infrastructure, human resource management, technology development and supply (Pearce and Robinson, 2000).

- *Firm infrastructure*: Activities, costs and asset related to top management, finance, accounting, legal issues, safety and security, information systems for managers and other overhead functions.
- *Human resource management*: Activities, costs and assets related to recruiting, hiring, training, development, compensating and work relations of all types of employees.
- *Technology development*: Activities, costs and assets related to product research and development, process research and development, enhancing the design process, tool and equipment formations, computer software development, telecommunication systems, computer-integrated designing and engineering, new data base development, the development of computerised support systems.
- *Procurement:* Activities, costs and assets related to the supply of raw material and materials, services, machinery and other input necessities needed to back up company activities by supporting all value chain activities.

The type of work conducted by the company determines whether the value chain analysis will be focused on all support activities or only some of them, and which activities will receive the highest amount of attention.

The value chain also includes the profit which is the difference between the cost of the activity and the sales price, a price which is the result of the process of buyer value creation in a value chain.

In order to generate profit, the company has notably altered the business paradigm from production orientation to market orientation, as shown in Figure 5.6. This has shifted the focus in the value chain from the activities of inbound logistics, operations and outbound logistics to the activities of marketing, sales and service. The level of generated profit is still one of the fundamental benchmarks of company success. Activities involved in every individual situation must be kept in mind in a value chain analysis considering that a single activity, which is a support activity in one activity, can be a primary activity in another one.

According to Michael Porter (1985), the sources of competitive advantage include the following:

1 Low cost;
2 Differentiation.

Low cost

Low cost can be achieved if a company has a low cost cumulate when conducting activities compared with competitors (Todorović et al., 2000).

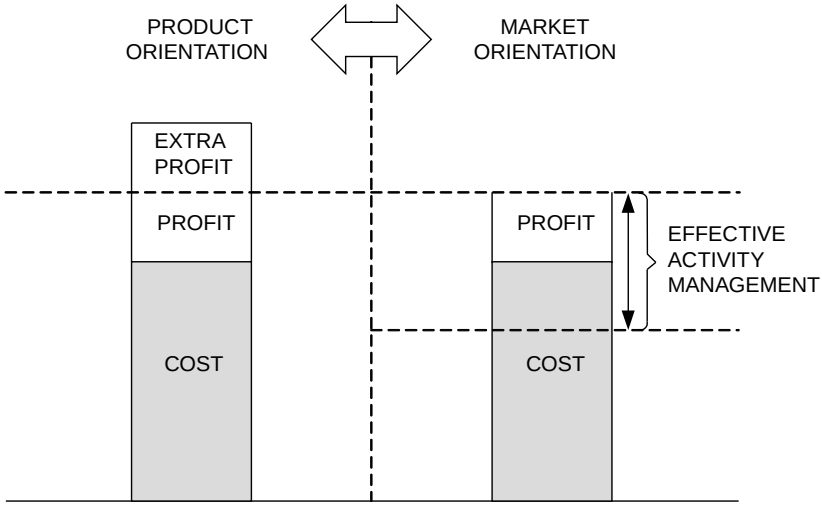

Figure 5.6 The change of the company business paradigm.
Source: Pearce and Robinson (2000:207).

This means that a company can achieve competitive advantage if it creates and sustains considerably low cost than its industry competitors. Low cost offer a favourable position for a company in terms of lower price formation, reaching market share, extra sales profit and similar.

Costs have an indirect impact on the second source of competitive advantage as well. Specifically, as long as the price growth does not surpass the differentiation cost, a company cannot achieve competitive advantage. Consequently, a differentiated competitor cannot endlessly increase the costs of differentiation. Cost analysis is based on the existing accounting system which categorises the costs of a single value chain activity of a company into direct, indirect and general costs (Porter, 1985).

However, the data provided by such an analysis are insufficient for a strategic cost analysis. In each and every company, costs are a consequence of its activities in a value chain. This fact leads to different costs in every company so this analysis is becoming simplified and factitious (Todorović et al., 2000). Each position in a value chain of a company where costs are aggregated is different in terms of activities and behaviour. Having low costs than competitors must be an obsessive focal point of each company.

According to Michael Porter (1985), company orientation towards low cost in all business segments must include the utilisation of the following: economy of scale (using the capacities which ensure the economy of scale), curve of experience (using the potential provided by the curve of experience), positional annuity (using distributors which provide cheaper supplies) and technological change (using technology which will ensure cost reduction). However, to maintain low cost than competitors, a company

must constantly monitor the cost drivers in its value chain activities, which is not an easy task by all means. Several cost drivers influence the cost of a single activity. Cost drivers reflect the relations among the activity within a company on one side and the relation of a corporation and its surrounding, on the other side. Special attention must be focused on the relations of particular activities to establish or sustain a relation among activities within the value chain and within the value system. The only way to monitor cost behaviour is through the activity conduction cost analysis and the analysis of necessary assets. It includes the cost structure determinants of a particular activity variably controlled by the company (Đuričin et al., 2015).

The aim is to reach low cost in every activity considering the best ways to conduct the activity and showing ingenuity in reducing and eliminating certain activities in a company value chain. Cost drivers can either support each other or have a contrasting effect on each other. According to Michael Porter (1985), there are ten cost drivers:

- *Economy of scale*: It can exist in any activity segment in a value chain. It is created in production by narrowing down the production programme and increasing the production range on several types of products.
- *The curve of learning*: It can exist as a consequence of production enhancement through process redesign. It is created by correlating the costs with the cumulated production units in a value chain.
- *Capacity exploitation*: It can exist as a consequence of cost digression per product unit. The efficiency of fixed company assets is increased through a sound distribution throughout the activities in a value chain.
- *Correlating all that matters*: It can exist when all that matters is correlated with other value chain activities which leads to cost reduction through the enhancement of activity coordination and common optimisation.
- *Mutual correlation*: It can exist as a consequence of mutually strong bonds among certain value chain activities which is reflected on the simplification of the conduction of certain value chain activities.
- *Vertical integration*: It can operate forward or backward. It is achieved through the transfer of experience between strategic business units which leads to a decreased pressure on the company from powerful customers or suppliers.
- *Capacity optimisation*: It can exist if a company has information from the market and it is achieved by utilising the advantages or reducing the disadvantages of the notion to introduce a pioneer product to customers.
- *Discretion policies*: It can exist when a company makes tactical decisions. They are created by their influence on company costs such as expansion or reduction of the production programme, customer service and similar.
- *Company location*: It can exist when a company utilises the positive location effects. It is created by a direct influence on cost reduction, transport, construction and tax on all activities in a value chain and similar.

- *Institutional factors*: It can exist when a company is up to date with the surrounding changes and it is achieved by acknowledging government policy and regulations which can have an effect on cost increase as a major cost driver.

The concept of cost drivers is one way of understanding cost behaviour in every value chain activity. A company needs to identify its value chain and diagnose its cost drivers. Michael Porter (1985) suggests the following phases for a company to create the foundations for a low cost environment:

1 Identify the needed value chain and distribute the costs and assets throughout its activities.
2 Identify cost drivers for each value chain activity and observe their interaction.
3 Identify the competitor value chain and establish relevant competitor costs and the source of cost difference.
4 Shape the business strategy to reduce the relative cost position by controlling cost drivers or by reconfiguring the value chain.
5 Ensure that the cost reduction does not decrease differentiation or to purposely make a decision which leads to such a scenario.
6 Test the cost leadership strategy to determine its long-term sustainability so that the company can rely on it.

A strategic cost analysis should include a definition of value chain activities, an asset distribution (both fixed assets and working capital) and a cost distribution (business and non-business costs) for each company value chain activity (both primary and support activities).

Each value chain activity is associated with assets and costs through working capital and capital investments (Đuričin et al., 2015). The input entry into the value chain has an influence on each value chain activity through the costs of business operations (raw material supply) and fixed assets (capital investment). The need for asset distribution throughout the value chain can be traced back to the fact that a certain asset percentage needed for conducting a particular activity in a value chain has a significant influence on costs. The strategic cost analysis embodies (Todorović et al., 2000): (a) Activities with a significant and/or growing share in total costs or defined asset and (b) activities with different factors which are cost drivers. This places an individual activity as the subject of a cost analysis.

The disintegration of total costs of value chain activities leads to the identification of components with the highest share. Cost drivers of those components are identified, analysed and monitored. If more than one cost driver influences an activity, it is necessary to continue with the disaggregation until reaching a "one cost driver per one activity" scenario. Next, it is necessary to distribute costs and asset throughout the value chain activities. Costs are distributed to the activities which create them, whereas

the asset is distributed to the activities that use it. Asset distribution can be done in two ways: Following the asset value or following the replacement value. There is an alternative to these two ways which relies on the methodology of transferring asset or replacement value into costs through amortisation (Porter, 1985).

The distribution of costs and assets leads to the creation of a value chain which showcases the way in which costs and assets are distributed in the process of profit generation. To make a high-quality analysis, the costs must be distributed into (a) raw material and materials costs, and (b) workforce costs. The assets must be distributed into the following: (a) current assets and (b) fixed assets.

Figures 5.7 and 5.8 illustrate the zones where it is possible to reduce costs.

For example, raw material costs are usually at the highest level of production needs due to safety stock. In addition to the substitutability among cost drivers, there is also an interaction expressed in the two following forms (Stern and Stalk, 1998): (1) The increase of influence and (2) the cancellation of influence.

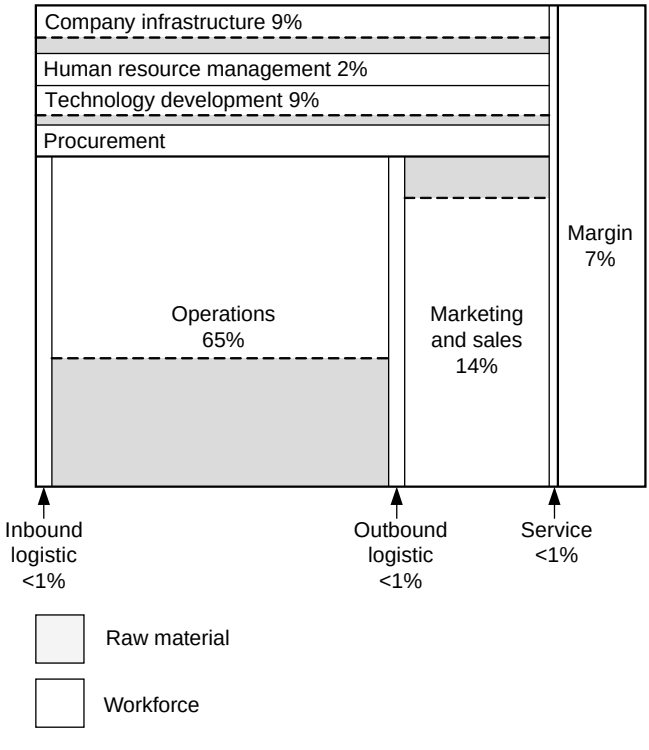

Figure 5.7 Value chain activity cost distribution.

Source: Porter (1985:68).

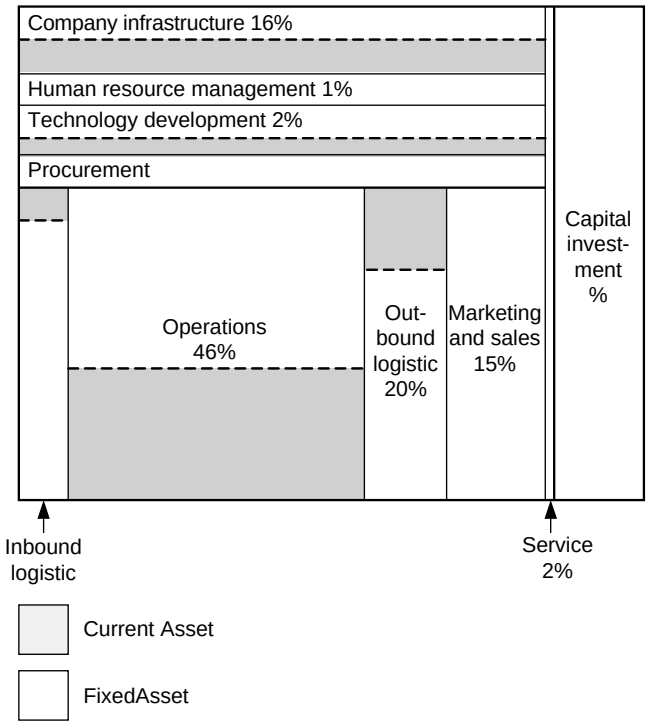

Figure 5.8 Assets distribution in value chain activities.

Source: Porter (1985:69).

Hence, the relation of the production programme and the economy of scale is an example of the increase of influence, whereas the relation between vertical integration and capacity exploitation is an example of influence cancelation. Low costs can be reached if the cumulate of all costs in a company value chain is lower than the cumulate of all costs in a competitor value chain. Orientation towards low costs is worthwhile only if it creates sustainable competitive advantage. Low costs lead to above the average profitability only if an appropriate value is provided to customers so that competitive advantage based on low costs is not cancelled out by the need to offer lower product prices conditioned by cost leadership among competitors.

Competitors can have a similar or different value chain configuration. The similarity or difference can have a stronger (if they are different) or weaker (if they are similar) influence on company position concerning low costs.

Companies sometimes make an effort to imitate competitor value chains which is not a good idea due to different cost drivers which arise in their

activities. A company can achieve competitive advantage based on low costs in the following two ways (Porter, 1985):

1 Cost driver control;
2 Value chain reconfiguration.

Cost driver control is exercised on the cost drivers which have a significant influence on total costs. Value chain reconfiguration is exercised on those activities which have a significant influence on the company business operations.

Former ways of achieving low costs are not mutually exclusive. The sustainability of low cost-based competitive advantage is affected by the permanent control of cost drivers and constant value chain regulation. Even competitors with different value chains have some common activities whose relative low cost position can significantly influence the cost cumulate.

Low costs as a source of competitive advantage are associated with the so-called differentiation proximity (Porter, 1980), i.e. when a low cost-based competitive advantage of a company is higher than the price difference between the company and other competitors. Hence, the nature of necessary price compromises does not prevent a company from creating higher value than competitors nor from sustaining it above the average profitability. Michael Porter (1985) believes that low cost orientation can, but it does not have to, result in sustainable competitive advantage.

Choosing low costs as a basis for achieving competitive advantage means following the cost leadership strategy, too. The strategic orientation is to be the industry leader and not just another company in the race for that position. The strategic rivalry of multiple industry participants for the position of industry leader in fragmented industries is very dangerous. As long as a company does not achieve competitive advantage based on low costs and does not convince its competitors to abandon their current business strategies, the consequences of generating profitability in an industry can be fatal. Considering this danger, Besanko et al. (1996) state that the following conditions are needed to create low cost-based competitive advantage:

a If an industry is characterised by the economy of scale and the economy of experience, but they are not exploited by a single company on the market.
b It the possibilities for improvement of the observed benefit of the industry product are limited by the nature of the product.
c If the customers are relatively price-sensitive and unwilling to pay premium prices for additional increases in quality, form and image of the product.
d If the industry product has product features whose objective quality attributes can be assessed by customers at the moment of purchase.