

ANALYSIS OF PRODUCT DEVELOPMENT STRATEGY AND POSITION
BY USING MATRIC BCG AND PLC
(Case Study Mr. Hari's Chicken Egg Business in Bengkulu City)

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Abstract: *A business established generally aims to obtain maximum profit, one of which is by using increasing the volume of sales made. If this became a goal, then how to maintain the business is needed so that its survival can be maintained and developed. In this study, Mr. Hari's chicken egg business is one example of a business that require a strategy in developing its business and needs to know the position of the products it sells. The analytical tools in this research are BCG (Boston Consulting Group) Matrix and PLC (Product Life cycle). From the results of research with **BCG analysis**, it can be seen that the growth rate of the Mr. Hari's chicken egg business market in 2020 is 27 % and the relative market share is 1.5x. This shows that the market growth rate and relative market share have a high value. It can be seen that Mr. Hari's chicken egg business is in the “**Stars Category**”, the business unit is at a high growth rate, with a high share. This condition illustrates the great potential for a business until to be developed in the long term. In relation to the Product Life Cycle (PLC), it can be seen that position of Mr. Hari's chicken egg business is at “**The Growth Stage**”, where at this stage it can expand the marketing network, so the strategy used is to maintain (hold), the product still in the same category.*

Keywords: *Strategy, BCG (Boston Consulting Group), PLC (Product Life Cycle)*

1. Introduction

A business established generally aims to achieve maximum profit, one of which is by increasing. The volume of sales made. If this has become a goal, then how maintain the business is needed so that so that survival can be maintained and development. To be able to achieve this, a business must determine the strategy used to deal with problems both for similar products produced or with substitute products for the products produced.

One of this to be activities that must be considered in a business marketing activities, where able to create good marketing strategy for survival of their business both in the short and long term. Eggs are a great source of flavourful animal protein delicious, easy to digest and highly nutritious so that many people love it.

The people in Bengkulu generally meet their protein needs by consuming eggs. So the magnitude of the benefits of eggs in human life so that eggs very recommended for consumption by children who are in the future growth, pregnant and breastfeeding mothers, people who are sick or are in the healing process, as well as good age.

One of the chicken egg businesses in the city of Bengkulu is Mr. Harri's chicken egg business. This business is able to meet the needs of the people of Bengkulu city for need for eggs. However, in developing this business in the future in order to compete with other egg

entrepreneurs, a strategy is needed so that it can survive and compete in the market. In connection with this, the researcher related to what strategies Mr. Harri's would undertake in the future and where the position of pack egg products was on the market by paying attention to the considerations with the BCG matrix and PLC

2. Theoretical Review

Definition of Marketing

There are several definitions of marketing that have been put forward by experts, though from the definition they are different but basically have the same purpose and meaning. Existence, the difference in definition is caused because they see marketing from different perspective different. There are those who emphasize in terms of function, int terms of goods, aspects institutions and some that focus on all aspects as system. According to Philip Kotler (1984) who viewed from an institutional point of view the notion of marketing are as follows: marketing is a process by which individuals and grups get what they need and want by creating and exchanging products and value with other individuals and groups. According to William J Stanton (1994) suggest marketing in a board sense to view the notion of marketing in terms of its business activities, marketing is a the overall system of business activities aimed at planning to find prices, promote and distribute goods and services that can satisfy needs to existing buyer as well as potential buyer.

Definition of Management Strategy

Strategy is a management action pattern to achieve the goals of a business entity (Rekhadiprodjo, 2000:4). Strategic management is a plan that is prepared and managed by taking into account various sides with the aim that the influence of the plan can have a positive impact on the organization in the long term (Fahmi, 2014:14). Meanwhile, according to Solihin (2012:64) strategic management is process planning, directing and controlling various strategic decisions and actions of the company with the aim of achieving competitive advantage. From this understanding, it can be concluded that strategic management is very important for a company in determining the strategies that will be taken in the future in order to achieve predetermined goals in order to compete with competitors in the market.

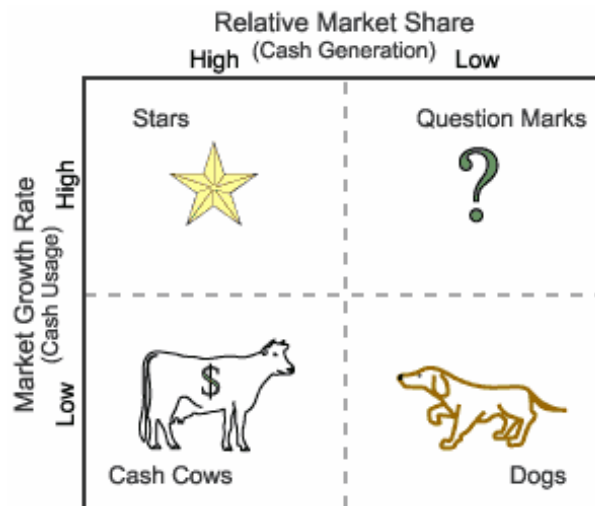
Boston Consulting Group (BCG)

It is the famous and simple portfolio planning matrix. It suggests that organization should have a healthy balance of products within their range. It is useful for a company to achieve balance between the four categories of produces, it is considered as one of the most famous stage strategic tools in business ever developed (Ansoff, 1987: Ansoff and McDonnell, 1990). To help businesses further analyze is assets, the BCG matrix divides the business product into four categories as :

- 1) "Question Marks" indicates the products in high growth markets and with low market share
- 2) "Stars" shows that both, the growth market and market share are in the highest position
- 3) "Cash Cows" predicts that the products are in low growth markets and market share is in high

- 4) “Dog” displays that both growth and market share in low position.

Figure 1
The BCG Matrix



Ansoff and McDonnell, 1990

- Stars, they are leaders in the business but still a lot support for promotion a placement. In this situation they create large sums of cash to support strong market share. They also consume large amounts of cash due to their high growth rate. They have a tendency to make a large profit from their business.
- Cash cows, they are called cash cows because they generate cash in excess of their needs, they need very little investment and create significant cash to utilize for the investment in other business units.
- Question Marks, they are called that because of the organization must decide whether to build up them by practicing a rigorous strategy (market access, market development or product development).
- Dogs, called that because of their weak internal and external position, the businesses of dog often are liquidated, divested or trimmed

PLC

The BCG matrix has a strong relationship with Product Life Cycle. Question mark is a product that is at the introduction stage. At this stage a new mark is a product that is at introduction stage. At this stage a new product is lauded on the market. In the star quadrant the product is in a growth phase. When is creasing its fastest rate. The dairy cattle quadrant is in the maturity phase, when the rate increases the highest, but the growth rate slows down due to saturation in the market. And the Dog is in a downturn phase, the final stage of the cycle when sales start to fall.

The general, the products that are considered that most successful are those that experience a life cycle with the following stages : introduction, growth, maturity and setbacks (Swasta, 2008:221). This product life cycle that is, a graph that illustrates product history since its introduction to the market. Until it is with down from the market. Cycle this product lifecycle is an important concept in marketing because it provides insight depth (Barusman, 2014: 141-161).

Sequences of Quadrants of Boston Matrix Describing the Product Life Cycle, there is necessary to include dynamics in the Boston matrix, because by the individual products of the company, there canbe changed the sales growth and the market share, too. So the product goes through its life cycle. Drews (2008) assigns the phases of the product life cycle to the quadrants the Boston matrix as follow :

- 1) The phase of foundation → Question marks
- 2) The phase of growth → Stars
- 3) The phase of stabilization → Cas Cows
- 4) The phase of Decline → Dogs

3. Research Method

Types of research

The type of research in this used this research is descriptive qualitative, namely research conducted to get a detailed description of the phenomenon to describe what is happening (Bailey, 1982). Meanwhile, according to Sugiyono (2002) research is research that provides a description of a social symptom as referred to in problem but is inadequate. And research purpose of this research is to find out position, excellence of organizational strategy, market share of Mr. Harri's chicken egg business. So that the illustration can be seen in detail and detail about the position, strategy, share market and market growth from Mr. Harri's chicken egg business location in Bengkulu city.

Data Analysis Techniques

Boston analysis method is a method used to plan strategic business untis by classifying the potential profits of the company (Kottler, 2002). In this BCG matrix, there are two variables, each of which is placed on the vertical and horizontal axes :

- 1) Market Growth (Vertical Axis)

The midpoint of the growth dimension is arbitrary but growth rate is usually set to a limit of 10%. So market growth at a rate of 10% is considered a high market growth, whereas growth below 10% is a low growth market. Measure the market growth rate as follows(Purwanto, 2012: 123) :

$$\frac{\frac{\text{Growth Rate Market Year N} - \text{Industrial Sales Volume in N}}{\text{Industrial Sales Volume in Year N - 1}}}{\text{Industrial Sales Volume Year N - 1}} \times 100\%$$

2) Relative Market Share (horizontal axis)

Market share is the percentage of the total market served by company either in revenue or in volume units. The higher the market share, the higher the proportion to be controlled. Measure the relative market share as follows :

$$\text{Relative Market Share} = \frac{\text{Company Sales Volume Year N}}{\text{Sales Volume main Competitors Year N}} \times 100\%$$

3) Matrix BCG

Figure 2 Matrix BCG



Sumber : Purwanto, Iwan (2006:130)

4. Results and Discussion

4.1 Results

From the results and the data obtained, it is known the number of sales volume of Mr. Hari's and Umri's Chicken Egg Business from 2019-2020.

Tabel 1. Sales Volume Hari's Chicken Egg Business in 2019 - 2020

Bulan	Sales Volume (Rp) /2020	Sales Volume (Rp) 2020
January	74.556.000	99.898.500
Peb	86.982.000	108.149.800
March	95.266.000	105.294.000
April	78.698.000	109.872.000
May	89.053.000	118.112.400
June	115.976.000	140.610.000
July	91.124.000	115.300.200
August	86.982.000	107.910.000
September	78.698.000	117.720.000
October	80.660.000	110.362.500
November	89.271.000	114.242.900
December	98.427.000	107.583.000
Total	1.065.693.000	1.355.055.300

Source: Mr. Hari's Chicken Egg, 2020

Tabel 3. Sales Volume Mr. Umri's Chicken Egg Business in 2020

Bulan	Sales Volume (Rp)
January	69.291.300
Peb	64.800.500
March	77.826.000
April	73.248.000
May	75.537.000
June	86.709.500
July	72.648.500
August	78.480.000
September	71.122.500
October	73.575.000
November	84.529.500
December	74.283.500
Total	902.051.300

Source: Mr. Umri's Chicken Egg, 2020

a) Boston Consulting Group

1. Market Growth (Vertical Axis)

To calculate the market growth rate on the egg business Mr. Hari's uses data on the amount of sales volume. In this study, year N is used, namely 2020, while year N-1 is 2019. Based on the table above, the calculation of the BCG matrix to determine the market growth rate in Mr. Hari's chicken eggs business is as follows :

$$\begin{aligned}
 \text{Market Growth Rate} &= \frac{\text{Rp } 1.355.055.300 - \text{Rp } 1.065.693.000}{\text{Rp } 1.065.693.000} \times 100\% \\
 &= 0,2715 \\
 &= 27\%
 \end{aligned}$$

Based on the above calculations, it is known the growth rate of Mr. Hari's chicken egg business is 27%, which means it has a high growth rate. Because the market share growth rate in BCG Matrix is categorized as high if has a value of more than 10%

2. Relative market share (horizontal axis)

Relative market analysis shows the large market share of the sales volume of chicken eggs Mr. Hari's compared Mr. Umri. The data used 2020.

$$\begin{aligned}
 \text{Relative Market Share} &= \frac{\text{Rp } 1.355.055.300}{\text{Rp } 902.051.300} \times 100\% \\
 &= 1,5 > 1
 \end{aligned}$$

Based on the above calculations, it is known the relative market share of Mr. Hari's of $1,5 > 1$. it means Mr. Hari's chicken egg business has a bigger market share compared Mr. Umri because the relative market share value is more than 1.

4.2 Discussion

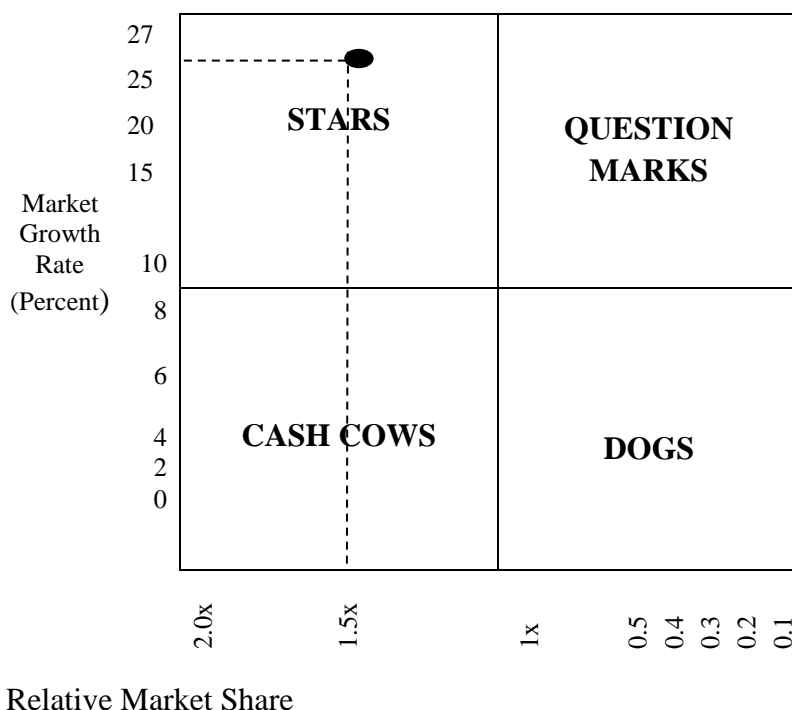
The position of the BCG Matrix in Mr. Hari's chicken egg business. According to Purwanto (2006:130), the position of the market growth rate is given on Y axis, which is measured in the form of a percentage. The market growth rate in BCG Matrix is categorized as a low if it has a value of less than 10% and high if it has a value more than 10%. Meanwhile, the relative market share position is given on X axis, which has a value from 0,1x to 1,0x. The relative market share in BCG matrix is categorized as a low is has a value of lees than 1x, and is categorized as high if it has a value of more than 1x.

From the above calculations, it is known the growth rate of Mr. Hari' chicken egg is 27%. This shows that the market growth is high while the relative market share 1,5.

Based on the two things mention above, it can be seen that BCG matrix of Mr. Hari's chicken egg business

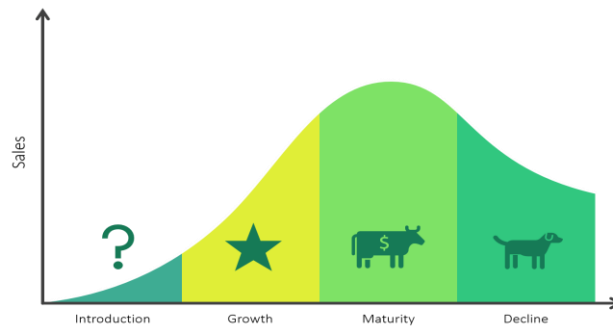
Figure 2

Position Mr. Hari's chicken egg business in Matriks Boston Consulting Group (BCG)



The results of the calculation of the BCG matrix found that Mr. Hari's chicken eggs business with Mr. Umri is in the stars position. Means a product that has a dominant market share and fast growth and generates a lot of money. This shows that product is prominent and demand by the market. Demand vastly exceeds supply, there is little or no competition and there is pricing power. Oftentimes the stars need more resources to continue to grow and increase market share (Debrecht, 2014)

From the BCG matrix above, in relation to Product Life Cycle it can be seen that the position of Mr. Hari's chicken egg business means that it is in the growth stage. At this stage the company can expand the marketing network of Mr. Hari's business because at this stage it will and in demand by public. This will be proof and has succeeded in entering many markets. The combination of BCG and PLC can be seen in following picture.



Picture 3 The combination of BCG and PLC

In the star quadrant the product is a growth phase. When increasing at its faster rate. Based on the BCG matrix above, the strategy that can be used is the survival strategy. Strategy to maintain the product so that it remains in the same position. In this case the company requires a lot of investment to support the growth of product sustainability and maintain the advantages of the product so that it can compete with another competitors.

As for the strategies that can be carried out in a defensive strategy are :

- 1) Improve product quality, in this case Mr. Hari's chicken egg business. He can improve the quality of his chicken eggs in terms of their large, undamaged shapes and competitive price in the market
- 2) Looking for new segments, group of buyers who have not been aware of, are not interested or have not purchased the product, need to be encouraged to be willing to buy
- 3) Improve service, pay attention to the service provided so far, then improve them again both in terms of distribution and service when consumer buys. This can be by doing information technology through online sales
- 4) Increasing promotional activities, such as through print media, advertising through internet media so that more consumers will be paid

5) Conclusion and Suggestions

Conclusion

From the result of above calculation, the authors draw several conclusions, namely :

- 1) Growth rate of Mr. Hari's chicken egg business is 27%, which means it has a high growth rate. Because the market share growth rate in BCG Matrix is categorized as high if it has a value of more than 10%
- 2) Relative market share of Mr. Hari's of $1.5 > 1$. It means Mr. Hari's chicken egg business has a bigger market share compared Mr. Umri because the relative market share value is more than 1.
- 3) Matrix analysis of the BCG Mr. Hari's is a star position and high market. The strategy that can be taken is to hold or maintain, this strategy is to keep the product current position.

- 4) In relation to Product Life Cycle it can be seen that the position of Mr. Hari's chicken egg business means that is in the growth stage

Suggestions.

The suggestions put forward are as follows:

- 1) Trying to maintain the position that exists at this time
- 2) Keep serving customers well and trying to add new customers by means of promotions
- 3) Always maintain product quality and try to improve it so that it remains in demand in the market.
- 4) Trying to continue to increase sales volume by maintaining the quality of products and services to consumers

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