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AN ANALYSIS ON BCG GROWTH SHARING MATRIX

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Abstract: In the 21st century, sustainable improvement of business faces various challenges for the global economic competition. But, these challenges can be overcome by the efficient business strategies. The Boston Consulting Group (BCG) helps the business organizations to develop their efficiency for the successful operation of their business activities. To develop the efficiency of marketing decision making, the BCG Matrix plays an effective tool for strategic planning of product performance in industry and company level. It analyses to identify which strategic business units to invest in, which to sell off, and which to shut down. It helps a company to distribute their available resources through the efficient business management. It is one of the most popular and helpful consulting firms. The paper tries to provide a guideline to the business organizations to choose the best business policies by the use of BCG matrix.

Keywords: *BCG Matrix, Business Organizations, Business Improvement.*

1. Introduction

The Boston Consulting Group (BCG) is a renowned organization. It is a growth share 2×2 matrix. The matrix is established in 1970 by Bruce Doolin Henderson (1915–1992) for the BCG in Boston, Massachusetts, the USA. Henderson was the President and Chief Executive Officer (CEO) until 1980. He was also Chairman until 1985. The matrix helps the business corporations for the improvement of the skills to run their business efficiently and profitably (BCG, Website).

It is the most famous and simple portfolio planning matrix. It suggests that organizations should have a healthy balance of products within their range. It is useful for a company to achieve balance between the four categories of products a company produces. It is considered as one of the most famous strategic tools in business ever developed (Ansoff, 1987; Ansoff & McDonnell, 1990). To help businesses further analyze its assets, the BCG matrix divides the business products 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 markets 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. 'Dogs' displays that both growth and market share are in low position.

Along the top of the entire box is market share or cash generation, while running down the left hand side of it is growth rate or cash use. If one goes to the left of the top of the box, he/she sees high market share and low market share. He/she also sees high cash use at the top and low cash growth rate at the bottom of the box.

2. Aspects of BCG

At present there are three big management consulting firms in the world: i) BCG, ii) McKinsey & Company, and iii) Bain & Company. The BCG is a private management consulting company which has 81 offices in 45 countries. It has more than 6,200 consultants and more than 9,700 total staff worldwide. It advises the two-thirds of the Fortune 500 business organizations. The BCG was responsible for the first analytical step forward in corporate strategy (Collins & Montgomery, 2005).

In January 2013, Rich Lesser became the 6th President and CEO of BCG. In 2013, its revenue was \$3.95 billion. In 2014, it was ranked the 3rd in Fortune Magazine's "100 Best Companies to Work For." Its position was in five for consecutive four years, and it was is one of only two companies to make the top dozen every year since 2006. During the last four decades its 'Product Portfolio Analysis' was remarkable. It provides full health-care premiums, internal fellowships, and tuition reimbursement to the employees. Other activities for employees are to emphasize on investment in its people, career flexibility and mobility, extensive training, high-impact client work, a collaborative culture, progressive benefits, and a commitment to social-impact work (BCG, 2014; Temmerman, 2011).

3. Activities of BCG Matrix

BCG matrix provides simply two-dimensional analysis on management Strategic Business Units (SBUs); namely, industry growth rate and relative market share. Industry growth rate is in the vertical axis, and relative market share is in the horizontal axis. The SBU has separate missions and objectives that can be planned independently from the other businesses (Temmerman, 2011).

In the 1980s, it became popular to the business experts. In 1975, it became one of the most commonly used techniques in corporate planning (Lorange, 1975). Morrison and Wensley (1991) expressed that no other matrix was as widely utilized as the BCG matrix. It is a well-known tool for the marketing manager. It was established for the welfare of the business organizations. It is an overly simplistic representation, and has some understandable limitations (Burgelman *et al.*, 2000). The organizations who use the techniques of BCG matrix, finds success in business procedures. Hence, they consider it as the most famous and simple corporate portfolio planning matrix (Lu & Zhao, 2006). It represents a graphical representation of the organization's market share and industry growth rates. An organization can observe its different business portfolio to achieve its optimum profit (McDonald, 2003).

It assists the company to allocate resources efficiently. It can be used to supply branded products, and develop the quality of the products (Armstrong & Brodie, 1994; Boston Consulting Group, 1968). It is considered as the oldest and perhaps most renowned of all the matrices. It is extensively used in the top management level to achieve optimum benefits. Therefore, it is taken as aid effective resource allocation tool of the company (The Executive Fast Track, 2008). Resources are allocated to the business units according to their situation on the gird. The four cells of the matrix are called 'Stars (to sustain their ascendancy), Cash Cows (to be milked), Question Marks (to treat with caution), and Dogs (to avoid)'. Hence, each of these cells represents a particular type of business (Hoffman *et al.*, 2005).

It is also more accurate when comparison is done between entities to use a growth rate than the actual numerical value, because the size of economies can be fast different.

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4. Growth Rate of BCG Matrix

The capital gain can be calculated as follows (Brigham & Ehrhardt, 2005):

$$G = \frac{P_1 - P_0}{P_0} \qquad (1)$$

where P_1 = The industry sales this year, and P_0 = The industry sales last year.

The average growth rate for each sector for the 14 years can be measured as follow (Joubert *et al.*, 2011):

$$\bar{G} = \frac{1}{n}\left[\frac{P_{2001} - P_{2000}}{P_{2000}} + \ldots + \frac{P_{2014} - P_{2013}}{P_{2013}}\right] \qquad (2)$$

where n = 14, and P_{2000} = Deflated subsector value for the year 2000, and so on.

$$\text{Related market share} = \frac{\text{SBU sales this year}}{\text{Leading rival's sales this year}}.$$

5. Explanation of the BCG Matrix

The BCG matrix provides some assumptions as follows (BCG, Website):

- Market share can be achieved by the investment in marketing sector.
- Market share gains will always create cash surpluses.
- Cash surpluses are generated when the product is in the maturity stage of the life cycle.
- The best opportunity to build a dominant market position is during the growth phase.

A company's running portfolio of Stars, Cash Cows, Question Marks, and Dogs are given as follows:

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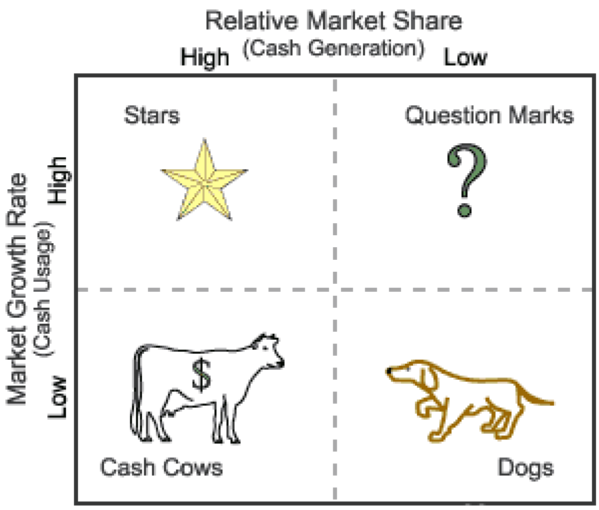
Figure 1. BCG Matrix.



Stars

They are indicated by achieving a large market share in a fast growing market (figure 1). They are considered as the best opportunities for the growth and benefits of the company (Thompson & Strickland, 1995). They are the leaders in the business, but still need a lot of 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. When the market share becomes very large, the industry matures, and the market growth rate declines; the star transform to a cash cow (figure 2) (Mohajan, 2015).

Stars tend to have new plant and equipment, high capacity utilization, high R&D expenses, broad domains, high sales per employee, high value added, and superiority on a number of competitive devices (Hambrick *et al.*, 1982).

Star examples: iPhone of Apple, Vitamin Water of Coca-Cola.

Cash Cows

They have a large market share in a mature period of a slow growing industry (Thompson & Strickland, 1995). They are called *Cash Cows*, because they generate cash in excess of their needs, they often are milked (milk these products as much as possible without killing the cow!). They need very little investment, and create significant cash to utilize for the investment in other business units (figure 1). Product development is considered as attractive strategies for strong cash cows. After the achievement of a competitive advantage, cash cows have high profit margins, and generate a lot of cash flow. As the growth of industry is low, so that promotion and placement investments are also low. As a result capital reinvestment and competitive maneuvers are needed to maintain present market share of cash cows. The infrastructure of them can be improved by the investment. Hence, efficiency is developed and cash flow increases. Many of today's cash cows were yesterday's stars (figure 2). Although Cash cows are less attractive from a growth standpoint, they are valuable in businesses (Mohajan, 2015).

Cash Cow examples: iPods of Apple, Coca-Cola Classic of Coca-Cola, Procter and Gamble which manufactures Pampers nappies to Lynx deodorants.

Question Marks

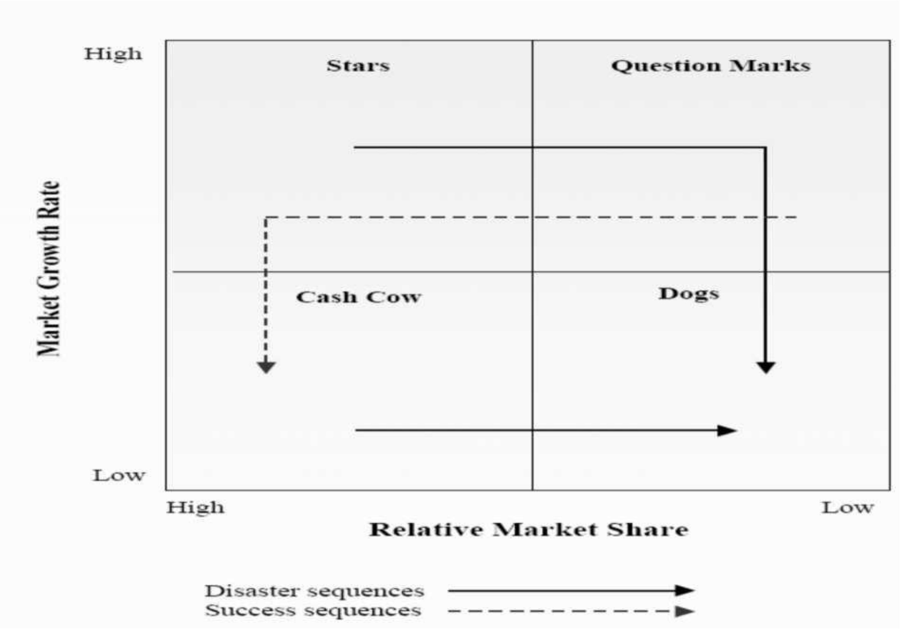
Question marks, which are also known as problem children or wild cats, are business units that have a small market share in a high growth market. They do not try to generate much cash in their industry (figure 1). They are called *Question Marks*, because of the organization must decide whether to build up them by practicing a rigorous strategy (market access, market development, or product development) or to sell them, i.e., it is not known if they will become a Star or drop into the Dog. They have high demand and low profit due to low market share. They have to spend large amount of cash to gain market share. They try to produce new goods to attract buyers. They have no fixed strategy to run their business. In real life most of the business start as Question Marks. As initially the company tries to enter a high growth market with existing market share. The question marks may become dogs if they are ignored while huge investment is made (figure 2). On the other hand, they have potential of becoming stars and eventually a cash cow when the market growth slows (Mohajan, 2015).

Question marks have a tendency to produce new plant and equipment, low capacity of utilization, top current asset levels, large R&D expenses, dear marketing expenses, narrow domains, heavy new product activity, high direct costs, and competitive devices that lag Star competitors on all fronts (Hambrick *et al.*, 1982).

They have the worst cash characteristics of all, because they have high cash demands, and generate low returns due to low market share. If its market share remains unchanged, it will simply absorb great amounts of cash (Mohajan, 2015).

Question mark examples: Mac Book Air of Apple, FUZE Healthy Infusions of Coca-Cola.

Figure 2: Flow chart of BCG Matrix.



Dogs

They represent businesses procedures which have weak market shares in low growth, or no market growth mature industries. They can neither generate nor consume a large amount of cash due to

their weak business strategy (figure 1). They are called *Dogs*, because of their weak internal and external position. The businesses of Dogs often are liquidated, divested, or trimmed down through the economization. These business units face cost disadvantages due to their low market share. They have weak market share due to high costs, poor quality, ineffective marketing, etc. The business firms of dogs should be avoided and minimized in an organization, and savings to turn Question Marks into Stars (figure 2). Dogs must distribute cash to avoid liquidity (Mohajan, 2015). Dogs have a tendency to achieve medium capital intensity, dated plant and equipment, low R&D expenses, narrow domains, high inventory levels, moderate marketing expenses, low value added, and competitive devices that lag Cow competitors on all fronts (Hambrick *et al.*, 1982).
Dog examples: New Coke of Coca-Cola.

6. Exercise of the BCG Matrix

The BCG matrix is used to evaluate product portfolio of a competitive company. Both market share and growth rate are crucial for the estimation of the value of a product. A large corporation can use it to determine its key business units, such as; divisions or individual companies will give more benefits. As a result each of the quadrants contains the products of the organization. For its practical and most comprehensible analytical techniques its use is very low to the companies.

7. Advantage of BCG Matrix

The matrix is very simple and easy to understand. Larger companies can use it for the seeking volume and experience effects. It predicts the future actions of a company. Hence, the company can decide its proper management strategy. It is a helpful tool to analyze product portfolio decisions of a company. The matrix emphasizes on the cash flow, and draws attention to investment characteristics. It is helpful for managers to evaluate balance in the firm's current portfolio of Stars, Cash Cows, Question Marks, and Dogs. The matrix indicates that the profit of the company is directly related to its market share. Therefore, a company can increase market share if it seems profitable. Finally, it has only four categories that make it in simple form to operate efficiently.

8. Limitations/Weaknesses of BCG Matrix

The BCG Matrix produces a framework for allocating resources among different business units, and makes it possible to compare many other business units. But, BCG matrix is not free from limitations; it has following limitations (Lu & Zhao, 2006; Squidoo, 2010):

- BCG matrix classifies businesses as low and high, but generally businesses can be medium also. Thus, the true nature of business may not be reflected.
- The distinction between high and low is highly subjective.
- Sometimes a business with a low market share can gain expected profits.
- The use of BCG analysis cannot help managers take into account synergies that may possibly exist among the various SBUs within the product portfolio.
- Market is not clearly defined in this model.
- The problems of getting data on the market share and market growth.

- The assumed causal relationship between market share and profitability may not truly exist.
- The model neglects small competitors that have fast growing market shares.

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- Not only high market share leads to high profits but also high costs involved with high market share.
- The framework assumes that each business unit is independent of the others.
- At times, dogs may help other businesses in gaining competitive advantage. Sometimes they give more profits.
- This four-celled approach is considered as to be too simplistic.
- The BCG model has only two dimensions: market share and growth rate. Hence, it ignores other dimensions of the business.
- It has little or no predictive value.
- It does not take account of environmental factors.
- There are flaws which flow from the assumptions on which the matrix is based on.
- It ignores interdependence and synergy.

9. Recommendations

BCG matrix needs systematic classification rule, interaction-based exploratory analysis tool to achieve the consensus among different managers, and customized classification scenario analysis for logic classification searching. In BCG matrix, the funds need to be generated for Cash Cows that are used to turn Question Marks into Stars, which may eventually become Cash Cows, and always to restrict becoming of Dogs. There is a requirement for balancing products in the BCG growth concept in order to transfer cash from cash cows to nourish problem children and star products, to fund R&D activities, and to enhance new product development. Cash Cows should be managed for maximum generation of cash, and that cash should be directed to newer, higher growth businesses, such as, Question marks and Stars. Low growth/low share Dogs are seen as serious cash drains that should be promptly harvested, liquidated, or divested.

10. Conclusion

In this article we have discussed aspects of BCG growth sharing matrix. It is developed in 1970 by Henderson for the Boston Consulting Group. It is considered as a simple portfolio planning matrix. In this matrix there are four categories of business units. The business organizations can use it for the present and future development of their business.

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