Optimize the Business Ecosystem Model of Securities Crowdfunding Financial Technology to Improve Access to SMEs Funding

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Abstract. The study aims to review the literature of several articles covering the financial technology company (FinTech) Securities Crowdfunding business ecosystem and related topics. Securities Crowdfunding is a crowdfunding business model facilitated by a financial technology platform. This research uses exploratory methods with qualitative descriptive approaches. The results of the study explain the characteristics of FinTech companies and their relationship with agile technologies. Some of the previous ecosystem models from Moore (1993), Diemeers (2015) and Ernst & Young Consultants (2017) were important reference materials as the foundation for Fintech companies to design strategies for the development of sustainable business models. The discussion ended with a description of the financial perspective of cusomer as one of the key actors that determine the basis of investment decisions in FinTech Securities Crowdfunding.

Keywords: FinTech, Securities Crowdfunding, Business Ecosystem.

1. Introduction

One of the alternative funding schemes to support SMEs funding is funding through financial technology services. (fintech). Fintech is a technology-based financial service that serves as a solution in the development of applications, products, or business models in the financial services industry. (Lee & Shin, 2018). These internet-based financial services have grown and expanded over the last few years and have linked the side of the surplus funds with the side in need of funding. (modal). One of the fintech services that provides funding is securities crowdfunding. (SCF). SCF is a business model that provides financing through crowdfunding facilitated by a financial technology platform. SCF can facilitate the source of funding for SMES entrepreneurs by helping to offer securities to the public. In the SCF business model, companies can act as investors who can fund or own SMEs through the buy of shares, bonds or joint ownership (sukuk). SMEs that issue securities through the SCF platform have opportunities to access unlimited sources of funding both in the amount of funds and the target amount of investors.

There are three main actors in the SCF fintech business model, the first is the fintech platform provider SCF, i.e. a financial technology company that has been licensed and

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supervised by the financial authorities, the second is the SMEs entrepreneur sector that has met certain criteria for becoming an issuer of securities (emitent), both stocks and debt, and the third is an investor, that is, the general public or an institution that wants to invest assets or funds in SMEs of the issuer to gain profits either in the form of business earnings / dividends or coupons or debt loan interest.

2. Research Problem

Basically, the fintech company SCF is only a provider of technology platform forming the market that connects between the surplus funds parties, i.e. the society or investors with the deficit funds that require the source of funding. However, the business model of the SCF platform has not yet been able to attract the attention and interest of SMEs to take advantage of the opportunity to offer securities through the FinTech platform. Then from the side of investors, the society that wants to invest has not had sufficient literacy so that the level of confidence in SMEs is still low, especially if investors have not known the profile and business run by SMEs actually.

These issues will be studied further in this study by analyzing and investigating SCF's fintech business model according to the views and results of studies published in various scientific journals. The aim of this research is to conduct a literature study of several Fintech business ecosystem models and the elements that support ecosystems in order to obtain a more affordable ecosistem model design. It is hoped that the results of the research will strengthen the management structure of FinTech companies and can support the sustainability of SCF business so that SCF can be used as an alternative funding for SMEs.

3. Theoritical Review

Lee and Shin (2018) explained that the business ecosystem includes many companies, individuals, and communities that are dynamic and thriving together from a variety of actors who create and capture new value through sophisticated models of collaboration and competition. According to Townsend (2012), a business ecosystem is a structure of dynamic and interdependent relationships between organizations for sustainability, in this case it is a sustainable business activity. According to Lee and Low (2017), fintech is a technology-based financial service that serves as a solution in the development of applications, products, or business models in the financial services industry.

In the last decade, fintech has driven the process of transforming the business model of many companies so that much provides the effectiveness of achieving the company's measured business goals through clear business projections, innovation, accessibility of economic actors in reaching wider markets, and more economical investment and operating costs. Nicollety (2017), revealed that one of the most important aspects to consider in studying innovation is the business model of an organization (Chesbrough dan Rosenbloom 2002). Business Model Canvas (BMC) is an effective visual framework for analyzing business models. It explains why, how, and through which tools an organization creates, delivers, and captures value. An organization can be a single entity or a group of entities that work together to provide products or services that create value for their target customers (Grönroos and Voima 2013). Zott et.al. (2011) argues that no theory fully describes the creation of value through a business model, while different domains on the subject, developed independently, produce a variety of concepts and definitions. According to Moore (1993), a business ecosystem is an economic community supported by the foundations of organizations and individuals interacting with each other. The research developed a fintech business model, namely the design of the fintech ecosystem as an alternative financing outside the banking sector, referring to Moore's business model (1993), the model of the FinTech ecosystems (Diemers, et.al, 2015), and EY consultants. (2017). The results of the study Sailendra et al. (2020) showed that the majority of SMEs entrepreneurs did not have knowledge and skills in corporate finance so they could not access the sources of bank financing, so that the entrepreneur SMEs has a strong desire to gain access to SCF funding.

4. Methods

This study is an exploratory study using a qualitative descriptive approach. The data collection method is carried out through the study of literature with sources from relevant books, scientific journals, scientific articles, and the Internet. The study explored several fintech business models such as Moore's business model (1993), the fintech ecosystem model (Diemers, et.al, 2015), and EY Consultant (2017) as the focus of the study. Some variables in the fintech business model were then developed and supported with the support of several theories and other research results. The research phase begins by conducting a literary study, identifying research variables, gathering and linking several opinions and research findings and making summaries, conclusions and recommendations for further research. This research will address several concepts of thinking related to platform characteristics, ecosystem models and business ecosystems development strategies.

5. Analysis and Discusion

5.1 Features of FinTech

FinTech companies as a technology-based business entity require a speed of adaptation in the face of rapid changes to meet market needs, improve services and remain compliant with regulations. Knewtson and Rosenbaum (2020) explain the characteristics and relationships between financial technology companies (FinTech) with Agile technology, FinTech assets, Fintech services, ownership structure, industry asset standards, and FinTech regulations, as follows (a) FinTech firms use Agile Technologies so software development needs to continue to focus on adaptability, collaboration, and flexibility in the face of changing business needs. (b) The value of Agile technologies where this concept refers to the benefits obtained from the use of agile technologies in the development of FinTech products and services. Agile technology allows companies to more quickly adapt their products and services to market needs and face rapid technological change. The value of Agile technology can affect how the ownership structure of financial technology companies is organized. (c) FinTech firm comprise the FinTech industry and give rise for the need to set Industry Assets Standards, (d) to create FinTech assets and services, that Agile technology is used to create FinTech assets that include various products or services developed by companies, such as digital banking applications, online payment platforms, other financial solutions and other digital financial services such as peer-to-peer lending, online investing, or digital money transfers and (e) FinTech regulation has been placed on both FinTech firms and FinTech services, FinTech regulations are applied to both financial technology companies and FinTech services that aim to regulate the operations of FinTech companies and protect consumer interests and maintain market stability and integrity.

5.2. The ecosystem model

SCF's fintech innovation relies on the ecosystem model that forms it, including a business ecosystems model as a governance model that regulates the creation of products or services in communities, vertically integrated organizations, hierarchical supply chains or open markets. The model developed by Moore (1993) can be seen in Figure 1, where the model is divided into 3 levels, i.e. the core business that maps the core activity in a business, then the extended enterprise that mappes the entrepreneurs who interact directly in core business activities, and the business ecosystem that includes them are the actors that can affect the dynamics of the business, both directly and indirectly. These roles include investors, media hubs, educational institutions, governments, professional associations and data providers.

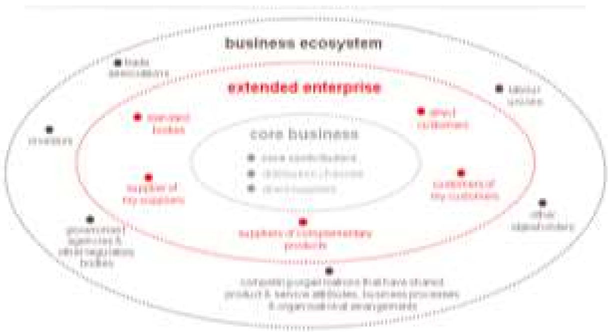

Figure 1. Moore's business ecosystem model

In fintech innovation according to Lee and Shin (2017) explains the competitive and collaborative dynamics of each actor is not much different from the conventional ecosystem model, that is, by analyzing the related ecosystems. This is because the symbiosis of a stable fintech ecosystem plays a major role in the growth of the fintech industry. Diemers, Lamaa, Salamat and Steffens (2015) argued that entrepreneurs, governments, and financial institutions are the actors of the fintech ecosystem. These three groups play a key role in the Fintech ecosystem. Entrepreneurs create Fintech innovations and startups, governments provide policy and regulatory support that supports the development of the ecosystem, and financial institutions provide financial services as well as capital for the development and growth of FinTech companies.

There are 5 ecosystem elements according to Diemeers, et.al (2015), among them (1) Fintech startups, which include payment gateway, lending, wealth management, crowdfunding, capital market and fintech insurance companies. (2) Technology developers, such as big data analytics, cloud computing, crypto and social media developers. (3) Government, in this case, is the government as the financial and legislative regulator. (4) Financial costumers, such as individuals or organizations. (5) Traditional financial institutions, which include traditional banks, insurance companies, stock brokers and venture capitalists.

In Figure 2 below it is explained that the five elements symbiosely contribute to innovation, stimulate the economy, collaborate to facilitate each other, and increase the competition of the financial industry that ultimately benefits consumers in the financial sector.

Figure 2. Diemeers's business ecosystem model

Furthermore, Diemers et.al explains that there are four critical design elements in supporting the development of the Fintech ecosystem, namely (1) business environment/market access, (2) government/regulatory support, (3) access to capital, and (4) financial expertise. These four elements are interrelated and influence each other to create a favorable environment for the development of Fintech. For example, a friendly business environment and easy market access will drive growth and adoption of Fintech solutions, while clear government and regulatory support will provide legal certainty and build confidence in the Finteh ecosystem.

Another business model was offered by consultancy firms Ernest and Young (2017) which identified 4 ecosystem attributes and 1 "solution" attribute as the fifth attribute.

As for the model 5 design, the core attribute of the fintech ecosystem is (1) Demand, which is the result of synergies built between customers/investors, financial institutions, corporations, and governments. In this case, the provider must be able to design strategies to obtain opportunities for increased demand, both from SMES issuerss, the community of investors and financial institutions partners, both banks and non-banks. (2) Talent, providers depend on universities and technology and finance companies, and entrepreneurs who run their business in sectors with a high degree of correlation with financial technology. Provider must build strategic partnerships with academics, IT professionals and business actors. (3) Solution providers depend on technology companies, academics, and the community of investors as well as SMES issuerss. The provider must be able to build intense two-way relationships to gain a feed on the value proposition offered and make it a trigger for sustainable product development. (4) Capital, depending on the three main categories of investors (angel investor, or auxiliary investor, who typically invests during the early phase/start-up phase of the enterprise life cycle in exchange for equity ownership interest, venture capital [VC], that is, investor who finances/funds growth by providing capital and general support for the growth of companies that do not have access to the equity market, individual or individual investor, that is investor who provides capital to the company for the first time to sell its shares to the public or known as IPO [initial public offering]). (5) Policy, that the provider refers not only to the specific regulatory and policy environment but also to the effectiveness of tax incentives and government programs. Interested parties or stakeholders that are included in this field are regulators and local governments.

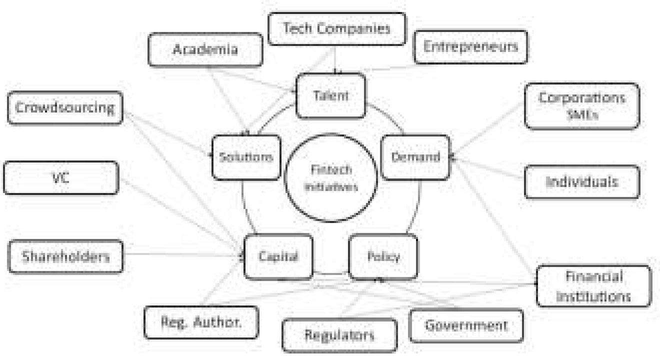

Figure 3. Earns & Young’s business ecosystem model

5.3 The Development of Fintech Business Model

FinTech companies inining their business sustainability need to balance financial growth with the support of the business environment in a business model called Sustainability Business Model. (SBM). Caputo, Schiocchet, Troise (2022) explain that selected elements of SBM such as Profit, Planet, People, Key Resources, Key Activities, and Revenue Streams positively influence the outcomes of equity crowdfunding campaigns, and have an impact on the goals of social networking, minimum investment, financing targets, and financial performance. The results of this study provide a note that environmental and social sustainability needs to be achieved in line with the fulfillment of financial aspects. FinTech companies that adopt the SBM approach should integrate environmental and social values into the core business so that the company can take advantage of economic opportunities and a long-term competitive advantage so the success of a crowdfunding campaign is important to consider the financial, social, and environmental aspects holistically. Crowdfunding campaigns that focus only on targeting the amount of funds collected and relying on the attractiveness of instrument choices have a less significant impact on the amount received.

Furthermore, Vovchenko, Galazova, Sopchenko and Dzhu (2019) assessed the importance of initiatives to maintain the stability of the financial system, consumer protection, and the development of digital innovation in the successful development of the FinTech ecosystem. The initiatives developed aim to ensure the sustainability of the FinTech ecosystem and confidence in the use of innovative financial technologies. In addition, the protection of consumer rights is also an important concern, which demonstrates the commitment to protecting FinTech users. The development and implementation of digital innovation demonstrates awareness of the important role of digital technologies in the advancement of the FinTech ecosystem. Digital innovation is expected to provide new solutions, increased efficiency, and advancements in the financial services offered by the FinTech industry.

Another important thing that FinTech companies need to do is continue to develop collaborations. Stefanelli, Ferilli and Boscia, (2022) explained LBC (loan business crowdfunding) is an alternative financial circuit to banking credit, although the role of banks in Italy is still very important in the economy. For small that are at risk and have limited access to credit from banks, FinTech can offer credit as an innovative, complementary and beneficial solution in financing projects that are entrepreneurial, ethical, and/or sustainable. LBC platforms are also developing by offering additional services and establishing collaborations with banks in addition to offering traditional loans, as well as providing additional services such as financial and legal advice and incubation. The diversification of these services is achieved through strategic collaboration with banks, which allows LBC to have visibility in the market even in the early stages of its establishment.

5.4 The Financial Customer Perspective

One of the most important participants in the FinTech ecosystem according to Deemers (2015) is financial customers. Financial clients are those who have an interest in investing their money safely, profitably with a measured risk. There are several perspectives of financial customers when considering their investment decisions, namely:

1) Nearby location

The development of the SCF fintech business model in a local SMES business ecosystem in a region can bring two important SCF actors closer to the SMES with its business environment, the investor community. Such geographical proximity factors can increase trust in each other. Traditional issuerss will have confidence in who can invest capital or give them loan funds. This is important because the way the issuers thinks still considers the source of funds invested and who the owner of the funds must clearly identify. In contrast from the investor side, people will be more confident to invest their money in SMES that they know, whether physical existence or location, or the performance of their business. Especially if the investor is a customer of the SMEs product that offers an investment to him. There is mutual benefit, i.e. customer as investor, investor as customer. Hornuf, Schmitt and Stenzhorn (2022) explain that investors tend to choose to invest in companies or projects located near them or that have local connections. Local investors are interested in more skilled and experienced investors. Investors who have a personal relationship with entrepreneurs or business owners tend to have a tendency to invest in local areas rather than other groups of investors. These personal relationships may include family ties, friendship, or other affiliations. Then, investors who have a large and diversified equity crowdfunding portfolio tend to have the limitation to vigilantly monitor each company in their portfolio. Investors are also more likely to solve agency problems through local investments.

2) The firm size of issuers

The SCF provides an offer of investment opportunities for investors to choose the type of instrument they are in demand. The investment offer of the issuer is the ownership of shares or debts where both such investment instruments have characteristic differences, profit opportunities and risks that may be considered by the investor to make an investment decision. That means that how successful the fundraising is largely depends on the size of the issuers's company and the instruments it publishes. Smirnova, Platt and Lei (2019) explain the relationship between the size of the company, the funding instruments, the probability of success, and the amount of results in crowdfunding fundraising. It is explained that large and relatively profitable companies have better chances of raising funds. The company is considered to have better performance and have confidence and attractiveness for investors. Meanwhile, equity issuing has a lower probability of success compared to debt issuing. This is due to the level of risk and inappropriate return expectations in equity. Equity publishing campaign efforts also correlated negatively with the amount of funds raised. That is, equity issuing tends to generate smaller amounts of funds compared to debt issuing.

3) The Profit Factor

Tobias, Leiponen, Schilling and Vasudeva (2020) explain that higher interest rate gains seem to be more devastating to investors than the risks associated with failure to pay. Lenders tend to pay less attention to financial reporting information and rely more on business development information from the platform. This may be due to a lack of understanding of the lender in analyzing the company's financial information. The lender does not seem to care too much about the problem of adverse selection, i.e. the risk of lending to borrowers of poor quality or the possibility of failing to pay. The behavior of such individual investors is simpler than that of venture investors or more complex institutional lenders considering investment decisions.

6. Conclusion

As has been outlined from previous research, the experts have viewpoints related to the business model and the fintech ecosystem, including the actors and attributes of the functions that accompany them. Here is a summary of the research results that have been successfully identified:

1) FinTech should to implement agile technology to continue to grow, be competitive, improve customer service and always adapt to rapid technological changes but remain compliant with industry regulations and regulatory regulations. (Knewtson and Rosenbaum, 2020).
2) The FinTech ecosystem model can be seen from several perspectives. Moore (1993) divided the model into three levels, namely core business, then extended enterprise, and business. Actors in this ecosystem include investors, media hubs, educational institutions, governments, professional associations and data providers. The consultancy ecosystem model by Ernst & Young (2017), in turn, further outlines attributes in the digital ecosystems that include demand, talent, solution, capital and policy. Contrary to previous expert opinions, Dimeers (2015), more emphasized the business ecosystem based on elements of Fintech startups, Technology developers, Government, Financial costumers, and Traditional financial institutions. Apart from the point of view of ecosystem models, Lee and Shin (2017), emphasized the importance of the role of actors in the FinTech ecosystems to create new value through collaboration to create a stable symbiosis of the fintech ecosystems and drive industry growth.
3) The development strategy of the FinTech business ecosystem can be achieved by the Sustainability Business Model (SBM), which is to maintain a balance between financial growth and the support of the business environment (Caputo et.al, 2022). FinTech also needs to maintain the stability of the financial system, consumer protection, and development of digital innovation in the development of a successful FinTech ecosystem. (Vovchenko et.al, 2019). FinTech then needs to establish collaboration with banks or other financial industry players and conduct a diversification of services that can satisfy financial customers. (Stefanelli, et.al, 2022).
4) One of the most important factors in the business ecosystem is financial customers. (Diemeers, 2015).The results of the study successfully identified three factors that influence the ability to attract FinTech customers to make investments, namely the factor of proximity to location (Hornuf, et.al, 2022), the size factor of the issuers company (Smirnova, et.al, 2019) and the interest rate factor. (Tobias, et.al, 2020).

The findings of the study have limited, among other things, not fully addressed regulatory and policy elements, technological development, investment risks, and others. So that the next research can discuss the intended elements and issues of current development.

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