the basis. Using the multilinear regression method, it showed that the three variables had a negative direction as proposed in their hypotheses. However, the growth significantly affected the performance of the automotive firms listed on the Indonesia Stock Exchange.

Meanwhile, Kromidha and Li (2019) studied the signaling theory with personality and herding behavior. According to the study, the firm or individual tends to copycat the topmost online sellers. The study used fixed-effect regression to analyze 250 top online sellers. The variables inspected were trades volume, performance, risk indicators, and seller credentials. The findings showed seller credentials as more important. However, the results depend on the firm being actual or online money sellers. The study has a practical contribution to online platforms and, most importantly, the regulators and policymakers of such financial instruments, displaying as much information online could signal the various stakeholder about the firm performance.

Al-Sartawi and Reyad (2018) investigated Islamic banks in GLC countries. They argue that bigger firms tend to reveal much information, for example, online financial disclosure. However, in Islamic banks, since the banks are practicing profit-loss sharing principle and based on trusteeship, the importance of the manager is to signal their justification on rewards promotion deals. Moreover, the study also shows that investor-bankers' years of relationship insignificantly influence online disclosure.

Steigenberger and Wilhem (2018) widened the signaling theory to rhetoric signal in crowdfunding perspective. The unit of analysis was 192 video game projects. The independent variables were the substantive signals. The substantive signals included firm's background and the video game products' strength. Rhetoric signals referred to logos, ethos, and pathos. The dependent variable was the amount raised

during the campaign. The signaling mechanisms used by one firm was to reduce asymmetric information that might influence crowdfunding campaign. The study argues that under a high-noise environment such as in the crowdfunding model, the rhetorical signal complements the substantive signal. This thus influences the success of the funding acquisition campaign. Nevertheless, when a rhetoric signal provides unnecessary information, it impedes the substantive signal.

The firm's information, especially startups, influences business angels and venture capitals' preference to invest due to different investment appetite. Conti, Thursby and Rothaermel (2010) empirically studied 117 technology startups from the Advanced Technology Development Center of Georgia Institute since 1998-2008. The study examined the influence of patent and founders' own money, friends and families as the independent variable whereas venture capital and business angels as the dependent variables. The findings showed that signaling strategies undertaken by the founders involved high cost. Thus, it is important for the founders to monitor closely the signal activities cost because it will signal the external investors. But then again, failure to provide significant signal decreases prospective investors' judgment towards the ECF campaigns by the entrepreneur.

Consequently, it affects the campaign performance and the firm performance as well. When the firm fails to succeed in the ECF campaign, the investor will interpret it as bad, inability, and criticize the issuers (Zunino *et al.*, 2017).

3.15 THE STOREY MODEL OF SMALL FIRM PERFORMANCE

David Storey's contribution to the small business sector is undeniable. His book entitled *Understanding the Small Business Sector* was published in 1994 and inspired researchers to use it as a basis for forming a research framework used for current

studies. Storey (1994) covered different topics, but the key findings relevant to the present study concern the growth and performance of small companies. According to him, the rate of company formation varies significantly between sectors, periods, and countries and regions. These differences are influenced by factors critical to understanding sector differences in the construction of new companies, particularly the extent of entry barriers and expected profits. Another important feature of the small business sector is "mortality". In general, failures and deaths are higher among young firms than old firms. Young firms need to have strong momentum to accelerate their business from start to grow to survive.

In the small business population, fast-growing companies are small because of the limited willingness to grow among small firms. However, three main types of factors influence the growth of small firms; demography of the entrepreneurs (e.g., education and management team), demography of the firm, and the implemented strategies. These components need to be combined appropriately to achieve growth. Finding strategies that will optimally benefit the organization is crucial. However, according to Peña (2002), other than the entrepreneur's human capital, the firm's prompt responses to changes and its ability to implement the right strategies correlate with its performance.

Strategy in business informs the stakeholder how the firm will accomplish its goals and continue its operation in a competitive market (Teece, 2010). Effective strategies help increase firm performance (Poister, 2010). Thus, Perera, Harrison and Poole (1997) suggested that the firms should adjust their performance measures that match and uphold their strategy. Obeng, Robson and Haugh (2014) also investigated entrepreneurs' demographics, firm's strategy, and resources. They found positive

relations linking these variables towards the firm's performance. Moreover, they also discovered that networks are capable of stabilizing those relationships.

The current study also follows the approach developed by Storey (1994) in measuring the performance of small companies. According to this approach, firm outcomes related to the performance or growth of small firms need to be studied from the lens of three common constructs; owner-manager characteristics, firm characteristics, and firm strategy. However, this study investigates the human and firm factors using descriptive analyzes. Meanwhile, the focused strategies (financial management practices, the social networks, and ECF platform affiliation) used by online fundraisers to attract funder participation to successfully obtain the funding, and finally, better firm performance. Funds are desperately needed by all companies regardless of their size, not to mention small companies. Thus, the ability of a small company to have efficient financial management can produce high-reliability financial information. Thus, a company should have good financial management practices that can be used to make accurate decisions, reliable reporting, good planning, the management of company resources to generate revenue, and assist in accessing funds. Under the ECF, financial information is important to attract more potential funders to the platform but having good social networks can drive investor participation in the campaign. For instance, issuers with angel investors as their networks tend to have better success in the fund campaign. Thus, the wisdom of issuers in choosing a platform for their campaigns is essential. The ECF platforms also have their networks data-based that consist of institutional and angel investors.

In addition, due to the influence of technology, the use of BI among enterprises can put their firms several steps ahead of their competitors, making them more competitive. The use of BI to make plans is vital, especially for financial planning and

controlling. Di Pietro (2020) highlights that financial information, social networks, and platforms can signal to outsiders about the firms. This study, therefore, uses these factors and tests their influence on the performance of ECF-funded companies.

3.16 HYPOTHESES DEVELOPMENT

This study employs RBV theory, which is supported by Bricolage theory, social capital theory, and signalling theory. RBV's goal is to maintain a competitive advantage, and the company is considered as a resource pool that may pool various types of resources for greater profit. Financial bricolage spirit refers to the ability of the founder or manager to mix and match present resources to explore new opportunities or solve existing difficulties. In this study, it refers to the founder's creative hunt for funding via an internet platform. Signaling theory is being used to eliminate asymmetric information amongst interest groups such as ECF investors, issuers, and platform. The capacity of the founder or manager to demonstrate that the company follows a set of FMP guidelines could indicate how serious the company is about conducting business.

The use of business intelligence (BI) could help a company's planning and control functions, as well as its overall performance. The use of BI also suggests that the company is relying on the bricolage principle to survive. Prospective investors can be attracted by placing the campaign on a platform that gives information such as the owner's background, the firm's financials, the project's priority, the estimated capital return, and feedback from potential buyers. As a result, the amount of asymmetric information may be reduced.

The ECF ecosystem has a role for social networks. It is believed that social networks facilitate resource interactions, hence increasing social capital, which is

defined as a collection of resources that can assist people in developing and gaining access to other resources. An entrepreneur's social capital is powerful and successful when they can interact with the resources they require through their social network.

Therefore, based on the reviewed related literatures and underpinning theories discussed in the previous sections, this study is able to derive hypotheses that provide tentative answers to the research questions that are also extended on the basis of the statement of the problems, as well as the background of this study. In this sense, the study hypothesizes the relationships between the dimensions of FMP, SN, PP, and the ECF funded performance. This study also hypothesizes the mediating role of business intelligence between these predictors (i.e., financial analysis and reporting, financial planning and control, and the criterion variables (i.e., financial and non-financial performances) as follows:

H1a: The application of AIS has a positive effect on the firm's financial performance.

H2a: The application of AIS has a positive effect on the firm's non-financial performance.

H1b: Sound financial reporting and analysis has a positive impact on the firm's financial performance.

H2b: Sound financial reporting and analysis has a positive impact on the firm's non-financial performance.

H1c: Financial planning and control have a positive impact on the firm's financial performance.

H2c: Financial planning and control have a positive impact on the firm's non-financial performance.

H1d: Working capital management has a positive effect on the firm's financial performance.

H2d: Working capital management has a positive effect on the firm's non-financial performance.

H1e: Social networks have a positive impact on the firm's financial performance.

H2e: Social networks have a positive impact on the firm's non-financial performance.

H1f: Equity crowdfunding platform provider has a positive impact on the firm's financial performance.

H2f: Equity crowdfunding platform provider has a positive impact on the firm on financial performance.

H1g: Business intelligence mediates the relationship between financial analysis and reporting and a firm's financial performance.

H2g: Business intelligence mediates the relationship between financial analysis and reporting and a firm's non-financial performance.

H1h: Business intelligence mediates the relationship between financial planning and control and a firm's financial performance.

H2h: Business intelligence mediates the relationship between financial planning and control and a firm's non-financial performance.

3.17 CONCEPTUAL FRAMEWORK

The previous discussion on the underpinning theories and the development of hypotheses lead to the research framework of the study. A concept is a general idea or an extract that is assumed or obtained from a particular situation. Scholars broadly

define the conceptual framework as a comprehensive set of beliefs, ideas, and principles drawn from critical research areas and later compile the contributions. There are three goals of the conceptual framework. First, to describe the current practices. Second, to set future practices, and third, to develop key conditions and fundamental issues. The conceptual framework broadly defines several key terms and concepts and then recognize and discuss the results (Kombo & Tromp, 2006).

The conceptual framework developed for this research aims to help the researcher investigates the impact of financial management practices, social networks, and ECF platforms on the financial and non-financial performance of the successful ECF firms in Malaysia. This framework has been used to its potential benefits to help researchers make sense of the following findings. Thus, the conceptual framework is based on six explanatory variables. They are accounting information systems (AIS), financial analysis and reporting (FAR), financial planning and control (FPC), working capital management (WCM), social networks (SN), and ECF platform provider (PP). These independent variables are 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. This study also investigates on business intelligence that is believed to mediate the relationships between FAR and FPC. Figure 3.4 demonstrates the conceptual relationship connecting the explanatory and dependent variables. The conceptual framework shows how these variables intermingle in a diagram form.

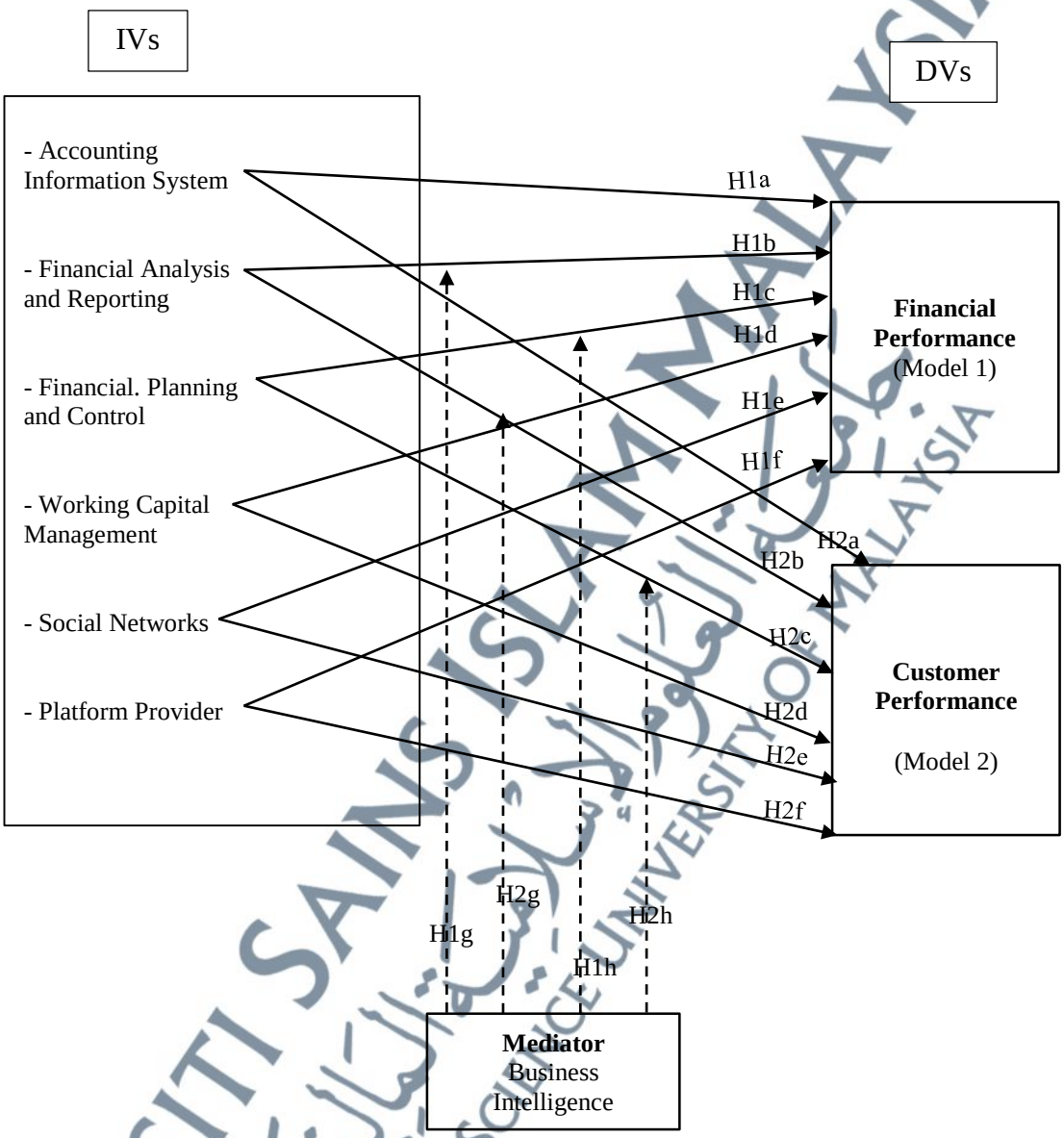


Figure 3.4: Conceptual Framework: Strategies Employed towards Performance

Figure 3.4 displays the conceptual framework developed in this study, which represents the strategies used towards ECF-funded firms' performance. This technique is used to predict the future performance of the firm planning to use ECF as financing. The predictive model is created based on the valid statistical data that has been collected

(Kalechofsky, 2016). The study uses two approaches in examining firm performance: financial (Model 1) and non-financial (Model 2).

The investigated factors which are the strategies employed, also known as independent variables, are the dimension of the financial management practices, social networks, and the equity crowdfunding platform provider. Figure 3.4 also shows the influence of business intelligence as the mediator variable on financial analysis and reporting, and financial planning and control towards the ECF-funded firms' performance.

This framework is underpinned by the Resource-Based View (RBV) theory as mentioned earlier. While Grant (1991) classified resources as financial, physical, human, technological, and organizational, Wernerfelt (1984) described resources in terms of brand names, in-house knowledge of technology, employment of skilled personnel, trade contract, machinery, efficient procedures, and capital. For the purpose of this study, the resources included are related to strategies employed by the firms. Thus, these resources are to better understand the more complex relationships that require the analysis of multiple variables on the ECF-funded firm performance.

3.18 CHAPTER SUMMARY

This chapter has included a review of previous literature on crowdfunding starting from the definition and types, characteristics, motivation, and risks involved and followed by an explanation of the nature of ECF from the perspective of financial management, the practices, and the features. Financial management is essential in an organization. It helps to monitor the financial health of the organization and is the heart of each organization. This chapter has further discussed the matter of financial management and the performance of the firm.

This chapter further discussed the affiliation of social networks and the ECF platform. This was done in order to investigate how these factors influenced the firm's performance. To provide the descriptive analysis in the next chapter, the demographic details of the founders/managers and the firm are discussed. The resource-based view, social capital theory, bricolage theory, signaling theory, and Storey's model of small firm performance are discussed and used in this study to help investigate the relationship between the independent variables and firm performance. The study further investigated the mediating effect of business intelligence on the relationship between financial management practices, financial analysis and reporting, and financial planning and control towards the performance of the firms.