PETWELL: CROWDFUNDING FOR CATS AND DOGS NEGLECTED

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Abstract: Abandoned cats and dogs have the right to a good life. In Indonesia, there are still many cats and dogs who have not had a good life. This study aims to identify problems experienced by customers, design a business model that suits customer preferences, and map the benefits of crowdfunding for abandoned cats and dogs. Respondents in this study were animal shelter owners and co-creators. The data were obtained through online questionnaires and in-dept interviews. In this study, the method used is the first stage of customer development, namely customer discovery with the stages of the social enterprise business model canvas hypothesis, problem testing, solution testing, and verification of the social enterprise business model canvas. Based on these stages, it was found that 1) the problems faced by the customer in caring for abandoned cats / dogs were funds, not being allowed by other family members and worried about not being able to care for cats / dogs properly; 2) designing a verified social enterprise business model in the form of crowdfunding specifically for abandoned cats and dogs named Petwell; 3) The benefits obtained from Petwell’s existence are that the operational costs of the animal shelter will be lighter, the more abandoned animals can be helped and the public awareness of animal welfare will increase.

Keywords: Animal Shelter, Animal Welfare, Customer Discovery, Social Enterprise
Introduction
Animal welfare is all matters relating to animals' physical and mental condition according to the natural behavior of animals that need to be implemented and enforced to protect animals from improper treatment of animals by humans (Law of Republic Indonesia Number 18 2009). There are laws regulating animal welfare. Unfortunately, this is not following the existing reality. There are still many abandoned animals on the streets in Indonesia, especially cats and dogs.

The existence Law of Republic Indonesia Number 18 of 2009, which regulates animal welfare, is a form of government concern for animal welfare. It's not only the government that cares about animal welfare. Indonesian people also show their concern for animal welfare. This is evidenced by the increasing number of animal-loving communities, animal rescue communities, and non-profit organizations engaged in animal rescue spread across various regions in Indonesia. One of them is an animal shelter. The animal shelter is a nonprofit animal rescue organization and a shelter for abandoned animals that need help. Animal shelters carry out rescue, rehabilitation, medical treatment to veterinarians, feed, vaccinate, and provide shelter to ensure the animals they rescue get their rights. This activity certainly requires a considerable amount of money, especially for the tens or even hundreds of dogs and cats rescued. As a non-profit organization, all of its operational activities are financed by the owner's funds and several donors (Carvajal et al. 2012). With limited funds, limited facilities, and infrastructure, rescue activities cannot be carried out freely so that not many abandoned animals can be saved. This limitation can be overcome in various ways, one of which is crowdfunding.

Based on the explanation above, Petwell is here as a crowdfunding platform specifically for abandoned animals. This platform allows users to make donations in the form of money or goods to animal shelter organizations. The use of donations will be apparent, and animal shelters can carry out their activities without being constrained by costs.

Literature Review

Animal Welfare
Animal welfare is an action given to animals following their nature. According to the Law of Republic Indonesia Number 18 of 2009, animal welfare is all matters relating to animals' physical and mental condition according to the natural behavior of animals that need to be applied and enforced to protect animals from the improper. According to OIE (1992), the principle of animal welfare is the fulfillment of the basic needs of animals so that animals:

1) freedom from hunger and thirst
2) freedom from discomfort
3) freedom from pain, injury, and disease
4) freedom to express normal behavior
5) freedom from fear and distress

The issue regarding animal welfare does not only exist in Indonesia. Several other countries, such as South Africa, have animal protection laws, namely Law no. 71 of 1962 regarding animal welfare, to improve laws relating to animal cruelty prevention. South Korea also has animal protection laws passed in 1991 and revised in 2006 and 2008. This law focuses on pets. Whereas in Malaysia and Singapore, animal welfare did not become an important issue until the 1970s, things have changed in the last thirty years. This change has come about thanks to animal welfare agencies’ struggles, such as the Royal Society for the Prevention of Cruelty to Animals
(RSPCA), which are run by volunteers. They focus on rescuing pet cats and dogs left on the streets and addressing the issue of animal cruelty.

Most reviews of welfare now start with listing the needs of the animal, including needs to show certain behaviors. This approach has used sophisticated studies of what is important to animals and has replaced the earlier general guidelines described as freedoms. Many measures of welfare are now used and indicate how good or how poor the welfare is. Naturalness is not a part of the definition of welfare but explains why some needs exist. In recent years, welfare has become established as one of various criteria used to decide on whether a system is sustainable because members of the public will not accept systems that cause poor welfare. The study of welfare has become part of the scientific basis upon which important political decisions are made (Broom 2011).

**Customer Development**

According to Blank and Dorf (2020) customer development is a model designed to solve nine problems that the product development model has. This model is designed into four steps, the first two steps discuss the "search" for the business model, while the last two steps "execute" the business model that has been developed, tested, and proven in steps one and two. The customer development steps are:

a) customer discovery: capturing the company's founder's vision, and turning it into a hypothetical set of business models. In addition, this stage is carried out to develop a plan to test customer reactions to these hypotheses, and turn hypotheses into facts.

b) customer validation: testing whether the resulting business model can be repeatable, and grow. If not, it will return to the customer discovery step.

c) customer creation: building end user demand, and directing it into sales funnels to build business.

d) company building: is the stage of changing the organization from a startup company to a company that focuses on executing a validated business model. The stages of customer development can be seen in Figure 1.

![Customer Development Methodology](image)

**Figure 1: The Customer Development Methodology**

Source: Blank dan Dorf (2020)

Customer discovery translates the company's vision from a founder into hypotheses about each component of the business model, and creates a series of experiments to test each of these hypotheses. Customer discovery consists of two stages, the first stage, testing customer perceptions of the problem, and customer needs to solve it. The second stage, showing the product to the customer for the first time, and ensuring the product can elegantly solve a problem or fill a need well enough to persuade many customers to buy it. When the customer is enthusiastic about confirming the importance of the problem, and solving it, the customer discovery step is over. Pivots (retrospect) can occur at this stage, but pivots are not a failure in the customer discovery process. There are four steps that need to be done in the customer
discovery process, namely: Hypothesis of the business model canvas, testing the problem, testing the solution, and verifying the business model canvas.

Customer validation proves that a business model that has been tested, and iterates in the customer discovery stage has a repeatable, growing business model that can attract the number of customers needed to build a profitable company. The first two steps of a customer development model are taken to improve, strengthen, and test a startup business model. Completing these two steps will verify the product's core features, market presence, locate the customer, test the value and demand for the product, identify its economical buyer, establish pricing and sales funnel strategies, and examine proposed sales cycles and processes.

Customer creation varies according to the type of startup company being run. Some startups enter markets that are well defined by competitors, others create new markets that do not yet have a product or company, and others are still trying to create a hybrid market by resegmenting existing markets as low-priced new entrants, or creating new market niche. Each market type strategy requires customer creation activities, and different costs.

Building a company is a startup company stage a business model that can be repeated and grow. At this stage, Fundamentally, it is no longer a search-oriented organization known as a startup company, but it has become a company. In the process of transitioning from a startup company to a company, build focus on learning, not on search mode. Rather than execution, replace the customer-oriented discovery team "Learn and discover" becomes legal departments, and structures such as sales, marketing, and complete business development with a value proposition. These executives are now focused on the effort to build their department to grow the company.

**Social Enterprise Business Model Canvas**

Social entrepreneurship is often defined as entrepreneurship that is not oriented to profit and has a social mission in its business processes. Social entrepreneurship is also a term derived from entrepreneurship. A combination of two words, social, which means society, and entrepreneurship which means entrepreneurship. A simple definition of a social entrepreneur understands social problems and uses the ability of entrepreneurship to make social change, mainly covering the fields of welfare, education, and health (Cukier et al. 2011). Meanwhile, according to Wiguna (2013), social entrepreneurship is an idea that first emerged from the economic system in the European region, which is process-oriented and behavior-oriented. Social entrepreneurship aims to improve social aspects and implement integrated strategies between social and economic aspects so that their performance can be seen from the contribution made to improve social aspects.

The business model canvas (BMC) is a tool to describe an overview of a business. How is the industrial relationship, financing, and income, as well as relationships with customers. A business model describes the rationale for how organizations create, deliver, and capture value (Osterwalder et al. 2015). This canvas consists of nine blocks or components, consisting of customer segments, customer relationships, channels, revenue streams, value propositions, key activities, key resources, cost structures, and key partners.

Social enterprise business model canvas is a business model canvas used to describe an overview of a business engaged in a social enterprise. The components contained in the social enterprise business model canvas are almost the same as the components found in Osterwalder's
business model canvas, except that there is a difference, namely that in the social enterprise business model canvas, there are two additional blocks or components, namely mission, impact and measurements (Figure 2). This was done because, based on Qastharin (2016) research, it was found that Osterwalder's business model canvas could not fully capture the business model of a social company.

<table>
<thead>
<tr>
<th>Mission</th>
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<tr>
<td>Key Partners</td>
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<tr>
<td>Key Resources</td>
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</table>

| Cost Structure | Revenue Streams |
| Impact and Measurement |

**Figure 2: Social Enterprise BMC**

Source: Qastharin (2016)

The following is an explanation of the social enterprise business model canvas (Qastharin 2016):

1) Mission, namely the social mission that the social enterprise wants to achieve.
2) Customer segments (CS), namely determining the target customer of the business to be developed. Position yourself on the customer's side to pay attention to what is seen, heard, thought, and done, becomes desires and goals, fears, and hopes. There are two categories of customer segments in this block, namely co-creators (parties who participate in creating value) and beneficiaries.
3) Value propositions (VP), namely the value (value), will be provided to meet customer needs identified in the customer segment block.
4) Customer relationships (CR), namely the way a company builds a relationship with its customer segment.
5) Channels (CH) are ways to reach customers. These channels are the path between the company and the customer, how the delivery of the value given will reach the customer well.
6) Revenue streams (RS) represent the paths for receiving the money to be received from each customer segment. Defines a specific way to generate revenue from each customer segment.
7) Key resources (KR) are the resources needed to create a working business model. Every business model requires resources, thereby enabling the company to create, exceed value propositions, reach markets, maintain relationships with customer segments, and generate revenue.
8) Key activities (KA) are the main activities that explain the most important thing: creating a business model. Each business model is created for some key activities. This is the most important action for the company, so that it must be maximized for BMC to
produce a successful operation. Such as a key resource, required to make and exceed
the value proposition, customer achievement, and revenue earned, such as key
resources, activities depending on the type of business model.

9) Key partners (KP) are key partnerships that describe suppliers' networks and partners
who make the business model work. Companies enter into partnerships for many
reasons, and partnerships form the cornerstone of business models. Cost structures are
cost structures that describe all costs incurred in operating this business model. This
building block describes the costs required to generate a value proposition aimed at
customer segments to obtain the revenue stream.

10) Cost structures are cost structures that describe all costs incurred in operating this
business model. This building block describes the costs required to generate a value
proposition aimed at customer segments to obtain the revenue stream.

11) Impact and measurements describe the benefits for social enterprise customers and
measurement as an indicator of the success and progress of a social enterprise. Impact
and measurements are carried out using the theory of change approach. The change
theory describes the change process desired by an organization, intervention, or
investment (Diwantara & Herlina 2019). One of the tools in this theory is the logic
model. According to Diwantara and Herlina (2019), the logic model illustrates the flow
of resource changes to the desired impact output. In this study, the logic model used
refers to the logic model Eaton (2010), which consists of several elements:
goals/objectives, activities/strategies, outputs / short-term results, outcomes / individual
success indicators, impact / large-scale success indicators, measures/qualifiers.

Crowdfunding

Crowdfunding is an internet-based financial intermediary that collects funds from the general
public to finance a project or raise funds for relief for natural disasters and other emergencies.
According to Wheat et al. (2013), crowdfunding is a technology-based fundraising method,
where individuals ask for help for their projects through a unique crowdfunding website. The
existence of crowdfunding can make it easier to raise many funds because anyone can take part
in the fundraising.

In this study, the crowdfunding prototype manufacturing process uses a software engineering
development model, namely the spiral development model (Figure 3). The spiral model (spiral
model) is an amalgamation of the prototyping model and the waterfall model. The prototyping
model focuses on presenting or presenting to the user with an input format. The software output
will then be evaluated, while the waterfall model focuses on a systematic or sequential software
development process.
Based on Figure 3, the stages of the spiral model can be explained as follows:

1) Liaison: collect information about the necessary data related to the platform to be created. This information can be in the form of important features on a platform.
2) Planning: planning, and estimating what resources, estimated processing time, and other supporting information based on data obtained in the previous stage.
3) Risk analysis: making a risk analysis both technically and in a managerial manner.
4) Engineering: prototyping or building one or more representations of the platform.
5) Construction and release: to test the results of the platform creation.
6) System evaluation: evaluating the platform based on feedback obtained from users or customers.

Methodology

Location and Time of Research
The research location was conducted in Jakarta and Bogor. This is based on the number of animal shelters and pet lovers in the Jakarta and Bogor areas. Data collection was carried out from April to June 2020.

Types and Sources of Data
This study uses two data, namely primary and secondary data. Primary data is obtained by filling out questionnaires online and in-depth interviews via WhatsApp video calls with customers. Primary data collected in the pre-research were the characteristics of prospective respondents and the customer journey map of adopting animals in the animal shelter, while at the time of the research, namely animal welfare in the shelter, the characteristics of Petwell's prospective customers, problems experienced by Petwell's customer segment, improvements to the element value proposition, impact, and measurement, prototype improvement. At the same time, secondary data is the design of Petwell's social enterprise business model hypothesis, mapping Petwell's benefits, and market analysis. An overview of the types and sources of data is presented in Table 1.
Table 1: Types and sources of data

<table>
<thead>
<tr>
<th>No</th>
<th>Type of Data</th>
<th>Method of Collecting Data</th>
<th>Data Source</th>
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<tbody>
<tr>
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<tr>
<td>Pre-research primer</td>
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<tr>
<td>1</td>
<td>Characteristics of potential respondents</td>
<td>Filling out questionnaire by online</td>
<td>Pre-research respondents</td>
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<tr>
<td>2</td>
<td>The customer journey map adopts animals at the animal shelter</td>
<td>Filling out questionnaire by online</td>
<td>Pre-research respondents</td>
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<tr>
<td>Research primer</td>
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<tr>
<td>1</td>
<td>Animal welfare at the shelter</td>
<td>In-Depth Interview</td>
<td>Owner of animal shelter</td>
</tr>
<tr>
<td>2</td>
<td>Characteristics of potential customer Petwell</td>
<td>Filling out questionnaire by online</td>
<td>Potential respondents</td>
</tr>
<tr>
<td>3</td>
<td>Problems experienced by Petwell's customer segment</td>
<td>Online questionnaire filling, and in-depth interviews</td>
<td>Potential respondents, and animal shelter</td>
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<tr>
<td>4</td>
<td>Prototype improvements</td>
<td>Filling out questionnaire by online</td>
<td>Responden sangat potensial</td>
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<tr>
<td>Secondary</td>
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</tr>
<tr>
<td>1</td>
<td>Hypothetical design of Petwell's social enterprise business model canvas</td>
<td>Study of literature</td>
<td>Literature</td>
</tr>
<tr>
<td>2</td>
<td>Mapping Petwell's benefits</td>
<td>Study of literature</td>
<td>Literature</td>
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<tr>
<td>3</td>
<td>Market analysis</td>
<td>Study of literature</td>
<td>Literature</td>
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Respondent Collection Method

Respondents in this study were animal shelter owners and co-creators (pet lovers and pet owners). The criteria for animal shelter respondents were in Jakarta and Bogor, where most of the animals accommodated were cats/dogs. In contrast, the criteria for co-respondents) a creator has a minimum income of IDR 500,000.00 per month, makes a donation at least once a month, has an interest in crowdfunding, and is interested in animal welfare. The respondents in this study used nonprobability sampling with a purposive sampling approach. This technique was chosen because the researcher needs samples that match predetermined criteria. Determination of the number of respondents is based on theoretical saturation, where the number of respondents is known when data collection is considered saturated. Theoretical saturation is a concept in qualitative data analysis where the researcher continues to take samples and where Analyze the data until no new data emerge (Morse et al. 2004). The number of respondents in the research of animal shelter owners was three people. In comparison, for the co-creators at the time of the 62 people pre-research, 46 people tested the problem (taken from pre-research respondents), and 26 people tested the solution (taken from the problem test respondents).

Data Processing and Analysis Techniques

This study uses Liedtka (2018) design thinking tools which consist of what is, what if, what wows, and what work. Design thinking is used as a tool that helps describe animal shelters, pet lovers, and the formation of the social enterprise hypothesis of BMC. This study also uses Blank
and Dorf's (2020) customer development model which consists of four stages, namely customer discovery, customer validation, customer creation, and company building. This study focuses on the customer discovery stage, namely the social enterprise business model canvas hypothesis, problem testing, solution testing, and verification of the social enterprise business model canvas. The following is an explanation of the stages of the research which is illustrated in Figure 4:

**Figure 4: Research Flow Chart**

1) Preliminary research, at this stage, the researcher spreads a pre-research questionnaire to find out potential respondents who will be interviewed at the problem-testing stage and assist researchers in compiling the BMC social enterprise. Besides that, the researcher also maps the customer journey map obtained from the pre-research
questionnaire. This is done to make it easier for researchers to prepare interview guides at the problem testing stage.

2) Making a social enterprise hypothesis for BMC. At this stage, the researcher creates a social enterprise model business hypothesis based on an analysis of market needs (pre-research), a value proposition canvas, and a study of the extracted literature to become BMC 0.

3) Testing the problem, the researcher creates a hypothesis on the problem that will be tested on the respondent and conducts brainstorming. The problem hypothesis and brainstorming results will be used as a reference for making interview guides at the problem testing stage.

4) Testing the solution, at this stage, the researcher improves the first stage of the social enterprise canvas model business based on the problem test results. Compile an interview guide to test solutions, and create a prototype. At this stage, potential consumers will also be asked again about the suitability of the prototype that has been made.

5) Verification, at this stage, the researcher will verify potential consumers regarding the social enterprise BMC. Verification is carried out based on the results of problem testing, and test solutions did. At this stage, it will be seen whether the product features offered are following the market (product-market fit). If it is appropriate, then the business model is verified. The business model can be verified in three ways (Blank and Dorf 2020), namely analyzing the product's suitability to the market, the size of the consumer segment, how to achieve it, and its ability to generate profits.

The data in this study are qualitative, so that the data analysis was carried out using a qualitative approach. Data were analyzed through data reduction, data presentation, and drawing or testing conclusions. Each stage is analyzed using the respective analysis methods, which can be seen in Table 2. Some of the data obtained from the results of this study were processed using Ms. Office Excel 2017.

<table>
<thead>
<tr>
<th>No</th>
<th>Research Stages</th>
<th>Data Analysis</th>
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<tr>
<td>1)</td>
<td>Hypothesis of Social Enterprise Business Model Canvas</td>
<td>Categorization</td>
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<tr>
<td></td>
<td></td>
<td>Extraction of Business Model Canvas Social Enterprise stage 0</td>
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<tr>
<td>2)</td>
<td>Test Problems</td>
<td>Reduction</td>
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<td></td>
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<td>Categorization</td>
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<td></td>
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<td>Extraction of Business Model Canvas Social Enterprise stage 1</td>
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<td>3)</td>
<td>Test Solution</td>
<td>Extraction of Business Model Canvas Social Enterprise stage 2</td>
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<tr>
<td></td>
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<td>Reduction</td>
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<td></td>
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<td>Categorization</td>
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</tbody>
</table>

**Conclusion**

There are two customers from Petwell, namely animal shelter as beneficiary and pet lovers, pet owner and donor as co-creator. The problems experienced by the animal shelter in caring for abandoned animals are funds. In contrast, the problems experienced by customer cocreators in caring for animals are limited funds, not allowed by other family members, and fear of not being able to care for cats/dogs properly.
Petwell's social enterprise business model canvas consists of eleven elements: mission, customer segment, value proposition, channel, customer relationship, key resources, key partner, key structure, revenue stream, impact and measurement, designed through a customer discovery approach. Petwell is a platform in the form of an application that aims to improve the welfare of small abandoned animals (cats/dogs).

The benefits of Petwell are mapped through the framework of the theory of change model, namely the operational costs of animal shelters become lighter, more abandoned animals can be helped, and public awareness of animal welfare increases.

References