



School of Business,
Economics and Law
UNIVERSITY OF GOTHENBURG

SALES FORECASTING MANAGEMENT

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Tutor:

Christian Ax

Authors:

Henrik Aronsson

Rickard Jonsson

*-Attitudes towards
sales forecasting
management in a
Swedish retail firm*

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Henrik Aronsson, Rickard Jonsson

ABSTRACT

TUTOR: CHRISTIAN AX

AUTHORS: HENRIK ARONSSON AND RICKARD JONSSON

TITLE: SALES FORECASTING MANAGEMENT – ATTITUDES TOWARDS SALES FORECASTING MANAGEMENT IN A SWEDISH RETAIL FIRM

BACKGROUND

With a larger uncertainty and a more rapid change in today's business environment, a heavier role to play lies within predicting future sales, also known as sales forecasting. Although prediction becomes more important in order to not lose market shares, not all companies regard the sales forecasting process as a key function within their organization.

RESEARCH ISSUE AND OBJECTIVE OF THE STUDY

Sales forecasting is common practice in the retail industry but little is known of what methods and techniques are used and what the attitudes towards sales forecasting management are. Since this is not documented and sales forecasting works as an important information input to organizational planning, we will empirically explore and analyze the attitudes towards sales forecasting management and the familiarity with forecasting techniques within the organization of KappAhl.

What are the attitudes towards sales forecasting management within different departments involved in the process at KappAhl?

-especially the attitudes towards four aspects of current practice; quality, availability, usability and satisfaction

METHOD

In order to explore and analyze the attitudes towards the sales forecasting process within KappAhl, a questionnaire, regarding this and the familiarity with different forecasting techniques, was sent to people involved with the sales forecasting process.

EMPIRICAL FINDINGS AND CONCLUSIONS

Overall, forces within KappAhl desire a more unified view on how to produce and use a sales forecast. If instructions and routines are made clear for the producers, they will give the forecasts a higher credibility since the forecasts become more consistent over time. If old forecasts are followed-up, saved and later used as references for similar situations, it will be easier to achieve a higher rate of accuracy in the future. Implementation of measurements of the accuracy will over time increase the accuracy itself since the follow-up is used to evaluate the performance.

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1. INTRODUCTION

In this introductory chapter a background of the retail industry will be given. This background sums up in a discussion about the research issues and what the objective of the research is.

1.1. BACKGROUND

As global competition grows stronger, companies continuously need to come up with new advantages in their businesses in order to compete and survive in today's markets. (Karnani, 2007) In the retail industry, the business climate has changed with dramatic pace, and still does, because of the ever changing demand for clothes and accessories.

The industry has grown into being more competitive, concentrated and containing fewer but larger global players where the demand from customers is largely dispersed and the speed of change in trends is rapid. Every seasonal switch brings a new trend and therefore also changes the customers' demand from one season to another. One of the major challenges retailers face is to foresee trends and update their collections to match those trends. The central development in the retail industry is that the focus has switched from the product towards the customer. (Daniels, Radebaugh, & Sullivan, 2007) The customers have an easier access to different markets around the world today than they had even a decade ago. This thanks to the ever evolving innovations in communication and transportation. Since the customers more easily can compare products and prices from different companies around the world, the customer focus is crucial for major players in order to sustain in the retail market.

The multinational enterprises' supply chains are often sliced in pieces and located where each piece can contribute to the final product as much as possible. (Rao, 2005) The trends and the seasonality in the market demand require a greater flexibility from the companies and is one factor to the growing importance for outsourcing. This has made the industry itself much more dynamic then it was a couple of decades ago. (Kyvik Nordås, 2004) Companies continuously need to work on the efficiency of their entire value chain in order to be able to respond to the rapidly changing retail demand of today.

With a larger uncertainty and a more rapid change in today's business environment (Karnani, 2007), a heavier role to play lies within predicting future sales, also known as sales forecasting. Although prediction becomes more important in order to not lose market shares, not all companies regard the sales forecasting process as a key function within their organization. This area has been widely researched, resulting in a large

amount of different techniques and methods for predicting what the future holds within. Both time-series, causal methods, as well as newer methods such as neural networks and generic algorithms are outcomes from conducted research. These are additions to the judgemental methods, which historically have been more commonly used.

Over the last 20 years, the number of techniques and also the sophistication of the methods have improved significantly but despite that, many companies have been unable to improve their forecasting skills. The reason for this is, according to a survey made by McCarthy et al. (2006), that less or even none energy has been put into the process of developing a functional forecasting practice. According to the same survey, the organizational implementations and the use of the forecasting methods are the areas where most improvements can be made in order to be more efficient in predicting future sales.

The newer methods, which are far more complex than the previous ones, are also having problems reaching out to their users. According to the above mentioned survey, the more complex the model becomes, the higher the rate of unfamiliarity with the method becomes among the companies. The Box-Jenkins model, expert systems, as well as newer methods such as neural networks are examples of those new more complex models. Other trends in the area of forecasting are that only two techniques were rated satisfactory by the majority in the same survey. The low rate of satisfactory techniques implies that, within this area, there is still a lot to explore. Along with globalization, companies are becoming more decentralized and the task of having a successful forecasting practice becomes even more difficult.

As mentioned, the area of forecasting is frequently discussed and is of high importance for many companies as an input when planning for future periods, both regarding capital placement, supply of products and use of industrial capacity. The fact that the markets in the world become more complex and competitive makes the desire of finding an indispensable advantage crucial. One of those advantages might be more accurate forecasts.

1.2. RESEARCH ISSUE AND THE OBJECTIVE OF THE STUDY

As the world continues to develop into a more complex environment, a higher demand has grown for trendy products with a following shorter life-cycle. Today, there is a concept called “fast fashion” which mean that today’s fashion garments are so cheap to produce that they are almost seen as disposable, which explains the concept mentioned. (BBC, 2003) This put more pressure on businesses within industries where customer-

focus is of great importance. To be able to foresee trends, seasonality and what customers truly demand, increases the odds for a business to show good financial results to its owners and to attain a sustainable competitive advantage. One way of decreasing the role of chance, in dealing with the environment, is to use sales forecasts. A forecast can be seen as a scientific best guess of future demand of the company's goods or services. Different techniques and models exist and are used in different settings with different prerequisites. The chosen retail industry has a very rapid time-frame of changes in both seasonality and trend. This put a greater importance on the accuracy of sales forecasts.

The argument for this is, with an accurate forecast of future sales and seasonality; companies can gain large benefits in especially the purchasing, the production and the logistical planning. With an inaccurate, or even without having a forecast, companies enhance the risks of the inventory either being sold out or that it will never be sold. When levelled down to a store level, some stores might have a high inventory level whereas others might have low or even none. When management understands that there are differences in demand between stores due to location, they therefore send clothing from stores with a high inventory to stores where the clothes have been sold out, creating additional costs for the same amount of revenue with a lower margin as a result. These additional costs could have been avoided by an accurate sales forecast.

Benefits can further be drawn to the sales departments and finance planners. In sales departments, a greater knowledge and understanding of factors affecting the sales volume must be communicated which then can enlighten the problem areas within the organisation in which improvements can be made. For finance planners, a forecast of sales gives indications to what kind of investments needed to make sure the company can reach the predicted level of sales.

The Swedish retail market today is highly diversified. Sales forecasting is used within these businesses in one way or another. Although sales forecasting is common practice in the industry, little is known of what methods and techniques are used. Knowledge about different techniques used and the alternatives is not yet documented within the Swedish industry. Since this is not documented and sales forecasting works as an important information input to organizational planning, we have chosen to examine the knowledge about different techniques within a company where trends and seasonal variables are evident.

During December 2007, KappAhl sold less than expected in their stores although the expected amount of customers visited their stores. This gives an indication that there might be a problem within the sales forecasting process. According to the CEO Christian

W. Jansson, their “collection was not attractive enough”. This simple answer might be correct. The important question to be asked, due to this, is whether there is an underlying problem in the sales forecasting process, which can cause the organization additional damage in the future.

Within sales forecasting, there are two main perspectives; the producer and the user of a forecast. The producer is the one looking at indicators and then uses one or more methods to make a prediction of what the future sales will be. From the user’s perspective, the forecast is a management tool that decisions are based upon. There are several aspects of, and between, the two perspectives that need to work smoothly and accurately in order for the organization to get the most out of the sales forecasting process. These aspects where potential gaps between how it works in reality and what it should be in the best of worlds, are important for organizations to continuously evaluate their sales forecasting process. The first step of the evaluation is the awareness of how it works and what the attitudes among the users are. An awareness of problems is the first step to help them. Therefore, since there are indications that KappAhl might have problems with their sales forecasting, we try to give them the awareness of the areas where they might exist in this research.

What are the attitudes towards sales forecasting management within different departments involved in the process at KappAhl?

-especially the attitudes towards four aspects of current practice; quality, availability, usability and satisfaction

In our research we will empirically explore and analyze the attitudes towards sales forecasting within the organization of KappAhl. We will focus our research on four specific aspects within the forecasting practice. These are quality, availability, usability and satisfaction. As a result of the research we will be able to evaluate the attitudes within the organization, and draw conclusions.

2. SALES FORECASTING – A THEORETICAL FRAMEWORK

In this chapter a presentation of the theoretical framework will be conducted. The first part will be about what sales forecasting is, the purpose of it and who uses it. The later part of the chapter is about practices to forecast sales and what impact errors and accuracy has on an organization.

2.1. SALES FORECASTING

When trying to deal with sales forecasting management it is important that the fundamentals of sales forecasting is fully understood. A separation of several aspects to sales forecasting can be made, and by that, get a clear picture of what sales forecasting is, it's purposes and uses, methods for how a forecast can be produced, what indicators affects the forecast and, perhaps most importantly, what impacts errors in forecasts have. With this separation, several aspects between the user and the producer perspective are highlighted and easier to deal with.

2.1.1. WHAT IS SALES FORECASTING?

“Any sales forecast should be thought of as a best guess about customer demand for a company’s goods or services, during a particular time horizon, given a set of assumptions about the environment.” (Moon & Mentzer, 1999)

Sales forecast is, as the statement above tells, a best guess about customer demand for a company’s goods in a particular time period. How this is made depends on whether one using a qualitative or a quantitative method. Its’ purpose is to, as accurately as possible, try to predict what quantity of goods or services will be sold, and by doing that, try to decrease the costs for inventory and transportation. A forecast works as a management control system and has almost the same attributes as a budget, although there are relevant differences between the two. (Anthony & Govindarajan, 2007) A forecast can be expressed in both financial and physical units whereas a budget is expressed only in financial units. A forecast can be for any period and has not an obligation to meet the forecasted outcomes. Further, a forecast is normally not approved by senior management whereas the budget is. A forecast is updated as soon as indicators show a change in the projection, which is not the case with the budget where there is a more resource-demanding process with revisions. In regards to this, companies often use the name forecast instead of a revised budget. (Ax, Kullvén, & Johansson, 2005) Another difference is that variances in forecasts are not periodically or formally analyzed. A forecast is, when correctly used, a cost-reducer, but besides that it also works as a motivational,

coordinating and controlling tool for people involved in the process. (Merchant & Van der Stede, 2007)

Volumes of sales can be measured in either physical or financial units or measured in both. One of the reasons for measuring in physical units is to neglect the impact of monetary values when buying and selling in different currencies. A reason for measuring in financial units is to attain a more understandable measure on how the sales affect the whole organization. One of the reasons for measuring units in both physical and financial units is that the users of the forecasts are in need of different information. (Mentzer & Moon, 2005) Where the sales department might choose to measure in financial units by product line, the logistical function chooses to measure in physical units due to cargo and stock-keeping space. To classify the products, several different methods are used in practice. A common practice is to forecast by product line or product family in contrast to forecasting by individual products. (Klassen & Flores, 2001)

2.1.2. WHY SALES FORECASTING?

The theoretical argument for why companies should use sales forecasting is to give a prediction of what the future will be, and how the company can use these forecasts to revise and implement plans to achieve the desirable outcomes. (Armstrong, 2003) Forecasts are one instrument for management as they attempt to decrease the role of chance when dealing with its environment. A more scientific approach when dealing with the environment, both external and internal, makes the forecasts useful in especially two situations. These are (1) when the future is uncertain but factors affecting the organization can be identified and (2) when there is a time lag between the occurrence of an event and the awareness of the same event. (Makridakis, Wheelwright, & Hyndman, 1998) When the lead time of the awareness of an event and the occurrence of it is zero, there is no need for a forecast, or even planning. The difficulty appears when the time lag becomes greater, then the need for a forecast to determine when an event will occur increases, so that plans can be implemented and actions taken. In practice, many companies revise their forecasts instead of revising their plans when forecasted outcomes are not satisfactory. Armstrong (2003) means that forecasting methods can be used by planners to predict outcomes from alternative plans. Although forecasts can be used for plans, research emphasizes that forecasting only is useful when the techniques and methods used are applied to an organization's decision-making and planning processes. It is emphasized that a strong bridge between the theories and the practical use in an organization is required for an efficient use in management situations. (Winklhofer, Diamantopoulos, & Witt, 1996)

A separation of forecasts from plans and target-setting, increase the chance of successful forecasting. While the forecast is trying to give a picture of what the future will be and the target-setting sets up outcomes, which the organization wishes to reach, the operational plan is trying to articulate how the organization will get to the desired outcomes. Armstrong (2003) and Mentzer et al. (2005) emphasizes that these functions must not be confused although they should depend on each other. The operational plans on what sales level to achieve should be based on the forecast. Likewise with target-setting, a true assessment of what sales level is possible to achieve should be conducted where this assessment comes from the sales forecast. According to White's (1986) survey, the main purpose among the respondents, behind practicing sales forecasting, is to set a statement of desired performance. Only one third of the respondents wanted to derive a true assessment of the market potential.

The sales forecast sets a believed future sales volume, which gives indicators to the purchasing, the production, the logistical, the financial and the marketing function of an organization. When the organization has a flexible value-chain, forecast errors can easily be fitted into, and adjusted within, the value-chain. For an organization with an inflexible value-chain the importance for a more accurate sales forecast is greater. In aspect to this, the resource planning can be made more effectively in an organization if the limitations of sales forecasting accuracy are understood. These limitations have traditionally fallen into four criteria which highlight the practical perspective of forecasts as input for managerial decisions. They specify that forecasts need to be explicit, clearly state their purpose, the underlying assumptions and the intended use for managers in order for them to be useful for an organisation. (Wacker & Lummus, 2002) Winklhofer et al. (1996) found in their survey that smaller firms use sales forecasting for personnel planning more often, while large firms use it more frequent in aspect to sales quotas setting and in purchasing planning.

2.1.3. WHEN TO FORECAST SALES?

The time horizon for forecasting differs between both companies and different industries. But whether the company forecast sales on a yearly, monthly or even on a daily basis it is important that the forecast is frequent in order for the company to make the forecast helpful for the future. Klassen et al. (2001) shows that producing forecasts on a monthly basis is the most commonly used time period. Whether companies use different forecasting models for different time horizons is still not certain, but according to the above mentioned study, the more distant the time horizon gets, the fewer models will be trusted and used. These facts are from a survey made on Canadian firms and might therefore not be significant for companies worldwide.

A cost/benefit analysis is a useful instrument when deciding the timeliness of forecasts within the organization. A constant forecasting schedule cost money and if they are not done correctly, the cost will exceed the benefits and it will therefore not prove to be a beneficial investment. Even though the forecasts are made in a good way there might still be problems. (Moon & Mentzer, 1999)

2.1.4. WHO FORECASTS SALES?

In a study of the use of forecasting on the Canadian market, a majority of the respondents answer that the use is for budgeting, market planning, production planning and capital investment planning. The primary responsible persons in the surveyed companies are in ranging order, marketing/sales department, finance department and other departments. (Klassen & Flores, 2001) According to a survey by McCarthy et al. (2006), the majority of companies are developing multiple forecasts, one for each department. To solve the problem with several different forecasts, companies have used a cross-functional team of employees, who tries to collect each department's forecast and then assemble those forecasts into one, which stands for the company as one unit. The employees who are responsible for assembling the forecasts are usually employees from marketing and sales department according to the mentioned study. One conclusion, which might come from this, is that personnel from sales and marketing departments are highly adaptable to forecasting practices and also possess a great amount of knowledge about markets and future demands. (McCarthy, Davis, Golicic, & Mentzer, 2006) Although the primary responsibility lies within these departments, the main producers of forecasts are in a middle management level. (Mentzer & Kahn, 1997) Moon et al. (1999) indicates that involvement from salespeople in the sales forecasting process is beneficial. The reason for this is that experienced salespeople are able to give input to the best guess about what will actually be sold since they handle customers, and their demand, in a direct manner. Involvement, from different management levels and different departments, demands an information technology which enables the involved people to access the same information. Smooth information logistics, within the company, enhances the involvement to the sales forecasting process and together with a positive sales forecasting climate, the performance of the sales forecasting is argued to be better. (Davies & Mentzer, 2007)

Mentzer et al. (1997) found in their research that one of the factors to achieve a successful sales forecasting process was the existence of a "sales forecasting champion" in the organization. The findings were that the "sales forecasting champion" involved in the forecasting processes within the different organisations had several characteristics in common. The more important characteristics are the need for understanding of the sales

forecasting role in aspect to the business plan, the company and its environment and the need to understand the impact on different organizational functions a sales forecast has.

2.2. INDICATORS AFFECTING THE SALES FORECASTING

Shown in figure 1 are the components of sales forecasting and in what way, direct or indirect, they affect the company and its actions. The main external components affecting the company's actions are the environment and the market in which the company operates as well as the actions from competitors, suppliers, distributors and governments.

(Armstrong, 2003) A good understanding and accurate predictions of the factors affecting the organization provides a big advantage when trying to forecast sales. By predicting how influences from different components affect the business, a forecast can be derived

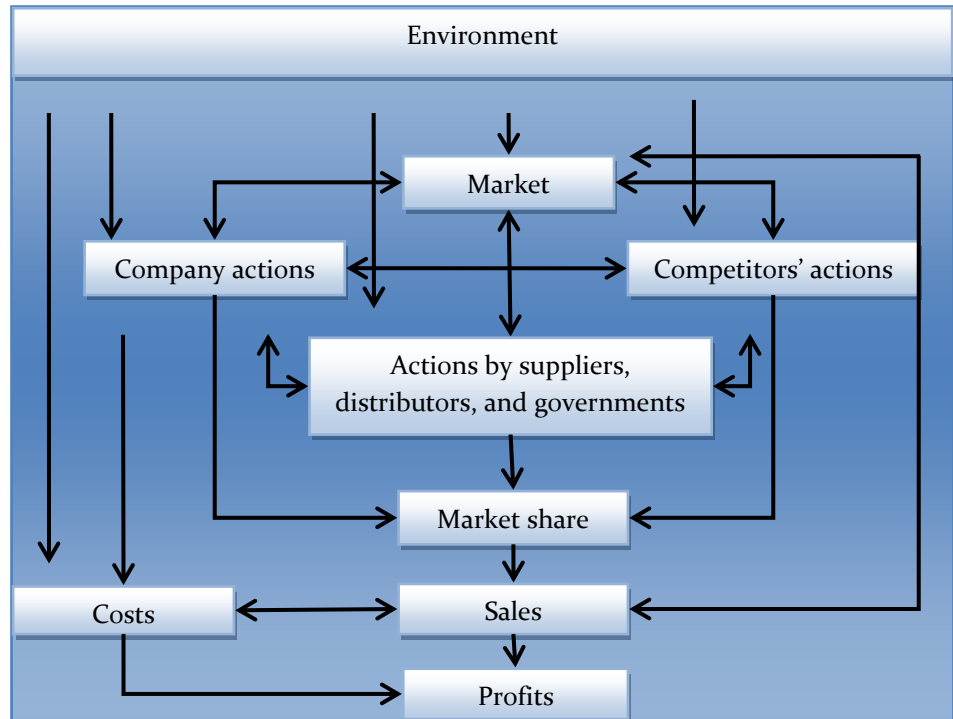


Figure 1 Components of the sales forecasting (Mentzer & Moon, 2005)

from these influences and plans can be prepared and implemented in the organization to react to these forecasts. (Mentzer & Moon, 2005)

2.2.1. POLITICAL INDICATORS

One of these considerations might be how the current political climate looks like. The political perspective is important in several ways, both when it comes to which kind of policies and stability the government represent but also for the company to be prepared for changes in regulations and tax-rates. (Fregert & Jonung, 2005) When forecasting next year's sales, it is crucial for the company to know whether they can continue as usual or if a change is needed in order to adapt to new regulations.

Another indicator to bear in mind is the purchasing power, which is usually defined as the value of the currency measured by the quantity and quality of goods and services it can buy. (BusinessDictionary.com, 2007-2008) This is an indicator known to be considered by a many companies in different industries. It becomes particularly important when a company is considering expanding into new markets and countries. If expanding into new markets without considering purchasing power as an important indicator, problems with price setting and as a consequence, also sales might occur.

A consequence of what kind of policies the current government advocates, macro-economic indicators such as interest rates and inflation rates might differ from year to year. This can be critical when a company is about to forecast next year's sales. An expansive policy might for example lead to a higher interest rate and a following increase in inflation, this then lead to decreasing margins if the company continues selling with current prices and ignoring the increasing inflation rates. (Fregert & Jonung, 2005)

2.2.2. COMPETITION

The market, as a whole, is also important to consider when to forecast. New competitors, mergers among present competitors and change in market share are concerns to take into consideration when forecasting for future periods. As an example one can take the Finnish company Stockmann's acquisition of the Swedish clothing retailer Lindex. (Stockmann Oyj Abp, 2008) This kind of change in the market can have substantial effects if not considered by impinged parties. Generally speaking, it is important for companies to know the competitors in order to get as much information as possible. By being up-to-date with its competitors and its environment a company can improve their forecasting accuracy and save some capital. Changes in these factors can lead to increased competition and decreasing sales but it can easily also lead to economies of scale and other competitive advantages depending on how one company is related to the actual incident. New locations for stores or factories must also be considered in order to make the forecast as accurate as possible and unnecessary costs as low as possible.

2.2.3. RETAIL INDUSTRY RELATED INDICATORS

Trends – In the clothing industry which is in focus in this essay trends and seasonality are of huge importance when it comes to forecasting sales. For a company within the retail industry, to miss a trend or to purchase a redundant quantity of clothes can have devastating consequences since they are depending on their collections being updated in order to get the clothes sold. Forecasting sales in businesses with trends demands a lot of

work from the forecasting team which in those cases need help from other people in the company as for example designers. (Leiner, 2008)

Weather – Weather is an indicator which is especially important for an industry like the retail industry. The weather is an unpredictable variable but still very important for the clothing industry. (Fernie & Sparks, 2004) This indicator is highly complex because it can have a two-sided effect. A rainy summer can both increase and decline sales. A lot of rain, during the summer, often means a decline in sales of for example bathing clothes, but can at the same time mean an overall gain for the company thanks to more people visiting cities and stores because of the bad weather. (Leijonhufvud, 2007) This explains a bit of the complexity with forecasting when considering weather as an indicator. To forecast the weather itself, contains a lot of uncertainty and to solely rely on weather predictions is not sufficient from a company’s point of view.

Calendar effect - The calendar effect involves when public holidays appear throughout the year and what effect it has on sales dependent on what day of the week it occurs. When a bridge day occurs a higher sales figure can be expected. This indicator needs to be considered when forecasting sales.

2.3. TECHNIQUES

Historically, demand has followed patterns over time and due to that, statistical approaches have been developed to identify these patterns which direct the sales forecasts. An underlying assumption with statistical approaches is that future demand will follow historical demand patterns. (Moon & Mentzer, 1999) Methods used can be either endogenous, which only use historical sales as input, or exogenous, which use more variables than only the historical sales data. A trend in the corporate world is that, the bigger the company grows, the more money is invested in forecasting methods, especially among manufacturing companies. There are also several studies claiming

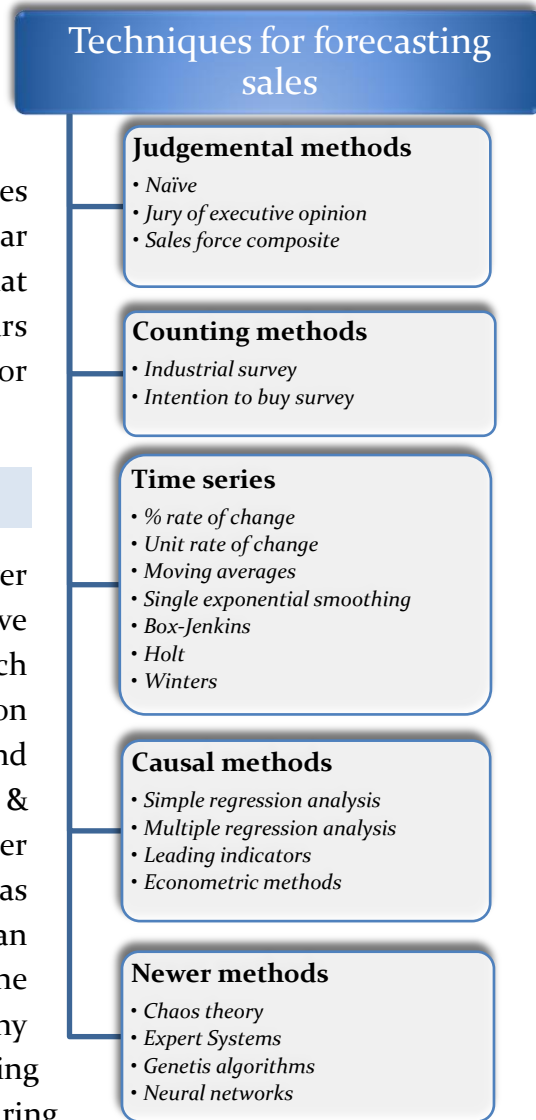


Figure 2 Forecasting techniques used in practice (Klassen & Flores, 2001)

that the bigger companies grow, the more sophisticated the methods they are using, become. (Winklhofer, Diamantopoulos, & Witt, 1996)

2.3.1. JUDGEMENTAL METHODS

In settings where big changes are normal, the judgemental methods are reliable to use since historical data is not relevant due to the changed circumstances. (Makridakis, Wheelwright, & Hyndman, 1998) A survey about forecasting practices in Mexico shows that judgemental methods are the most commonly used there, and where one of the possible explanations (Duran & Flores, 1998) to this confirms Makridakis et al. (1998) thoughts that in an unstable environment, judgemental methods are more commonly used. The human judgement can then bring the inside information about the company, as well as the experience from managers about future sales, in a way that quantitative methods do not. Judgemental forecasting methods are overall the ones mostly used by companies trying to improve their forecasting accuracy. (McCarthy, Davis, Golicic, & Mentzer, 2006) Disadvantages that can be seen with the use of judgemental methods are the often biased and limited opinions, which come with in-house solutions from managers. Forecast accuracy is, on average, lower when using judgemental methods alone instead of statistical methods because of biases and limitations. (Makridakis, Wheelwright, & Hyndman, 1998)

The *naïve method* is a judgemental method which relies on recent historical data and sales which are obtained with minimal effort. The best possible guess, for future sales, according to this method is today's sales. (Makridakis, Wheelwright, & Hyndman, 1998) With this method, the company and its executives produces a forecast for future sales by doing an interpretation of historical sales and the future business climate.

A method called *jury of executive opinion* is a method where executives from different departments of the company together decide which numbers the forecast should contain. The method is rather uncomplicated and is among the most commonly used methods in the business world. The numbers are decided upon the opinions about the future from different executives. (Mentzer & Moon, 2005) The risk of an overoptimistic forecast is apparent due to the fact that executives do not want the future for the company to look bad and therefore, they might overrate future sales. Executives have, when using this method, a great influence regardless of whether they have the appropriate knowledge or not. Another risk is that managers and executives might not separate their personal or political interests from what is best for the company's forecast, which often become disadvantageous for the company. (Makridakis, Wheelwright, & Hyndman, 1998)

A company's *sales force* is in many cases a very important part of the forecasting process. The sales force is often the part of the company which has the closest relationship to its market and customers. (Moon & Mentzer, 1999) By using the company's sales force, the expectations are that the information will have more relevance and therefore, the outline and hopefully also the accuracy of the forecast will be influenced in a positive way. But using the sales force when determine forecast can also be adverse. The sales people often receive their bonuses by reaching their forecast and can therefore set their forecast to low in order to get paid more. (Makridakis, Wheelwright, & Hyndman, 1998)

2.3.2. COUNTING METHODS

Counting methods are methods where the user asks customers, competitors and other people about their feeling about a product and by that getting useful data which, hopefully, will increase the company's forecast accuracy. (Armstrong, 2003) A survey can either be based on primary data which the company itself collects or secondary data which has already been collected by someone else. A survey to collect primary data might be quite expensive and the obtained results can have different grade of importance for the company's future forecasts. Secondary data is collected by someone else but is still seen as useful for the company. Commonly used secondary data can be data about the economic climate and simultaneous indicators of different kind as unemployment and tax rates and economic indicators as average work week and consumer spending collected by public organizations. (Mentzer & Moon, 2005)

One example of these counting methods is an *intention to buy survey*, where the company asks their potential customers whether they have the intention to buy their product or not. Intention surveys are frequently used among companies but there are many things to consider about the settings of the survey before using it as base for a forecast. As well as with all other surveys, the respondents can be biased in many ways. It is of great importance who you ask, how the question is being asked and whether the respondent in mind is interested at all. (Armstrong, 2003) There are several errors for a model of this sort. The user must bear this in mind and, not entirely, base their forecast on the survey, but rather use it together with an alternative method in order to reach a higher accuracy. (Mentzer & Moon, 2005)

2.3.3. TIME SERIES

The time series techniques are used and developed to identify patterns in historical data that repeat over time. (Moon & Mentzer, 1999) These techniques are based on the assumption that past data have unspecified but stable causal relationships and they

normally do not answer the questions how and why sales fluctuate. (Wacker & Lummus, 2002) The patterns being examined in any time series technique can be broken down to level, trend, seasonality or noise. (Mentzer & Moon, 2005)

Moving averages is a technique used to smooth historical data to analyze the trend-component of patterns. It is done by using historical data to calculate an average to smooth the trend-pattern over a chosen number of time-periods. With moving averages, old historical data is left out and only the most recent periods' sales are put into the equation when trying to predict next period's sales. (Mentzer & Moon, 2005) The problem with moving averages is deciding how many periods to use as the base for a forecast. With more periods chosen, the lesser reactive the technique will be in changes in demand. On the other hand, the lesser periods chosen, the more it will look like the naïve method mentioned above.

The moving average technique is similar to the *exponential smoothing* technique but where the last mentioned has some different characteristics. In words, the forecast for next period is a function of last period's sales and last period's forecast with a weighting (α) dependent on the level change and the randomness of the data. This weighting should be larger when level changes are frequent so that the exponential smoothing quickly can adapt. The weighting should be smaller the more random the data is so that the technique can smooth the noise. (Mentzer & Moon, 2005) The technique assumes that there is no underlying trend in the pattern since the randomness is accounted for. (Makridakis, Wheelwright, & Hyndman, 1998)

2.3.4. CAUSAL METHODS

Causal methods are designed to recognize historical patterns that exist between demand and different explanatory variables. (Moon & Mentzer, 1999) These techniques use input from leading indicators to predict what future sales will be. The major concern with those models is which variables to choose and how they fit with the model. (Wacker & Lummus, 2002)

A *regression analysis* provides, opposite to time series, also information on how external factors are related to fluctuations in demand. Therefore, they are often called explanatory models. (Makridakis, Wheelwright, & Hyndman, 1998) The understanding of the model is very important if one should take the full advantage of it. With the method, the user is able to find the correlation between different variables, which is important if the forecasts should be accurate. The model draws a line between the different data and help the user to identify future demand. When using a regression analysis there are multiple sectors of application, firstly the models are able to explain how variables are

related and how they fluctuate and secondly they can help companies to forecast. There are three different types of regression models depending on how many variables the model has, they are called simple, multiple and econometric. There is, however, a disadvantage with regression analysis; they require a large amount of reliable, historical and current data. (Mentzer & Moon, 2005)

2.3.5. NEWER METHODS

Because of the increasing importance of efficient forecasts the techniques for achieving accuracy are continuously subject for development. The more complex the business environment becomes, the greater the demand for a method which can calculate those trends and seasonality there will be.

Neural networks are a rather new method for forecasting sales. It works in the same way as a human brain and it is therefore also able to update itself when new data is added. The model works as a transforming tool where you put in your data and the system then transform this non-linear data and makes it linear so that the output from the system becomes understandable. (Armstrong, 2003) An often stressed disadvantage with neural networks is that the method does not allow much understanding about how it really works. The relationships between the different variables in the model are very difficult to understand and the model is therefore seen as a “black box” solution to the forecasting problem. The advantages of a neural network are that it easily adapts to irregularities and the fact that it is almost entirely automatic. (Makridakis, Wheelwright, & Hyndman, 1998)

Expert systems are highly structured systems based on how experts within the area would forecast the future. These systems rely on interviews, books and surveys made with experts and are therefore rather expensive and time consuming. (Armstrong, 2003)

2.4. ACCURACY OF SALES FORECASTING

One of the big issues with the sales forecasts is regarding the accuracy of it, especially if the organization sets its plans based on what the forecast predicts. Whether the organization uses judgemental techniques or a more statistical approach to forecast their sales, the important thing is that they are accurate.

2.4.1. MODELS OF SALES FORECASTING

Studies, of which the most accurate technique is, have been conducted and the subject has been widely discussed. Armstrong (2006) conducted a study where he

compared empirical studies with multiple hypotheses over the last quarter of the century. The conclusions drawn from this is that several well-supported forecasting methods have been proved more satisfactory than the rest through comparative studies during the above mentioned time-span. Two of these methods can be applied to all data; a combination of several forecasting techniques and expert systems. For cross-sectional data causal and judgemental models are well-established methods. Applicable to time-series data is the moving average technique as well as causal models. It is argued that these methods should be implemented by practitioners because of the documented reduction in forecast error.

In another study performed by Sanders and Manrodt (2003), they find that companies using a judgemental forecasting method have generally a higher rate of error than companies using a quantitative technique. They conclude that quantitative methods have great benefits over judgemental while speaking in terms of forecast accuracy. Although they conclude this, they note that the lower accuracy of firms using a judgemental method might relate to another of their conclusions, namely that judgemental focused firms more often operate in an environment with higher uncertainty and where their products are more likely to be obsolete.

2.4.2. IMPACT OF AN ERROR

Although the accuracy of forecasts is known within an organization, the financial impact of an error in it might not be as apparent. Kahn (2003) describes in his article how a forecasting error has impact on an organization. The method described derives an approximate figure, though; it still gives a good picture of what the financial impact of an error can be. He identifies costs related to a forecast error and separates them into

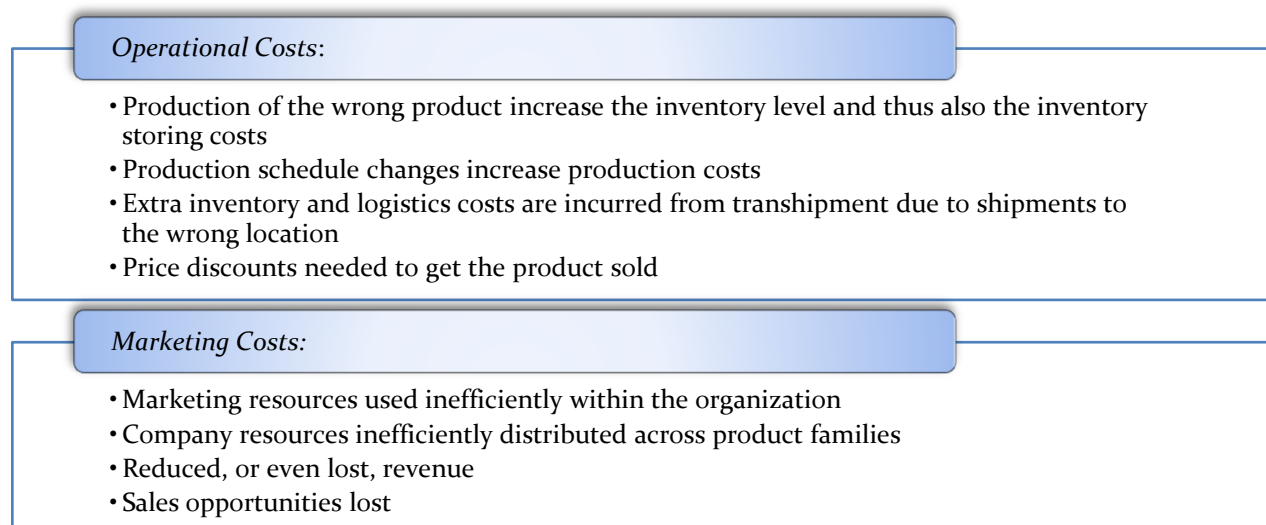


Figure 3 Costs related to forecast inaccuracy (Kahn, 2003)

operational costs and marketing costs. These different costs are related to the forecast error and the variations of the two types can be incurred by two different scenarios; an over-forecast and an under-forecast. When the organization plans its operations from an over-forecast, extra cost will incur. Extra costs would be incurred if the organization would have chosen to base their operations on an under-forecast although different extra costs incurs in the two situations. (Mentzer, 1999)

To reduce the forecast error, several generalizations of the more successful methods can be drawn. (Armstrong, 2006) The first generalization argues that a forecaster needs to be conservative when uncertain, in order to reduce forecast error. Further on, the need to spread the risk is argued. By decompose, segment and combine methods a forecaster spread the risk compared to if only one method is being used. Another important aspect to reduce the error is the use of realistic representations of the situation. Methods that use more information are generally more accurate than methods using only one source of information. Furthermore, methods relying only on data are inferior to methods using prior knowledge about relationships and situations. The last generalization to reduce forecast error is that structured methods are generally more accurate than unstructured. These generalizations are helpful for a company when deciding what forecasting method to use.

2.4.3. IMPACT ON RETURN ON SHAREHOLDER'S VALUE

As a consequence of an inaccurate forecast, the organization will induce extra costs, which in the end will have a negative impact on the return to shareholder's value. (Mentzer, 1999) By having an accurate forecast and therefore managing the inventory level, the organization

can reduce the inventory carrying cost and also decrease the transshipment costs. A seasonal accurate forecast could also increase the sales revenue due to the fact that stock will not sell out or that the inventory will not grow too large. By reducing the costs and increasing

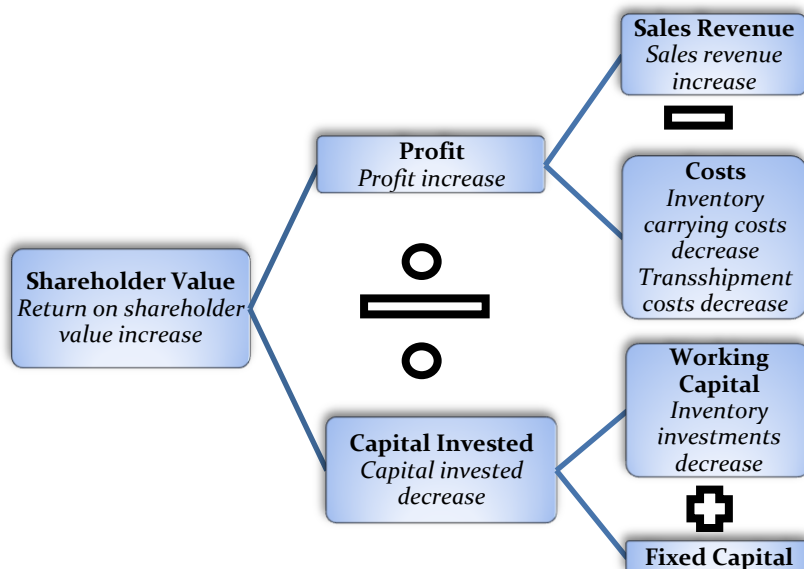


Figure 4 Sales forecasting's impact on return to shareholder's value (Mentzer, 1999)

the revenue, the profit will be greater. The other side of the return to shareholder's value is the rate of capital turnover. If the forecast is accurate, less investment in inventories is needed and therefore the capital invested decreases. An increased profit together with a decreased invested capital sums up in an increase in the return to shareholder's value. The relationships are shown in figure 4 between the different components.

2.4.4. TRENDS IN FORECASTING PRACTICES

During the latest 20 years, the tools for forecasting future sales have improved significantly. New methods with a higher degree of sophistication and complexity have been developed. The development of the World Wide Web and different data programs, have eased the difficulties of having a well-functioned system to share the forecasting process with the involved parties. Despite those developments, the accuracy of our forecasts has not improved in the same way. One reason might be the growing hunger of having the most sophisticated forecasting method. This has led to a kind of "black box" forecasting, which mean that the users do not know how to influence the model and neither how it works. This leads to an over-confidence in the model which can have negative effects on the forecasting performance. In a study made by McCarthy et al. (2006) they pointed out two important factors why the accuracy of forecasts has not improved. First of all, the people involved in the forecasting process were not held accountable for its performance and secondly, the performance of the forecast did not affect their compensation. These hints might imply managers to consider changing their forecasting process as an attempt to improve it. Neither have the understanding of the systems, nor the methods improved in the latest years, and as a consequence of all these results, the satisfaction of the methods, systems and processes has decreased.

2.4.5. ADAPTING TO THE ORGANIZATION

In order to get a well-functioned and efficient forecasting process, it is crucial to put all these above mentioned pieces together and adapt them to the specific company. The organization, and its leaders, need to support the forecasting practice by giving it the resources it needs in order to be successful. (Davies & Mentzer, 2007) One way of showing support for the forecasting practice is a reward-system for when targets have been achieved. In the logistical aspect, it is important for the company to have well-developed information technology so that the communication easily flows through the organization. As a final important part of the communciation, it is crucial for the company to have a cross functional communication and involvement in the process. By having these mentioned parts within the forecasting practice, the probability of having an accurate and efficient forecasting practice increases.

3. METHODOLOGY

In this chapter a presentation of our data collection will be made. Reflections regarding the choice of data collection method, its implementation and sources of error will be discussed. Further, the design, validity and reliability of the chosen method will be addressed.

3.1. DATA COLLECTION

3.1.1. CHOICE OF COLLECTION METHOD

We have chosen to collect our data by doing a survey which we sent to our respondents. The survey was e-mailed to, for the survey, relevant persons. Advantages associated with doing a survey are that we can reach our respondents in a short period of time and that the results are easy to collocate. Disadvantages associated with the method are that the number of non-respondents can be large, there is an uncertainty of who is answering the questions and we are not able to follow up on written answers. By using a survey the risk of biased answers becomes smaller because it is the respondent himself who decides when and where he will fill out the survey. (Lekvall & Wahlbin, 2001)

3.1.2. PREPARATIONS OF THE DATA COLLECTION

To be able to collect the right data we have reviewed a lot of articles, previous surveys and books about present and historical forecasting practices. By doing this, we have learned a lot about different methods and their application. We have also found suggestions of questions which we will use in our own survey. (McCarthy, Davis, Golicic, & Mentzer, 2006) (Klassen & Flores, 2001)

3.1.3. CHOICE OF EXAMINED POPULATION

When we had decided upon a problem to focus our data collection on, it was important to be able to find and use the right respondents for this matter. We decided that we would focus our survey on people at KappAhl who had some kind of relation with their present forecasting practices. To be able to do that, we had help choosing respondents from the accounting department at KappAhl, which gave us 17 names on people highly involved in their forecasting practices. The respondents work in different departments of the organization and might therefore have varying opinions regarding sales forecasting.

3.1.4. DESIGN OF THE QUESTIONNAIRE

We were very careful when designing the questionnaire, because it is very important that no one misinterpret what is asked for. Most questions in the questionnaire are questions where the respondents grade their satisfaction with something relating to forecasts. This is made with response alternatives reaching from 1 to 7, where 1 stands for “Not at all” and 7 “Completely”. The reason for choosing 7 different alternatives is to get a clearer picture of the attitudes and by that, making the result more noticeable. We also made an alternative which we called 0, which stand for “No apprehension”. Open-ended questions were used in order to go deep into specific areas of the forecasting process. In those questions, we asked for the respondents own thoughts and proposals about new improvements regarding the sales forecasting practices. In the beginning of the questionnaire the respondents were asked to fill in their department, which he/she works in, as well as whether they see themselves as either a producer or a user of the forecasts or both. This we did in order to be able to group people together which belong together in one way or another. In our questionnaire the questions are grouped into 4 groups which stand for one specific characteristic in the forecasting practices; quality, usability, availability and satisfaction. By doing this, we can then be able to easier present the results given and finally make conclusions about which areas of the forecasting process are in most need of improvements. The questionnaire is based on previous surveys made by McCarthy et al. (2006) as well as Klassen et al. (2001), Duran et al. (1998) and Sanders et al. (1994). The questions are partially taken from these studies and the selection of forecasting methods which are in our survey are taken completely from those surveys, simply because the mentioned forecasting methods are the most common ones. The familiarity with these methods is ranked from 1 to 5 where 1 is “I have not heard about the method” and 5 is “I know everything about the method”. The final questionnaire can be seen in Appendix 1.

3.1.5. EVALUATION OF THE QUESTIONNAIRE

To know whether the questionnaire worked in the way it was supposed to, we made a test where we sent the questionnaire to each other and to people close to us in order to find out whether it was functional or not. When having a questionnaire sent by e-mail, it is important to make it fully functional, and make sure that the instructions written are understandable in order to get true responses to the questions asked.

3.1.6. IMPLEMENTATION OF THE QUESTIONNAIRE

We sent out the questionnaire with instructions to our 17 respondents at KappAhl by e-mail. After the first time we sent out the questionnaire we did not receive a fair amount

of respondents so we decided to send out a reminder where we once again stressed the importance of us getting those questionnaires. After this remainder, we received further filled out questionnaires and we finally reached a response rate of 71%. Of those 71 % some fell out because they did not longer work with forecasting. There were also some partial fall offs, where the respondents had missed to fill out one or a few questions. When we had eliminated those answers which not could be used we found ourselves with an answer rate of 65 %, which should be seen as fairly good. The relatively high rate of responses, we think depended on that we have worked with the accounting department at KappAhl, which encouraged the respondents to take the questionnaire seriously. The fact that KappAhl also recommended the respondents also influenced the high rate of responses, because the questionnaire was, to a large extent, sent to respondents with a relation to the forecasting process. When we then received the answers to the questionnaire, we collocated them and grouped the questions into four different areas, which we named; quality, usability, availability and satisfaction. We also looked carefully if it were some questionnaires that were not filled out correctly or if answers to specific questions were missing. The answers were manually typed into an Excel document, from where we later made diagrams and tables. We then presented the results by making different diagrams and explained what the results were. When it was time for the analysis, we put the results given from the questionnaire into tables where we then analyzed the results within the different aspects with the respondents grouped together by function, and discussed the attitudes in the questionnaire.

3.1.7. SOURCES OF ERROR IN A QUESTIONNAIRE

Errors associated with a survey can be grouped within two main groups; random sampling error and systematic errors. (Zikmund, 2003) In our case, the systematic errors were the ones focused on to minimize since our respondents were not randomly chosen. Within the systematic error category, there are two broad groups where errors

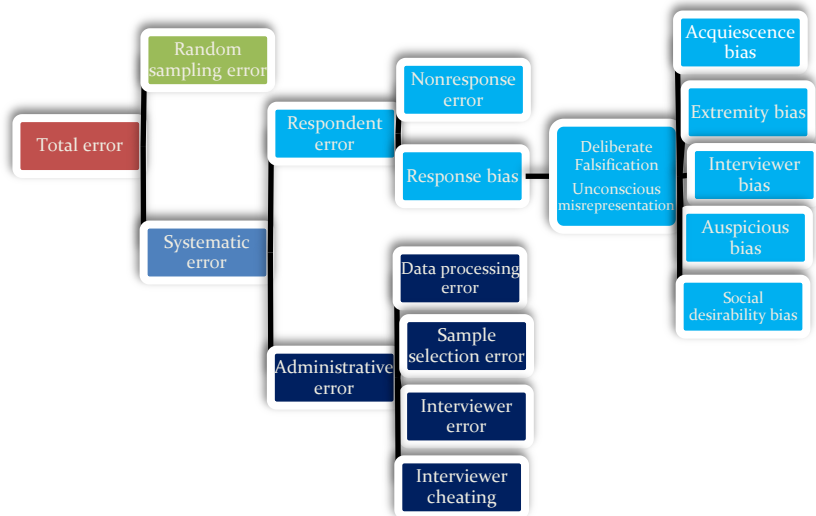


Figure 5 Categories of survey errors (Zikmund, 2003)

can emerge. They can be related to the respondents or they can be of administrative kind.

3.1.7.1. RESPONDENT ERRORS

This is an error which might be present in a questionnaire like this one. This becomes real when the respondent shows uncertainty, intentionally answers incorrectly, is tired or do not have time to fill out the questionnaire. Different types of biases are also a kind of respondent errors. This is an error we think we have reduced by knowing that we send the questionnaire to the right people, and also by using our close connection to the accounting department to make this questionnaire more important to the respondents, than just an ordinary survey sent to them.

3.1.7.2. ADMINISTRATIVE ERRORS

This type of error contains the formulation of the questions in the survey, and also the different alternatives and the surveys grammatical standard. We have tried to minimize this error by doing an evaluation of the questionnaire before we sent it out to our respondents. We simply sent it to ourselves and people close to us in order to minimize this kind of problems. This problem area also contains the collecting and analyzing of the results, where a lot of mistakes can be done.

3.1.8. VALIDITY

Whether a survey should be seen as valid or not, can not be objectively decided. One must subjectively evaluate the validity in this survey. The criterion validity, which is one of three different types of validity mentioned by Zikmund (2003), is to what extent the survey correlate to current studies and literature in this area. We have used previous surveys and taken parts from it in order to make our survey as valid as possible. We have also tried to correlate our survey to current forecasting literature by using, in the area of forecasting, common and well-known concepts in order to increase the feeling of seriousness for the respondents. The second type of validity that Zikmund (2003) brings up is the content validity, which means that data used, logically reflects what was intended to be researched. We have examined different attitudes in the area of forecasting and by putting them together we can draw conclusions about the forecasting practices as a whole, which we think makes our survey valid according to Zikmund's (2003) second type of validity. The third type of validity, according to the same source, is construct validity, which exists when evidence generated is consistent to the theoretical logic of the subject.

3.1.9. RELIABILITY

The reliability in this case is the degree to what the survey can resist accidental factors. (Zikmund, 2003) In this case it is impossible to make a survey with no accidental factors at all. The degree of reliability takes influences from the respondent (tiredness, motivation), the time for the survey, the construction of the questionnaire as well as different lay-out factors of the questionnaire. In our case, with the survey sent by e-mail, the respondents can choose when and where they wish to do it, which might affect the responses in a positive way. Problems with the lay-out and the construction of the questionnaire have been approached before sending it to the respondents, thanks to the evaluation of the questionnaire made by us and our close friends.

4. DESCRIPTION OF CASE COMPANY

In this chapter, a brief introduction with a presentation of the history and business of the chosen company, KappAhl, will be conducted. Further, a description of KappAhl's forecasting process and organization will be presented.

4.1. DESCRIPTION OF CASE COMPANY

The chosen company, KappAhl, has been an actor on the Swedish retail market since 1953. Sweden has been the foundation in KappAhl and their business although several different regional markets have been penetrated, and some exited. Today, KappAhl is active in the Swedish, Norwegian, Finnish and Polish market in ranging order with 130 stores in Sweden and 272 stores European-wide. (KappAhl, 2008)

KappAhl's business is divided into three main business areas, including Ladies', Men's, and Children's clothing. The planning and forecasting functions, within each of the business areas, are centralized and managed from KappAhl's headquarter, in Sweden, for all of the regional markets. The process of forecasting involves several departments and several people within the same department. With a large network of stores in different areas, KappAhl can gain large benefits in production and logistical planning from an accurate sales forecast.

4.2. WHY SALES FORECASTING?

One can ask; why do KappAhl forecast sales? There are two obvious answers to this question. The first one is that the future of KappAhl's business is highly uncertain. Trends and seasonality are two things for a company in the retail industry to consider and in order to do that in best possible way it is important to have efficient forecasts. By putting a lot of work into the forecasts KappAhl is able to make a best guess about what the future will hold and by doing that, they are able to plan which volumes of clothes needed to be purchased.

The other reason, for KappAhl to forecast sales, is simply to maximize profits. Because KappAhl have long lead times, for some products, it becomes crucial for them to be able to accurately forecast sales in future periods in order to have the products at the right time, and at the right place, so that they will be able to sell as many as the customers demand. If then some products sell out, they might have the opportunity to place an additional order from their suppliers. The decision of making an additional order is up to the involved people but the decision is highly based on the lead time of the specific

product that needs to be bought in. Purchasing a coat or a sweater with a lead time of up to 12 weeks in the middle of a season is a big decision and if the decision is made incorrectly the consequences for KappAhl might be substantial. Not only can they lose money because of the insufficient supply of demanded goods, they also run the risk of losing disappointed customers to competitors. If the purchase was too big they will lose some money because they might be forced to sell out the clothes to a much lower price.

As one can see there are clearly benefits of having a functional accurate forecast for KappAhl. The main reason is simply to be able to satisfy its customers and by that sell as much clothes as possible and try to maximize the profits.

4.3. FORECASTING ORGANIZATION

KappAhl works with a two-sided control system where they both have a budget, which they call a preseason forecast and an inseason forecast, which they work continuously with during the seasons. The forecasting process within each business area is divided into 2 seasonal parts of the year; January-June (Spring-season) and July-December (Fall-season).

The forecasting process in KappAhl is divided into different functional departments of the organization. Although the forecasts are conducted in different departments, one thing is in common between the forecasts; they are all connected to the preseason forecast in one way or another. The connection is either as input to set one part of, or to follow up on the preseason forecast and prospect if more or less products will be needed.

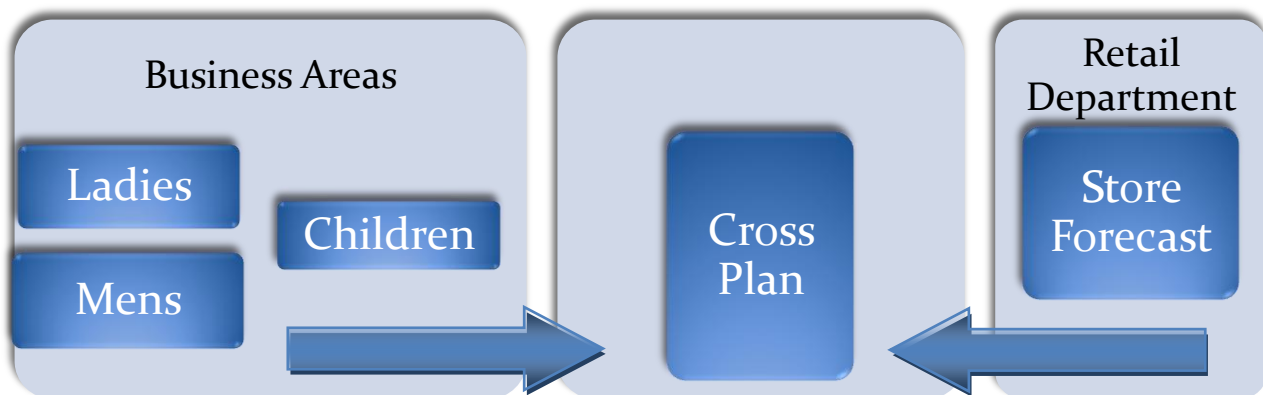


Figure 6 KappAhl's negotiation process regarding the preseason forecast (KappAhl)

Forecasts are conducted at several levels in the process. These are, in the next step, broken down into product-families within each business area. This product-family forecast is approached and evaluated by the controllers, team-leaders and planners to assess the development for the next season on each product-family. When the projection is completed for each of the product-families, the next phase begins which is down to product-article level.

The roles within each business area, with most emphasis on forecasting, have the planner and the controller in regards of sales volumes, both in financial and non-financial measures. In addition to this, preseason forecasts are developed by the retail department which later are combined with the business area's forecasts through negotiation in what KappAhl calls the cross plan.

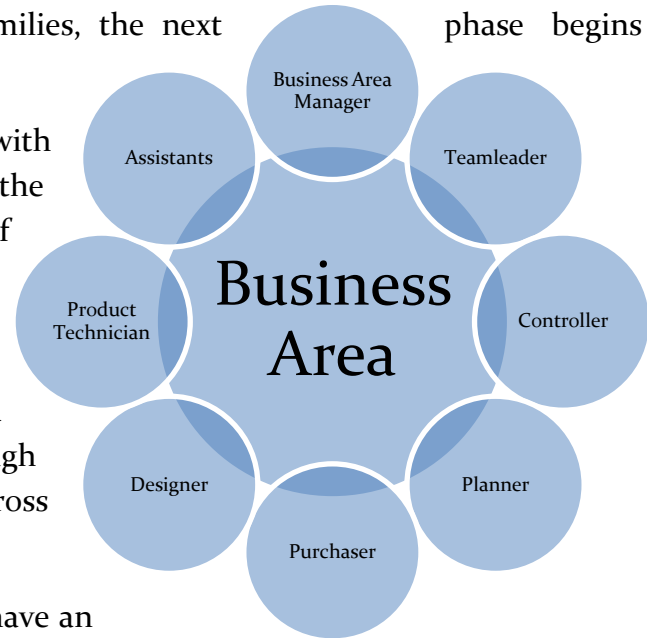


Figure 7 Business area organization within KappAhl (KappAhl)

When looking at trends, the designers have an important role to play. They update themselves on future trends by retrieving information from several sources. This information is collected by visiting the larger fashion-cities around the world. Different cities are visited for different purposes. E.g. Miami is visited due to their warm weather and therefore, the wide-ranging selection of bikinis whereas Italy is visited because of the, experienced, inadequate supply of socks, from the rest of the world. Cities such as London and Paris with a long and strong tradition as fashion-cities are also visited for inspiration. Another source of information for the designers in search of the upcoming trends is literature in different forms, such as magazines, trend-books and articles. Therese Leiner (2008) emphasizes that, no matter what the major trends are, they might not work with what KappAhl's core customers' demand. According to her, it is crucial for KappAhl to focus on their customers, and not dissipate too far from that in order to maintain a sustainable market share.

4.4. PRESEASON FORECAST

The preseason forecast is made approximately 9 months in advance and the planning process for the 2009 spring collection is prepared at the headquarter during April and May 2008. This forecast is later revised in August 2008 and updated if necessary. The fact

that the forecast is made approximately 9 months prior the season makes the prediction of sales a difficult task and therefore a revision of it, roughly 4 months later, is conducted.

The preseason forecast is developed by two different departments; the retail department and the business areas. Both sides look at previous year's sales in order to make a best guess about future periods. The method, which KappAhl is using, is the naïve method, which is a method where the forecasted figures are based on historical data and the current business climate. The naïve method is among the judgemental methods. The preseason forecast is made in monetary terms and is, as mentioned, based on last year's sales together with suggestions from other departments about what the future will hold in terms of competition, calendar effects as well as macro-economical factors such as purchasing power and exchange rates. The retail department and the different business areas then negotiate, in what is called the cross plan, and will in the end come up with a decision regarding what sales figures will be entered as input into a system called "Planning", which is available for all planners and controllers at KappAhl's headquarter.

When each business area's planner has received the figures of predicted future sales, the work with deciding what products to purchase, in order to reach those figures, starts. In this phase of the forecast process, the communication becomes vital and therefore, the core group in every business area is working closely together in order to take full advantage of everyone's specific knowledge and skills. At KappAhl, this phase works well because of the close connections between the involved parties, as well as the fact that they all share the same office building, which clearly makes the communication easier. This phase contains a lot of meetings and discussions within the different business areas where planners, controllers, designers as well as team leaders and assistants are involved. Finally, they come up with a final preseason forecast which then will be the base for the purchasing of products to the considered period of time. This forecast is then evaluated and compared with the real sales figures.

4.5. INSEASON FORECAST

In KappAhl's sales forecasting process, the second stage is an inseason forecasting. The purpose of the inseason forecasting is to follow up on actual sales figures compared to what was forecasted, in the preseason forecast, and to make a forecast for the later part of the season. This inseason forecasting is conducted within all of KappAhl's business areas; ladies, men and children.

The aim behind the creation of an inseason sales forecast is the ambition to control the amount of products according to the previously forecasted delivery and sales volumes.

The role of the planner is, within the forecasting, to give input to whether more products should be bought or on the contrary, orders should be restrained, or even cancelled. The planners work in a 4 month perspective due to the long lead times from KappAhl's suppliers. The early part of the season is seen as an indicator for the later part, and this is also a base for the follow up on the sales and inventory levels for the different business areas.

As an example we look at the area of underwear. If the planner there sees that sales of socks one week was above the preseason forecasted volume, the consequence deriving from that would be that the inventory level would decrease and the product might sell out. To react to this change; the planner, the controller and the team leader discusses on whether more socks are needed or not. If the outcome of the discussion is that more socks are needed, they give instructions to the purchaser to place an additional order. For socks, the lead time is roughly 3-4 weeks from the placement of the order until the socks can be in a store. The information of the additional volume bought is transferred to the Supply and Sourcing department, which then direct the additional units to the needing shops. On the contrary, KappAhl might have overrated the market's demand and therefore need to sell out products at a lower price.

An important part of the working process is what KappAhl call the Action Monday, on which several meetings are held with different levels of the organization. One of the purposes of having meetings every week is to follow up on how the development of sales was previous week. During those meetings, the bestsellers are brought up as well as which products are in need of price-reductions. The numbers are compared to the preseason forecast for the matching week and function as a base for decisions regarding the inventory-level. The accuracy of the inseason forecasts is not measured on a percentage basis, the only measurement conducted is whether the sales figures are close to the previously forecasted numbers or not. The variation is not analyzed, and following consequences are dealt with when they occur. The reward for a sales figure close to the preseason level is recognition on the Monday-meeting; no other bonuses of accurate forecasts exist. The sales figures from previous week also work as the foundation of the next week's forecast. If KappAhl sold 10 % more than the preseason forecast one week, the expectation is that next week will be roughly the same. This method used by planners and controllers is classified within the judgemental method as the naïve technique, where the last period's figures, or rate of change, are what is thought to happen the next period.

The information regarding KappAhl's sales forecasting process and organization has been gathered from Jessicka Olsson and Therese Leiner, both working within this process.

5. SURVEY RESULTS

In this chapter, the results from the conducted survey will be presented.

5.1. GENERAL RESULTS

Forecasts have a relation to several different occupations at KappAhl. There are controllers, planners, the retail department, purchasers as well as designers which have, in one way or another, a relation to the forecasting process. As one can see the most common relation the respondents have to the forecast process is, that they consider themselves both as a producer as well as a user of forecasts. The respondents in this survey were supposed to have some connection to the forecasting process but two respondents had none due to a change of working tasks.

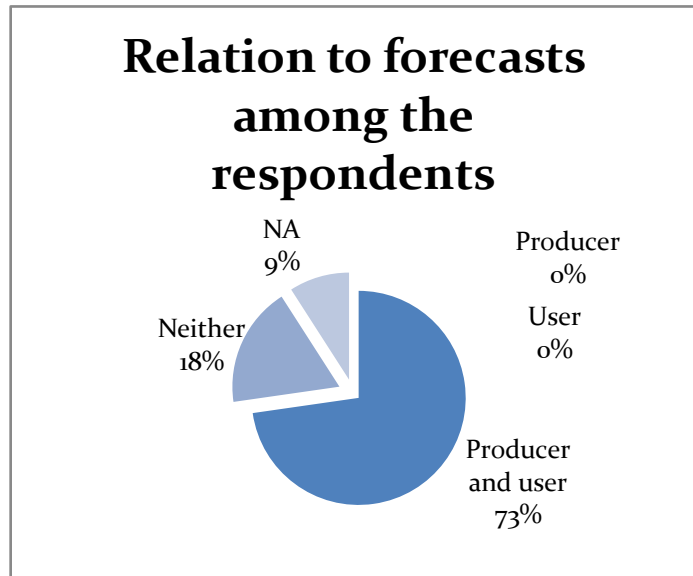


Figure 8 Relation to forecasts among the respondents (n=11)

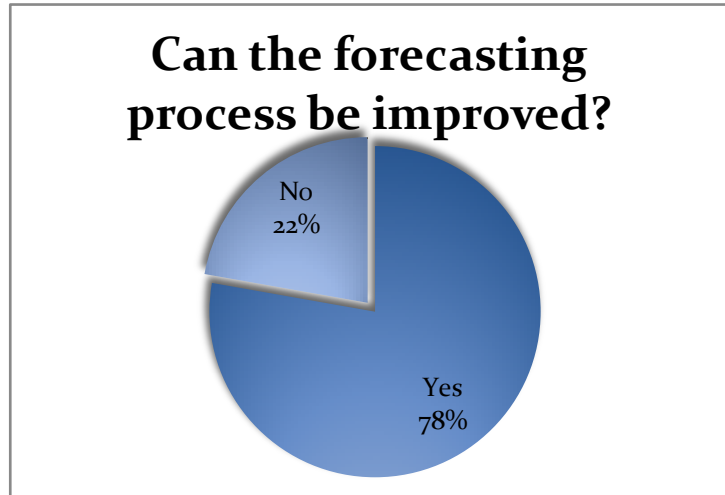
	Business Area	Distribution / Business Control	Retail/Market
%	27,3	45,4	27,3
n	3	5	3

Table 1 Distribution of the respondents among functional areas (n=11)

A clear majority of the respondents think that the current forecasting process can be improved in some way, which sends an obvious message about their satisfaction with the forecasting process. Together with this question we had an open-ended question for those who had answered “Yes” in the first. In the open-ended question, we asked for suggestions to improve the work with forecasts at KappAhl and that gave us some aspects about what the employees found wrong. Proposals on what to improve in the forecasting process consisted of; a more unified vision on why forecasts are made and what their purpose is, all forecasts should be collected at one place and marked so it is easy to find out who is responsible and what and when updates have been done. There are also

further suggestions about enhancing the information about exchange rates, prices of raw materials and trends around the world. Another suggestion, which also came up, was that the company should invest more time in the forecasting process and make it more adaptable to the reality.

5.2. QUALITY ASPECT



Within the quality aspect, we have grouped questions regarding the quality of information. Important parts of the quality aspect are the perceived correctness of the information, the ability to change information when incorrect and the ability to interpret variations in the forecasts. The accuracy of forecasts is put into this aspect since a high accuracy indicates that the quality of information is high.

Figure 9 Answers to whether the forecasting process can be improved (n=9)

Noticeable in the area of quality, regarding forecasting practices, is the mean in question 6 “Information experienced correct”, which is just above middle level of 4.

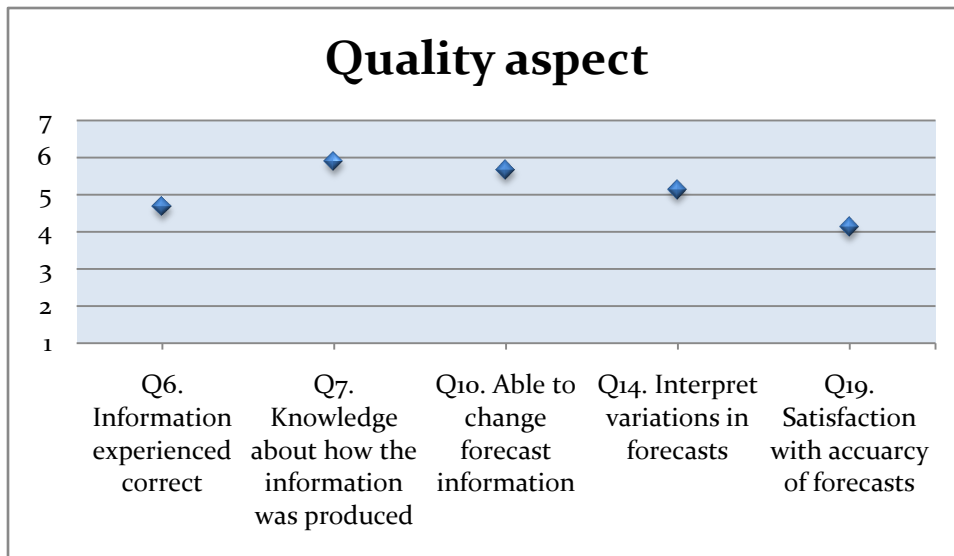


Figure 10 Means for questions within the quality aspect

Another thing to highlight in this area, is the rather low number in “Satisfaction with accuracy of forecasts”, which is just above the middle level of 4. This raises some questions about the accuracy of forecasting within the organization of KappAhl. Apart from this, there are no other remarkable results to present. They have no problem to interpret the variations in forecasts, neither have they problems with changing the forecast information if needed.

indicates that the people involved in the forecasting process do not, without doubt, trust the information found in the forecasts. Another thing to highlight in this area, is the rather low number in “Satisfaction with accuracy of forecasts”, which is just above the middle level of 4.

5.3. USABILITY ASPECT

Within the usability aspect, two main perspectives are grouped. The first group are questions regarding the easiness to learn, use and understand information and to what extent the information is used and focused on the intended object. The second group of this aspect focuses on the instructions and routines regarding the forecasting process.

The results within this group are mainly high but where there are some parts, which the respondents find, are in need of improvements. The results, regarding routines and instructions for producing a forecast, are below the medium level of 4. The questions about the system used within the forecasting process of KappAhl reaches high results. The mean in this area is found between 5 and 6 on the scale, which clearly indicates that the satisfaction and usability of the system is rather high.

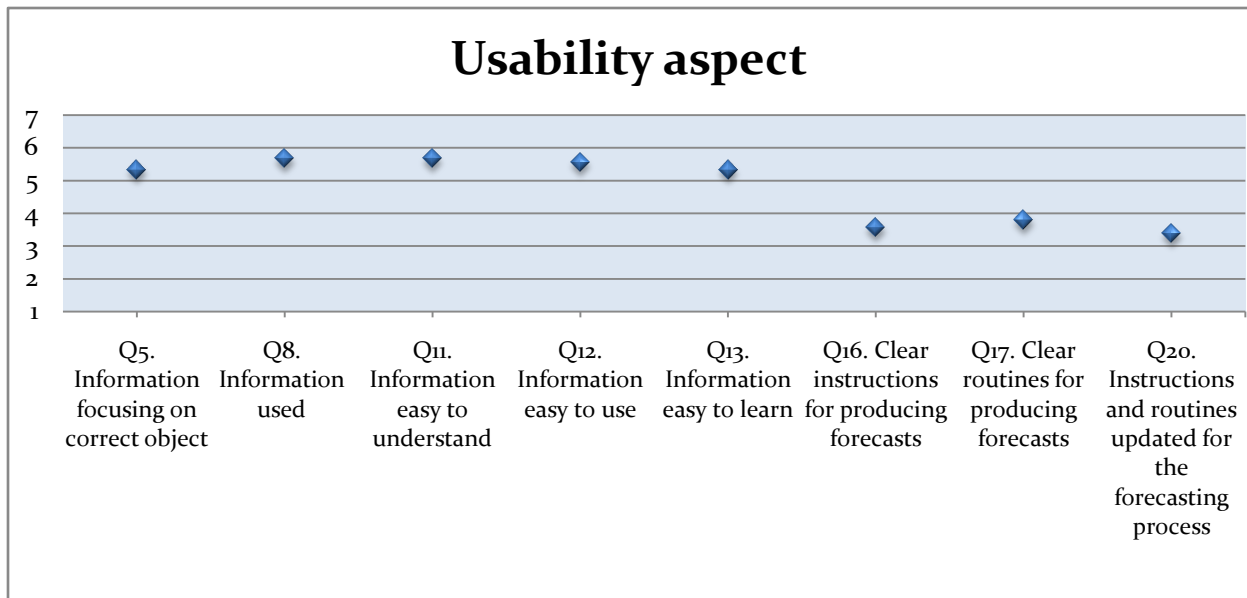


Figure 11 Means for questions within the usability aspect

5.4. AVAILABILITY ASPECT

Within the availability aspect, only two questions are grouped. These focus on the information access and updates.

In the availability aspect we have only considered two questions from our survey. As one can see, by looking at the diagram, there is nothing particular about the results. Both when it comes to “Access to information when needed” and “forecast updates within season” the mean is rather high and the respondents seem happy with the availability aspect and their way of updating it.

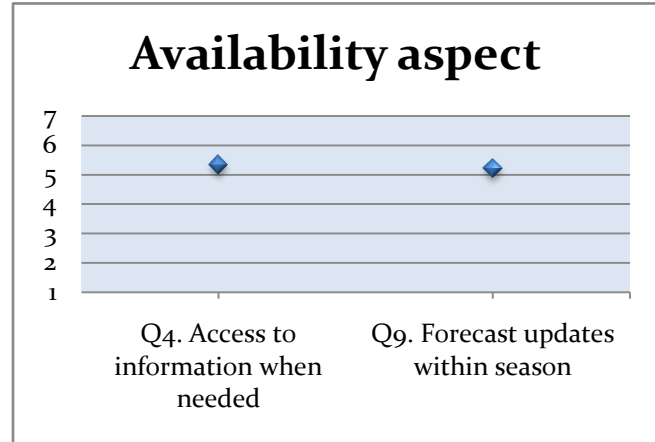


Figure 12 Means for questions within the availability aspect

5.5. SATISFACTORY ASPECT

Within the satisfactory aspect, questions regarding the satisfaction of the process, and the methods used, are self-explanatory. The additional two questions, regarding the importance and the emphasis on forecasts, is put in this aspect to more evidently see the differences in satisfaction and perceived importance of forecasts.

The questions addressing the overall company indicates that the respondents feel that

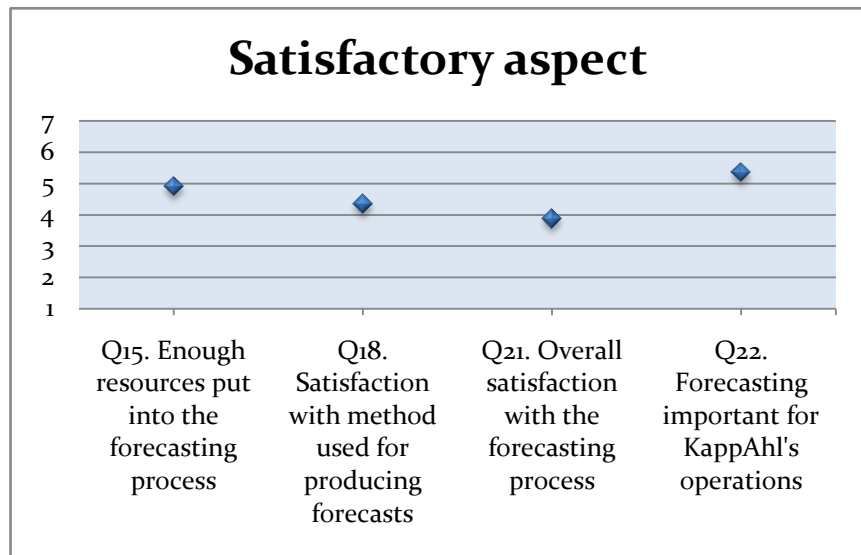


Figure 13 Means for questions within the satisfactory aspect

more resources can be put into the forecasting process. The satisfaction with the forecasting process within the organization today, is not as high as the believed importance of the forecasts for KappAhl's operations.

5.6. FAMILIARITY WITH FORECASTING TECHNIQUES

When looking at the familiarity with different forecasting techniques among the respondents, which mainly are both producers and users of forecasts, it is obvious that the judgemental techniques are the ones most familiar. All respondents with a relation to forecasts in their work tasks answers that they are familiar with the historical sales technique. Most of the respondents are at least somewhat familiar with the technique jury of executive opinion. These two techniques are the ones used within KappAhl and is therefore also known. The moving average technique is also somewhat familiar, at least by respondents within the business areas and the retail department. When looking at the trend line, it is shown that the more sophisticated the technique becomes, the less familiar it is. The exception from this is the trend-line and life-cycle analysis, which are more familiar than less sophisticated methods such as the extrapolation technique and the intention to buy survey.

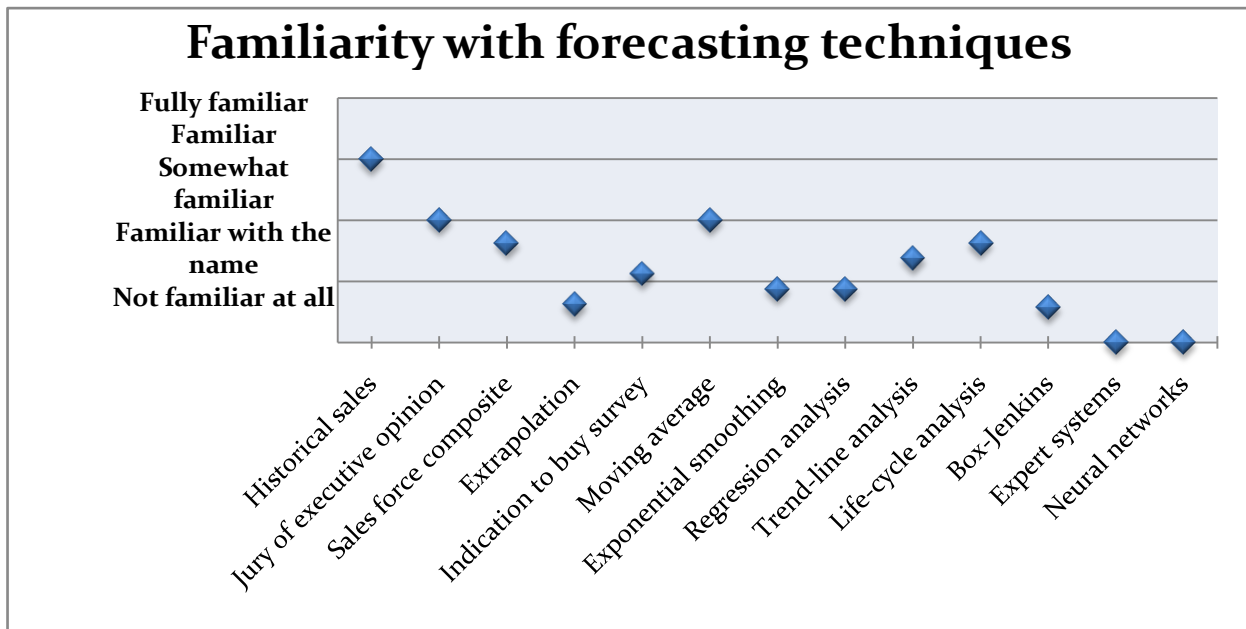


Figure 14 Results within the familiarity with different forecasting techniques

6. ANALYSIS

In this chapter, the results from the survey will be analyzed.

To analyze the attitudes we have divided the respondents in 3 main categories. The categories are dependent on the functional area in which the respondents work. The categorization gives us an insight to each of the functional areas and their responses, both in comparison to the other categories as well as with the responses in total.

6.1. QUALITY ASPECT

Question	n	Mean	Business Area	Distribution/ Business Control	Retail/Market
Q6. Information experienced correct	9	4,67	4,67	4,33	5,00
Q7. Knowledge about how the information was produced	9	5,89	6,33	5,00	6,33
Q10. Able to change forecast information	9	5,67	6,00	4,67	6,33
Q14. Interpret variations in forecasts	8	5,13	6,33	5,00	3,50
Q19. Satisfaction with accuracy of forecasts	9	4,11	4,33	3,33	4,67

Table 2 The quality aspect

When looking at the above shown table, the quality aspect of the survey is explored among the different functions of the forecasting process. One interesting thing found in the numbers is that although the respondents answered that they have a high knowledge about how the forecasting information was produced and that they can change this information, they do not experience that the forecasting information is correct and there is a relatively low degree of satisfaction with the accuracy of the forecasts. Overall in this quality aspect, the Distribution/Business Control function has a lower mean than the other two, with the exception of the interpretation of variations.

That the respondents consider themselves to be both producers and users of forecasts puts these numbers in a new perspective. The high means regarding knowledge about, and the influence over, forecasts are not surprising. The surprising questions,

within the quality aspect, are that the information not is experienced to be correct to a high extent, which correlates to the lower degree of satisfaction with the accuracy.

It is understood that measuring the accuracy of the forecasts is not emphasized within the business areas. The only measurement conducted is the sales compared to the preseason. The inseason forecasts are not followed up, only used for projections for the future. One of the interviewed indicated that a follow-up on previous forecasts may be beneficial. Another respondent answered, in an open-ended question in the questionnaire, that old forecasts should be saved and followed-up and later be used as references for similar situations in the future. This view is accordingly with what the theories emphasize. Measuring the accuracy will, over time, increase the accuracy itself since the follow-up is used to evaluate the performance. Measuring and evaluating the performance is a well-known way of increasing the effort put into a process. “*What you measure is what you get*” is a quotation that can be related to this. An important factor, when measuring performance, is to set targets and reward when targets are achieved. What the characteristics of a reward-system should be will not be discussed or evaluated, we only determine that one way to increase the accuracy of the forecasts is to measure and reward it.

6.2. USABILITY ASPECT

Question	n	Mean	Business Area	Distribution/ Business Control	Retail/Market
Q5. Information focusing on correct object	9	5,33	5,00	5,00	6,00
Q8. Information used	9	5,67	5,33	5,33	6,33
Q11. Information easy to use	9	5,56	6,33	4,33	6,00
Q12. Information easy to learn	9	5,33	5,33	4,67	6,00
Q13. Information easy to understand	9	5,67	6,33	4,67	6,00
Q16. Clear instructions for producing forecasts	9	3,56	4,00	2,67	4,00
Q17. Clear routines for producing forecasts	9	3,78	4,00	2,67	4,67
Q20. Instructions and routines updated for the forecasting process	8	3,38	4,00	2,50	3,33

Table 3 The usability aspect

The usability aspect of the forecast process is one of the more important aspects. After all, this is what the involved people work and deal with in their everyday tasks. Big issues within this area decrease the job satisfaction and increase the potential problems coming up in the everyday work. The satisfaction regarding the information and the easiness to use, understand and learn is relatively high although the Distribution/Business Control functions have slightly lower means regarding this aspect too.

The main area where improvements in the sales forecasting process can be made is within the instructions and routines regarding the sales forecasting. All functions' responses indicate that clear instructions and routines need to be implemented and continually updated. If this is done, a more homogenous view of the production of the forecasts will be spread among the different functions and departments. This homogenous view of the forecast-production increases the credibility of the forecasts since all forecasts will be made in the same manner across the functions within the organization and therefore they become more consistent over time.

While the mean is high in questions relating to the easiness to understand and to work with forecasting information, the satisfaction with the forecasting method used is not impressively high. Neither is the overall satisfaction with the forecasting process within KappAhl. The correlation between the easiness of the information and satisfaction of how it is used should be significant, although the figures do not show it. This indicates that some problem exists within the information logistics or how it is used at the end-destination.

6.3. AVAILABILITY ASPECT

Question	n	Mean	Business Area	Distribution/ Business Control	Retail/Market
Q4. Access to information when needed	9	5,33	5,67	4,33	6,00
Q9. Forecast updates within season	9	5,22	4,67	5,33	5,67

Table 4 The availability aspect

Although the overall mean is relatively high there are variations, and where the most apparent is the access to information when needed within the Distribution/Business Control functions. One reason, behind the overall high mean in this question, is the information systems used within KappAhl where the involved persons have access to both

information and forecasts. An important part of the information exchange is the Action Mondays, where information is shared among different levels of the organization and works as an input to decision making. By having these Action Mondays continuously during the year, the feeling of information access and updates are enhanced. Another reason is that the Business Areas and the Retail/Market functions are located in the same building with close connection in regards to information logistics, both formal and informal information exchange. The lower mean within the Distribution/Business Control functions, in regards to information access, may be derived from the location of the distribution central, which is not in the same building as the other two functions, although they are neighbours.

A lower mean in the forecasting updates within the business areas can be related to the demand for more frequent updates due to the change in demand for KappAhl's products. Environmental indicators, such as the weather and trends, increases the need for a more frequent updated forecast since it is a base for both additional purchasing and ordering cancellation decisions. These decisions are evaluated on each Monday within the different business areas.

6.4. SATISFACTORY ASPECT AND FAMILIARITY WITH TECHNIQUES

Question	n	Mean	Business Area	Distribution/ Business Control	Retail/Market
Q15. Enough resources put into the forecasting process	9	4,89	5,00	4,33	5,33
Q18. Satisfaction with method used for producing forecasts	9	4,33	4,67	4,00	4,33
Q21. Overall satisfaction with the forecasting process	8	3,88	4,00	3,33	4,50
Q22. Forecasting important for KappAhl's operations	9	5,33	6,00	6,00	4,00

Table 5 The satisfactory aspect

It is obvious that the satisfactory aspect is two-sided when looking at both the overall mean and the means within every functional classification. The sales forecasting is seen as important to a large extent, but the current practices and process is not satisfactory. By correlating the satisfaction of the technique used with the familiarity of

alternative forecasting techniques, it is obvious that the overall knowledge of alternative forecasting techniques is too low for them to be implemented with the present conditions.

The satisfaction, with the method used, is overall pretty low and the responses to question 25 are interesting. Of the respondents, only one answered that alternative forecasting techniques, to the ones used today, are considered to be implemented for future use. The reason for the one response was to “*extend the foundations for increased accuracy in the forecasting process*”. This indicates that the involved people in the forecasting process are in a state of mind that “*we do as we always do*” since no change is in mind although the satisfaction is not as high as desired. The overall satisfaction with the forecasting process strengthens this thought. According to the responses, more resources can be put into the process in order to improve it. One response to how the forecasting process at KappAhl can be improved addresses the problem of the availability of forecasts and the responsibility to update them. Academic thoughts, of this area, imply several areas where investments can be made in order to make the forecasting process more efficient. Applied to KappAhl, training in forecasting, which includes the understanding of the relation between the forecast and the business plan and the organizational impact on different functional areas derived from the business plan, is needed to get an overall picture. Another part of the training is the more technical part of it. Investments in training regarding the use of different techniques, both qualitative and quantitative methods, are beneficial in order to improve the forecasting practices. Training in both the aspect of how they are conducted, and in what situations different techniques are superior to others’, is argued to improve the forecasting practice of a firm. A greater involvement and understanding of the forecasting process is one way to go in order to increase the rate of satisfaction among the practitioners within KappAhl.

The view on the importance of forecasts for KappAhl’s operations is divided. As a whole, the view is that forecasting is important in order to understand the environment in which KappAhl operates. The Retail/Market functions’, which is where the responsibility of forecasts at large is within companies, have a different view of the importance of forecasts. One reason behind the lower mean in this question can be interpreted when related to the question regarding the resources put into the forecasting process. The view is that enough resources are put into it and that more important parts are seen within KappAhl’s operations in order for the organization to be successful.

7. CONCLUSIONS AND DISCUSSION

In this chapter the conclusions of our research will be presented.

Our objective with this thesis was to explore and analyze the attitudes towards four specific areas within the sales forecasting process of KappAhl. The mentioned areas were quality, usability, availability and satisfaction. We came up with these conclusions by using a survey, which was sent to people involved in the forecasting process within KappAhl. Our research issue was as follows:

What are the attitudes towards sales forecasting management within different departments involved in the process at KappAhl?

-especially the attitudes towards four aspects of current practice; quality, availability, usability and satisfaction

This research showed that there is a rather similar view towards the sales forecasting management within the organization of KappAhl. There are however some differences within the four aspects as well as within the different functional departments of KappAhl.

The *quality aspect* showed overall relatively high results, but there were some results worth considering. Despite that the respondents know where the information in the forecasts comes from and that they are able to change it, they still do not experience the information as correct. This correlates to a lower degree of satisfaction with the accuracy of the forecasts since the accuracy is measured and based upon the experienced incorrect information.

Within the *usability aspect*, there was a clear message. The respondents need clearer instructions and routines about how to produce and work with forecasts. Another important thing, regarding the instructions and routines, is the need of continuous updates. The high results regarding easiness to learn, use and understand the forecasts do not correlate with the relatively low result of satisfaction with the forecasting method and the forecasting process overall.

In our results regarding the *availability aspect*, one could deduce that the access to information about the forecasting practice was not as high at the Distribution/Business Control as it is within the other departments. One reason to this, quite substantial difference, is that the Distribution/Business control department is located in a different building than the other departments.

Our last aspect to consider was the aspect of *satisfaction*, which we combined with familiarity of other forecasting methods. The satisfaction with the current forecasting method was overall rather low, but the conditions and knowledge about alternative methods are not currently sufficient enough in order to change method. Furthermore, only one respondent consider using an alternative method. This indicates a state of mind which says “we do as we always do”. Our survey shows what researchers previously have come up with, that the more sophisticated the technique become, the less familiar it is among practitioners.

As a final reflection, sales forecasting management is perceived as an important part of KappAhl’s operations. Overall, forces within KappAhl desire a more unified view on how to produce and use a sales forecast. If instructions and routines are made clear for the producers, they will give the forecasts a higher credibility since the forecasts become more consistent over time. If old forecasts are followed-up, saved and later used as references for similar situations, it will be easier to achieve a higher rate of accuracy. Implementation of measurements of the accuracy will over time increase the accuracy itself since the follow-up is used to evaluate the performance. Measuring and evaluating the performance is a well-known way of increasing the effort put into a process.

8. REFERENCES

8.1. BOOKS

- Anthony, R. N., & Govindarajan, V. (2007). *Management Control Systems, 12th. ed.* Boston, Massachusetts: McGraw-Hill.
- Armstrong, J. S. (2003). *Principles of Forecasting - A Handbook for Researchers and Practitioners.* Norwell, Massachusetts: Kluwer Academic Publishers.
- Ask, U., & Ax, C. (1997). *Produktkalkylering i litteratur och praktik.* Kungälv: BAS ek. för.
- Ax, C., Kullvén, H., & Johansson, C. (2005). *Den nya ekonomistyrningen.* Liber AB.
- Daniels, J. D., Radebaugh, L. H., & Sullivan, D. P. (2007). *International Business Environments and Operations, 11th ed.* Upper Saddle River, New Jersey: Pearson Education, Inc.
- Fernie, J., & Sparks, L. (2004). *Logistics and Retail Management: Insights Into Current Practice and Trends From leading Experts.* London: Kogan Page.
- Lekvall, P., & Wahlbin, C. (2001). *Information för marknadsföringsbeslut.* Gothenburg: IHM Publishing.
- Makridakis, S., Wheelwright, S. C., & Hyndman, R. J. (1998). *Forecasting Methods and Applications 3rd ed.* New York, New York: John Wiley & Sons, Inc.
- Mentzer, J. T., & Moon, M. A. (2005). *Sales Forecasting Management: A Demand Management Approach.* Thousand Oaks, California: Sage Publications, Inc.
- Merchant, K. B., & Van der Stede, W. A. (2007). *Management Control Systems: Performance Measurement, Evaluation, and Incentives.* New York, New York: Prentice Hall.

8.2. ARTICLES

- Armstrong, J. S. (2006). Findings From Evidence-Based Forecasting: Methods for Reducing Forecast Error. *International Journal of Forecasting*, 22 , p. 583-598.
- Cox Jr., J. E., & Loomis, D. G. (2006). Improving Forecasting Through Textbooks - A 25 Year Review. *International Journal of Forecasting*, 22 , p. 617-624.
- Davies, D. F., & Mentzer, J. T. (2007). Organizational Factors in Sales Forecasting Management. *International Journal of Forecasting*, 23 , p. 475-492.
- Duran, J. A., & Flores, B. E. (1998). *Interfaces 28: Nov-Dec* , p. 56-62.
- Kahn, K. B. (2003). How to Measure the Impact of a Forecast Error on an Enterprise? *The Journal of Business Forecasting* , p. 21-25.
- Karnani, A. (2007). *Global Competition.* Ann Arbor, Michigan: The William Davidson Institute at The University of Michigan.
- Klassen, R. D., & Flores, B. E. (2001). Forecasting Practices of Canadian Firms: Survey Results and Comparisons. *International Journal of Production Economics*, 70 , p. 163-174.
- Kyvik Nordås, H. (2004). *The Global Textile and Clothing Industry Post the Agreement on Textiles and Clothing.* Geneva: World Trade Organization.
- McCarthy, T. M., Davis, D. F., Golobic, S. L., & Mentzer, J. T. (2006). The Evolution of Sales Forecasting Management: A 20-Year Longitudinal Study of Forecasting Practices. *Journal of Forecasting*, 25 , p. 303-324.

- Mentzer, J. T. (1999). The Impact of Forecasting on Return on Shareholder's Value. *The Journal of Business Forecasting* , p. 8-11.
- Mentzer, J. T., & Kahn, K. B. (1997). State of Sales Forecasting Systems in Corporate America. *The Journal of Business Forecasting* , p. 6-13.
- Mentzer, J. T., Moon, M. A., Kent, J. L., & Smith, C. D. (1997). The Need for a Forecasting Champion. *The Journal of Business Forecasting* , p. 4-8.
- Moon, M. A., & Mentzer, J. T. (1999). Improving Salesforce Forecasting. *The Journal of Business Forecasting* , p. 7-12.
- Rao, P. M. (2005). Business Process Outsourcing (BPO)-The Search for Cost Effectiveness. *The management Accountant* , p. 681-685.
- Sanders, N. R., & Manrodt, K. B. (March-April 994). Forecasting Practices in US Corporations: Survey Results. *Interfaces*, 24 , p. 92-100.
- Sanders, N. R., & Manrodt, K. B. (2003). The Efficacy of Using Judgmental Versus Quantitative Forecasting Methods in Practice. *Omega*, 31 , p. 511-522.
- Wacker, J. G., & Lummus, R. R. (2002). Sales Forecasting for Strategic Resource Planning. *International Journal of Operations & Production Management*, 22 , p. 1014-1031.
- White, H. R. (1986). Sales forecasting: Timesaving and Profit-making Strategies That Work. *International Journal of Forecasting*, 2 , p. 250-251.
- Winklhofer, H., Diamantopoulos, A., & Witt, S. F. (1996). Forecasting Practice: A Review of the Empirical Literature and an Agenda for Future Research. *International Journal of Forecasting*, 12 , p. 193-221.

8.3. INTERNET

- BBC. (2003, February 19). *BBC News, Business, Store Wars: Fast Fashion*. Retrieved May 24, 2008, from news.bbc.co.uk: <http://news.bbc.co.uk/1/hi/business/3086669.stm>
- BusinessDictionary.com. (2007-2008). *BusinessDictionary.com*. Retrieved May 13, 2008, from purchasing power definition: <http://www.businessdictionary.com/definition/purchasing-power.html>
- KappAhl. (2008). *KappAhl - You look great!* Retrieved April 10, 2008, from www.kappahl.com
- Leijonhufvud, J. (2007, July 17). *Het sommar för klädkedjorna*. Retrieved May 19, 2008, from dn.se: <http://www.dn.se/DNet/jsp/polopoly.jsp?a=671661>
- Stockmann Oyj Abp. (2008, March 18). *Meddelanden - Stockmann*. Retrieved May 19, 2008, from Stockmann: http://www.stockmann.com/group/sv/meddelanden_och_publicationer/meddelanden/?year=2008&id=251752&catid=17&eid=2&typeid=2&cid=974
- U.S. EPA (2007, November 1). *EPA/ESD - Glossary P*. Retrieved May 13, 2008, from <http://www.epa.gov/evaluate/glossary/p-esd.htm>

8.4. INTERVIEWS

- Leiner, T. (2008, May 6). Planner, Underwear. (H. Aronsson, & R. Jonsson, Interviewers)
- Olsson, J. (2008, May 22). Business Area Controller, Children. (H. Aronsson, & R. Jonsson, Interviewers)

APPENDIX 1: SURVEY OUTLINE

Instruktioner

1. Fyll i svaren på de rangordnade frågorna genom att sätta ett "x" i rutan med den rangordning som stämmer med Er uppfattning bäst enligt exemplet nedan.
2. Fyll i svar på öppna frågor
3. Spara dokumentet på lämplig plats så att Ni lätt hittar det, exempelvis på Skrivbordet
4. Svara på mailet och bifoga det sparade dokumentet
5. Skicka sedan mailet,

		Prioritetsskala							
		Vänligen kryssa i det alternativ som stämmer bäst med Er uppfattning							
Exempel		Inte alls						Fullt ut	Ingen uppfattning
		1	2	3	4	5	6	7	0
4	I vilken utsträckning har Ni tillgång till prognosinformation i Ert arbete när Ni behöver den?					X			

Enkätundersökning om prognosarbetet på KappAhl

1. Vilken avdelning arbetar du på?
2. Yrkestitel?
3. I relation till prognoser, vad anser du dig vara? Vänligen kryssa i det alternativ som stämmer bäst.

Upprättare	Användare	Upprättare och användare	Inget av alternativen

		Prioritetsskala							
		Vänligen kryssa i det alternativ som stämmer bäst med Er uppfattning							
Fråga		Inte alls						Fullt ut	Ingen uppfattning
		1	2	3	4	5	6	7	0
4	I vilken utsträckning har Ni tillgång till prognosinformation i Ert arbete när Ni behöver den?								
5	I vilken utsträckning fokuserar prognosinformationen på det prognosobjekt Ni inriktar Er på i Ert arbete?								
6	I vilken utsträckning bedömer Ni den prognosinformationen Ni använder i Ert arbete är korrekt?								

		Prioritetsskala							
		Vänligen kryssa i det alternativ som stämmer bäst med Er uppfattning							
Fråga		Inte alls 1	2	3	4	5	6	Fullt ut 7	Ingen uppfat tning 0
7	I vilken utsträckning har Ni kunskap om hur den prognosinformationen Ni använder i Ert arbete har tagits fram?								
8	I vilken utsträckning använder Ni den prognosinformationen Ni erhåller?								
9	Hur nöjd är Ni med hur ofta den/de prognos/-er Ni arbetar med i Ert arbete uppdateras (revideras) under prognosperioden?								
10	I vilken utsträckning har Ni möjlighet att begära/göra ändringar/justeringar av innehållet i den prognosinformationen Ni arbetar med i Ert arbete?								
11	I vilken utsträckning finner Ni innehållet i prognosinformationen Ni använder i Ert arbete är enkel att förstå?								
12	I vilken utsträckning finner Ni innehållet i den prognosinformation Ni använder i Ert arbete är enkel att använda?								
13	I vilken utsträckning finner Ni innehållet i den prognosinformation Ni använder i Ert arbete enkel att lära sig/förstå?								
14	I vilken utsträckning bedömer Ni att Ni kan tolka avvikelser, t ex avseende priser och kvantiteter, från de prognostiserade värden Ni använder i Ert arbete?								
15	I vilken utsträckning anser Ni att tillräckligt med resurser läggs ner på den prognostiseringsprocess som producerar den prognosinformationen Ni använder i Ert arbete?								
16	I vilken utsträckning anser ni att det finns klara instruktioner om hur de prognoser Ni använder i Ert arbete skall upprättas/tas fram?								
17	I vilken utsträckning anser ni att det finns klara rutiner om hur de prognoser Ni använder i Ert arbete skall upprättas/tas fram?								
18	Hur nöjd är Ni med den metod/process som används vid upprättandet/framtagandet av den/de prognos/-er Ni använder i Ert arbete?								

Prioritetskala

Vänligen kryssa i det alternativ som stämmer bäst med Er uppfattning

Fråga	Inte alls 1	2	3	4	5	6	Fullt ut 7	Ingen uppfattning 0
19 I vilken utsträckning är Ni nöjd med den träffsäkerheten som finns i den prognosinformationen Ni använder i Ert arbete?								
20 I vilken utsträckning upplever Ni att prognosarbetet (instruktioner/rutiner) i företaget uppdateras?								
21 Hur nöjd är Ni överlag med företagets prognosarbete?								
22 I vilken utsträckning anser Ni att prognosinformationen är viktig för företagets verksamhet?								
23 Anser Ni att någon förbättring i prognosarbetet kan göras?	Ja				Nej			

Om ja, vilken/vilka och varför?

24. I vilken utsträckning känner Ni till nedanstående nämnda prognosmetoder?

Vänligen kryssa i det alternativ som stämmer bäst med er uppfattning.

Prognosmetod	Jag har inte hört talas om metoden 1	Jag känner bara till metodens namn/benämning 2	Jag kan metodens grunddrag 3	Jag kan det mesta om metoden 4	Jag kan allt om metoden 5
a Historiska siffror					
b Bedömning från chefer					
c Bedömning från försäljningspersonal					
d Extrapolering					
e Kundundersökning av köpindikationer					
f Vägt genomsnitt					
g Exponentiell utjämning					

Prognosmetod	Jag har inte hört talas om metoden 1	Jag känner bara till metodens namn/benämning 2	Jag kan metodens grunddrag 3	Jag kan det mesta om metoden 4	Jag kan allt om metoden 5
h Regressionsanalys					
i Trendlinjeanalys					
j Livscykelanalys					
k Box-Jenkins tidsserieanalys					
l Expert system					
m Neural networks					

25. Funderar Ni på att börja arbeta med någon av metoderna som Ni inte använder idag?	Ja	Nej

Om ja, varför?

Tack för att Ni tog Er tid och medverkade!

Har Ni vidare frågor/funderingar angående undersökningen eller uppsatsen, vänligen kontakta någon av oss på nedanstående uppgifter så skall vi svara så gott vi kan!

Henrik Aronsson

0739-397887

Henrik.aronsson@kappahl.com

Rickard Jonsson

0706-692204

Rickard.jon@hotmail.com