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## **Strategic Analysis in 3D**

A tentative approach to frame a lifelike picture of strategic analysis

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## ***Summary***

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During years of studies at different universities a vast number of models on strategic development have been taught. Depending on which university, department and teacher one has there will be different models taught and different kinds of criticism passed upon the models. This results in confusion for students in the end not knowing which model is appropriate for which given situation. The same issue is anticipated to be experienced by people working in different companies challenged with the difficult work of analyzing the company and its market to create the perfect strategy that the whole company will be imbued with and lead it towards success. Though surprisingly little has been written in the field of strategic analysis model classification and thus the ultimate way to combine the different models that exist for the best possible result, this study is an attempt to change that. An analysis model to classify the different strategic analysis models will hopefully bring the analyst a step closer into being able to choose the models for the analysis with a better precision and with a better argument to why. To test the models accuracy there is an example of a medium-sized construction company active in the Gothenburg region analyzed with four differently classified models. They should be seen for what they are and that is an attempt to shed some light in the complex world of finding the right tools for analyzing a company and its environment in the best possible way to obtain the most accurate and an all-embracing picture. The main conclusion of this thesis is that a perfect combination of strategic analysis models not only can be identified by covering the three dimensions, but a palette of models with different characteristics needs to be found.

In this study there are three different strategic analysis model classification categories (dimensions) in focus and four strategic analysis models chosen to be classified by the dimensions and tested within the company mentioned above. The three classification categories used in this study are; Internal versus External, Activities-based versus Resources-based and Dynamic versus Static. The strategic analysis models chosen for the purpose of this study are; Porter's five forces, shareholder value oriented strategy, the value shop and resource based view.

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## **1 Why this study?**

*In this chapter a presentation about the issue that is the reason for this study is analyzed by the authors. It is a discussion of the issue and the difficulties accounted when going through with the study. It is a chapter about reflections of reality from the authors' own perspective.*

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Starting off with the title of the study: Strategic analysis in 3D, what does that tell about the study in itself? Most people studying the subject of strategy creation and implementation know that there is a jungle of different models out there all promising to give a flawless picture of the company and its environment according to the model, and most importantly when applying the model the user will be able to create the best possible strategy for the specific company active in the specific industry – is this possible? Can one single model provide the user with the outmost truth of reality? And if this is not possible – having one model providing with the best strategic analysis possible – is it more correct to use two, three or more models to reach the ultimate truth? If so, which models should be combined and in which way? If not, and the different models provide different kind of information that combined in a certain way would in theory provide the analyst with the ultimate truth about the company and its environment, how would one know which models to combine and why? This study will attempt to provide the reader with a tool to categorize the different models and by doing so hopefully be one step closer to bridging the gaps between the information losses caused by different models. Through this study the reader is going to experience a replica of the real world of the flora of the strategic analysis models, a virtual reality of strategic analysis in three dimensions.

Having said that, it is now time to analyze the problem at hand - the reason for this study taking place. The fact that there are a lot of models developed for the sole purpose of analyzing a company and its environment to identify threats and weaknesses to transform them into opportunities and threats is widely known. There is a notion that by using one model an analyst can find everything about a company's position on the market and about the market itself, or that is what the model developers want everyone else to think. There is a contest out there between the different gurus of strategic analysis models developing new models or refining old ones to cover all aspects of analyzing a company in order to reach its goals and visions in the best possible way. This fact should be an indication of despite what the model developers may say, there is still not one model that is perfect in all aspects since they tend to focus on different areas. Otherwise the continuous quest would not continue.

Acknowledging that there are flaws with the different strategic analysis models is one step closer to questioning whether the different models provide with the exact same incomplete information, and if not how to see which models to use to be provided with the best possible description of reality? The culture has been that analysts will use existing structures that in some part are influenced from the military way of thinking. Could it be so that analysts today blindly use models based on the usage frequency or the authority of the model developer himself?

Using a model for strategic analysis is time consuming. That could be one of the reasons why analysts try to reduce the time consumption of an analysis by keeping the number of models used as restricted as possible. If the hypothesis of one model not being efficient in analyzing the company and its environment sufficiently is true, then how would one be able to choose the right combination of models to be provided of the best possible set of tools for the strategic analysis to take place? There is no point in using too many models just to be in the safe side of accomplishing that, since it would be too time consuming, unmanageable and thus expensive in the long run. If the models chosen are limited in number the analyst may experience an information loss as in the case of using one single model for the strategic analysis, but is the same analysts where to choose too many models the result would be a more precise analysis but with the risk of having too many overlaps between the information derived by the different models. How could one decide which models which are optimal to use?

The strange thing is that one should think that there are many studies concerning how to classify the different strategic analysis models, but here is where that person would be wrong. As seen in this study there are some ways of classifying the different models, but it seems as though no one has really studied and written about the model palette and its design to give the holistic picture that everyone is searching for.

With the lack of prior studies in his specific subject, the study will provide the reader with a tool to categorize the different models and hopefully by enlightening this issue and the importance of having such tools, start a trend of more studies in this field. So, which are the different dimensions included in this model/tool to classify the different strategic analysis models?

## **2 Introduction**

*In this chapter an introduction to the different categories that could be used for classifying the different strategic analysis models is presented. As seen in this chapter there are many different ways to categorize a model depending on the type of information derived by it, and what this study aims at is developing a tool that combines the categories mentioned in this chapter. The different ways of model categorization in this chapter is not exhaustive, but since surprisingly little has been written in this field the authors have chosen to present all three ways of classification found in the literature.*

*To make things even clearer, the chapter ends with a description of the study's objective.*

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Before formulating and implementing a strategy, companies have to analyze their company thoroughly both externally and internally (Dess et al., 2006). This is according to Roos et al. (1998) the most time consuming part in the strategy creation process. Dess et al. (2006) present the analysis as four stages; analysis of the goals and objectives, analysis of the external environment, analysis of the internal environment and assessment of the intellectual capital.

Clear goals and objectives provide means to channel individuals' efforts towards common corporate ends. They function as means of allocating resources effectively and through statements of vision, mission and strategic objectives, a wide range from competitive advantages to measurable strategic objectives are expressed. Tools such as SWOT are used in order to identify the firm's strengths, weaknesses, opportunities and threats to create competitive advantages (Dess et al., 2006).

Analyzing the external environment can provide the firm with a lot of information concerning the threats and opportunities that come along with entering a specific business. The demographics, technological and economical segments and different key trends can influence the future of the company. Identifying the competitors, suppliers, customers and other technologies or services available in the external environment can dictate a path for a company to follow in order to succeed. Tools such as Porter's five forces (Porter, 1980) and the value shop (Stabell and Fjeldstad, 1998) are used to analyze the external environment from a market perspective (Dess et al., 2006).

Knowing the company from the inside and thus assessing the internal environment of the firm can help in identifying the key parameters that will function as strengths and

opportunities for the firm against their competitors. It is about identifying what makes the company unique compared to everything else offered on the market. According to Dess et al. (2006) this is extremely hard to identify, since the strengths of a firm are often intangible. Another important issue is where the company is situated in the value chain and how to create structural control. Roos et al. (1998) present Porter's value chain as a tool for analyzing the company's internal environment. Stabell and Fjeldstad (1998) though see the value chain as a model most appropriate for analyzing manufacturing companies. As complementary they present the value shop and the value network for analysis of service organizations. Another way for assessing the company from inside is the resource-based perspective (Barney, 1991).

The knowledge of the employees as well as all intellectual property i.e. trademarks, copyrights and patents to name some, are identified when assessing the intellectual assets. The intellectual assets if used in a structural way will lead a company towards success in today's new economy. It is about identifying how the organization works and how the employees and their expertise are being efficiently managed. In other words how a company accumulates and stores the knowledge of its employees through for instance incentive programs. The intellectual assets have to have their separately set of rules to follow and thus different strategies that used together with all the previously mentioned parameters (external and internal) will help in realizing the corporations goal to maximize the firms value (Dess et al., 2006).

Most models used today are often categorized according to the specific aspect they focus on. If a company is analyzed from different aspects, external environment, internal environment and intellectual assets, at least three different strategically analysis will be derived. The idea is that all these analysis combined in a strategic and structural way will strive toward the same corporate objectives and can be combined to one holistic set of strategies for the whole corporation (Dess et al., 2006). In addition to this dividing of strategic dimensions several other are discussed through the literature. Examples are the activity-system and resource-based view discussed by for instance Ghemawat (1999) and dynamic versus static perspective as discussed by researchers such as Teece et al. (1997). Teece et al. (1997) conclude in their study that "the trick is to work out which frameworks are appropriate for the problem at hand" (p. 526) and points out that strategic blind spots can appear if only looking from one perspective.

Analyzing a company from a resource-based and an activity-system perspective emphasizes very different aspects and according to Ghemawat (1999) activity-system focuses on the activities the company performs whereas the resource-based view

focuses the resources the company deploys. Activity system theory considers how a company is built by a certain set of activities which creates the value of the company. In a successful company these set of activities are somewhat unique, not only a better version of the same activities as the competitors. The theory also points out that the activities of a company must fit in order to add value to the company and also create a sustainable advantage and value. Furthermore Ghemawat (1999) point out that activity systems with tightly coupled activities are quite inert when it comes to considerable changes in the environment even if the responsiveness may be high to smaller changes.

According to Ghemawat (1999) neither the resource-based view of a company is fully dynamic. Resources are described as fixed factors which can provide a strength or weakness to the company and can be seen as the stocks whereas the activities are the flows. In the resource view also intellectual capital is considered and this is according to Ghemawat (1999) most probably where the competitive advantages are located. Ghemawat widens the discussion by adding that, when it comes to airline companies, the airplanes themselves are unlikely to serve as the competitive advantage because they are traded on reasonably well-functioning markets. Finally Ghemawat (1999) expresses that the activity-system view and the resource-based view are to be seen as complementaries where the resources are the basis for the activities and hereby companies and their processes can often be described with these two perspectives. However, these views are according to Teece et al. (1997) not enough do support a significant competitive advantage but a there is a need for timely responsiveness.

As a theory to give heed to the companies' need to be flexible and responsive to changes, both external and internal, Teece et al. (1997) present the "dynamic capabilities" theory. The theory is based in the ability to transform competitive advantages into new forms when needed. Teece et al. (1997) identify several classes to determine a company's dynamic capabilities and categorize them in three categories: processes, positions and paths. For processes it is important to link them to the customer experiences and in rapidly changing environments it is of obviously value to sense the need to reconfiguration. The changes may be costly though and it therefore a need to minimize low pay-off changes. When it comes to position Teece et al. (1997) discusses assets of different kinds and that new improved assets may enhance or destroy the value of old ones. Furthermore they point out "reputational assets" as a kind of summary statistic for the company's current assets and position and its likely future direction. Lastly, concerning paths and path dependency, Teece et al. (1997) points out that the industry's technological opportunities set the norms for how the company can evolve. Because of this R&D is discussed and the possibilities for companies to evolve the



industry by themselves and also explore other related industries for interesting technologies that may be advantageous for the company.

According to different analysts there are many different ways of classifying models used for analyzing a company or its market. In this study there are three dimensions chosen with two categories each; External versus Internal, Dynamic versus Static and Activities versus Resources. One model can therefore be categorized depending on which of the three dimensions that it represents. However, the question is if the models that are under the same category will also give the same analytical result. A marketing model that is characterized as external could be at the same time a static and resource based and so can a model for analyzing the internal situation of a company be; will the picture presented by the two different models be the same? Or is it a necessity to take all different dimensions into consideration in order to gain the holistic picture of the company that is often searched for?

## ***2.1 The objective***

In this study the need of analyzing the company from several perspectives will be evaluated by investigating how looking at a company and its market from different angles and aspects can give different signals to where the company should be heading. The approach of this study is to analyze a company according to four different strategic analysis models, after that the models have been categorized according to the three dimensions that are included in the classification tool developed during this study. Thus, the main objective of this study is to create an analysis model for classifying the different strategic analysis models, which is mainly done in respect to three main dimensions. However, the aim of the study is to what grade this analysis model contributes in presenting an all-embracing picture of strategic analysis.

### **3 Theoretical framework**

*The theoretical framework in this study is the most important part of the thesis and the reason for this is that the main issue of the thesis is foremost of a theoretical nature. The objective of this study is to create an analysis model for classifying the different strategic analysis models. In order to make this more comprehensible an example of a company in the construction industry will follow later.*

*The chapter is divided into two different areas; strategic dimensions and strategic analysis models. In the first part an introduction of the three main dimensions and their subclasses is done. In this thesis the strategic dimensions chosen are; Internal versus External, Activities-based versus Resources-based and Dynamic versus Static. The second part includes the four strategic analysis models chosen for this thesis; Porter's five forces, Shareholder value oriented strategy, the value shop and the resource-based theory.*

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#### **3.1 Strategic dimensions**

In this thesis three strategic dimensions are to be discussed. The first, Internal vs. External concerns if the analysis is aimed in to or out from the company. The second, Activities vs. Resources concerns the unit of analysis, while the third, Dynamic vs. Static concern the time scope.

##### **3.1.1 Internal vs. External**

The first strategic dimension considers if the organization is seen from an internal or external perspective. This dimension is probably the most commonly known of the three and also the simplest to grasp. A description of the dimension is made in the beginning of the thesis and will not be further described here.

##### **3.1.2 Activities vs. Resources**

The second dimension concerns the unit of analysis. Porter (1985) is the pioneer of the activity-based perspective and argues that the combination and coordination of activities leads to the formulation of a company's strategy (Sheehan, 1998). A contrary to the activity-based perspective is the resource-based view. According to Foss (2000) the theory was first presented by Penrose (1959) but it was to take several years until Wernerfelt (1984) presented the modern version of the Resourced-based view. The Resourced-based view is not a homogenous approach though, but this will be discussed later. Let's start with the activity-based view.

The main track in the activity-based view is that the activities within the company are the units for analysis. The key is to understand the relations and dependencies between the activities that create value for the customer. If a company is successful in this, they can create a competitive advantage towards their competitors (Sheehan, 1998). In order for a company to do so they have to break down their business into activities that are large or growing in cost, having different cost behaviors, and/or performed differently by competitors (Porter, 1985). According to Sheehan (1998), Porter argues that only one presentation of the activity-set is sufficient for all companies, this presentation is illustrated in his famous Value chain model. Stabell and Fjeldstad (1998) on the other hand rejected that this model is suitable for all type of companies and have developed variants to better be adapted to service companies. Their model, Value Shop, is further presented subsequent.

Ghemawat (1999) describe Porter's process of choosing activities in three parts. Firstly, the activities should be different from the competitors and thereby deliver a value mix that is unique and not only a better or cheaper version of something the competitors already got. Secondly, the activities must fit together in order to create value and competitive advantage. Lastly the activities also must fit to create a sustainability of the advantage. The fit and assemble of activities can also gain advantage because of complexity since competitors then will have difficulties imitating the competitive advantage. When the activities are identified drivers of cost and value are to be outlined (Sheehan, 1998). These drivers describe why the activities' costs and value creation differ across companies and thereby indicate how the company can differentiate towards lower costs or higher value.

When applying Resource-based view the unit of analysis instead is the resources the company possesses. Ghemawat (1999) explains resources as fixed factors, or attributes of the company that could not be varied in the short run. Foss (2000) presents the Resource-based view as two tracks or the research themes. First out is the analyses of how to achieve sustained competitive advantage and second is diversification studies. The competitive advantage studies are based in the two basic empirical generalizations where the first concerns that there are systematic differences across companies in the extent to which they control resources that are necessary for implementing strategies and second, that these differences are relatively stable (Foss, 2000). When these generalizations are combined with the assumptions that differences in companies' resource endowments cause performance differences and that companies seek to

increase their economic performance the basic structure of the Resource-based view emerge (Foss, 2000).

Foss (2000) describes the overall objective with Resource-based view as “to account for the creation, maintenance and renewal of competitive advantage in terms of the resource side of firms” (Foss, 2000:14). In order for resources to constitute a sustainable competitive advantage they should according to Peteraf (1993) meet the following criteria:

- Heterogeneity, indicates that resource heterogeneity, leading to efficiency differences and rents are necessary
- Ex ante limits to competition, resources have to be acquired at a price below their discounted net present value in order to yield rents
- Ex post limits to competition, it should be difficult or impossible for competitors to imitate or substitute rent-yielding resources
- Imperfect mobility, the resources should be relatively specific to the company.

Sandoff (2002) inspired by Barney (1991) express this in another way by saying that the resources should create value to the company, not be easy accessible for competitors and they should be available for the company.

The other track of the Resource-based view theory concern diversification. This diversification is the product of that excess resources get available when tasks get routinised. Human resources like managers do not need to spend as much time at the task as before. Foss (2000) claim that these resources could be traded over an open market but that transaction costs often hinder it. This part of the Resource-based view is according to Foss (2000) the more dynamic one including evolutionary factors and should preferably be the future direction of Resource-based studies.

But as mentioned in the introduction, the Activity-based and the Resource-based view are not each giving a full and correct picture of the reality but act as complementaries (Ghemawat, 1999).

### **3.1.3 Dynamic vs. Static**

The last strategic dimension concerns the dynamic aspect. Teece et al. (1997) has presented a theory of how to foster companies' flexibility and responsiveness to changes. The theory refers to the companies' ability to achieve new forms of competitive

advantages as dynamic capabilities. The dynamic part of the expression refers to the ability to renew competences in order to match the changing business environment.

Teece et al. (1997) present the classes to help determine dynamic capabilities: processes, positions and paths. When they discuss processes they divide them into three roles; coordination/integration, learning and reconfiguration. Coordination/integration is seen as a static concept, reconfiguration as a transformational concept and learning as a dynamic. Learning is based in repetition and experimentation as a mean for doing tasks better and quicker. Learning can refer to both individual learning and organizational learning where the first is coupled to the specific employees and the latter to the organization such as development of new and enhanced routines.

To the class positions Teece et al. (1997) sort specific assets. These assets are mostly statically but also over time. For instance, complementary assets are innovations used to produce or deliver certain products and services may be essential for the company. On the other hand these innovations, in time, may destroy the value of other, older assets or product.

The third class, paths, considers path dependencies and technological opportunities. Path dependencies intend that companies future is somewhat determined by its history. Teece et al. (1997) argue that companies' history play a great role in where the next strategic direction will be headed. The company's path is also determined by the technological opportunities that lie before them. While some companies have more advanced R&D others have none and therefore the prerequisites for developing are different.

To conclude Teece et al. (1997) further point at the fact that companies are shaped by their history and that flexibility in the company is needed in order to adapt their competitive advantages to the changes in the environment. The opposite side of this dimension is the static category. A static picture of the company or the market is a description of the present situation and tells nothing of the history or the future.

### ***3.2 Strategic analysis models***

In this chapter the four strategic analysis models chosen will be presented briefly. There are four models chosen; Porter's five forces, Shareholder oriented value strategy, the Value shop and the Resource-based view. All of these models were chosen because of

their wide acceptance both in the academic world as well as in companies but this will further be discussed in *The approach* below.

### 3.2.1 Porter's five forces

To gain structural control a company has to be aware of the market it is active within. The market and thus the industry have to be thoroughly analyzed in order to identify opportunities and threats that can become an opportunity. Porter has developed a model that enables the external analysis of a company's environment. The five forces model by Porter (2004) is an outside-in business strategy tool that is used to analyze the attractiveness of an industry structure. The tool can preferably be used to get a better

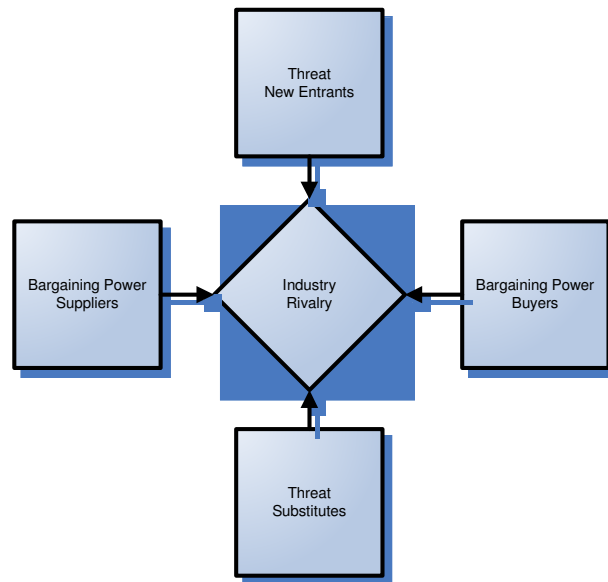


Figure 1. Porter's five forces model.

understanding of a new market and to identify where businesses, products or services will have the potential to be profitable as well as to study the rules of success in the established markets. The fundamental idea is that a business success will be determined by Porter's five forces: the bargaining power of (1) suppliers and (2) buyers, the (3) rivalry among incumbent firms, and the threat from (4) substitutes and (5) new entrants, as illustrated in the figure 1.

When analyzing the market with the help of the five forces it is important to keep two things in mind; how the analyzed company will address the competitive marketplace and how it will implement and support its day-to-day operations.

Using Porter's five forces has its limitations (Hill and Jones, 2001). The model provides the company with a static picture or a snapshot of the existing market for a product-based company. It does not take changes into consideration, which in other words means that it is not dynamic and takes under consideration only one of the company's roles on the market. Keeping this in mind will bring us closer to the truth and enable us to see the result with a critical eye. Since the market is defined by changes and is a dynamic environment, we will have to adjust the strategy on each given situation.

### **Degree of Rivalry**

The degree of competition on a market will depend on different parameters, such as number of companies, market growth, product differentiation and switching costs, to name some. In a market with a constant number of customers and resources rivalry is increased when *the number of companies* in the market increases. The rivalry further intensifies if the companies struggle for market leadership. If the *market growth* is slow companies do not have a natural way of improving revenues. This causes companies to fight for market shares, which leads to an increase in market competition. When *product differentiation* is low there is nothing that clearly separates different products which leads to an intensified rivalry between companies. *Switching costs* also have an effect on the competition. When costs of switching are low there is a great struggle to capture customers, however when costs are high customers are more locked.

### **Supplier Power**

If suppliers are powerful they can have severe influence on the industry and capture a large share of the profit generated. Porter considers that suppliers are powerful if they i.e. are seen as a threat when considering forward integration. He also emphasizes that high switching costs related to the change of suppliers puts the suppliers in a strong position. Furthermore the cost of integration and technology licensing also determines supplier power. On the other hand suppliers can be considered weak if there are many competitive suppliers offering standardized products.

### **Threats of Substitutes**

Porter refers to substitutes as new products or technologies sometimes in other industries that can become a base for competing value propositions in the market. They can be considered a threat when a product's demand is affected by the price change of a substituting product. A product's price elasticity is affected by substitute products. When customers have more alternatives, the demand for the product becomes more elastic. A close substituting product constrains the ability of companies to raise prices.

### **Buyer Power**

By defining the market need or the market pull one can detect if there is a situation where the company is given the opportunity/possibility to extend its economic marginal. In this situation the switching cost is what determines which technology will be widely adopted. The number of buyers in a market and the power they possess dictates under which conditions the companies can offer their value propositions. If buyers purchase a significant proportion of what companies provide or if the product is standardized the buyers can be considered as powerful. On the other hand, if buyers are fragmented and

no buyer has any particular influence on product or price, they can be considered weak. If switching costs are high and products are not standardized the buyers on the market are not able to influence changes for their benefit.

### **Barriers to Entry**

It is not only internal competition in the market that poses a threat to businesses, there is always a risk that new companies enter the market and affect competition. If it costs little in time and money to enter a market and compete effectively then new competitors can quickly enter the market and weaken the position of others. However, industries possess characteristics that protect high profit levels of companies already in the market and prevent additional competitors from entering. These characteristics are called barriers to entry and uniquely define the market. Barriers reduce the rate of entry of new companies and thus maintain a level of profits for those already in the market. From a strategic perspective barriers can be created or exploited to enhance a company's competitive advantage. Barriers to entry may arise from several sources; government, IPR, asset specificity, economies of scale.

Government creates the framework for how companies can compete in a market. Even though the principal role of the government is to preserve competition, they also restrict competition by granting monopolies and through regulation. This makes rise to barriers that must be considered when entering a market. Companies already in the market may actively use various IPR's to protect knowledge and build competitive advantage. This prevents others from using the knowledge and thus creates a barrier to entry if the knowledge is needed for competing in the market.

### ***3.2.2 Shareholder value oriented strategy***

It is a way of thinking first introduced in the States in 1980 and later expanded internationally including Sweden in the 1990's. The reason for this diffusion is believed to be the economy's and the capital market's deregulation and globalization. Many companies in Sweden became international and were introduced in the stock exchange, making the shareholder and its value more and more important for the company and strategies and incitement programs started to be influenced by this new way of thinking.

The shareholder value oriented strategy puts, as the name of it implies the "Shareholder first". This way of thinking combines two main areas; corporate finance and corporate strategy. In other words it functions as a link between strategy and financing. According to Bengtsson and Skärvad (2001) it is a better indicator on how the price on a



company's shares is going to develop in the future. When implementing the shareholder value perspective the strategic decisions will be based on the shareholder value; the dividend plus the shares' change in value.

The shareholder value way of thinking is not a model in the actual meaning, it is more of a new way of thinking and putting the shareholder and his/her interest at first. Therefore there are many ways and thus models used for calculating the shareholder's value and how to maximize it. Bengtsson and Skärvad (2001) use two ways of calculating the shareholder's value; Free cash flow (FCF) and economic value added (EVA). In this thesis the focus will be on the FCF.

According to Damodaran (2002) there are three approaches to valuation; discounted cash flow (DCF), relative valuation and contingent claim valuation. The DCF valuation relates the present value of prognosticated future cash flows on an asset to the assets own value. This method is what in this thesis and by Bengtsson and Skärvad (2001) is called a FCF model. The relative valuation means looking at a common variable such as earning and cash flow relative to the pricing of comparable assets in order to estimate the value of an asset. Contingent claim valuation or real option theory focuses on option pricing models to value a specific asset. The idea behind this is that the value of an asset can be compared to the characteristics of the share option (Damodaran, 2002).

Damodaran (2002) claims that when using FCF it is implied that the value of any asset is the present value of expected future cash flows on it, in other words

$$Value = \text{Sum } CF / (1+r)^t$$

The value of the discount rate depends on how risky the estimated cash flow is, where the discount rate is higher for riskier project and lower for safer ones.

By discounting the expected cash flows to the firm, the value of it will be obtained. By expected cash flows Damodaran (2002) defines as the residual cash flows after meeting all operational expenses, reinvestment needs, and taxes, but before any payments to either debt or equity holders is done.

$$Value \text{ of a firm} = \text{Sum } CF \text{ to firm} / (1+WACC)^t$$

In practice there are three main steps when using this FCF way for calculating the shareholder's value, according to Bengtsson and Skärvad (2001);

- 1 Calculate the FCF for the prognosis period chosen (usually five years)
- 2 Calculate the sum of the present value of the FCF
- 3 Calculate the shareholder's value by adding the residual value and the non-operating investments as well as subtracting the company's debt.

What one does when using the FCF model is to estimate the intrinsic value of an asset based on its fundamentals. Damodaran (2002) defines the intrinsic value as the value that a firm would be estimated to have if an all-knowing analyst who not only estimates the correct expected cash flows but also uses the appropriate and correct discount rate to these cash flows and values with the outmost precision. Already in this definition it is clear that the model has its share of limitations and thus there is skepticism towards the usage of this model.

As stated earlier the model for calculating the shareholders value is not universally defined. There are different believes as to how the correct cash flow of an asset is calculated and prognosticated and what the discounted rate should be. Bengtsson and Skärvad (2001) raise the issue of the model being focused on issues in the short run, which is something stated by Aktiespararna in 2001 where they tried to point out the importance of having the shareholders and their interests in the focus.

According to Damodaran (2002) since the method is based on expected future cash flows it is easier if the cash flows that the prognosis are based upon are positive and a proxy for the risk assessment for the discount rate is available. Obtaining a present value of negative cash flows will mean a negative value for the firm, and thus the model is not well adjusted to fit companies facing probable bankruptcy. Firms that follow the economy cycles and rise or fall a lot depending to the booms or business recession can be difficult to predict the future cash flows that will not follow any trends.

Another downside is that this method will not include assets that do not generate cash flow but can be of significant value for the company. An extreme example is a company not producing a cash flow now and is not expected to do so in the future, but is still valuable because of their intellectual assets. The effect of synergies in a merger or when changing management, capital structure etc is hard to include in this model, giving us an unjust picture of the company (Damodaran, 2002).

In few words, Damodaran (2002) means that the FCF model is better for firms with well-defined assets that generate cash flow that can easily be forecasted. The difficulty

is to find models to apply to companies that are not that perfectly adjusted to this framework.

### **3.2.3 The value shop**

To do a good analysis of a company's competitive advantage, one needs to consider the value chain of the company (Porter, 1985). A value chain is a systematic way of examining activities, which a firm performs. How a company performs an activity combined with its economic abilities will determine the competitive strength of the company. To increase the understanding of the market and the value chain the company is operating within, the company ought to understand its suppliers', buyers' and customers' value chains. The primary value chain activities are inbound logistics, operations, outbound logistics, marketing & sales and service. The goal of these activities is to create value that exceeds the cost of providing the product or service, thus generating a profit margin (Porter, 1985).

The concept of a company's value chain has been widely accepted as a tool for analyzing value creation (Stabell and Fjeldstad, 1998). On the other hand Stabell and Fjeldstad (1998) argue that the value chain is mostly applicable for manufacturing firms and that the logic of value creation is somewhat hard to see when assessing service organizations. Thereby they present two complementary models for analyzing value creation, the value network and the value shop. The value network is adapted for organizations with large networks of customers and that are dependent of the width of the network in order to be cost efficient and deliver value to their customers. The value shop can be applied on technology intense companies and is going to be presented in a wider extent below.

Value shops are companies that use their intensive technology to solve their clients' and customers' problems and activities and resources in the company are scheduled and applied based on the client's specific needs and demands. A value shop company is most often specialized in one type of problems and focuses their resources in this field. As problems of this kind often are quite unique standardized solutions cannot always be applied but specialized knowledge is needed. The companies gain this knowledge mostly by solving similar problems at other clients and thereby increase the knowledge intensity as a part of the problem-solving process (Stabell and Fjeldstad, 1998).

Stabell and Fjeldstad (1998) identify a number of value creation characteristics in the value shops, for instance:

*Value information asymmetry.* This characteristic is pointed out by Stabell and Fjeldstad (1998) as the most important because the need of the service is created by the information asymmetry. This is based in that the client does not have the needed information and thereby approaches the organisation for assistance. The information asymmetry also creates the scenario where the client not always knows if the service is correct or appropriate.

*Configured to deal with unique cases.* Even if there are similarities in different problem that a value shop manage, each problem is to some extent unique. The value shop is organised to handle these situations by using less specialized personnel for more standardized problems. The senior personnel could then focus on issues where extra experience and higher analytical ability is needed.

*Cyclical, iterative and interruptable activities.* The flow between activities in a value shop company is iterative and the flow across the activity set is cyclical. This means that a movement back and forth towards the solution of the problem. When a possible solution is brought forward the solution may be rejected, confirmed or a new perspective of the problem may be seen, leading to that further processing is needed. A change in prerequisites may also alter the possibilities of solving the problem in the way intended and may thereby lead to a needed change in approach. Furthermore a solution of a problem may also lead to an opening of a new field of issues that need to be investigated in order to come to a satisfactory solution.

*Significant sequential and reciprocal interdependence between activities.* Because of the cyclical nature mentioned above the need for coordination and feedback between the activities is essential. To deal with this senior professionals are often involved in several project and best practice solutions are established.

*Leveraging expertise.* Value shops are, as mentioned before, knowledge intensive and thereby also labor intensive. To take as big advantage of this as possible senior professionals are leveraged by more junior colleagues by the use of for instance best practice. The senior professionals also advise and mentor the juniors to keep them at the right track. By this leverage the clients get the knowledge of the seniors but for the cost of the juniors but the leverage have to be balanced in order to assure high quality.

*Coperformance of support and primary activities.* The relation between support and primary activities in value shop companies is very tight. The support activities are often performed as part of the primary work and are thereby not distinct activities. As an

example Stabell and Fjeldstad (1998) point out that marketing and technology development is in symbiosis with the primary activities as new knowledge is gained when solving problems and a well developed knowledge which in turn make the company more attractive to other clients.

*Referrals based on reputation and relationship.* Relations between companies with intensive technology are either by referral or by subcontracting. The difference between these two forms is that when referral is used the responsibility for the client is transferred to the organization or individual that is referred whereas in the subcontracting case the responsibility is kept by the principal company.

### **Value creation process**

The value shop is divided in support and primary activities accordingly to the value chain. The support activities are, as discussed above, tightly incorporated in the primary activities but yet crucial for the companies' competitive advantage (Stabell and Fjeldstad, 1998). As support activities Infrastructure, Human resource management, Technology development and Procurement are identified.

The five primary activities identified by Stabell and Fjeldstad (1998) are Problem-finding and acquisition, Problem-solving, Choice, Execution and Control and evaluation. *Problem-finding* activities review and formulate the problem and also decides the overall approach to solving the problem. During *Problem-solving* different solutions are generated and evaluated whereas in *Choice* the method for solving the current problem is decided. After the choice the solution is communicated, organised and implemented during the *Execution* to then be Controlled and evaluated to see if the problem is solved. The value shop is illustrated as a cyclical layout, figure 2 below, to show the cyclical nature mentioned before.

### *Identification of competitive advantage*

When identifying competitive advantages value and cost can be separated. Activities that create extensive value for the client do not have to be the ones most resource demanding. Hereby the challenge is to create meaningful indicators for value and cost. Stabell and Fjeldstad (1998) argue that value drivers are the foremost important drivers for value shops. This is based in that clients are looking for relatively certain solutions to their problems and not the cheapest. As a consequence of this, reputation and relationships become essential for a successful value shop and thereby also improves access to the best personnel and the best clients (Stabell and Fjeldstad, 1998). With these components they get the most demanding projects and clients which also is an

important part in the learning process. Furthermore, this also leads to premium prices of high-quality companies.

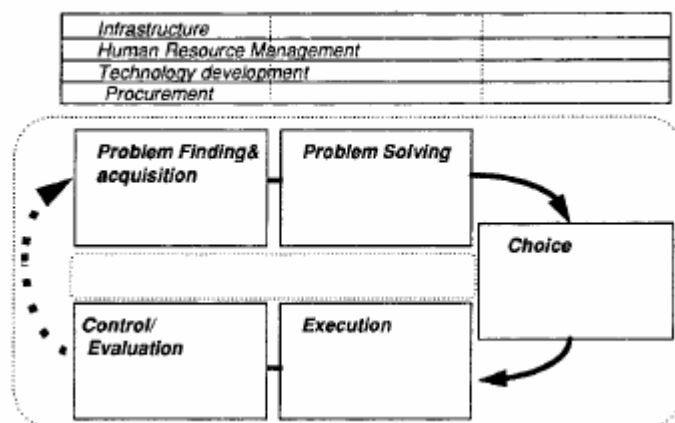


Figure 2. The value shop and its cyclical nature. (Stabell and Fjeldstad, 1998:424)

Stabell and Fjeldstad (1998) also argue against extensive advantages of scale concerning value shops. They point out that the large number of small successful firms tends to show that size is of inferior importance. A possible scale advantage they address is that larger companies can deal with larger projects.

#### *Alternative strategic positionings*

When choosing strategic direction based on the discussion above, Stabell and Fjeldstad (1998) concern two aspects. The first is vertical integration which implies that the degree of specialization in the company should be altered depending on the size of and the rate of change in the market. The larger and the more turbulent the market is, the less broad the specialist coverage should be. Thereby in a market that is quite stable, the specialization of a company could be relatively narrow.

The second aspect Stabell and Fjeldstad (1998) concern is problem incorporation. Problem incorporation focuses on increased communication between specialists and more effective and efficient evaluation after projects. Thereby problem incorporation is a way to gain more knowledge, both in the certain project and between projects. This strategic positioning is therefore focused on higher quality in the value creation but leads according to Stabell and Fjeldstad (1998) also to a higher cost efficiency.

#### **3.2.4 Resource-based view**

The “model” used in this study for analysis through the Resource-based view is inspired by Barney (1991) and his arguing that a resource in order to be a sustainable

competitive advantage must have the four attributes value, rareness, imperfectly imitable and sustainability.

In the meaning value Barney (1991) puts resources that conceive of or implement strategies that improve its efficiency and effectiveness. A companies attributes may be advantageous to some extent but must fit to the opportunities and threats in order to qualify as a resource. The resources exploit opportunities or neutralize threats in the company's environment. This makes external models necessary to use prior to the resource-based model in order to identify these opportunities and threats and thereby locate possible advantages.

That a resource must be rare implies that there not is a large number of firms in possess of the resource. If many companies implement or use the same resource they all may strive for exploiting the same opportunity or neutralizing the same threat. Companies may also need a specific set of resources in order to implement certain strategies and also here it is necessary that this specific set is rare to achieve a competitive advantage. How rare a resource must be in order to make a competitive advantage is difficult to say but it is possible for small amount of companies to use the same resources to increase the probability of economic survival. This is because the resource may produce rents as long as the number of companies using it to exploit the same opportunity not is enough to create perfect competition. This is naturally not a sustainable competitive advantage but is more of a short-ranged character.

Along with valuable and rare a resource must be imperfectly imitable in order to constitute a sustainable competitive advantage. Imperfectly imitable resources refer to resources that cannot be obtained by companies that do not already got them. This may be because of for instance unique historical conditions or that the resource is socially complex. A unique historical condition may be that companies' ability to acquire a certain resource may be dependent of the place in time and space. Socially complex resources imply for instance interpersonal relations and reputation among suppliers and customers and may not be very easy for companies to imitate. Not even companies with equivalent human capital may be able to create or imitate these socially complex resources but they originate from the early days of the company. Furthermore, social relations, culture and traditions may be the reason why some companies may exploit certain resources and not others, even if they look similar concerning physical technology.

The last attribute concerned to obtain a sustainable competitive advantage is substitutability. Substitutability deals with the fact that some opportunities may be exploited with different resources or different set of resources. If a company has got a unique set of resources that are valuable, rare and imperfectly imitable but this set can be placed on a par with another set that not is rare, then the unique set is not a sustainable competitive advantage. Substitutability is always a matter of degree, though. For instance, organizations imitating top management teams will never get the same individuals but may hold the same or equivalent knowledge and can therefore exploit the same resources as the original organization.

As earlier mentioned a resource with these four attributes may according to Barney (1991) be considered a sustainable competitive advantage. Albeit, the model presumes that managers do not manipulate the attributes and characteristics of the company and this is a critical part when using the model. Barney (1991) states that this model emphasizes the importance of the company's endowments when creating sustainable competitive advantages and hence bring forth suitable ways of using the company's resources for developing the company in the most suitable way.



## **4 Methodology**

*As stated in the introduction the main objective of this study is to create an analysis model for classifying the different strategic analysis models. In this following chapter the theory behind and the actual way of how the thesis was outlined and the information for the analysis and conclusion gathered will be described.*

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The corner stone of this thesis is the strategic dimensions used for categorizing the different strategic analysis models. A case study of a company in the construction industry is used in this study as an example to evaluate to what grade the analysis model created in this study contributes in presenting an all-embracing picture of strategic analysis.

All information gathering, the results and the assumptions made in this study are largely influenced of the methods chosen to select and process the information. There are different ways to gain knowledge (scientific method) and approaches (investigation and collection of data), which are going to be presented in this chapter.

### **4.1 The approach**

As mentioned earlier a case study of a medium-sized company in the construction industry is used as a tool for analyzing the subject of study in this thesis. The subject studied in this thesis is in its nature very theoretical; however a practical example of a real company functioning in a competitive industry is concerned as necessary for the better understanding of the theoretical findings. The case study is a tool used to reach the thesis' objective. To gain information for the company and its market to apply to the different strategic analysis models, interviews, public documents and surveys are used as information sources.

The approach of this thesis, as outlined in figure 3 below, can be seen as a process containing four main phases. The first phase, *Reconnoiter the field*, was to find literature to support the choice of the different strategic dimensions used for the later categorization of the strategic analysis models. After the extensive literature study three strategic dimensions crystallized; external versus internal, activity-based versus resource-based and dynamic versus static. These dimensions are the ones mostly discussed in the literature studied. The books and papers covers one or two of the

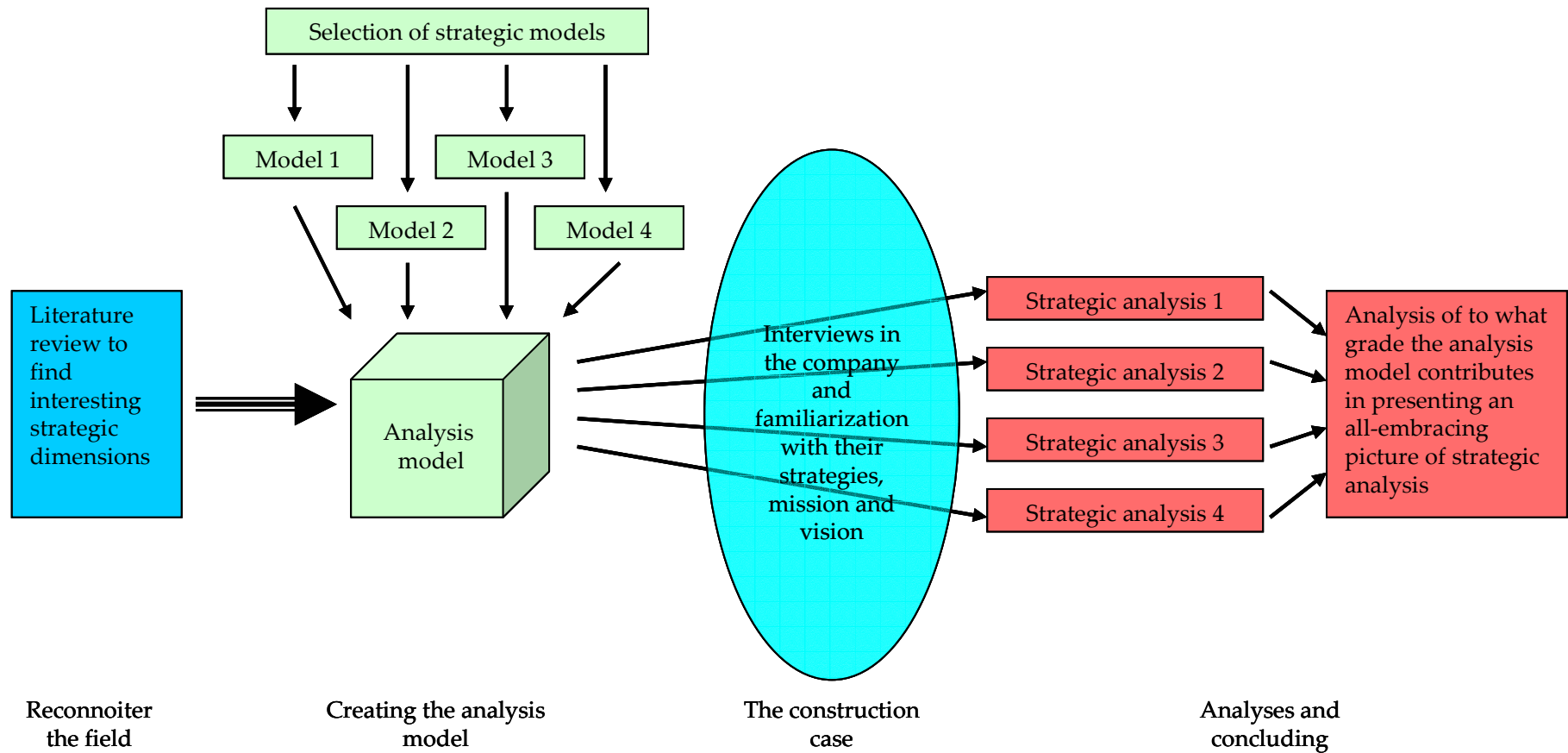


Figure 3. The approach of the study.

dimensions but not a single one discuss all three and the relations between them. The authors consider these three dimensions a good start when the second phase succeeds but it is possible that one or two further dimensions are needed in order to get the all-embracing model the authors are looking for. There may also turn out that one of the dimensions should be excluded or changed for a more suiting model.

Following is the second phase, *Creating the analysis model*, in which the analysis model is created and used to categorize the strategic models presented shortly. The strategic dimensions presented in the thesis focus on different aspects of strategic analysis and are going to work as an analysis model where the strategic models are categorized in respective dimension. The dimensions are supposed to create a relative holistic view of the strategic analysis field and thereby cover the dimensions mostly discussed in the literature. In short the dimension can be described as:

- The first, Internal vs. External concerns the view of the observer
- The second, Activities vs. Resources concerns the unit of analysis
- The third, Dynamic vs. Static concern the time scope.

The process of choosing strategic models started in our heads, which models do we know about? To further widen our view, the book “Företagsstrategiska perspektiv” (Bengtsson and Skärvad, 2001) was studied. The book presents several models used in the work with strategic analyses and focuses on the ones that have been striking the industry and academia. In tandem with the popularity aspect the models were analyzed concerning their categorization in the three dimensions since all dimensions have to be represented in order to fulfill the purpose of the study.

Four models were chosen for the analysis and they are Porter’s five forces, Shareholder’s value oriented strategy, Value shop and Resource based model. They are widely known and broadly used in the world of academia as well as in the different firms throughout the world with some limitations.

Porter’s five forces is a model from 1980 and is a widely accepted tool for assessing the external environment of a company, according to Sheehan (1998). Porter’s theory has been used in the academic world for years and is quoted in many papers and theses throughout the world. Universities invite Mr Porter to hold guest lectures about his theories based on a more developed five forces notion, with the school of business, economics and law at Gothenburg University not being an exception (guest lecture with Mr Michael Porter in 2003).

Porter's five forces is a typical external model describing the degree of rivalry, supplier power, threats of substitutes, buyer power and barriers to entry. The model is according to Sheehan (1998) an accepted model for analysis of a market and its conditions. The model mostly focuses at activities at the market and the connections between them, for instance the communicational patterns shown between the company and their customers. Porter's five forces describe the condition of the market at the time of the analysis and is said to show a snapshot of the situation. Accordingly, Porter's five forces can be considered a static model.

"Shareholders first" is the essence of the Shareholder's value oriented strategy analysis model. Year 1970 was the beginning of this new way of looking at a company's acting, namely through a shareholders perspective or by calculating the shareholder value. In Sweden this way of valuating a company was accepted and implemented in the early 1990s. According to Deal and Kennedy, as quoted by Bengtsson and Skärvad (2001), they stated year 2000 that "the most fundamental revolution in management thinking in at least a hundred years". In addition to this Magretta (2002) argue that numbers sometimes are needed to show a true picture of the reality, used in the right context of course. This model could thereby be seen as the number test opposite to the other models' fussy words.

The Shareholder value oriented model, opposite Porter's five forces, considers the internal conditions of the company. The cash flows in the company are resources illustrated by monetary values. Shareholder value is created through discounting future cash flows the present value and reflects how the organizations value will change depending on changes in cash flow such as investment decisions and can thereby be considered dynamic.

The pioneer of activity-based theory is according to Sheehan (1998) Porter and his studies on the value chain. The value chain was presented in 1985 and became object for many discussions. In 1998 Stabell and Fjeldstad presented two complementary models based on the value chain. The reason for this was that the value chain was mostly appropriate for using on manufacturing companies and their modifications were more adapted to service organizations. As the activity-based perspective is part of one of the dimensions and the studied company is a service organization, the value shop is a clear choice.

Value shop, is a reconfiguration of Porter's value chain which is the pioneer model in activity-based theory (Sheehan, 1998). Value shop is created to describe a company's internal activities and how these can be used to create competitive advantage. But since this model sees almost all companies in the same industry that are of the same type equivalent it is in this study used as an external model to describe the processes and activities common for the company type. The model can be said to identify drivers for all the companies of the same type. Value shop models where value is created in the company by mobilizing activities to resolve customer problems and hence categorized as a dynamic contribution to the strategic jungle.

Resource-based view is the other part of the unit of analysis dimension. Coupled with this theory is a model of how a sustainable competitive advantage is identified. This theory is based on some attributes and presented in many papers. One of the presentations is made by Barney (1991) and this is the one used in this thesis. Barney (1991) became the choice in this study due to that many read papers about the resource-based view refer to this model.

The resource-based view looks at the company's internal resources and gives a picture of which of them that can be considered sustainable competitive advantages. The model gives the observer a static picture of the company and the resources within the company such as material and immaterial resources.

As the models are categorized for the analysis a summary is presented in table 1 below. In each category there are two models represented.

Table 1. The models categorized in the three dimensions.

		Porter's five forces		Shareholder value		Value shop		Resource- based view	
Internal Activities	External Resources	X	X	X	X	X	X	X	X
Dynamic	Static	X	X	X	X	X	X	X	X

In the third phase, *The construction case*, the analysis model is populated with a case study. Four in-depth interviews with representatives from the construction company chosen for our case study were conducted. The respondents had different positions in the company and were at different hierarchical levels of the organization. The CEO, the CFO, one division manager and one cost accountant were interviewed. The interviews

were approximately one hour in duration and the question used were semi structured. The questions were prepared in forehand and designed to cover the areas of the different strategic analysis models. Depending on the position of the respondent and thus the level of knowledge on the specific area, different questions were asked during the interviews. As another source of information annual reports, trade press and newspapers were used, primarily to get a holistic view of the market and the industry. The case is also use to evaluate if the analysis model is of any support in strategic analyses.

Lastly, when all information is gathered, the last phase, *Analyses and concluding*, begins. The analysis of the data in the four different strategic models was made and results derived were further analyzed in order to evaluate to what grade the analysis model created in this study contributes in presenting an all-embracing picture of strategic analysis.

## **4.2 Knowledge**

The scientific method for gaining knowledge in a specific subject can be described with the help of the two philosophical traditions epistemology and ontology. Epistemology is one kind of knowledge theory, while ontology is the way the world is characterized and is synonymous to metaphysics even if they do not have the same charge as the word metaphysics (Sohlberg & Sohlberg, 2001). Ontology can be divided into different theoretical starting points where the two extremes are realism and idealism. The authors Sohlberg & Sohlberg (2001) describe realism as a conviction that people can get the true picture of the world while idealism means the knowledge never can be separated from consciousness. In other words one can see that the difference between epistemology and ontology are not quite obvious.

In this study since most the empirical material is taken from interviews, a true picture of the reality was not anticipated to be found. Therefore the authors' own consciousness and interpretation are thought to have played a significant role in how the reality was perceived in the end. In other words the knowledge derived in this study is believed to be more close to idealism than realism and thereby reflect the authors preconceived notions in the analysis model.

Within ontology there is a distinction between subject and object also made when idealism and realism are concerned. Andersson (2000) believe, as do Solhberg & Solhberg (2001), that the scientific tradition of objectivism are positive because it is implied that knowledge and the theories about it can be explained through cause and

effect relationships. In other words this means that the human behavior is decided both socially and biologically before hand. Andersson (2000) makes a connection between the subjectivist traditions to the non positivist since it will mean that the social world can not be explained with a theory that assumes that everything is done according to a set of rules. This means that the social nature cannot be studied without studying the human participation. Since the reality will be influenced by the observer and thus could be explained in many different ways rather than one correct way, will the picture of the company in this study be objective. Reality as presented in this study will be subjective but since all interviews are conducted by the same individuals it is considered to, at least, be the same subjectivism affecting all the results whereas they then can be used for the analysis.

### ***4.3 Investigation method***

Jacobsen (2002) talks also about ontology and epistemology as Andersson (2000) and refers to the two extreme cases of positivism and comprehension base attitude. Jacobsen (2002) also makes a distinction between inductive and deductive way of gathering information in the two extreme cases. The deductive method is used when a researcher searches after empirical information that confirms the theoretical hypothesis and thus use the positivisms way of thinking. The downside with this method is that important information that is not seen as relevant is discarded. On the other hand we have the inductive way which is connected to a more understanding attitude. In this study a combination of the two (deductive and inductive) was used in order to have a broader scope. The advantage with a case study is that it is a good way to describe a specific phenomenon and goes in line with the inductive way of searching after theory that support our second objective, to evaluate to what grade the analysis model created in this study contributes in presenting an all-embracing picture of strategic analysis. According to Jacobsen (2002) himself this means that the observer/author/investigator will enter reality without almost no prejudice and then try to construct theories based on the empirical information gathered. However, in reality it is impossible not to have any prejudice, and in this study the interviews were conducted long time after the theory and models for the analysis were selected. This mean that the choice of theory influenced how the information was interpreted during the interviews and all questions asked were derived from the specific theoretical way of thinking. In this study, the material from the interviews was perceived with an open mind and the choice of theory and implications thereof were more dominating in the analysis of this study. In other words there was an attempt made to combine induction and deduction throughout the study and thus the thesis.

According to Trost (1997) and Jacobsen (2002) there are two kinds of interviews; qualitative and quantitative. A qualitative interview is characterized by the easy questions that are asked and the complex answers that are received. After having an interview like that the interviewer has gathered a lot of complex material which with a lot of work and analysis will result in many interesting patterns, opinions etc. Many believe that qualitative studies are pre-studies for the quantitative interviews (Trost, 1997). The quantitative method, on the other hand, provides an overall picture which gives increased understanding of the social processes and their context (Holme and Solvang, 1997). Quantitative studies are believed to be better because they are less speculative than the qualitative and therefore people can understand the outcome easier. In few words Trost (1997) thinks that with quantitative studies the outcome always is measured in quantities e.g. numbers and therefore are easier to understand. Furthermore, Trost's (1997) philosophy is that if he is interested in exploring why different individuals think or act the same, or in some cases differently he would do a qualitative study. That is the case of this study and therefore qualitative interviews have been carried out. Trost (1997) uses interviews in order to see reality through the interviewee's eyes and then interpret it with the help of the theoretical framework and the given situation.

#### ***4.4 Validity and reliability***

The thesis is partly based on analyses of different kinds and as the chain never is stronger than its weakest link a poorly conducted analysis may be more destructive than constructive. Our ability to interpret and use the different models must therefore be evaluated. In the final stage of this study our knowledge and understanding will be at a general level and there may be some blind spots in the theoretical coverage of the models. Though, when company managers are about to do their strategic work they too got a quite general level of understanding. If they have done it many times prior to this time they may have gathered a bit of experience, but the first times their level of understanding may be approximately equal to ours. Furthermore, as all analyses are conducted by the same individuals the level of the result ought to be approximately the same.



## **5 The construction company case**

*In this chapter a summary of the empirical findings from all four interviews is presented. The chapter is divided into two parts; outside information and empirical findings. While “outside information” is divided into two parts (JK Bygg and the construction industry), the “empirical findings” are divided into five parts (the market, the company, the working process, economy and JK Bygg and miscellaneous).*

*JK Bygg is the construction company used in this thesis as an example to test the analysis model for classifying the different strategic analysis models. The first part of the case includes information gathered from the company’s annual report, homepage as well as articles from newspapers and journals, while the second part includes findings from the interviews conducted at the company.*

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### **5.1 Outside information**

This chapter is divided into two areas; the construction company JK Bygg and the construction industry in Gothenburg. All information presented in this chapter is primarily secondary and gathered from the company’s public information system and other external sources of information.

The industry analyzed in this chapter is the construction industry in Gothenburg since the company and it’s division used as an example mainly operate in that region.

#### **5.1.1 The construction company JK Bygg**

*All information gathered in this chapter is gathered from JK Bygg’s own homepage.*

JK Bygg is a construction company based in Gothenburg with operations on the west coast. The company’s turnover has increased to SEK 452 Millions in 2004 compared to SEK 85 Millions in 2001 and the company is expected to do even better in the future.

It is a medium-side company with competent and creative staff and short decision routes. They work with renovation projects, production of new building site, development and refinement of exploitation premises, provision of services and land acquisition.

They have four different business areas; Building services, housing, houses and industrial buildings and project development. “Building services” works with

renovation projects, repairments and maintenance as well as machinery and lift letting. "Housing" works with production of new building sites and reconstructions of buildings. "House and industrial buildings" handle production and reconstructions of office sites, industry premises and public premises. The "project development" division is involved in the process from idea to the actually making of a construction object. One of their subsidiaries is called Biskopsgårdens Bleck och Plåtslageri AB and is a sheet-metal workshop producing products for ventilation constructions, housing and industrial sites.

In year 2005 they expect their company to have a turnover of SEK 500 Millions with 130 employees. They have an equity of SEK 50 Millions and a solidity of 30 percent. They belong to the AF Gruppen Group which is one of Norway's biggest construction companies that owns 67.5 percent of the shares in the company. Ten percent of the shares belong to the staff of the company.

### ***5.1.2 The construction industry in Gothenburg***

Gothenburg year 2002 was seen as the strongest construction market compared to the other big cities in Sweden. According to an article in Göteborgs Posten (2002) the investments in construction projects in Gothenburg was 8.1 Billion. In year 2003 the investments were anticipated to increase with 6-7 percent compared to only five percent in the rest of the country. The prognosis for the coming three years is positive according to Sveriges Byggindustrier (2002). Year 2002 the investments have risen with three percent compared to only one percent in the rest of Sweden. The Götaleden project is the biggest project under construction in Gothenburg and is partly the reason for the investment rise that Gothenburg has experienced. This trend is believed to continue for the next five years.

In contradiction to Stockholm Gothenburg has had an economic growth in year 2002. This meant a better economy for the households in Gothenburg which creates better opportunities for the construction industry to grow. During year 2002 there was a prognosis that the investments in Gothenburg would increase with 20 percent (Ledarna, 2002).

Sveriges Byggindustrier (2005) made a list of the 50 largest construction companies in year 2004. As in the year before Skanska came first followed by PEAB and NCC. In the fourth place JM was found followed by Vägverket and Banverket production. JK Bygg was placed as number 13. The ranking of the companies depended on the turnover they had in year 2004.

When the rates of interest are low and the economy is developing well the construction industry will be in an economic boom (Sveriges Byggindeindustri, 2005). In the region of Gothenburg the construction industry is expected to be stable the following years, according to an article in Sveriges Byggindeindustri (2005). According to the same article the region of Gothenburg made it through the economic recession better than any other region in Sweden. The regional chief of Sveriges Byggindeindustri thought that the reason that Gothenburg did so well under that period was because of the many private civil engineering projects that started (Sveriges Byggindeindustri, 2005). However, these projects are in the end stadium now which will result in the market for civil engineering projects to reduce with one fourth during year 2005.

The market for house-building continues to be stable with tendencies to grow during the coming years (Sveriges Byggindeindustri, 2005). The only part of the construction industry that is not doing so good is the private investment in non-residential premises, which has lead to many premises being empty. In general however according to Sveriges Byggindeindustri (2005) year 2005 is a relative stable year. According to the head of the prognosis department at Sveriges Byggindeindustri is the Gothenburg region very important for the Swedish construction market. In 2004 ten percent of the investments were made in the Gothenburg area and this is anticipated to increase in the following years (Sveriges Byggindeindustri, 2005).

## ***5.2 Empirical findings***

In this chapter a summary of the findings from the four conducted interviews is presented and divided into five parts according to the nature of the information. The people interviewed were the CEO, the CFO, a division manager and a cost accountant manager of this medium-sized construction company; JK Bygg. In order to protect the integrity of the interviewees there will not be a distinction to who said what during the interviews.

### ***5.2.1 The market***

The total market for construction business in the industry and in the Gothenburg area is estimated to be SEK10 Billions. In the Gothenburg region there are approximately ten big actors and JK Bygg has circa ten percent of the market. The market is not growing that much and there are many office buildings that are empty, however JK Bygg is not that sensitive for the economic situation ruling the market since they have many

contacts and they have the right people working for the company, which guarantees them work. Their competitors are not doing well but JK Bygg has more work than they ever had. The employees are the key element for success in this company.

Since the buyers on the market are few they have the power to set the rules for how the business is conducted. JK Bygg tries to use other parameters than price such as competence and loyalty to attract their customers. The company likes to see price as one thing and the total cost as another, which is something many people in the industry confuse. Having a low price does not mean low costs and this could be devastating for a company in the long run.

In this industry the customers are not always the same and the company will gain new customers while losing some of the old ones. When a relation with a customer is established they will try to keep contact with them in an active level. The best marketing for the company is to deliver projects with quality, environment awareness and in a friendly way. They do not market themselves in the strict sense, their strength lies in the way they communicate their trademark to their customers while delivering a thoroughly done construction object.

There are approximately 2000 suppliers on the market and JK Bygg has red contracts with circa 20 of them. They have two categories of contracts; red and green. The red contracts are contracts with the material suppliers and are binding. The company shall under no circumstances go to another supplier with an order. On the other hand the green contracts are not that binding and can be disregarded if they find a more suitable supplier. The green contracts are with material suppliers and JK Bygg will ask as many suppliers as possible to find the most price worthy. Again as with the customers on the market, it is all about demand and supply and everything is about good relationships.

The sub-contractor contracts are negotiated. The sub-contractors are evaluated during the time they work for the company. They will maybe ask about three sub-contractors for a price offering and take the one offering the best price. They try to ask new sub-contractors so they can find the very best in the industry for the best price. A too low price is not to recommend either since the quality of the job can be at risk. The first time they use a subcontractor they take on a little risk but this is very little since they get to know the sub-contractor during the offering stadium.

The company does not lose anything by spreading information concerning good material suppliers internally, just the opposite. The competition among the companies is

about delivering the best result and a good cooperation inside the company can achieve that. Thus it is a shame that they are not better at spreading the information inside the company. However, some will receive a better price than others because suppliers and site managers will work better or worse together and this will affect the total price for the services. Gypsum boards and isolation is standard for all construction sites and therefore the company has established so called red contracts.

The costs are next to nothing if they were to change sub-contractors or material suppliers. The price they receive when asking a sub-contractor will be depended on his/her workload. However, if they do not have a lot of work to do it may result in them not receiving any job offers because they are seen as not good enough. If they know the people they work with it would save a lot of time for the company and the project. Red (binding) contracts are valid under one to two years where they have call times that the supplier almost always keeps. If there is a delay in the delivery of the material it is often the site manager own fault for ordering too late.

The biggest threat is that companies on the market start using foreign suppliers or sub-contractors to lower their prices. This is something ongoing and everyone in the industry is aware of that. If the company feels that they have to bring in competence and material from outside Sweden they will do this because in the end it is all about chasing costs. JK Bygg is doing well because of their policies and the loyalty for the company among the employees. The prospect of changing all the current employees out to foreign workforce is out of the question.

It is not difficult for new companies to emerge on the market; however it is all about the people! A company has to have the right people working for it that will bring through their network and contacts the projects to the company. There are many bankruptcies since there are many that start a company within the construction industry but cannot run a business in the long run.

In the construction sector they have to be able to give a guarantee of ten percent of the total cost of the project to the customer to be able to show that they can pay if something happens. This makes it impossible for small companies to provide the guarantee of the ten percent to the customers on their own. JK Bygg almost never lends money from others and everything is done with their own money. There is no need for immediate cash when the most of the work is paid by invoices.

### **5.2.2 The company**

In this study the focus is on the Houses and industrial buildings division of JK Bygg that works with construction projects of office buildings, industries, storage rooms etc. There are two divisions that work within this area. Between the two divisions of houses and industrial building divisions there are no differences when it comes to the market. The only difference is that they have different customers. The division managers are the ones with the customer contacts and bring in the work to the company, which can result in the two divisions having a different load of work.

The organizational scheme in the company is kind of flat and there are not that many levels. First there is a CEO and then there are two division managers that have three site engineers and a foreman at their disposal per site, depending on the project size. Which site engineer goes well with which foreman is not that important but a good cooperation will be priceless. A site manager will be responsible for jobs valued over SEK140 Millions at the time. All jobs that are worth less than SEK 140 Millions will a foreman be responsible for.

There is no official hierarchy between the different site managers and foremen. A site manager will be appointed as a mentor to a new foreman. There is an unofficial structure for knowledge passing between the employees and managers. It is possible to have a more official structure, but it is not highly prioritized by the management in the company. There are some standard solutions in the industry that everyone uses. During meetings they will discuss new things that have been tested in the projects and if they were successful or not. In this way a new efficient method used in a construction site will spread in the organization easier since it is not a “perishable”. However, if they find a supplier with low prices which is very specific for a time span the information may never reach others in the organization – there is a lack of such quick information channels.

The channels for decision-making are very short in the company and thus the information flow does not need to pass that many levels. Simplicity is their slogan when it comes to communication. They honor their word and would never leave a project even if it is not paying well. They praise their employees and the CEO has a good contact with everyone working in the company. The company’s special competence is that they are good in doing business and they are good at being design and construct contractors.

It is very important for the company to find the niches on the market so they will be able to use these to their advantage in the price settings. If there are too many rivals they will compete with each other and will have to cut costs too much to offer the lowest price and the gain for the company will be zero. JK Bygg will therefore try to find the jobs where they are almost the only ones wanting to undertake.

There are three main kinds of contracts in the construction sector; divided contract, general contract and design and construct contract. If a construction company has a divided contract on a project means that the contract includes soil, construction and painting, never installations and always ready blueprints. With a general contract there are ready blueprints involved where the company has to construct from those. Design and construct contract means that there are no blueprints just an idea of the construction site that derives from the customer often in cooperation with an architect.

JK Bygg will often want to take on jobs that involve design and construct contracts since themselves can influence the cost of the construction. Some sub-contractors will not like partaking in such projects that they have to come up with their own solutions. It is a lot of work involved in the early process where nothing is decided, but it also means a creative work and the company employees are challenged to think of all demands that could be of immediate interest for the construction project to function correctly during its lifetime.

Another of their strengths is that they are good at offering cost efficient solutions; it is their culture. Therefore during recruiting periods the company will seek for people that like to work with holistic projects from the planning stadium. It is a creative process and they work with long lasting projects where their primary objective is to meet the demands of their customer. 20 percent of their turnover is what they contribute to the cycle.

### ***5.2.3 The working process***

The company has a well worked out working-process where everything is linked from cost calculations to the projects end. The different divisions have to divide the different overhead costs between them, and there are specific rules for that.

The people working within JK Bygg are people with experience within the industry and they seek for projects that are in the very early stages so they can influence the project as much as possible. Everything is cost calculated. They do a list with the different

quantities needed for the construction (how many doors, windows, floors, walls) and then they do a list of the materials needed, as well as the time needed to do the work. They are three people that take care of the cost estimations. If they lack time and the projects are large they will hire in a consultant that will do the cost estimations and produce the lists that they have for calculating the quantity of material needed. The company only handles the interior that goes with the building, like closets. 50 percent of the material supply and work will be done by other companies that JK Bygg will hire.

The thing that can drive up the costs is the cost for the sub-contractors. If they are able to find cheaper workforce they will be able to have the cheapest offer. It is important not to tie the company to one sub-contractors, since they will in the end be too expensive when they do not feel the threat of being replaced. It is different though with the (basic) material providers, where they as pointed out earlier have some companies contracted to them.

A potential project will start with JK Bygg establishing a contact through market scanning. Then they will start making cost estimations for the specific project and decide if they either will through the information away or put it in a folder in a database system where parameters such as time units and material cost will be stated. This information is divided under different financial posts and a big matrix for the specific project is created. The basic program for handling this info is bought from a company outside the firm and the majority of the construction companies use this program. The difference is that each company will have their own cost estimations and pricing for calculating the total cost for a specific project. Budgeting issues and the wages paid are processed in a separate system where the information generated from that will be included in the big system matrix.

The idea is that the offering will be in column one of this matrix and in column two the project leader will do a real-time project cost estimation where the actual costs are written. Then in the other columns the project leader will note changes in costs or demands during the projects lifetime. These changes can be necessary for the project and made by either the project leader himself/herself or by the customer because of his/her new demands. There is also a column where the numbers for the accounting will be stated. The project leader is the one responsible for the matrix and that the numbers are updated during the project's time. This is often done four times per year until the end of the project.



The costs estimations used for the material supply in the matrix are provided by the calculation department. They will ask around to find the best price for the material and sub-contractor used. They will seek for other companies if the price does not feel right or if it has gone too long time between cost estimations and the projects start, which can have a negative effect on the price once agreed upon.

There is a separate system for the bookkeeping of costs and for how the prognoses of the different costs and projects will proceed. The results and how much the company has earned are also stated. All this information for each project will enter in a different program where all information from all different projects is gathered. In this way they can see how many contracts they have to the different suppliers (one year ahead) and how much it will cost them. They have also the ability to calculate how many projects they can undertake the remaining time per year so they will not take on too many projects than they can handle. This program allows the company to have a good oversight of the different divisions and they are able to determine which divisions are doing well or not. They use a fictive rate of interest for calculating the cost and the taxes that they will pay because of the different projects. The projects that are included in this program are the ones that are not fully finished and are in a way ongoing.

The result from the different divisions is compared to the prognosis. The financial goal is five percent for a business cycle without including the project progress work. The gain they make for selling for example property will not be included in the five percent. The prognoses for the different projects are done eight months ahead; where ongoing projects, pipeline projects and potential projects are included.

#### **5.2.4 Economy and JK Bygg**

After Skanska, PEAB and NCC they are number four on Gothenburg's market when it comes to yearly turnover. They are a small company on a specific market and they win a lot in having contact with the customers in a more personal level. If they find a suitable project they are able to work outside the Gothenburg region. An interesting project is where they know the customer, it suits the companies profile and resources and there is a big margin for winning money. They own ten different companies that they have acquired mostly because of their tax losses that the group wants to be able to use favorably in the future.

Five percent profit is acceptable when the turnover exceeds what they have in equity. The majority of their competitors have a profit goal of 2-3 percent. JK Bygg earns 1,5

percent more than their competitors since their headquarters do not cost that much compared to their competitors that have a cost of 5-6 percent, while they only have ca three percent.

They have many customers and they have said no to jobs because of the overload. Even if they know that there is a big job coming up in a couple of months they will not reject other project offer in the meantime while waiting for the big job since the job can be delayed, or the customer may lack the money in the end. They never let their staff go without work in purpose as some other big companies will do because the projects are not profitable.

Some companies have little to do and that could mean that the construction industry is in an economic recession, however JK Bygg has a lot to do. It is noticed on the market that the prices are low and many companies will offer their customers even lower prices and earn just two percent. In some cases this can be considered better than nothing for some companies. If the employees do not have something to do for a longer period it will result in a feeling of disappointment in the company that can influence productivity negatively in the future.

### **5.2.5 Miscellaneous**

JK Bygg does not have any R&D of its own. They try to keep update with the new technologies but they will normally not do any investments of that kind. They have fewer resources than the bigger companies, which limits their possibility of being part of expensive R&D processes.

If there is a problem or there is a special demand on a construction object needing special expertise, they will first look inside the company for that competence before thinking of hiring external consultants. When it comes to moist damages for example, they have control structures and specific demands they have to fulfill. What they do is that they will have an external partner that will come and look at the finished work to check if they have meet all demands and approve what they have done.

JK Bygg has a quality system but not ISO. ISO is expensive and it is not demanded by the customers that the company has to have such a certification. However, their lacking an ISO certification can be a disadvantage for them in 10-15 percent of all job offerings. Despite that, the company does not think that the advantages generated by having an ISO certification are greater than the cost of obtaining one. The staff's own commitment

is more crucial than how the quality system of the company is. The close relationship to their customers will mean that there is a bigger interest in doing a good job and thus they produce a better product.

## 6 Analysis and discussion

*In the following chapter the objective of the thesis is going to be fulfilled. The main objective throughout the thesis has been to create an analysis model which will facilitate strategic analysis and to evaluate to what grade this analysis model contributes in presenting an all-embracing picture of strategic analysis. In this chapter the construction company is analysed through the different models in order to emphasize gaps and overlaps between the models.*

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The analysis model created in this thesis is depending on three strategic dimensions:

- The first, Internal vs. External concerns the view of the observer
- The second, Activities vs. Resources concerns the unit of analysis
- The third, Dynamic vs. Static concern the time scope.

After that the strategic analysis models were chosen and a categorization of the models was made. The models are Porter's five forces, Shareholder's value oriented strategy, Value shop and Resource based model and they are supposed to represent the palette of strategic analysis models available in the literature. These models have been categorized in the three dimensions as illustrated in table 3 below where each dimension is represented by two models.

*Table 3. The models categorized in the three dimensions.*

		Porter's five forces		Shareholder value		Value shop		Resource-based view	
Internal	External		X	X			X		
Activities	Resources	X			X	X			X
Dynamic	Static		X	X		X			X

Below, the models will be applied to the construction company in order to emphasize gaps and overlaps that may appear when analyzing with the different models. If these gaps and overlaps tend to become too extensive it may be possible that some of the models or some of the dimensions need to be changed or excluded. This in order to adapt the analysis model to present an all-embracing picture of strategic analysis without too much overlap, which in turn will result in too high expenses when conducting the analysis.

## **6.1 The company analysis**

This chapter is divided according to the four strategic analysis models chosen in this thesis. It is an example on how JK Bygg can appear to the analyzer depending on the model chosen. The information used for the analysis is primarily derived from the interviews with some of the people working at JK Bygg and thus is not complete.

### **6.1.1 Porter's five forces**

In this chapter an analysis of the empirical findings for JK Bygg from both interviews and other external sources according to the model of Porter's five forces is done. The analysis is divided according to the five forces for better understanding.

#### **Degree of rivalry**

The Swedish market has three big construction companies that are not only active in the whole of Sweden but also internationally (Sveriges Byggindustrier, 2005). This is clearly shown in the list of Sweden's 50 largest companies where the top three companies; Skanska, Peab and NCC, have both the highest turnover and are internationally active. What is remarkably is that the three top companies have a turnover of between SEK 22 Billions and SEK 17 Billions whereas the fourth company in the list has a turnover of only SEK 6 Billions. All companies in places between 11 and 50 have turnovers of SEK 0,4 Billions and SEK 0,16 Billions (Sveriges Byggindustrier, 2005). This means that the Swedish market is a construction market with many actors that operate in a specific area and thus have almost the same medium turnovers. The market is split with many small actors and a few large.

The construction industry in Gothenburg is according to the interviews quite intense and with many active actors. There are approximately 10 big companies acting on the market and they cover the majority of the market. JK Bygg is according to themselves the fourth largest company in turnover and has approximately 10 percent of the Gothenburg market. If the whole Swedish market is considered JK Bygg is the 13<sup>th</sup> largest company (Byggindustrier, 2005).

The construction industry is thought to be sensitive and follow the economic booms and recessions. This can easily be explained as Sveriges Byggindustrier stated that when the rates of interest are low and the economy in the country is doing well the construction industry will be one of the industries that are going to flourish during that period of time; people will have more money to invest with. According to the interviewees the market in Gothenburg seems to be in an economic recession and there are many companies that do not get any jobs. This is something partly confirmed by Sveriges Byggindustries

(2005) that claim that the Gothenburg market is one of those doing best in Sweden right now and is stable. There is though an exception in the houses and industrial buildings division where many premises are empty for long periods of time. However, JK Bygg according to the interviewees is one of the companies doing really well now in the house and non-residential part of the business, which can be explained by their good relations to their customers.

Since the companies active on the Gothenburg market vary from being really small to extremely big, they compete on different conditions. A big company that operates in a national level will have larger chances in getting a job that a national client offers, while a regional client probably will prefer the regional construction company that they have a more personal contact with.

### **Supplier Power**

According to JK Bygg there are almost 2000 supplier active in the Gothenburg region. JK Bygg tries to cut costs like any other company on the market. They have found that cooperating with price worthy sub-contractors is a good way to limit the costs. Therefore they have binding contracts called red contracts with almost 20 material suppliers. This means that the company is bind to buy the specific material specified in the contracts. In this way they have a stable relationship with their suppliers who they can trust will deliver their supply on time. The red contracts are with suppliers that will deliver basic material that are almost always needed in all constructions.

For all other materials and supplies the company will either have so called green contracts or will have to find a new supplier, according to the interviewees. The green contracts are not binding and the company has the opportunity to scan the market for the best supplier on the market at that specific time. By having non-binding contracts the supplier will feel the threat of being replaced by other companies and JK Bygg will probable be able to receive a better price. However, not having a binding contract means that the supplier is not loyal and may not prioritize JK Bygg and deliver on time or offer a good price. On the other hand as the interviewees stated themselves, since the material needed for a construction is something easy found and provided by many different suppliers the risk of not finding a supplier on time is low. Therefore not having binding contracts can provide the company with the flexibility needed to scan the market for the best supplier.

JK Bygg will according to the interviews hire in sub-contractors and since cutting costs is one of the company's goals they will never have binding contracts with sub-

contractors. The risk is that they become comfortable in the situation and may not maintain the same level of services, because they will always be chosen no matter what. However, the company has good relationships with some sub-contractors that they will prefer to others because of the good collaboration. Depending on the project they will accept offerings from sub-contractors they have not worked with in the past to keep up to date and always have the best people working for them in terms of quality and price worthiness. As with customers it is all about personal contact and who knows who.

### **Threats of substitutes**

The construction industry is traditional and there are not that many differences in the end-products from contractor to contractor. The differences will be in price, quality and the time for delivery to name some. Since price and time are interrelated to each other, buyers will try to find the cheapest solutions that are delivered at the shortest time, according to the interview findings. Therefore prefabricated and foreign workforce is seen as a threat for the construction industry as known today.

Prefabricated is a cheap and fast solution for standard construction objects with not that many special needs and demands. Since the elements for constructing are ready from the factory the only thing that needs to be done is to transport these ready entities to the construction sites to place them. This is considered as a really time saver, and even better if the material entities are produced in low price countries they will be a lot cheaper than using traditional engineering skills to construct.

Foreign workforce is becoming a bigger and bigger threat. Since Sweden became part of the EU it is easier for people to find work in the other countries of the EU. This is something that many construction companies are trying to exploit and hire foreign workforce since it is cheaper than the workforce in Sweden. However, it is not that easy to do this and there are still legal and cultural problems that have to be solved if all workforces in Sweden would be replaced by foreign individuals. JK Bygg's representatives that were interviewed for this thesis made it clear that their company has competent staff and has no visions in replacing them to foreign workforce just to cut costs. It is all about the people working in the company, which makes loyal and assured employees priceless.

### **Buyer power**

According to the interviewees there are not that many buyers on the house and industrial buildings industry and thus they are the ones setting the rules. Since the construction industry is very price sensitive the key is cutting costs and offering the customers the

best solutions for the best price. The interviewees felt that the prices on the market are low as they are and therefore try to compete with other parameters than price. They believe in having a personal and close contact to their customers and recruiting people that are creative and like challenges. The company works primarily with design and construct contracts where there are no ready solutions just a vague idea from the client. Having competent and well connected people working for the company means more jobs for the company. They make always sure that the projects they deliver are known for their quality, environment awareness and the friendly way that they deliver them.

### **Barriers to entry**

During the interviews it became clear that a construction company does not need to have cash to survive since they pay with invoices. The contractor will usually pay their suppliers and sub-contractors after they have been paid by their customer. However, there is a demand of the contractor being able to guarantee ten percent of the total costs as a security so if something were to go wrong they would be able to pay.

It is not difficult for new companies to enter the market since they do not have to have that much cash to get started and take on jobs. However, it is important to have the right people working in the company since it is their contacts that will bring the projects to the company. As the interviewees said there have been several companies that tried to get established on the market but even if it is easy to enter the market it is even harder to stay on it, and thus many firms end in bankruptcy.

### **Sum up in 3D**

According to the analysis model for the classification of the models, Porter's Five Forces is an external, activity based and static model. Porter's five forces gives a description of the market that the company is active in and describes the company through those characteristics. The model is in its nature static, a snapshot of the market situation in a specific time. For example the fact that there are 2000 suppliers on the market could easily change in the future. It focuses on the company's activities such as how they manage to tie their suppliers to them for the standard products to guarantee in time and good quality supplies.

### **6.1.2 Shareholder value oriented strategy**

In table 2 a valuation of the JK Bygg using free cash flow analysis is done. Figures from past years 2001-2004 are used in order to see if there are any trends visible to help prognosticate the outcome for the following five years (2005-2009). The sales, costs and depreciations were calculated based on previous performances and historical trends.



Thus an increase with circa 33 percent of the year before is presumed. Based on these assumptions and calculations the Earnings Before Interest and Taxes (EBIT) and the Net Operating Profit Less Adjusted Taxes (NOPLAT) are able to be estimated. After that the changes in working capital and fixed assets evolution are forecasted to be able to calculate the net investments. In this example both the changes in working capital and the fixed assets are presumed to be stable and in the same levels as in year 2004 because of a balance in the operations of the company. The result after taxes (NOPLAT) minus the net investments will be the year's FCF.

In year 2005 the result after tax is estimated to SEK 19,837 Millions and the net investments to SEK 16,638 Millions, and thus the FCF was SEK 3,199 Millions. The FCF was then discounted with the help of the Weighted Average Cost of Capital (WACC), which in this case was estimated to ten percent. For year 2005 the DCF is SEK 2,908 Millions. This procedure will be repeated for all remaining years to 2009. The sum for all the DCF for the prognosticated period of time is SEK 414,073 Millions.

Table 2. The CFC calculation example for JK Bygg.

	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Sales</b>	84522	249736	323815	454657	606209	808279	1077705	1436941	1915921
<b>Costs</b>	-83123	-235536	-307769	-431303	-585340	-779659	-895438	-1287594	-1792751
<b>Earnings before depreciation</b>	1399	14200	16046	23354	20869,3	28620	182267	149347	123170
<b>Depreciation</b>	-382	-367	-431	-556	-758	-834	-1074	-1132	-1276
<b>EBIT</b>	1017	13833	15615	22798	20111,3	27786	181193	148215	121894
<b>Tax</b>	-360	-3221	-432	-163	-274	-472	-567	-254	-369
<b>NOPLAND</b>	657	10612	15183	22635	19837,3	27314	180626	147961	121525
<b>Changes in working capital</b>		7521	19818	13904	10000	10000	10000	10000	10000
<b>Changes in fixed assets</b>		1646	485	6638	6638	6638	6638	6638	6638
<b>Net investments</b>		9167	20303	20542	16638	16638	16638	16638	16638
<b>FCF</b>		1445	-5120	2093	3199	10676	163988	131323	104887
<b>DCF</b>					2908	8823	123207	89695	65126
<b>WACC</b>	10%								
<b>Sum DCF</b>									414073
<b>Residual</b>									708807
<b>Non-operational investments</b>									3792
<b>Debt</b>									0
<b>Number of shares</b>									20000
<b>Shareholder value</b>									1126673
<b>SEK / share</b>									56,3

After year 2009 an estimation of the company's residual i.e. what the company will be worth in the end of year 2009, is done. This is normally based on the last year's FCF or NOPLAT. The residual will be calculated by making an assumption of the yearly growth to all eternity and this sum will be discounted with the WACC. In this example the yearly growth was estimated to two percent and thus the residual is calculated to

SEK 708,807 Millions. In this example the non-operational investments are estimated to SEK 3,792 Millions. Since the company has no debt according to the interviews the shareholder value is SEK 1 126,673 Millions or 56 SEK/share. Overall the company is seen as a good investment but since it is not listed on the public stock market it could be more difficult to buy shares. The positive trend and growth is anticipated to continue in the future.

### **Sum up in 3D**

According to the analysis model for the classification of the models, shareholder value is an internal, resource-based and dynamic model. The model is internal since it will only look at the financial result the company has or will make based on previous results, with no regard to the market situation at that time. These numbers could if calculated for the different divisions result in decisions of putting down or developing specific divisions, which indicates that the model only analyzes the resources available in the company. The model presents a sort of number test on the organization to see if a division or project is valuable over time, which explains why it is regarded as dynamic.

### **6.1.3 The value shop**

If a construction company is what Stabell and Fjeldstad (1998) intended when writing about the value shop is hard to say. The construction industry contains of many different types of actors such as consultants, contractors and sub-contractors. JK Bygg is a contractor and can be seen as a service organization delivering solutions to a customer. Stabell and Fjeldstad (1998) have identified a couple of value creation characteristics for value shops and below they are applied on JK Bygg as an example for similar companies.

JK Bygg is according to the interview most interested in design and construct contracts because this form of contract makes it possible to discuss solutions with the client instead of just get ready blueprints. One concept of a value shop is that the need for the service is created because of the information asymmetry between the client and the company offering the service and in this case JK Bygg will have more services to give in design and construct contracts compare to for instance general contracts.

When JK Bygg can offer more services they in turn build more experience within the company. As the levels of experience grow it should be managed in a satisfying way. Stabell and Fjeldstad (1998) mention the need for interrelation between activities in the company in order to obtain this experience preservation but this is only applied to a small extent in the company. Meetings are held within the specific division to spread

experience but the knowledge almost never leaves that division. In order to ease this insemination of experience Stabell and Fjeldstad (1998) advocate that managers are involved in several projects at the same time and thereby can transfer experience from one project to another. Stabell and Fjeldstad (1998) also advocate the use of more and less experience personnel in a leveraging way but this is nothing JK Bygg applies.

The construction process is a cyclical and iterative process where solution proposals are handled many turns in order to find the best solution. In the construction industry problem-finding is a big part of making money. The respondents tell that a very important driver is client contacts because this makes it possible to know and have a better discussion of what the client wants. Most of the projects starts with a procurement phase where different actors have the possibility of giving a price of the construction object and in many cases the client hires the actor with the lowest price. This makes it important to have a low price. The respondents further tell that a good reputation may result in that clients ask a fewer number of actors for prices or that they do not ask any at all.

When the company has reached the phase where they have got the contract the iterative phase starts. Changes are made by the client, new and better solutions are found and errors get discovered. After all these events new ways of thinking have to be adopted and the road to the final product may be very bumpy. The new experiences diffuse into the organization and thereby the company gets more knowledge intensive and the reputation on the market gets better. When the project is finished the company or division takes on new project and new problems hopefully using their newly gained experience.

For the process of the value shop Stabell and Fjeldstad (1998) have identified reputation as the most important value driver and claimed that there are no cost drivers since quality goes before price. This is not the case for contractors like JK Bygg though. As mentioned before the construction industry is very cost-conscious and therefore price is in the first room. Quality is thereby not as prioritized as one could think it should when it comes to buildings. This phenomenon also hinders companies to take premium prices because of their in-house knowledge.

### **Sum up in 3D**

According to the analysis model for the classification of the models, the Value shop is an external, activity based and dynamic model. The model not only describes the market that the company is active in, it also points out the unique skills and competitive

advantages of the company. This means that the model is both external and activity-based in the same time. The value shop's dynamic character is directed to the fact that processes in service companies are continuously ongoing and that value creation is steadily ongoing as well.

#### **6.1.4 Resource-based view**

Barney (1991) has formulated a model to identify resources in companies that may pose as sustainable competitive advantages. The model is, as mentioned earlier, based in four attributes that are to be held by the resource and they are value, rareness, imperfectly imitable and substitutability. Three examples from JK Bygg's resources are analyzed here as an example on how these analyses can be conducted and what type of results that are to be expected.

The first resource to be analyzed is JK Bygg's network with local clients. As the rivalry in the construction industry in Gothenburg is pretty intense a good network of client could be valuable if this leads to increase probability of getting the best contracts. As the respondents told this is the case for JK Bygg that in many cases get a chance to get contracts that are subject for relative low competition. Such a network is actually dependent on the persons in direct contact with the clients and is thereby totally coupled with specific individuals and not the company as a whole. This makes the resource difficult to imitate and hence the resource got the third attribute. If this kind of contact networks are rare is hard to say but probably most companies have some kind of network with their clients. However JK Bygg has got a long history on the local market and may thereby have an extra extensive network but this is probably not enough to make the resource a sustainable competitive advantage. Still, it is to be considered as a possible competitive advantage in combination with other resources such as reputation or cost-consciousness.

As a second example the binding contracts or red contracts with some of their suppliers are analyzed. These contracts are valuable to the firm by the facts that they decrease the threat like increased prices and important deliveries that are delayed. They also generate a lower price of the specific product or material since all of the company's purchases are made through the specific supplier. This though, is quite common in the construction industry and will therefore not constitute any competitive advantage.

The third example is their company-specific cost-control system. The system is developed by persons inside the company and aims to follow the costs and incomes related to a specific company. A great strength with such a system is that the prices of

the construction project can be held down since many lessons can be taught from previous projects. Furthermore, as low costs and hereby also low prices is an everlasting opportunity this resource is very valuable. This kind of extensive but simple systems of this specific form is according to the respondents not very common. The system used by other companies are often complicated and mostly focused on accounting compared to cost-control. As the system is valuable and rare it is half the way of making a sustainable competitive advantage. The attribute imperfectly imitable is in this case where the resource could have failed as a sustainable competitive advantage but if the system is seen as a socially complex system developed under long time and refined on the opinions of many individuals it may qualify as imperfectly imitable. This is not fully true though as other companies can create their own systems at anytime or even reconstruct their present systems to have a similar cost-controlling system running quite soon.

As can be seen many resources fail in some attribute, but as set of resources also may qualify as sustainable competitive advantages a combination of the first and the third example may be satisfactory. Also together with the reputation of cost-efficiency that JK Bygg according to the respondents has got in the Gothenburg region a sustainable competitive advantage could be anticipated.

### **Sum up in 3D**

According to the analysis model for the classification of the models, resource-based view is an internal, resource-based and static model. The resource-based view presents a kind of valuation of existing resources for the company and considers if they could be used as sustainable competitive advantages, which makes the model internal and resource-based as its name implies. It is a static model since it does not take into consideration future changes that may or not affect the company.

## **6.2 Synthesis**

When these four analyses are conducted the question how the models relate to each other may arise. As have been revealed during the analysis stage of the study a certain interaction can be found between the models in the sense that some of the models are dependent or partly dependent on another models outcome. The description of these interrelations starts with Porter's five forces.

Porter's five forces can be said to set the ground for the other models. As Porter's five forces is an external model that identifies opportunities and threats in the market and

environment it stake out the base for the analysis of the sustainable competitive resources identified with the Resourced-based view. This since the first attribute to fulfill according to Resourced-based view is that the resource should be valuable and hence exploit an opportunity or neutralize a threat on the market. According to this reasoning Porter's five forces need to be used prior to Resource-based view.

In tandem with the use of Resource-based view it is suitable to value the resources in an additional way and this is where the valuation in hard and cold money is represented by the Shareholder value strategy. The Shareholder value strategy values how the cash flow of the firm will change when taking on a new investment or disinvestment and thereby how the value of the firm and also the shares will change. As mentioned this model is used parallel with Resourced-based view and put numbers on the decisions that Resourced-based view values from a softer perspective. The combination of these two models will thereby contribute to the decision-making process with a more realistic picture of the resource and hopefully to a more sustainable and valuable decision.

The forth model, Value shop, is used as a last step in order to see if the sustainable and valuable advantages of the company matches the value drivers in the industry. The value drivers are identified as the activities in the industry that are creating most of the value for the companies and it is thereby of importance for the company to match these drivers and see to that they are better than their competitors in these matters.

Hereby the interrelations of the four models are clarified and as a part of this a possible order in which to use them when conducting a strategic analysis is also suggested.

## **7 Conclusions**

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As the journey through the jungle of strategic analysis has proceeded the objective has been to develop an analysis model for classifying the different strategic analysis models. Unfortunately there is not that much written in this field and the analysis model for classifying the strategic analysis models is based on three dimensions chosen for this purpose. The three dimensions do not cover the whole field, but represent three of the most well-known and acknowledged dimensions according to the literature studied during this thesis.

The conclusions of this study can be divided into two parts; the 3D model and the empirical usage of the strategic analysis models. Starting off with the last part, when using the different strategic analysis models to analyze JK Bygg there were some clear conclusions. The example JK Bygg clearly shows that the different models give very different results, which is something anticipated since the different models have different focus. But how can a classification model help the potential analyst?

Only one model will not be enough to analyze a company and be able to create an all-embracing strategy. That is why a combination of more than one model is recommended. But how should one know which models to combine in order not to get any overlaps of information? As it seems the need of a model to classify the strategic analysis models is essential. The three dimensions used in this analysis model to determine what kind of results can be expected when using different strategic analysis models has been a successful choice according to the empirical result of the example used in this study.

After the classification of the strategic analysis models a thorough way of analyzing a company and its environment should be a combination of Porter's five forces, Shareholder value, Value shop and Resource-based view. This combination of models should allow the analyst to receive a holistic picture of the company and its environment that will be accurate for a long time without extensive overlaps and according to the analysis made on JK Bygg, the combination of the four models gives a satisfying result without notable overlaps.

A possible reason for why the models in this combination complement each other in such a way may be that the results of a model is characterized by all three dimensions and it thereby not is enough to just "check the six boxes in the matrix" to get an all-embracing picture through the strategic analysis. Albeit this observation is very

interesting, this is not a subject for this thesis. Hereby the main conclusion of this thesis is that a perfect combination of strategic analysis models not only can be identified by covering the three dimensions, but a palette of models with different characteristics needs to be found. The palette recommended in this study is Porter's five forces, Shareholder value, Value shop and Resource-based view.

### ***7.1 Further studies***

Some other areas possible for further exploration have also been detected during the study. For instance the three dimensional approach have given a model of how to sort and categorize the different models. But are there more dimensions that need to be considered or do some dimension have to be excluded or changed? Furthermore, additional tests need to be done in order to confirm the three dimensional model and further investigate how the perfect palette of strategic analysis models would look like.

### ***7.2 Concluding remarks***

As the study is finished and even more expressions, models and techniques for exploring the world of strategic thinking have been mentioned the study hopefully shed some light over the need for structuring the vast number of models. We also hope that this study can inspire some more curious student into the strategic jungle, hopefully with a helping hand from our analysis model.



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