

# AGRICULTURE BUSINESS PLANNING

## Chapter 4

### Market Analysis, Product Design

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#### **Introduction to this chapter:**

In this chapter, the students will learn to analysis the potential market and create the products both goods and services that able to be the solutions of the problems particularly at agriculture field.

Based on the formulated solutions, the students will design particular products as the answer to the problems identified.

#### **Market Analysis**

A market is one of the various systems, institutions, procedures, social relations and infrastructure in which businesses sell goods, services, to people in exchange for money. Market is formed because there are needs to be fulfilled. The lack of goods and services create problems. Figure 1 displays how the problems being solved and all at once generate profit. There are so many problems that occur in the agricultural sector in Indonesia that have a direct impact on the socio-economic and environmental aspects. All these problems must be solved by not only eliminating problems but also generating profits that will improve the farmers welfare.

Market analysis on this topic focuses on 2 specific topics, namely market size and market trends. Furthermore, in Market trends, product research will be discussed which will direct students to design products.

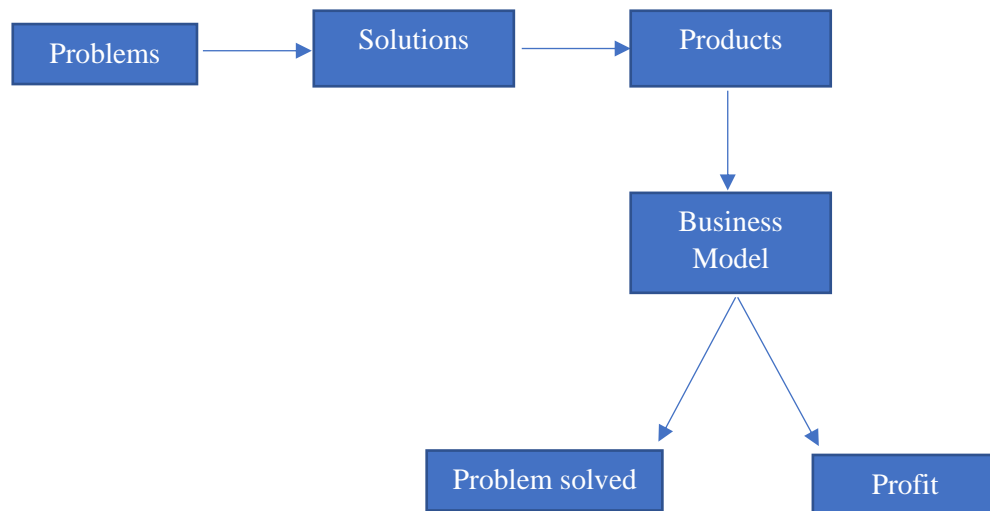


Figure 1. Problem to Profit Flow

## 1. Market Size

The market size is defined through the market volume and the market potential. **The market volume** exhibits the totality of all realized sales volume of a special market. The volume is therefore dependent on the quantity of consumers and their ordinary demand. Furthermore, the market volume is either measured in quantities or qualities. The quantities can be given in technical terms, like GW for power capacities, or in numbers of items. Qualitative measuring mostly uses the sales turnover as an indicator. That means that the market price and the quantity are taken into account<sup>1</sup>.

**The market potential** is of equal importance. It defines the upper limit of the total demand and takes potential clients into consideration. Although the market potential is rather fictitious, it offers good values of orientation.

The relation of market volume to market potential provides information about the chances of market growth<sup>1</sup>.

## 2. Market Trends

Market trends are the upward or downward movement of a market, during a period of time. The market size is more difficult to estimate if one is starting

with something completely new. In this case, you will have to derive the figures from the number of potential customers, or customer segments<sup>1</sup>.

The information of market sizes and market trends gathered by doing survey follows the step at Figure 2.

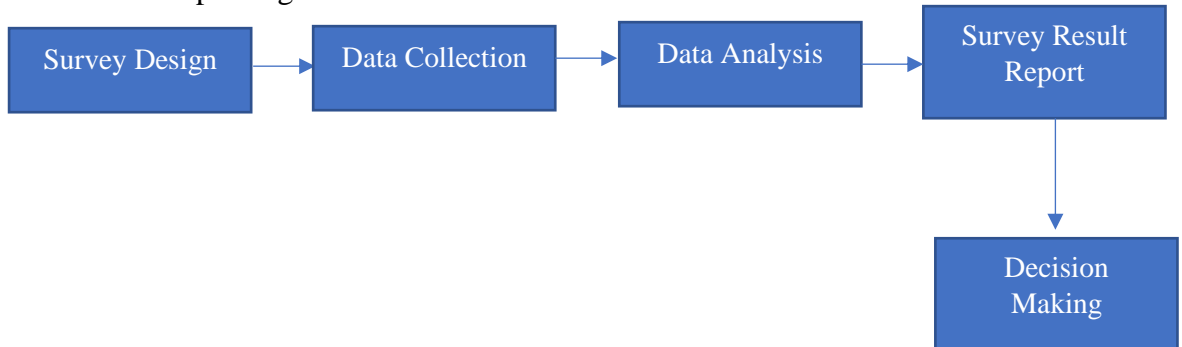


Figure 2. Market Survey Flow

#### a. Survey Design

Survey design is an important part of doing business and market research. Put simply, it refers to the process of creating surveys that get responses. This is important because it allows you to better understand the market and your customers, so you can make more data-driven decisions, and fix areas that are falling short. Done right, a good survey can be the driving force for huge positive change<sup>2</sup>. Following steps will help the surveyor to a good survey design:

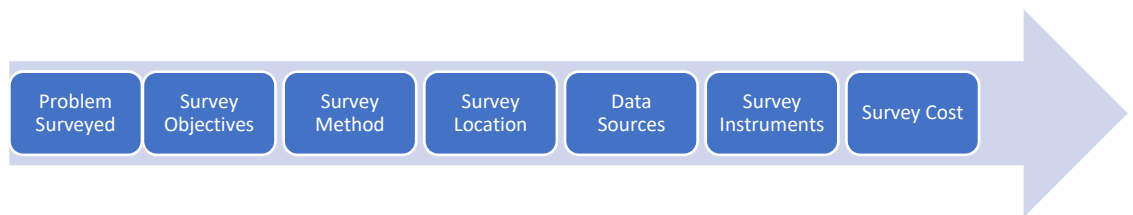


Figure 3. Survey Flow

Apply the survey flow to collect the information about the market size and market trends of agriculture product.

The solution is achieved with a business idea in the form of goods or services. After knowing the goods or services that will solve the problem, then conduct a survey that aims to find out the market size and market trends. Conduct surveys with several approaches such as: direct interviews; telephone interview; using a

questionnaire; or field observations. Before conducting interviews or distributing questionnaires, it is necessary to design question points so that the information obtained is detailed and comprehensive.

The next step is to conduct interviews or distribute questionnaires to locations that have been targeted by predetermined respondent criteria. The determination of the cost of the survey is placed last. However, the cost of this survey is something that needs to be taken into account before conducting a survey so that there is no shortage of funds that affects the quality of the information collected. The next step is to conduct interviews or distribute questionnaires to locations that have been targeted by predetermined respondent criteria. The determination of the cost of the survey is placed last. However, the cost of this survey is something that needs to be taken into account before conducting a survey so that there is no shortage of funds that affects the quality of the information collected.

#### b. Data Collection

The obtained data through interview or questionnaires might be have not well organized. In this step the data have to be displayed in a proper way such as present the data within the spread sheet and provide proper names for columns and rows that will make it easier for surveyors or readers to understand the data.

#### c. Data Analysis

Data analysis turns the data to be more valuable. Analysis makes the data become an important information. There are so many tools to analyse the data such as SPSS, spreadsheet, R and Python, Microsoft Excel, Tableau, RapidMiner, KNIME, Power BI, Apache Spark, QlikView, Talend, Splunk. It is important to recognize the data type obtained in order to apply an appropriate tool. Data type mentioned here is the data scale namely nominal, ordinal, interval or ratio.

#### d. Survey Result Report

The next step is about displaying the result of the survey. There are many ways to present the survey result<sup>3</sup>.

- Use a graph or chart.
- Create a data table
- Tell a story with data analysis.
- Make a visual presentation.
- Put together an infographic

Last step to market analysis leads to the decision making to determine the product design.

### Product Design

Product design is following these steps:

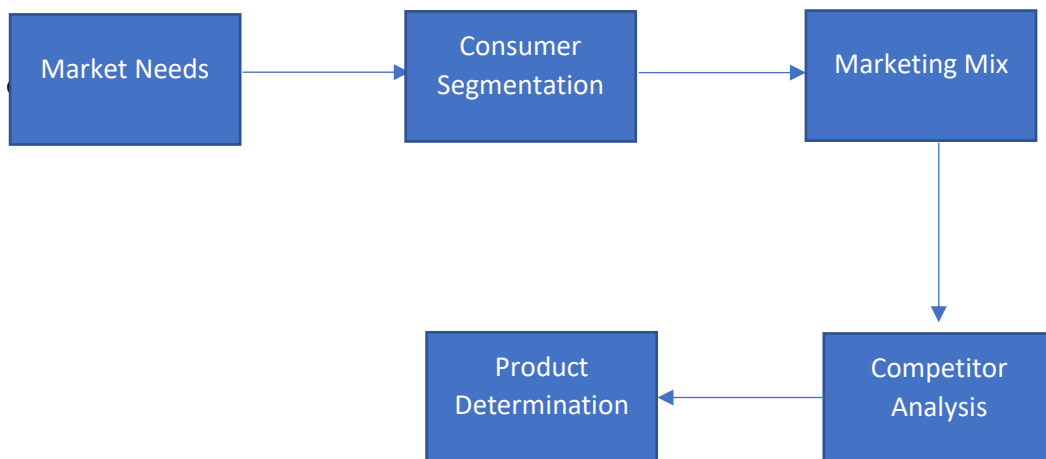


Figure 4: Product Design Flow

#### a. Market Needs

This step is completed when the solution has been formulated

#### b. Consumer Segmentation

The consumers can be segmented by answering these questions:

- How old are they?
- What is their gender?
- Where are they live?
- What are their needs?

- What are their monthly income & expenses?
- What is their level of education?
- What is their lifestyle like?

Those question will give sufficient information to what product or service will be provided for the prospective customer?

### c. Marketing Mix

<sup>4</sup>According to Philip Kotler “Marketing Mix is the set of controllable variables that the firm can use to influence the buyer’s response”. The controllable variables in this context refer to the 4 ‘P’s [product, price, place (distribution) and promotion]. Let us now have a brief idea about the four components of marketing mix.

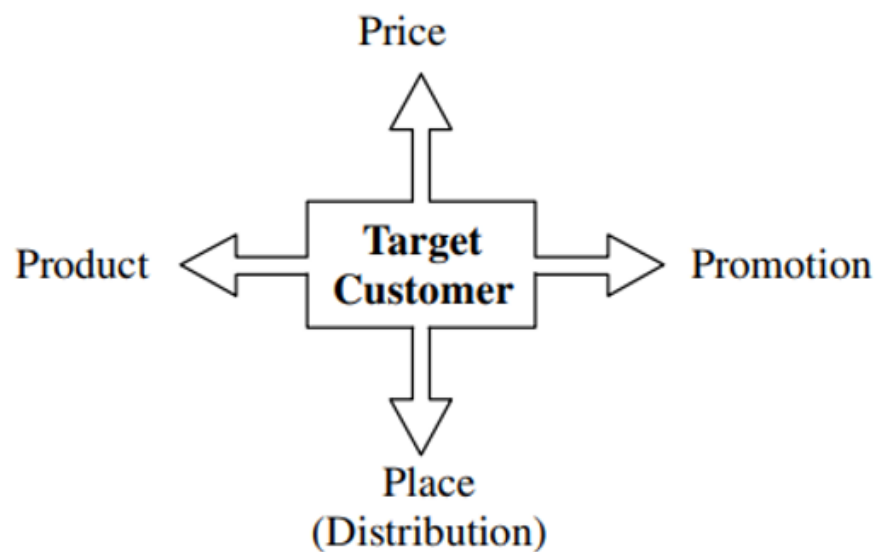
**Product:** Product refers to the goods and services offered by the organisation. In simple words, product can be described as a bundle of benefits which a marketer offers to the consumer for a price. Product can also take the form of a service like an air travel, telecommunication, etc. Thus, the term product refers to goods and services offered by the organisation for sale.<sup>4</sup>

**Price:** Price is the amount charged for a product or service. It is the second most important element in the marketing mix. Fixing the price of the product is a tricky job. Many factors like demand for a product, cost involved, consumer’s ability to pay, prices charged by competitors for similar products, government restrictions etc. have to be kept in mind while fixing the price. In fact, pricing is a very crucial decision area as it has its effect on demand for the product and also on the profitability of the firm.<sup>4</sup>

**Place:** Goods are produced to be sold to the consumers. They must be made available to the consumers at a place where they can conveniently make purchase. This involves a chain of individuals and institutions like distributors, wholesalers and retailers who constitute firm’s distribution network (also called a channel of distribution). The organisation has to decide whether to sell directly to the retailer or through the distributors/wholesaler etc. It can even plan to sell it directly to consumers. The choice is guided by a host of factors about which you will learn later in this chapter.<sup>4</sup>

**Promotion:** promotion is an important ingredient of marketing mix as it refers to a process of informing, persuading and influencing a consumer to make choice of the product to be bought. Promotion is done through means of personal selling, advertising, publicity and sales promotion. It is done mainly with a view to provide information to prospective consumers about the availability, characteristics and uses of a product. It arouses potential consumer's interest in the product, compare it with competitors' product and make his choice.<sup>4</sup>

Figure 5. Marketing Mix: A Bird's Eye View <sup>4</sup>



#### d. Competitor Analysis

Competitor identification serves as an important function in several fields. In industrial organization economics, it is associated with the task of defining markets, which is critical for antitrust and regulatory policy. In marketing, it supports the analysis of pricing policies, product design, development and positioning, communications strategy, and channels of distribution. In strategic management, it provides a foundation for competitor analysis and the analysis of industry structure, conditions of rivalry, and competitive advantage<sup>5</sup>.

Figure 6 below presented the framework for competitor analysis and example adopted from Bergen & Peteraf,(2002)<sup>5</sup>. The horizontal axis, are the firms according to whether they have high-or low-resource equivalence relative to the focal firm. The vertical axis are the firms according to the three basic competitive

categories identified in the first stage of the analysis: direct competitors, potential competitors, and indirect competitors.

<b>Indirect Competitors</b>	e.g. Peapod vs. Albertsons	e.g. Wal-Mart vs. Albertsons
<b>Potential Competitors</b>	e.g. Canadian Safeway vs. Albertsons	(e.g. none)
<b>Direct Competitors</b>	e.g. Lunds/Byerly's vs. Albertsons	e.g. Kroger vs. Albertsons
	Low	High
	<b>Resource Equivalence</b>	

Figure 6. Frame Work for Competitor Analysis<sup>5</sup>

## References

<sup>1</sup>Wikipedia. Market Analysis.

[https://en.wikipedia.org/wiki/Market\\_analysis#Dimensions\\_of\\_market\\_analysis](https://en.wikipedia.org/wiki/Market_analysis#Dimensions_of_market_analysis)

<sup>2</sup> Kadence International. How to Design a Survey. <https://kadence.com/what-is-survey-design/>

<sup>3</sup>Hubspot. How to Analyse Survey Results Like a Data Pro. <https://blog.hubspot.com/service/survey-results>

<sup>4</sup> James, H. (2012). Concept and Components of Marketing Mix. *Journal of Marketing*, 5(2), 101–122. [http://www.uop.edu.pk/ocontents/marketing\\_mix.pdf](http://www.uop.edu.pk/ocontents/marketing_mix.pdf)

<sup>5</sup> Bergen, M., & Peteraf, M. A. (2002). Competitor Identification and Competitor Analysis: A Broad-Based Managerial Approach. *Managerial and Decision Economics*, 23, 157–169. <https://assets.csom.umn.edu/assets/71542.pdf>