DESIGN OF SHARIAH AGRICULTURE CROWDFUNDING BUSINESS MODEL USING BUSINESS MODEL CANVAS

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Abstract. *Many farmers have problems of lacking access for funding because they are categorized as un-bankable. While demand for food keeps increasing, the demand for funding in agriculture sector keeps increasing, too. Considering that the majority of Indonesian farmers are Moslems, PT. XYZ as a new startup recognizes an opportunity to develop an Islamic crowdfunding platform with aqd mudarabah muqayyadah as an alternative to conventional financing for farmers, thus making financing in agriculture more accessible for them by utilizing the power of digital technology while complying to sharia law. A business model design for this financial product is necessary to enable the company to create, deliver, and capture value for the customers, which are the funders and farmers. This research aims to develop a business model for PT. XYZ agriculture crowdfunding platform using Business Model Canvas. The value proposition for the funder side is providing a secure social investment platform for agriculture which compliant to shariah rules, while value proposition for the farmer side is to raise and empower farmers. Both value propositions are linked using a shariah agriculture crowdfunding platform. The other aspect that needs to be highlighted in this business model is risk mitigation.*

Keywords: *Business Model, Business Model Canvas; Agriculture; Islamic Financing; financial technology; Mudarabah Muqayyadah;*

INTRODUCTION

The agriculture sector is one of the most vital parts of the Indonesian economy. Based on the latest data released by BPS in 2018, the agriculture sector involved around 35.7 million people or 28.79% from the total working population. Earlier research conducted on 25 developing countries showed that growth in agricultural incomes become an essential factor in reducing poverty (Cervantes-Godoy & Dewbre, 2010). In addition, future food sustainability also needs to be considered. The World Bank in 2018 predicted that demand for food increased by 70% by 2050, and considerable investment is needed to meet this demand. Thus, financing in agriculture sector becomes even more critical in the future. However, most farmers or even the agriculture sector has a hard time to finance their project. Agriculture projects are commonly associated as high-risk activity in the financing market, making access to finance hard to get. If the farmers can get their financing, they get it with a high-interest rate. PT. XYZ, as a new financial technology startup company, recognizes this situation as an opportunity to develop an agri-financing platform. Considering that the majority of farmers are Moslems, PT. XYZ develops financing platform that complied to sharia law to serve this market. There are some alternatives to *aqds* or contracts that can be used in sharia financing. At the beginning phase of its sharia business, PT. XYZ develops crowdfunding with *aqd mudarabah muqayyadah* between funders and farmers to finance smallholder farmers.

One step which is necessary to be done in developing a financial platform is designing the business model that can describe the rationale of how the company creates, delivers, and captures value to achieve the company's objective through the utilization of this platform. Thus designing a business model becomes an integral part of starting a sharia crowdfunding platform. One alternative to develop a business model is using the Business Model Canvas, that can visualize factors needed to be considered in designing business model in one canvas, so it can make a shared understanding of business model and facilitate the discussions between team members in order to create strategic alternatives, which is very important in starting a business. This research aims to develop a business model for PT. XYZ agriculture crowdfunding platform using Business Model Canvas.

LITERATURE REVIEW

Business model canvas is a tool to help visualize and evaluate the business model. Business model canvas consists of 9 blocks that show how business capture value and transform it into profit. Those blocks are value propositions, customer segments, channels, customer relationships, revenue streams, key activities, key resources, key partnerships, and cost structures (Osterwalder & Pigneur, 2010). The value proposition needs to be designed by considering customer profiles, which consist of customer jobs, pains, and gains. Customer jobs mean what customers are trying to get done in their work and lives, pains mean

adverse outcomes, risks, and obstacles related to customer jobs, and customer gains mean the outcomes or benefit customers seek (Osterwalder, et al., 2014).
Crowdfunding is a form of alternative financing solution by connecting fundraisers to funders with an internet-based platform (Belleflamme, Omrani, & Peitz, 2015). Sharia crowdfunding means crowdfunding, which complies with Islamic law.

In Islamic finance, all products based on certain *aqds* or contracts. *Aqds* means a tie or a knot binding two parties together. The contract is a declaration of offer and acceptance and must be developed based on the principles laid down by the Quran and the narration from the Prophet Muhammad (Iqbal & Mirakhor, 2011). *Mudarabah* is a profit-sharing contract in which one party provides the capital, and the other provides management expertise to manage the fund. *Mudarabah muqayyadah* is mudarabah contract in which the mudarib or trustee does the business based on restriction from fund owners. Profit is shared between investors and *mudarib* with an upfront agreement. Loss is borne solely by the funders unless the loss is caused by misconduct or negligence of the *mudarib*. The loss or profit-sharing can be determined under the condition of: a) in the form of proportion or ratios and not in absolute numbers, b) the profit-sharing formula must be shared upfront, c) the profit distribution may differ from capital contribution. In *mudarabah*, tangible asset as collateral is optional. To minimize risk, due diligence in past performance and reputation of the *mudarib* can be done (Iqbal & Mirakhor, 2011).

METHODOLOGY

Data needed in this research are the existing condition of the company being analyzed, the business environment situation, and customer profile. The existing condition of PT. XYZ is obtained by interviewing the founder of PT. XYZ and by doing observation in the company. The business environment situation is obtained from literature study, including articles on websites and other sources of information on the internet. Business environment information is grouped into four categories, which will be identified whether it is opportunities or threats. The four categories are industry forces, market forces, key trends, and macro-economic forces. About customers, there are two sides of customers of PT. XYZ crowdfunding: funders and farmers. Farmer profile is acquired from the literature study, in-depth interviews with four leaders of farmer groups and observation, and funder profile is acquired from in-depth interviews with three funders. Customer profiles are described by customer jobs, pains, and gains.

All of the data are used as inputs for the SWOT analysis to define strategies. The next step is designing the value proposition by considering the related part of previously defined strategies and customer profiles. The value proposition proposed is evaluated by doing a fit check to see whether the value proposition can meet the customer profile. The last step is designing the whole business model canvas.

FINDINGS AND ARGUMENT

PT. XYZ is a startup company, which plans to launch a sharia agriculture crowdfunding platform. PT. XYZ is supported by an experienced team of software developers and finance. PT. XYZ is also supported by a partner with an experienced team in agriculture production and management, who has a partnership with 2000 farmers and who can help to mentor and supervise farmers and mitigate risks - all of those factors construct a strength of PT. XYZ. On the other hand, PT. XYZ has limited fund for platform further development. It needs extra effort to convince investors for funding. In the business environment, several critical environmental factors need to be noted: the main competitors of PT. XYZ are loan sharks and banks - which required either collateral or predatory interest rate, internet and smartphones is now widely used even in rural villages in Java where PT. XYZ operates, the positive trend of financial technology or fintech in Indonesia - with lending as the second most prominent trend in fintech and it can reach global funders, Islamic finance gains momentum in Indonesia, and compliance with regulations regarding online lending is vital to operate in Indonesia. About customer profiles, based on the interviews, observation and additional data from various sources, customer profiles for farmers and funders can be visualized in Figure 1 and Figure 2, in the circle part of value proposition canvas.

Based on all of the data, a SWOT analysis on PT. XYZ can be done. The main strategies resulted from the analysis, which will affect the design of blocks in the business model canvas are:

- Make a secure investment platform by providing a risk mitigation scheme to prevent and mitigate risk
- Raise awareness of PT. XYZ crowdfunding platform through the team social networks and family
- Build trust from funders, farmers, and communities.
- Initially, start from partner's network and expand from that
- Build PT. XYZ brand as a social investment platform that complied to shariah rules

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An appropriate value proposition is essential in a business model. The value proposition offered must fit with the customer profile. Before designing the other blocks, the necessary step in this research is designing the value proposition. In customer profile, jobs, pains, and gains have been identified. One thing that needs to be remembered is the fact that PT. XYZ is not only set the profit as its objective. There is an intention to help farmers to have better economic conditions and at the same time, PT. XYZ can have a sustainable business. This is the reason to propose 'raise and empower farmers' as the PT. XYZ value for farmers. Farmers have pains and gains, and PT. XYZ offers pain relievers and gains creators that can be seen in Figure 1. Funders are the other part of the customers who make PT. XYZ business model works. Funders are people who invest money for farmers in an agriculture project. Figure 2 shows the visualization of how companies created value to the funders. The lack of secure investment is one of the critical areas of concern for the funders, especially in an agriculture project. The risk of project failure from unexpected factors such as drought or price fluctuation is an extra worry for potential funder. To solve this problem, PT. XYZ introduced features which relieve funders pains, such as farm monitoring features that can monitor the progress of the project from the application and insurance for covering failed project in case of harvest failure. The value proposition for the funder side is providing a secure social investment platform for agriculture which compliant to shariah rules.

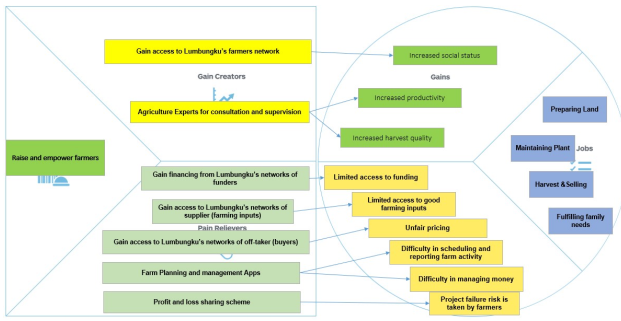

Figure 1. Value Proposition Canvas for farmers

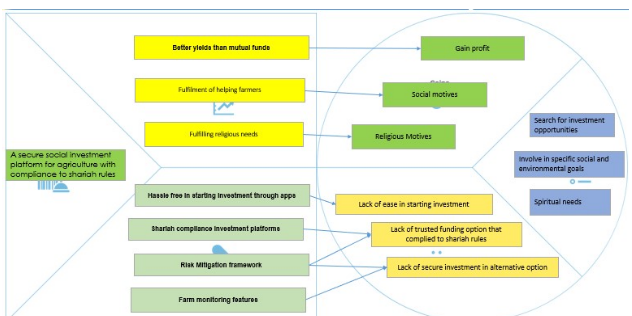

Figure 2. Value Proposition Canvas for funders

The value proposition for funders and farmers are linked using the platform. This is a short description of how PT. XYZ crowdfunding platform works:

1. Funder as *rabbal-mal* or fund owner, through PT. XYZ platform fund a project with a farmer using *Aqd Mudarabah*
2. Farmer as *mudarib* or trustee will do the farming project according to the upfront agreement
3. After harvest, profit will be shared to farmer and funder.
4. PT. XYZ, as the arranger, will gain *ujrah* (service fee) after the end of the funding period and funder gain their capital back.

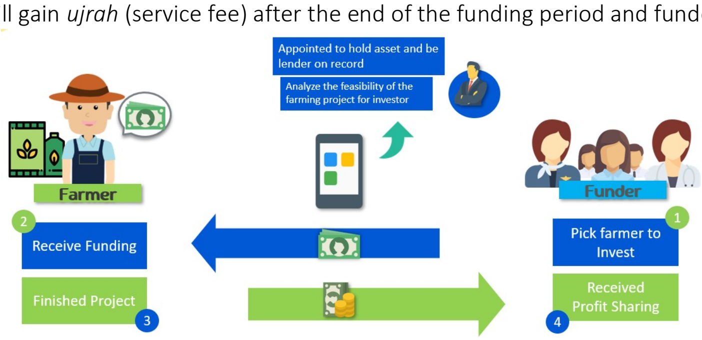

Figure 3. How the platform works

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Agriculture is considered as a high-risk business. To increase the security of funder investment, as stated in the strategy formulation, PT XYZ needs to provide a risk mitigation scheme to prevent and mitigate risk. PT XYZ develops a risk scoring system for this platform, and also develop a mechanism to protect projects from price fluctuation, which must be sharia-compliant.

The business model of PT XYZ can be seen in the following Figure 4.

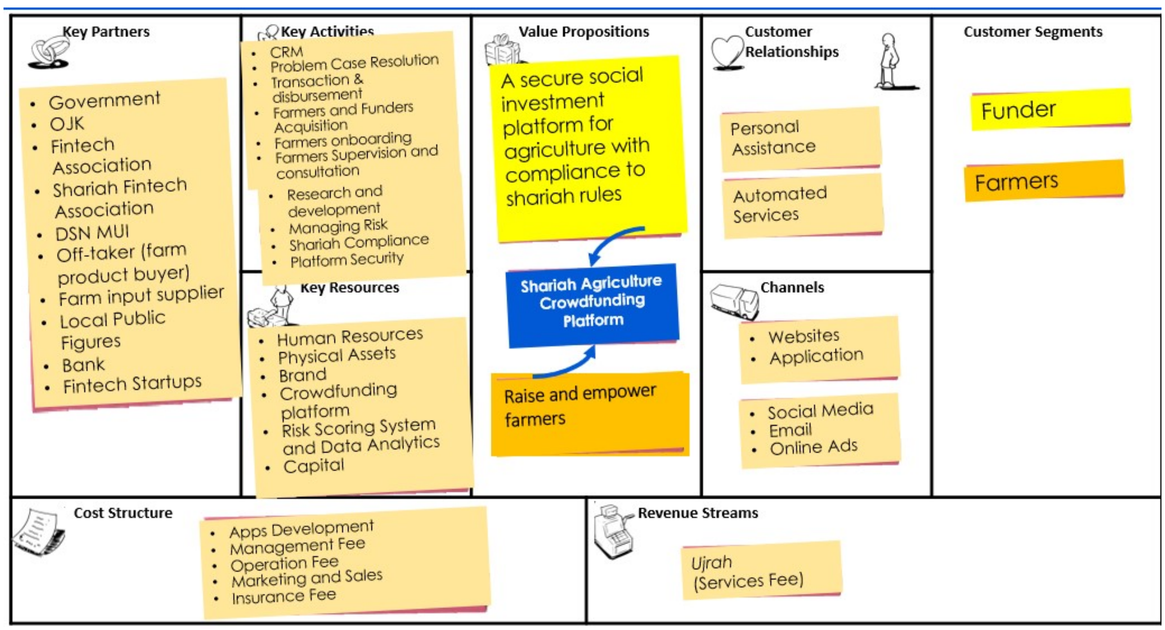

Figure 4. Business Model Canvas PT. XYZ

Customer Relationships

PT. XYZ is building relationships with farmers and funders through personal assistance for more personal interaction and automated services for quick response for the common problem faced by farmers and funders.

Channels

PT. XYZ reached out to funders and farmers with different channels. For farmers, PT. XYZ will start from an existing partner and expand from that. For funders, most interaction will go through five channels, which are websites, application, social media, email, and online ads. To raise awareness of PT. XYZ brand, social media, and online ads are used. Funders and farmers can use the platform by using PT. XYZ websites and application. For a customer to give feedback, customers can go through application, websites, email, or our field agent.

Key Activities

The vital activities to make this business model works is divided into two activities, operational and business. The vital operational activities are customer relationship management, problem case resolution, transaction and disbursement, farmers and funders acquisitions, farmers onboarding, and farmers supervision and consultation. For the business sides are research and development to keep up with the rapid technology change of fintech, managing risk by developing better risk scoring system and procedure, shariah compliance to make sure every activity of PT XYZ complies to shariah, and platform security as a commitment to secure platform to the customers.

Key Partnerships

Government, OJK, Fintech Association, Shariah Fintech Association, and DSN MUI are essential for PT. XYZ platform to operate in Indonesia, off-taker (farm product buyer) to make it possible to create a fair trading contract with PT. XYZ farmers, farm input suppliers to gain access to cheap quality inputs, local public figures as a way to introduces PT. XYZ to new farmers, and bank and fintech startups to make PT. XYZ possible to deliver the best services to customers.

Cost Structures

The main cost can be structured into five, which are application development, management fees, operation fees, marketing, and sales expenditures, and insurance fees to cover if there are any project failures from unforeseen factors.

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Revenue Streams
The way the platform gain revenue is by charging an *ujrah* (services fee) for every project that is successfully raised in the platform.

CONCLUSIONS

The result of this research is an initial business model for PT. ABC as an initial point and need continuous improvement. The crowdfunding platform is a multi-sided business, which needed to capture and deliver value to the two-sided of customers. The value proposition for the funder side is providing a secure social investment platform for agriculture to shariah rules while the farmer side is to raise and empower farmers. The connecting value proposition resulted from proposing these values is providing a shariah agriculture crowdfunding platform.

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