CHAPTER 4 - Internal analysis and resource capability audit

Contents

CHAPTER 4 - Internal analysis and resource capability audit

4.5 Managing a portfolio of products and the BCG matrix

Active reading. Note the mapping of the categorization of the products on the quadrants of the BCG matrix and the match to the stages of the product life cycle. Neither model is precise, and each only represents the situation at the moment in time. Note the strategies used to manage the product portfolio and from what you know of the product life cycle think, as you read, of the way that management accounting can contribute to the management of the portfolio before reading section 4.5.4 – financial controls and accounting techniques.

Video link [Portfolio analysis - BCG matrix](https://www.youtube.com/watch?v=1L8TTD1MWvM)

[https://www.youtube.com/watch?v=1L8TTD1MWvM]

Most organizations would be operating a portfolio of products and therefore managing the timing of the launch of new products, product enhancements, and so on, is critical. It would be wrong to wait until a product enters the decline phase to launch a new product, so the product life cycles in the portfolio will ideally overlap (see Figure 4.3). New products need to be developed and launched before the existing products go into decline.

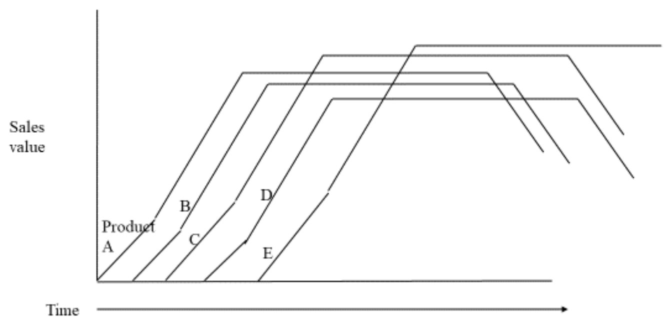

Figure 4.3 Portfolio of product life cycles

The organization is, therefore, managing a portfolio of products and consequently needs to make decisions about where additional investment is most beneficial to the overall mix of products.

4.5.1 Portfolio analysis—The Boston Consulting Group matrix

The Boston Consulting Group (BCG) matrix, developed by Bruce Henderson and promoted through the Boston Consulting Group, helps organizations in managing a portfolio of products. The portfolio analysis matrix, shown in Figure 4.4, can be used to analyze an organization's portfolio of products. In the case of a conglomerate organization that comprises of many different businesses, or business units, the model can be used at a corporate level, that is, managing a portfolio of businesses. The model is still useful, but as conglomerates have become less prevalent, it has fallen out of use a little regarding the corporate level. The axis of the relative market share provides a measure of the competitiveness of the products, and the axis of the market growth indicates the attractiveness of the market.

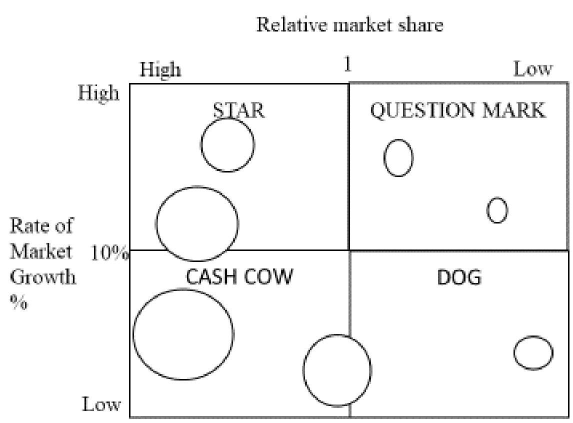

Figure 4.4 The portfolio analysis (BCG) matrix

The axes

The rate of market growth can be calculated by using the formula:

$$\frac{Market\ sales\ this\ year - Market\ sales\ last\ year}{Market\ sale\ last\ year}\ x\ 100 = x\%$$

The apparent difficulty can be in identifying the value of market sales accurately. The market could be obtained from external sources, but it is not always possible to determine the total market. The assessment also depends on how the market is defined, for example, is it the local market, the national market, the global market, or is it a segment of the total market? For example, the market for accountancy training or a broader market such as business education, of which accountancy training is only a small element. Determining the market is one of the difficulties of the portfolio model, or indeed most strategic analysis tools, in that it is not a precise science; hence best estimates often need to be used. It is possible to use the organization's sales as a proxy for market sales to obtain a view of the likely growth in the overall market. This approximation assumes that the organization's sales are growing at the same rate as the market, but in the absence of any better information, it is probably good enough.

The midpoint of the rate of market growth axis was originally denoted as 10 percent, that is, greater than 10 percent represents high growth, and below 10 percent is low growth. This midpoint is not necessarily fixed at 10% and can be changed based on an organization's experience of the market. Ideally, organizations would want to look for markets where there are high growth rates, and their product offering gives them a strong chance of achieving market leadership.

The relative market share is assessed as a ratio. It is the market share of the organization compared with the market share of the largest (or nearest) competitor and is assessed on a logarithmic scale. The Boston Consulting Group chose to use market share as a way of estimating the costs associated with given products. The rationale for this is that both costs and market share are connected with production experience, as experience in satisfying a particular market demand increases, market share can be expected to increase and costs to fall, due to the effects of the experience curve. However, as already mentioned, defining the market can be a subjective process. It also presumes that the market size can be estimated with some degree of accuracy. It is not always possible, and therefore the actual position of a product within the matrix can be a subjective opinion rather than a definitive outcome. The critical point here is that if the assessments for products are undertaken consistently, then a reasonable representation of the product portfolio can be achieved. The relative market share is calculated as follows:

$$\frac{Market\ share\ (or\ sales\ vlaue)\ of\ the\ organization's\ product}{Market\ share\ (or\ sales\ value)\ of\ the\ nearest\ competitor's\ product}$$

Generally, the midpoint of the relative market share axis can be denoted by the number one, that is, unity. Therefore, if the relative market share is greater than one, it has a relatively high market share (and is probably the market leader in the market or market segment) and, if lower than one, a relatively low market share.

Categorization and balanced portfolio

The products or business units are categorized as question marks, rising stars (or just stars), cash cows, and dogs. The question marks are cash using as the organization tries to grow the market share, with rising stars still requiring investment to match the growth in the market. As the market growth slows, and if market share is retained, the cash cows provide the cash for investment in question marks and rising stars, with dogs potentially becoming a drain on cash resources. The ideal situation for an organization is to maintain a balanced portfolio of products. Each circle shown in Figure 4.4 represents a product, the size of which represents the proportion of total sales. Ideally, the cash cows are the most substantial proportion of total sales with question marks and dogs representing much smaller proportions.

As product life cycles become shorter, products may move around the matrix more quickly. Although there are many more factors that influence a product's life cycle other than market growth, it emphasizes the need for organizations to review, and indeed, renew their competitive advantage frequently.

Figure 4.5 illustrates that the same strategies that were discussed with the product life cycle in section 4.4 are relevant to the BCG matrix categories.

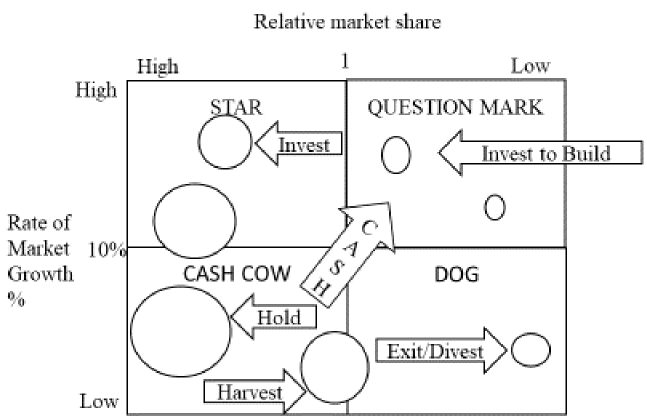

Figure 4.5 Strategies appropriate to categories of the BCG.

A rough matching can be made at a business level strategy in that the introduction stage of the PLC equates to the questions mark category, the growth to rising stars, maturity to cash cows, and decline to dogs (Hambrick et al., 1982). Figure 4.5 illustrates that initial investment is required to build market share to become the market leader. Once the market becomes mature, the cash cows provide the cash to invest in question marks and rising stars to replace the cash cows once these begin to decline.

4.5.2 Uses of portfolio analysis

Balanced portfolio

The prime objective is to achieve a balanced portfolio, that is, to ensure that the company has new products that can replace the old products as they begin to lose their market appeal or technology begins to make them obsolete. It emphasizes the importance of monitoring the environment, particularly the competitive environment, and evaluating the potential impact of changes on the profitability and cash generation properties of product combinations.

Assess trends over time

Portfolio analysis can be used to assess trends over time to monitor the impact of the strategies being adopted. For example, are the question marks turning into stars? What is happening to the market growth rate? Have the stars maintained the market share to become cash cows?

Assessing the potential of strategies within the portfolio

The analysis can be used to test the risk of various strategies by undertaking scenario analysis, or a "what happens if?" style of analysis, to examine the impact on the overall balance of a portfolio if certain strategies are adopted for different products or business units. Used over time, this can encourage organizational learning as the impact of various strategies is monitored and evaluated.

Competitor analysis

Information about the competitors' products and market share needs to be gathered as part of the analysis, which makes it possible to use portfolio analysis as part of competitor analysis, that is, to gain an understanding of the strength of a competitor's portfolio of products. It can help to formulate an organization's strategy, which makes portfolio analysis a useful tool to monitor potential competitors via trend analysis, as small competitors can often grow to pose a significant threat.

4.5.3 Further considerations of using BCG analysis

As with all models and frameworks, it is important to note that running a business is not necessarily a precise science and that care needs to be exercised when interpreting the information provided by the models. Just as decisions should never be taken based purely on the numbers, decisions should never be made based on using one model in isolation.

Possible synergies between products

There is the potential to miss possible synergies between products. Consideration needs to be taken of the existence of complementary and substitute products within the portfolio when formulating strategy. It can affect the timing of product launches and withdrawals from the market. Scenario analysis and experience aid the strategic decision-making process, emphasizing the need to monitor the mix of products, and purchases of product combinations, regularly.

An underlying assumption that high market share is always good

Assuming that achieving a high market share is the ultimate aim can send the wrong message to nonfinancially aware managers. They may push sales at any cost rather than selling to profitable customers. Also, high market share does not necessarily lead to high profits as markets can be extremely competitive with low margins. Similarly, it could be that it is possible to make a reasonable profit from a small market share. It is also worth remembering that market share is not the only indicator of success.

High volumes of data required

A potential drawback is the need to acquire data about market share and competitors' products. If an organization has a large volume of products, it requires high amounts of data to be collected. For this reason, it is often only practical to undertake the analysis for key brands. However, the use of technology and external information that is available in electronic format can help alleviate the information overhead.

4.5.4 Financial controls and accounting techniques

The financial controls and accounting techniques that are appropriate for each product category on the BCG can be linked to the critical success factor of each stage.

Question marks

The critical success factor for products in the question mark category is to develop and launch new products into the market successfully. It requires investment in new product development, the control of that investment, and the evaluation and approval of the business case for new products. Investment appraisal techniques (see section 8.5) are a crucial part of the business case and evaluation phase. The investment appraisal included within the plan will not only include targets for the initial investment in operational capability, but also marketing spend, sales, costs to serve, and time frames for critical stages.

The accountant will be involved in monitoring the success of the product launch. They will also have been involved before this in evaluating the viability of the product at the development stage. The approval process may have included the use of techniques such as target costing (section

7.8) and life cycle costing (section 7.9), as well as strategic pricing (section 6.4). Activity-based costing (section 6.6) may be used to establish the cost of a product in relation to pricing strategies, or as part of target costing exercise to ensure a reasonable margin is made.

Rising stars

As the product moves to the star category, the critical success factor is growing the market share. The concept of investment appraisal is still highly relevant at this stage as further investments in marketing are made to increase the market share. The focus of the marketing spend switches from awareness advertising to building brand loyalty. The experience curve will begin to impact on costs as market share rises; therefore, the impact of costs needs to be carefully monitored.

While activity-based costing (ABC) may have been used at the question mark stage, as the volume grows more accurate data becomes available to estimate future activity levels, ABC can play a key role in helping to identify areas for improvements, and where the costs of activities can be reduced. ABC analysis can also be undertaken in conjunction with the analysis of the value creation system (section 4.9). The impact of promotional activity on margins needs careful monitoring to ensure that it does not jeopardize the future viability of the product by creating a perceived level of pricing that is not viable in the long term.

Competitive responses also require monitoring to retain market share. At this stage, it is important not to revert to a reactive strategy but to continue to evaluate the potential impact of increased investment on the future viability of the product and to maintain the balance of the portfolio. The potential impact of investment in one product on the balance of the portfolio could be considered via a form of “what-if” analysis.

Cash cows

The critical success factor of the cash cow category is to maintain the market share and margins. Here we are expecting a return on the total investment made to enable the product to achieve the dominant position in the market. The importance of maintaining the contribution (or gross margin) per product and customer profitability analysis (section 4.7) takes on more significance at this stage.

Dogs

At the dog stage, the critical success factor becomes minimizing the cost base with an emphasis on freeing up cash flow to invest resources in other products. The potential to find niche markets where the product could still provide a positive cash flow should also be investigated.

4.5.5 The Case of Nokia

In 2008 Nokia was a leading manufacturer of mobile phone handsets and provider of network infrastructure. The company operated within three divisions: Devices and Services, Here (digital mapping/location), and Nokia Siemens Networks (the provision of network infrastructure). In the Devices division, Nokia's phone lost market share as the development of the smartphone became the consumer preference. To compete with the smartphone, Nokia developed the Lumia range of products, which linked up with Microsoft to use the Windows Phone 8 operating system. The basic premise was that, as many consumers used a Microsoft operating system on their computers, linking it to the phone would be an attractive offering.

Nokia attempted to compete with the established smartphone providers by launching the Lumia 1020, which was described by reviewers as a digital camera with some phone features built-in. However, this was not as successful as Nokia had hoped, and the Devices division began to lose money, and market share continued to decline. The Network division was also seeing its markets becoming more competitive and, although still profitable, Nokia's sales had been relatively flat, causing a decline in market share. The Here division was the only division to show signs of growth in both sales and profits. The movement in their product portfolio between 2008 and 2013 could be represented, as shown in Figure 4.6.

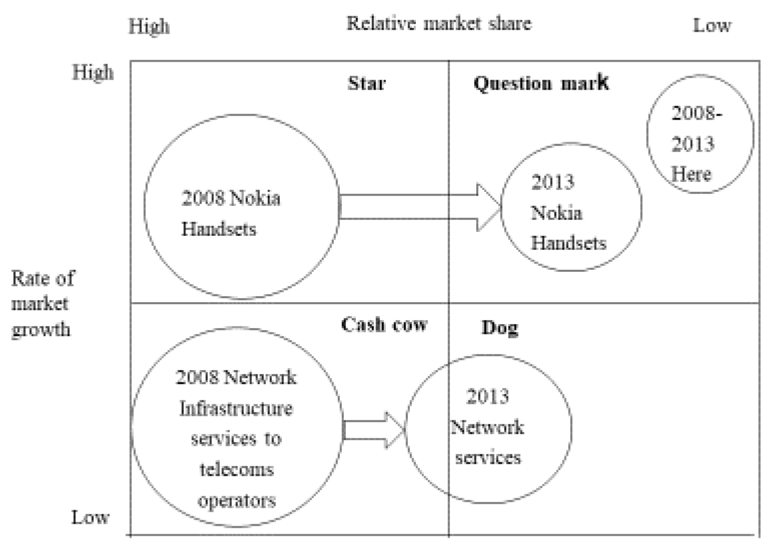

Figure 4.6 The Nokia portfolio of business units

Nokia reviewed its strategy and identified that its key strengths were technology development, brand recognition, and experience of the telecoms market. They sold the mobile devices business to Microsoft mobile and focused on the provision of network infrastructure and its digital mapping business. The company was restructured into two divisions to take advantage of its key strengths—a Networks division and an Innovation division, which included digital mapping. The Here business was sold in 2015. During 2015 they began talks with Alcatel-Lucent, a deal which was concluded in 2016, with the rationale that it would give them a strategic advantage in developing 5G technologies and build on Nokia's strengths in technology and innovation. A few years after this, Nokia re-entered the mobile market with a company called HMD-Global to build on the Nokia brand name. The success of strategies can only be seen over the long term. Still, the brief example illustrates Nokia taking decisions to redress the balance of its business and implementing a strategy that built on its key strengths.