The forecasting process within Fiskars – Business Area Home

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Sammandrag:

Detta arbete presenterar Fiskars prognositeringsprocess. Fiskars är ett internationellt aktiebolag och är indelat i flera divisioner. Detta arbete har inriktats och är begränsat för prognostiseringsprocessen av Business Area Home för Fiskars. För presentetation av processen har olika moment, deltagare och deras aktiviter klargjorts. Detta arbete skall också presentera potentiella flaskhalsar i Fiskars process som kan ha upptäckts under intervjuer.
Detta arbete presenterar också grunderna i prognostisering för bolag; varför prognoser görs, vad innebär en god prognostiseringsprocess, hur kan en prognos göras och vad skall man ta i beaktande. Fiskars process jämförs med dessa teorier.
Processbeskrivningen är för läget i Fiskars under våren 2014. För att undersöka processen har intervjuer gjorts med personal som deltar i olika skeden av den.
I arbetet har Fiskars Business Area Home process granskats och klargjorts från början till slut. Svagheter i processen under våren 2014 var tidrsamen för prognosen. Budgeten och prognosen görs för vart räkenskapsår åt gången – istället kunde 12-month rolling forecast introduceras som innebär att man alltid planerar 12 månader framåt.
En annan flaskhals i processen var mängden manuell inmatning av data och speciellt mellan olika divisioner. Manuell data inmatning kräver ofta mera resurser och ökar risken för fel inmatning.

Nyckelord:	Prognoser, process beskrivning, företags organisation, flaskhals, prognosmetoder, utbud och efterfrågan
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Abstract:
This thesis will present and review the forecasting process of Fiskars, more precisely it will focus on the perspective of its Business Area Home. The thesis will also present the very fundamentals of forecasting and the business structure of Fiskars during June 2014. In addition to only presenting the forecasting process this thesis will present any other bottlenecks found in the process of the Fiskars forecasting process.
This thesis findings are limited to the perspective of Fiskars Business Area Home and are based on the situation in June 2014.
The fundamentals of forecasting include a presentation of why it's done by companies, what needs to be taken into consideration when doing a forecast, what makes a good forecast and what kind of different techniques are there?
To review the Fiskars process, interviews have been conducted to key personnel to question what is done and why. During the interviews the structure of the process has been discovered and successfully compared to existing theories. Bottlenecks and possible areas of improvement are such as the timeframe of the forecast, which could be changed from a traditional approach to a modern 12-month rolling forecast. With a multinational company and several variables manual data entry is risky and require a lot of resources.
In the end a flowchart has been established with and without the improvement suggestions of the forecasting process.

Keywords:	Forecasting, process description business structure, forecasting process, bottlenecks, forecasting techniques, supply & demand
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1 INTRODUCTION

Change, update, upgrade and adapt new business structures are apart of every business at some point. In order to stay successful during long time periods and to maintain business profitability companies have to evolve with the market.
Depending on the company and its financial position this can be done in several different ways, for instance laying off a part of the workforce, sell existing or acquire new divisions to the company, merge with a competitor or restructure your existing resources.

Fiskars Group restructured their business to be managed as a matrix organization. The Group is divided into three different business areas: Home, Garden and Outdoor. These are managed geographically according to segmentations: North + Export, Central and APAC.

Forecasting is a key process of every business and needs to be done. After restructuring some processes are the same as before and some of the processes are modified. For a multinational company like Fiskars it's very important to have each process clear to themselves. The main purpose of forecasting is to have the companies demand successfully met by an appropriate supply of goods.

Currently Fiskars Group is divided into three different sections/Business Areas; Home, Garden and Outdoor. Each of these has individual sales targets, budgets, forecasts and personnel. Fiskars is also divided into three different sales regions. These are: sales region North, which includes the northern countries of Europe and Export. Sales region South, this is the rest of Europe excluding the North. The third sales region is Asia Pacific, this includes Asia and North America. Fiskars is present in these region's countries with legal entities. This means that they have registered official companies in the countries that are a part of the Fiskars Group. Countries sales that don't have legal entities are made by Sales region North as it's export.

1.1 Reason and problem area

A global company like Fiskars has got several variables in means of divisions, personnel, products, customers and suppliers. All of these are affected by the forecast and each of them can be affected in different ways. Due to the recent restructuring it's good to have the flowchart documented and examined.

This thesis will describe the forecasting process of Fiskars Business Area Home (BAH). It will explain how the process is built and how it functions today (spring-summer 2014). The aim of the thesis is to have a flowchart at the end of it all where one can understand easily what the process is. The results will be compared to existing literature about forecasting and hope to discover any disadvantages in the current Fiskars BAH forecasting process.

A key question for this thesis is: how is the process structured and what are the different steps of it. In addition to this any other areas of concern or possible bottlenecks that can arise during interviews should be presented in the end.

With the new changes to the organization Fiskars is still managed by a yearly budget. Business targets and goals are set for each fiscal year at a time. During this year everything is done to achieve the goals for each 12 months. A goal can be revenue. It can also be and usually is a combination of revenue and other key ratios such as EBITDA and profit margins. These goals change from year to year and are decided by the board of directors. The core of a public company is still to make profit for its shareholders. Planning each fiscal year at a time creates a problem of short sight. Companies usually have 1-3-5-10 year strategies that they follow. Still each fiscal year is measured separately and has got separate goals.

This means that for a fiscal year starting in January and ending in December, in March you are only planning for the 9 months left of the year. In June you are halfway through your year and you are only planning for the rest of the year, which is only 6 months ahead.

When it comes to December, you are making decisions for only a month ahead. After the fiscal year has ended the company starts over again and each day that passes creates a shorter plan for the future.

The recently made conversion to a matrix organization has brought along the advantages of such an organization. Each organizational structure has got disadvantages as well which you want to minimize. This thesis will also try to discover if any of the disadvantages have carried over along with the transition.

1.2 Methods and structure

This thesis will be a case study based on the forecasting process of Business Area Home of Fiskars. The findings can't and shouldn't be generalized to other sections or subjects. Interviews will be held for key personnel involved in the process. By using unstructured qualitative questions and technique, more in-depth information can be gathered and any problem areas can arise by themselves, as they are not known before the interviews are conducted. The interviewees will be responsible for different parts of the process so no answer should be the same as the other and are expected to build upon each other.
When the interviews have been conducted and a process is structured this data will be compared to existing forecasting theories and methods. The goal is to find similarities and especially possible improvements. The basis for this comparison will be up to date literature and appropriate journals (Bell & Bryman 2011 p. 49).

2 FORECASTING

This chapter will introduce you to the basics of forecasting and motivate its existence. A forecast is a statement about the future value of a variable such as demand.
In operations management, the forecast of demand is crucial and the base of all operations. The basis of market economy; to have supply meet demand. From the estimated demand, sales targets are calculated for sales teams. Based on the estimated sales the company is going to need the same amount of products from the factory. Sales are going

to need a certain amount of help from the marketing team and so on. The company needs to have sellable stock at all times or a manageable amount of backorders.

Figure 1. Different scenarios with supply and demand.

Of the scenarios shown on Figure 1 it is clear that all business strive for a scenario where high demand is met by high supply; The company has got good sales and sufficiently stock to sell as well.

Some companies prefer to have low supply even though they are facing high demand. This can be due to several reasons of which the most common ones are:

- Minimizing your risk, when you have low supply you don't have as much money tied to inventory, also common for startups.
- When the product is very expensive and exclusive and the company wants it to stay that way.
- The company can maintain a very strict control over their production.

When a company is facing low demand and replying to it by having a low level of supply it's doing the right thing. Having demand and supply meet means that despite the low demand the company will not be stuck with excessive inventory which will have to be sold at great bulk discounts at the year-end.

When a company's forecasting has gone wrong it may end up in a situation with low demand and high supply. Usually this means that the business is stuck or overstocked with products that aren't being sold. This situation is expensive for company's as their money is tied to the inventory, storages costs keep on going and the longer the products are not sold the older they get (Eklund 2005 p. 60-66)

Forecasting can be done in many ways, using different theories and techniques. There is no theory that one can to apply to all situations and a big part of the success in your forecast is generated from how well you chose the most appropriate technique (Stevenson 2009 p. 72).

2.1 Elements of a good forecast

Despite the existence of several forecasting techniques there are certain requirements for all of them, elements that have to apply in order for them to be qualified as good. When all of these are present, the forecast has a better chance of being accurate and beneficial for the company.

1. A forecast has to be timely. This means that possible changes made to improve the business have got to have the time for it as well. Certain changes such as production methods can't be changed overnight and neither can results in that case.
2. A forecast has to be accurate. You have to have created several forecasts before you are able to determine how accurate the forecasts usually have been. This is also depending on the technique and should be known when reading the forecast.
3. A forecast has to be reliable. A forecast technique that gives overestimating results, underestimating results and accurate results on a random basis can't be trusted.
4. A forecast has to be in relevant units. The units used have to be applicable to the case.

5. A forecast should be found in writing as well as data. One should be able to come to the same conclusion after reading it and after seeing results from a calculation.
6. A forecast technique should be simple to understand and to use. This prevents from problems, as everybody can understand the technique.
7. A forecast shouldn't take too much time or other resources. It has to be cost-effective and worth the while (Stevenson 2009 p. 74).

2.2 Steps of a forecast

Figure 2. Steps of a forecast (Hyndman 2013).

The forecasting process consists of five key steps. It doesn't matter what kind of forecast you are doing – all of these steps are as necessary as the elements above.

1. **Determine the purpose**

   Start by determining what values the forecast is for; revenue, sales, units or demand. Who is the forecast for to use, is it meant for the public, sales staff or exclusively to upper management. When is it usable, the longer period of time a forecast is made for the more unstable and unreliable it becomes. How accurate does the forecast have to be, define the level of details and control limits.
2. **Gather & Clean data**

   Get all of the data required for your forecast. Sort the data so that it's as accessible as well as easy to read as possible. Remove all irrelevant factors. Depending on the set limits you defined before you may have to delete the most extreme outliners.

3. **Plot the data & select an appropriate technique**

   By graphing the data that is going to be used one can tell if there is seasonality, consistent patterns or extreme outliners. After having a preview of the material you are better equipped to choose the right technique to use in the forecast. By browsing through the data available you can also make sure that there is data available to start with. Based on the type of data you have ploted you are already available to make the decision on whether qualitative or quantitive techniques will be applicable.

   Choose the most convenient technique, perhaps more than one for the case and keep in mind that the elements of a good forecast need to be possible to obtain.

4. **Make the forecast**

   Once you've decided on the technique, gathered and cleaned up the data, set the limits for your forecast it's time to execute the forecast itself.

5. **Monitor the forecast**

   Once the time frame for the forecast has passed it has to be measured for accuracy and to gain experience for future forecasts.

   Forecast error = Actual value – Forecasted value.

   (Athanasopoulos & Hyndman 2013)

2.3 Forecast accuracy

The accuracy of the forecast can only be measured historically, as it's comparing the expected results with the actual results of the determined variable.

There are three general ways of measuring accuracy. These are mean absolute deviation (MAD), mean squared error (MSE) and mean absolute percent error (MAPE). It's up to the manager who's in charge of forecasting to decide which of these to look at and react accordingly.

$$MAD = \frac{\sum|Actual_t - Forecast_t|}{n}$$

Mean absolute deviation weights all differences from the series equally and calculates an average from it.

$$MSE = \frac{\sum(Actual_t - Forecast_t)^2}{n-1}$$

Mean squared error weights errors according to their squared value, being more aggressive than MAD.

$$MAPE = \frac{\sum \frac{|Actual_t - Forecast_t|}{Actual_t} \; x\; 100}{n}$$

$$n = Amount\ of\ periods \qquad t = period$$

Mean absolute percentage calculates how big the error is relative to the sum of the actual value. MAPE gives perspective and the relative wrong instead of a number (Stevenson 2009 p. 76).

2.4 Forecasting techniques

Forecasting techniques can be divided into two bigger categories: qualitative and quantitative. Depending on what the forecast variable is it will require either or both types of forecasts to create a comprehensive forecast.

2.4.1 Qualitative forecasting techniques

Qualitative techniques are mostly used in cases where there is no or at least not enough data available. This is common for new products that haven't had any sales yet and therefore there is no historical data for the product either.
These techniques are usually based on opinions and statements made rather than figures. Quantitative methods can be broken down to four subcategories:

- Delphi method
  This is a unanimous opinion of a panel of experts of the topic.

- Analogous data

Comparing the new product to similar products already on the market or a previous model.

- Customer surveys
  Testing the demand & reactions with focus groups and marketing activities.

- Jury executive opinion
  Group discussion with relevant sales people and management to establish a best estimate

2.4.2 Quantitative forecasting techniques

Quantitative methods can be used for products with past sales and therefore available data. These techniques build on data from previous time and the general assumption is that patterns that have happened in the past will repeat themselves. Because of the availability of data there are quite a few more techniques that can be used. The quantitative techniques are also subcategorized into two different categories; intrinsic and extrinsic. Depending on which variable is to be forecasted one has to choose the appropriate technique.

Intrinsic techniques

In general there are methods for three different kind of data, these are flat, trend and seasonal.

- Flat
  Flat patterns are such where there is no upward or downward trend in the data. These can then be forecasted in different ways, giving the latest results more emphasis or applying the previous accuracy to your future forecast.
- Trend
  For data with a clear upward or downward movement you need to identify the variable and add that to the equation. Depending on the technique chosen you will again give more weight to the most recent data.

- Seasonal

  Seasonal forecasting is something that repeats for instance annually and the changing variable is often quite easy to identify. This may be for instance the sales of snow-gear and their relation to winter.

  Forecasting the flat data is the default and in order to include more to your forecast you can't disregard the basics, instead you have to include that and add the new variables and elements to succeed in creating the trend and seasonal forecasts.

Extrinsic techniques

Whereas in the intrinsic techniques each variable are directly linked to each other an extrinsic technique tries to see two unreliable variables effect each others. Such an example is the amount of permitted hunting cards to sales of weapons. This is usually difficult as well because you need the data for many different indicators.

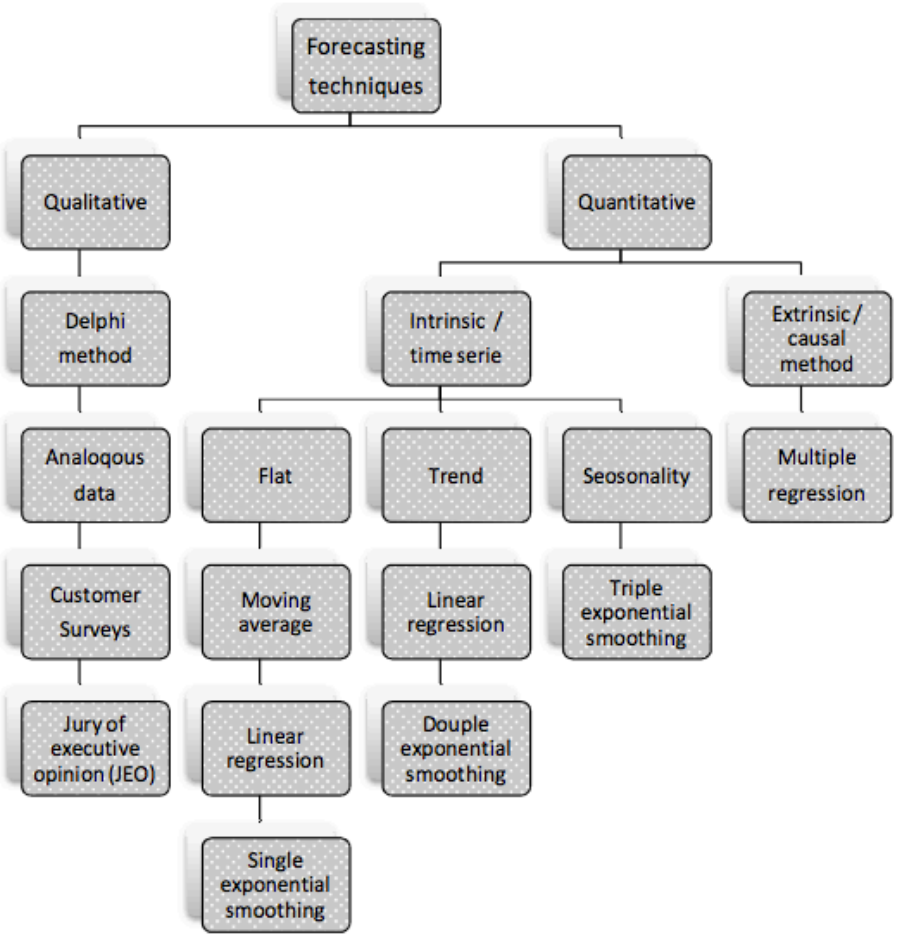

Figure 3. Different forecasting techniques presented.

In order to get the best result you need to choose the right technique, one does not apply for all situations and sometimes one situation can have several potential techniques. It's always very important to keep on mind what is to be forecasted and whether the trouble is worth the while with each of techniques (Sabri & Shaikh 2010 p. 158).

3 FISKARS

"Fiskars is a global consumer products company with a strong portfolio of trusted brands including Fiskars, Iittala, Arabia, Hackman, Gerber, and Buster. The company is listed on NASDAQ OMX Helsinki in Finland." (www3.fiskars.com, 2014)
The above is a direct quote from the company website landing page. Now a day the companies listed are all part of the Fiskars Group and work together to make the whole group as profitable as possible. Before these companies may have had their business objectives colliding with each other and ones success has been another ones failure.
By combining all of these to a group you can minimize the competition and with a clear group business vision have all companies work together to achieve the same goals.

3.1 Management at Fiskars

Today Fiskars is as previously mentioned (page 8) structured as matrix organization.
A matrix organization makes it possible for one person/process to have two different places/persons to report to. The goal is to operate jointly on all major decisions and having the same formats for things to ease communication. Some of the advantages of a matrix organization are increased managerial involvement, close co-ordination where decision may conflict and bureaucracy is replaced by direct discussion with the conflicting parties (Lynch 2009 p. 472).
For Fiskars this means having their company actions and processes run from two different angles at all times. These are product type wise, known as business areas (BA) and geographically, these are known as sales regions. As Fiskars is a globl company, it has got legal entities in these countries that report financially both internally as well as ex-

ternally to the officials of the country in question. Each country is referred to as a sales unit. Each sales unit is similarly divided into sub categories of different business areas.

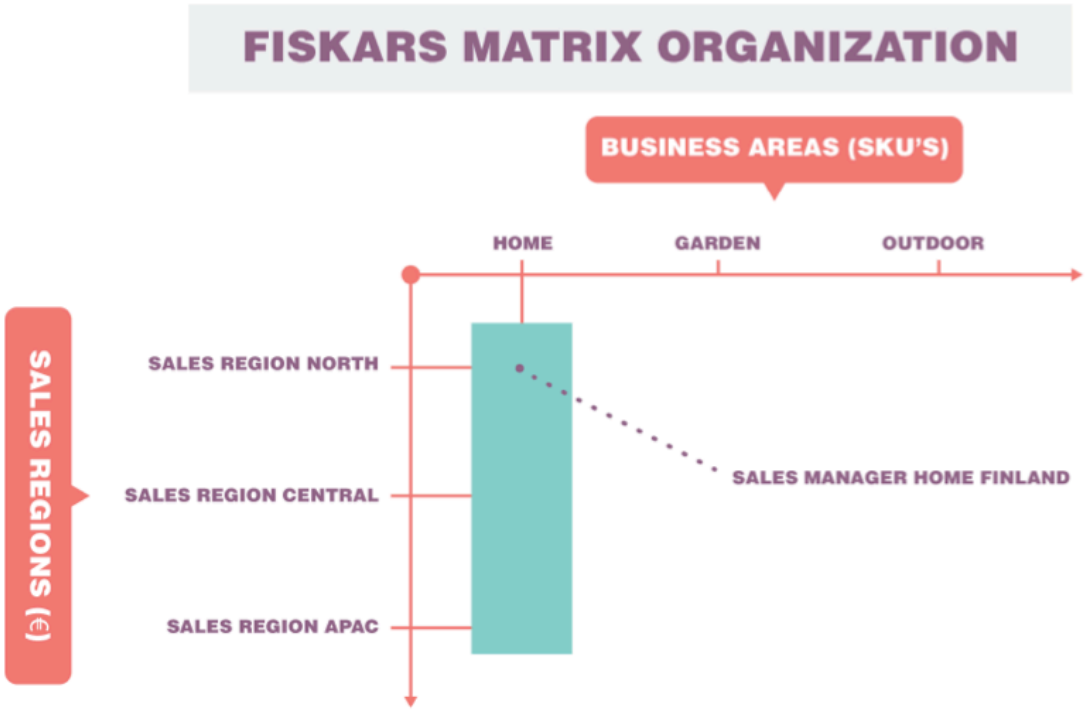

Figure 4. Fiskars matrix organization.

A forecast is created for all sales units and their respective business areas separately. Once all sales units of a certain sales region have completed their forecasts they are combined to become the forecast of that sales region. When all of these reports and forecasts have been approved by both the sales region and the business area the report is passed on to the CEO of Fiskars who will represent the results to the board of directors. As Fiskars is publicly listed limited company it has to present financial reports after each quarter to the public as well and specially to its shareholders. For the external reports Fiskars do not separate sales between different business areas only in different sales regions.

3.1.1 The purpose of business areas

The main purpose of each business area is to maximize the profitability of the product portfolio.

Their purpose is to manage and customize their general product portfolio so that it will create as much profit as possible. Their responsibility is to know the demand for products in the portfolio and create sales strategies and campaigns that will help and underline the strengths of each product and result in sales. The business area has got a target for overall sales and does not need to take the geographical distribution of these sales into account.

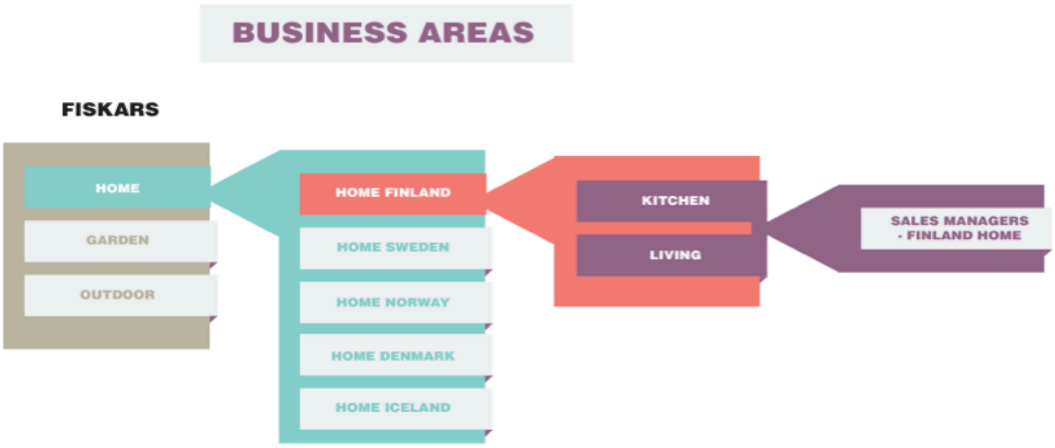

Figure 5. Fiskars Business Area Home to the sales manager in Finland.

3.1.2 The purpose of sales regions

The main purpose of each sales region is to maximize the profit of the countries within the sales region. Each sales region has the customized product portfolio from which to generate sales. It is each sales regions responsibility to generate the amount of revenue set for the whole region but it does not have to outline which specific products will be sold to generate the sales (Larsson 2014, Appendix 1).

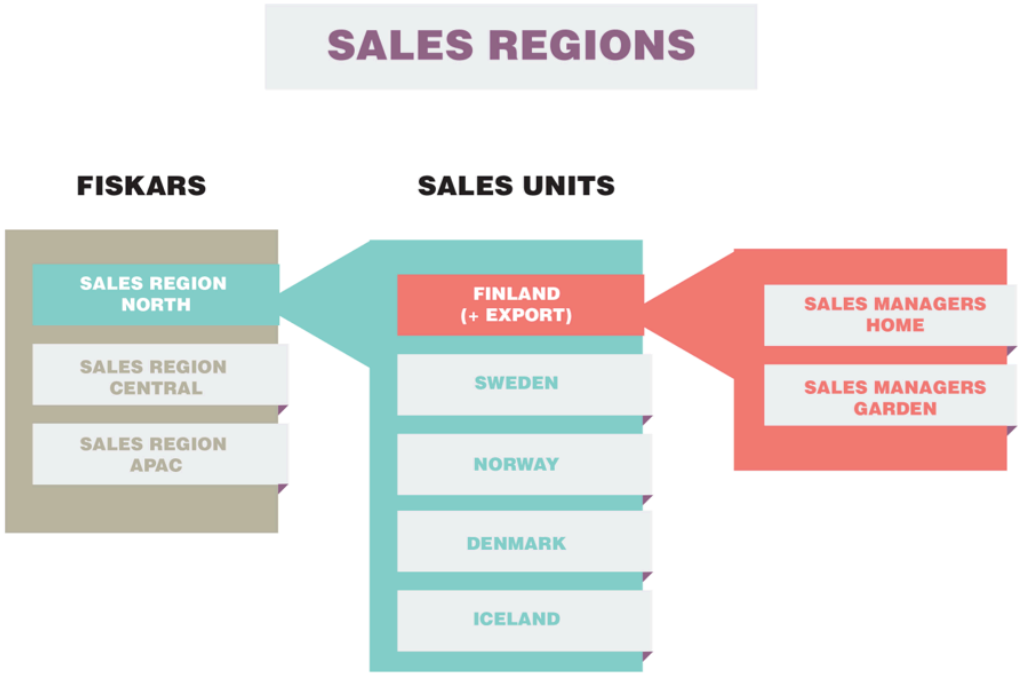

Figure 6. Fiskars Sales regions to Sales manager Finland.

4 FORECASTING AT FISKARS

The following chapters will describe and discuss the forecasting process of Fiskars. The findings are based upon interviews held with Fiskars personnel of different sections in Fiskars headquarters in Helsinki during the spring 2014. The process grass root level is from the perspective of sales unit Finland.

Forecasting at Fiskars is done to manage their resources internally and manage the risks involved with the business such as carrying too much inventory of the wrong products. Now a day its importance has grown in communicating the company's wellbeing and future to the current and potential shareholders as well.

Fiskars current fiscal year is the same as the calendar year. It's forecast is made for each fiscal year at a time and is updated after each quarter. During the year, the forecast time-line still remains the same and after the first quarter the forecast covers the remaining 9 months of the fiscal year.

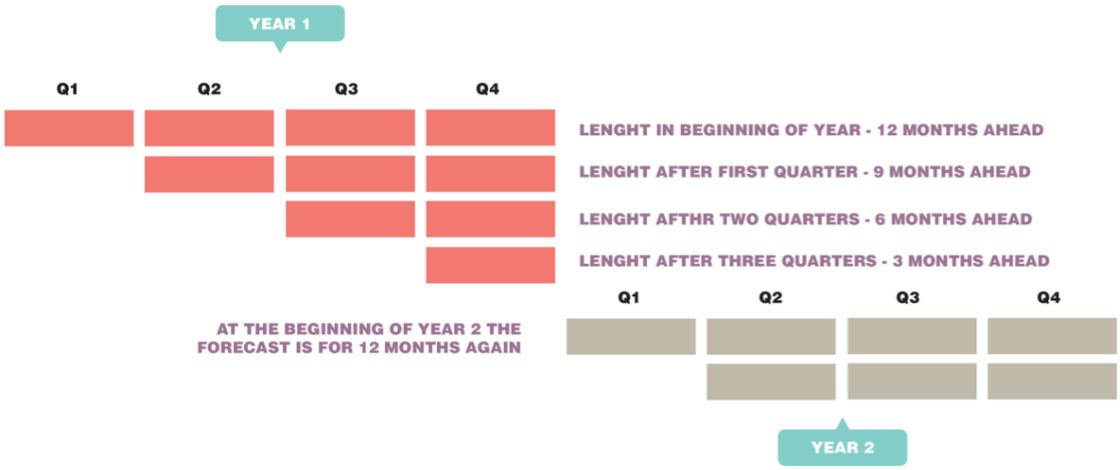

Figure 7. Timeframe of the current forecast.

4.1 Step one – S&OP prepares a draft

Fiskars has got a sales & operations planning (S&OP) team that is a supportive element to sales and other functions such as production. Upon the end of each quarter it's its responsibility to start the process of updating the forecast.
When this happens the S&OP team will have a look at the budgeted figures for the incoming quarters and at the historic quarters and adjust their forecast accordingly. S&OP prepares a draft version of the forecast for each sales unit available. The S&OP team regards the following but is not limited to include only them in their forecast:

- Previous year readings: What was sold during the forecasted quarter last year and what was that relative amount to the previous quarter.
- Market readings: What is the general status of the specific country. Financially as well as politically. A very good measurement for a country is the consumer confidence index. This is a general indicator on how the consumer feels in general about the economy, whether it's headed for worse times or better (Business dictionary 2014)
- Operations possibilities: The S&OP can have more insight on incoming possibilities or restrictions in the availability of products and can therefore tell if it will have an effect on the initially budgeted figures.

The outcome is for instance for Sales unit Finland the exact amount of products they will sell during the next quarter. It's been broken down to SKU-level accuracy, not only type of products. SKU – Stock keeping unit, is every product that is even slightly different from each other. For instance a cup that exists in two colors are two different SKU's even though it may be the same item. In addition to the SKU's the draft also includes the projected customers for each product.

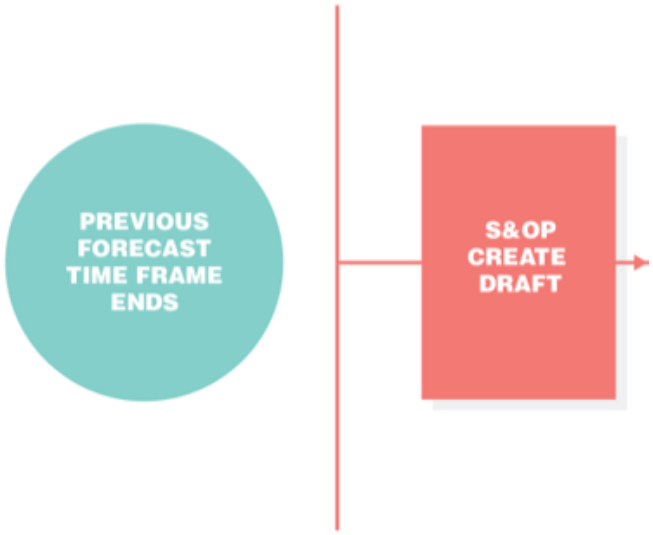

Figure 8. Step one of the forecast process.

4.2 Step two – Sales managers perspective & the data

Each sales unit has got a varying amount of sales managers. These are the face of the company towards customers and deal with them on a daily basis. When the first draft arrives from S&OP it's the sales managers turn to have a look at the list of sellable goods for the next quarter. The sales manager has to break it down to SKUs per customer as well. The input from the sales managers is extremely important and the whole process relies on it to be as close to reality as possible. The sales managers have the best market readings of the current status and insight on the near future as well. They have knowledge about future campaigns and promotions with their customers. It's the sales managers responsibility to make changes to the draft. Will they sell as many products as the draft suggests, sometimes it's more than the projection; the manager has got campaigns planned that the S&OP are not aware of yet. Of course it can also be less than the

projection. When the manager has made his changes to his own customers from the list he will send it back to the S&OP team (Larsson 2014, Appendix 1).

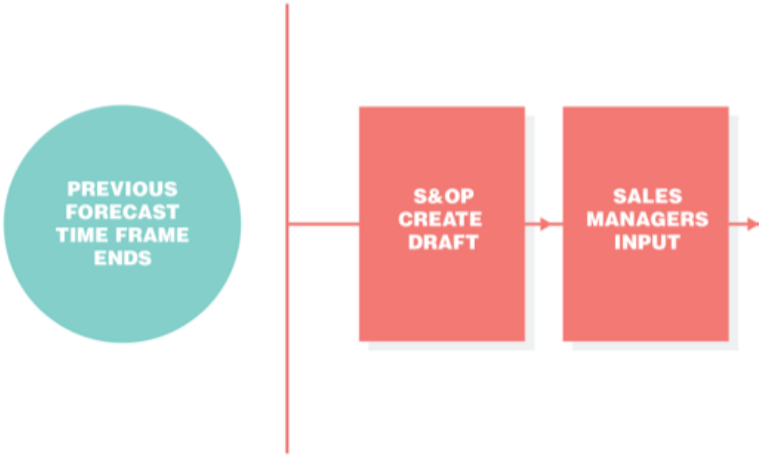

Figure 9. Step 2 of the forecast.

4.3 Step three – S&OP review changes and consolidate

Once all sales managers have reviewed their own customer's sales by item it's the S&OP team who will have a look at the forecast again. This is done to check that all the input from the sales managers is correct. For instance a sales manager may have thought that some products are still available for sales even though the company is discontinuing the particular product. This part is done to avoid any friction in the following steps of the forecast and is very important because after this stage the emphasis will not be on SKU-level anymore during the forecast.

Steps two and three can be repeated if the S&OP team does not agree with the forecast of the managers. Until they agree and can understand and motivate each figure the process will not proceed.

When the S&OP team finds that each sales managers input (SKU sales per customer) are correctly put together and any changes to the first draft are well-founded, all of the different managers estimates will be consolidated and put together as one forecast of the specific sales unit.

When they sales unit's forecast is completed it will be sent on to the management and business controllers of the appropriate sales region and business areas. In addition to the data, each sales units manager will send a "president's letter" that motivates and summarizes the draft as well.

The sales region and business area will review the data in their own way (Larsson 2014, Appendix 2).

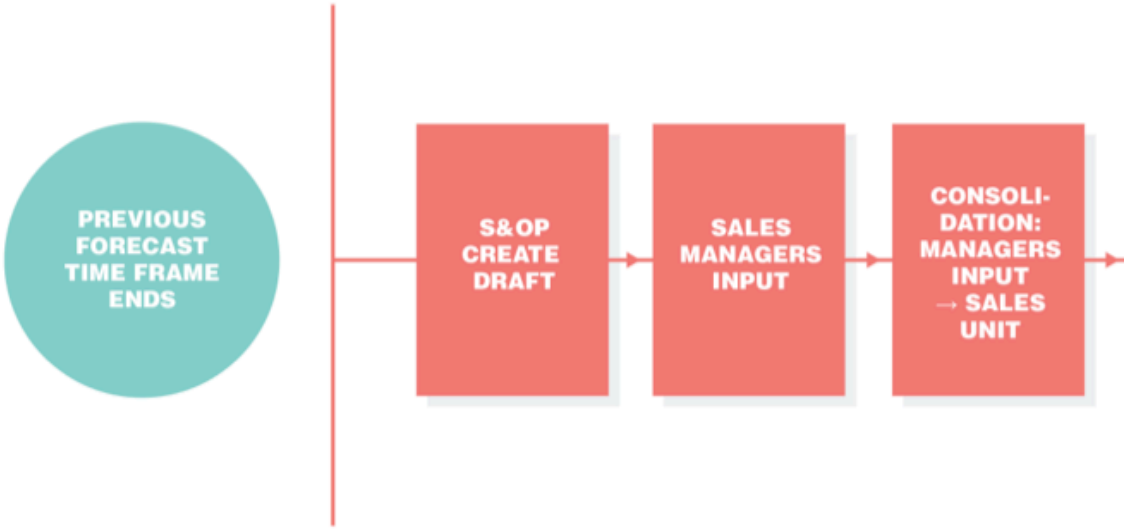

Figure 10. Step three of the forecast.

4.4 Step four – sales region review

When the management and business controllers of the sales regions receive the consolidated forecasts of all sales units they will be put together to establish a forecast of a whole sales region. For instance the sales unit of Finland will be combined with the other Nordic countries and export sales to stand for sales region North.
On this level the sales estimates are read and created as revenue instead of amount of products and by the country instead of by the customer. The sales region will look at indicators regarding the countries markets. Some of these indicators are for instance but not limited to:

- Consumer confidence index; it is combined for the whole sales region instead of for the country specific markets

- Political situation; an unstable political order can cause several problems and delays. It's the sales regions responsibility to react to such changes.
- Online vs. traditional market share; what are the current trends on the retail market and how do they affect the current distribution.
- Growth; which sales unit market share is growing.

The objective of the sales regions is to maximize the profitability of the countries within each sales region. This means finding the most promising countries and steering your sales activities to where there is demand (Piirainen 2014, Appendix 3).

4.5 Step five – Business Area Review

When the business controllers and management of each business area receive the draft they will focus on product families over separate SKUs. The business area Home is divided into two divisions that are split into nine different categories in total. The business area is reading the same data that the sales region people are. Instead of focusing on how much to sell moneywise it's the business areas responsibility to see what products should be sold and how many. This is the most critical difference in the views of the business areas and sales regions – whereas the sales regions provide their estimates in revenue, the business area present their results in amount of products. Likewise as the sales region, the further away from the sales manager the draft gets the bigger part of the business is looked upon. Instead of looking at separate SKU's the business areas focus on their divisions and in the end for Home in their two units. For the business area, their results do not need to be allocated geographically, that means that they do not have to show their results in products to be sold by the country. The business area has got an advantage to their forecast as they are closer to the production in the supply chain than sales regions. This means that they will have the knowledge of any new products, possible stock-outs or other internal news before and can take that into account in their forecast.

Indicators that are taken into consideration but not limited to when the Business Area Home reads the data are:

- Consumer confidence index – similarly important information for the business area as for the sales region about the market in general.
- Relative market share of product family – What is the product families market share compared to competitors similar products.
- Seasonality from previous years – the Business Area Home has got several products which have seasonal increase each year at a certain time. For instance vases and the graduation time in the early summer.
- Availability – as mentioned before, the business area has got better knowledge on what is being and can be produced, therefore what can be sold (Liukko 2014, Appendix 4).

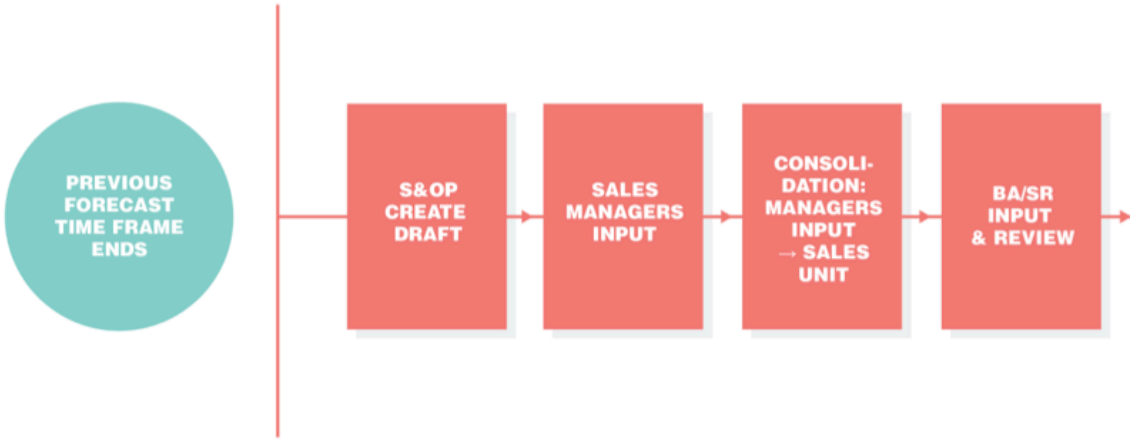

Figure 11. Steps four and five of the forecast.

4.5.1 Differences in the business area and sales region point of views

The information and data is the same for both business areas and sales regions, it's a matter of interpreting and analyzing it in the agreed ways to create a comprehensive consolidated forecast for each section. It's crucial to the whole process that each part interprets the data in the way specified for them. This also builds upon the main purposes of the business areas, to maximize the profitability from the product portfolios and for sales regions, to maximize the profitability of the countries within the sales region.

The biggest difference is that they create their forecasts in different units. The business area reports in items sold whereas the sales region forwards their forecast in revenue (Larsson 2014, Appendix 2).

4.6 Step six – consolidation of SR / BA views

When both the business area and sales regions have gone through their input to the forecast it will be sent back to the S&OP team again. At this stage the draft is very close to being finished and all the information needs to be consolidated to become one forecast for the whole company. At this time it's at matter of management from each section to discuss over any fluctuation and motivate their own views.
Even though the draft has been worked upon in several stages at this point already there may still be some details that do not match. The business area may believe in one of their products more than initially anticipated. In such a case the excess items can be left unallocated to a specific country within a sales region.

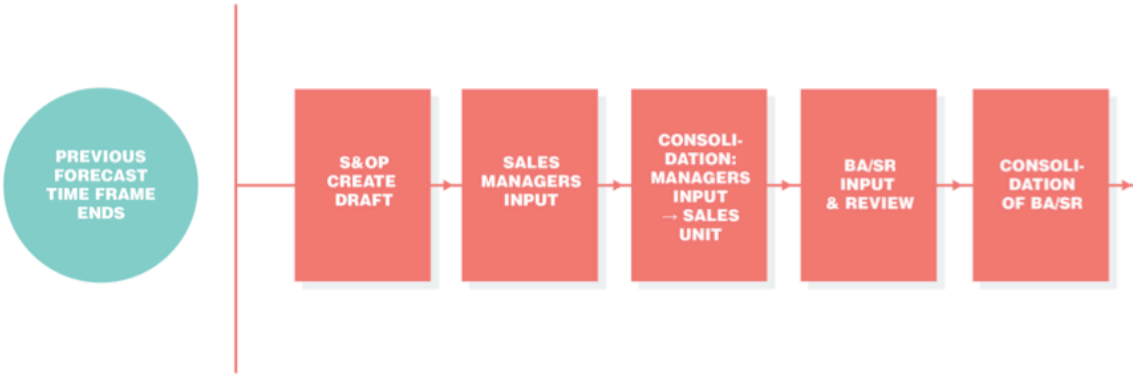

Figure 12. Step six of the forecast.

When all parties agree to the draft they have to see how it differentiates from the previous forecast and how that affects the company's wellbeing and targets. Are they still on course to meet the targets that are set and demanded by the shareholders?

The draft will always be a draft until all parts can agree on the forecast and therefore be presented to the board of directors. Once all parties are satisfied the updated forecast

becomes official and will be presented to the board of directors by the Chief Executive Officer (Larsson 2014, Appendix 2)

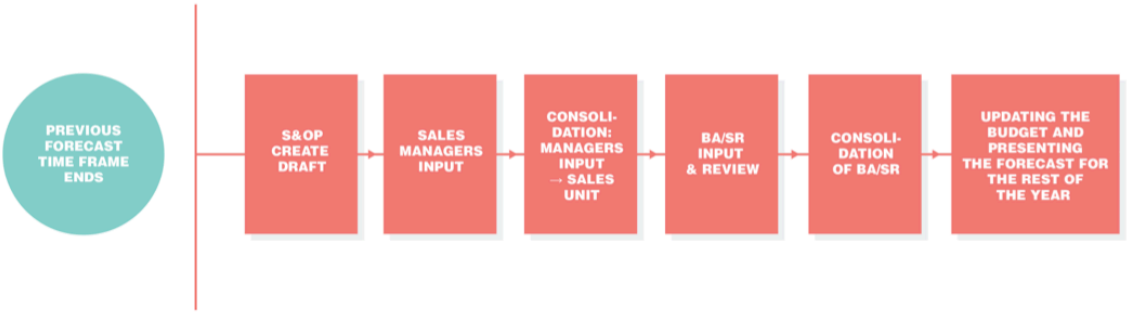

Figure 13. The whole forecasting process.

5 COMPARISON OF STEPS

This chapter will compare the steps of forecasting that were presented in chapter 2.2 and how Fiskars Business Area Home's forecasting utilize those. It'll compare them step-by-step and present possible suggestions for improvement.

5.1 Comparison of step one – Determine the purpose

The first step for Fiskars being the S&OP create the draft they carry this responsibility of defining the forecast. What is it for, for whom to read, for which time-period and setting control limits.

Having the matrix organization structure the forecast is done in two perspectives. That includes data input in products as well as in revenue. This does mean that the results will also be available in two different forms. By getting the information from different sales units it's also fairly easy to present the forecast for each sales region separately. Parts of the forecast will be for internal use only, as Fiskars is a public corporation they need to give out press releases after each quarter (Pörssilaki 2014). Some of the data in the forecast will be mentioned during the press releases as information for current and future shareholders. The public information is given out divided into sales regions, it's not specified into business areas.

When defining the forecast, it's possible to set control limits on different things. An example that Fiskars uses occasionally is the 50/50 principle. This is regarding what information or estimates should be included in the forecast. If there is a 50% or more probability that the action will have an effect it should be included.
A major part of the definition is to set the timeline for the forecast. As stated before the final forecast is made for each fiscal year at a time. And for every update to the forecast is made for a shorter period of time. Of course the company looks more into the future than the fiscal year however that is how the results are reviewed.

5.2 Comparison of step two – Gather & clean data

The data for the draft is generated from the budget and set expectations however the most recent and up to date data comes from the sales managers. After all sales managers have reviewed their own parts the draft is returned to the S&OP team. At this point it's that teams responsibility to firstly clean the data. This means looking over that all data is input in the correct units, that there are no double entries, that the estimates are made for the right products and so on.
On top of those the S&OP also has to see that all of the data is in line with requirements set forth in step one.
The data is actually checked over and over during the process as each the departments look over the draft covering bigger parts of the business. If there are any irregularities or unexpected changes at that point the data will be reviewed from the start which is what the sales manager first input.

5.3 Comparison of step three – Plot the data & select an appropriate technique

When choosing which techniques Fiskars choose to use to estimate the demand it depends very much on what data is available. As Fiskars is not a startup, it has got the actual sales data for years. Of course the older the data is the less value it has for the future estimates. However plotting the data can be done fairly easy to see what kind of demand each product has got in the past. With the experienced personnel of Fiskars some of the

techniques are basically chosen automatically. This is because the specific products demand has been forecasted with that technique successfully before and thus can be done again. New products are always more difficult and often require more research and several different techniques.

5.4 Comparison of step four – Make the forecast

Once the data is in the actual making of the forecast is done and finalized when the consolidation of the different parts has come to an end. The most challenging part is to have the different inputs, items vs. SKUs to match and views of sales regions vs. business areas to agree on the forecast.
The forecast is done when the new updated budget and other estimates of financial figures and statements have been updated and presented to the board of directors.

5.5 Comparison of step five – Monitor the forecast

Monitoring the forecast is crucial and when comparing the forecast to the actual Fiskars is mostly interested is the mean absolute percentage and even more importantly on what the effects the error had on the estimated budget and financial figures. What actions need to be made in order to meet the required targets.
Monitoring the forecast is the responsibility of the S&OP and is combined to the first step of the forecast. When the timeframe for which the initial forecast was made has passed it's time to start over and create and finalize the most recent forecast again.

5.6 Improvement suggestion – rolling forecast

The steps of Fiskars are aligned with the guidelines. Despite this there's one major thing that could be changed with the process of Fiskars. This is the fiscal year time-line of the forecast and the problem it's creating by getting shorter all the time throughout the year. With the same input and effort Fiskars could be able to update their forecast always for at least twelve months ahead of the creation time.

This is called a 12-month rolling forecast, you can also forecast 18 months ahead, the longer the better for your planning. One thing to keep in mind when deciding the length of the forecast is that the further away from the date of creation the more unreliable the forecast will be.
With the 12-month rolling forecast you always forecast a whole year ahead. The fiscal year targets are included and passed during the updated versions.
With a rolling forecast you see how the figures change on a longer perspective instead of focusing on each year-end. With a rolling forecast you similar to the current process update most critically the next quarter at a time.

For Fiskars the change to a rolling forecast would not require very much changing to the process itself, more in the way of thinking and reading the results. A rolling forecast is a better planning tool and provides you a more comprehensive scenario of your business' future. (Parmenter 2007)

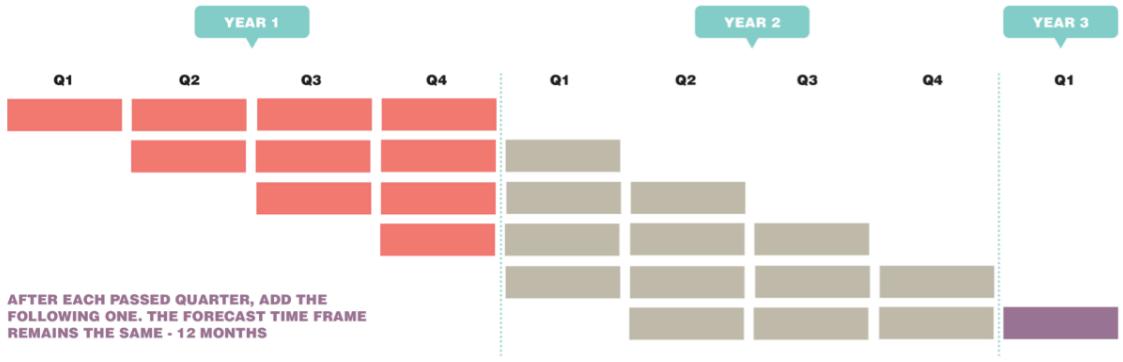

Figure 14. The 12-month rolling forecast – always 12 months ahead despite of time of the forecast.

6 REVIEWING THE ELEMENTS OF A GOOD FORECAST IN THE FISKARS PROCESS

This chapter will review the Fiskars forecasting process to determine whether it has got all the elements present to be a good forecast as presented before in chapter two.

1. The forecast is timely and for a certain period of time. The forecast is more of a reflection of latest intelligence than a tool for strategic planning, there are other forecasts made for that purpose. Given the short timeframe of one year in the start that gets shorter by each day, the changes that can be made are limited in for instance the production and therefore changes in the supply.

2. Fiskars current forecasts are satisfactory accurate and therefore no immediate actions for correcting the data is necessary at this time. In case the forecasting accuracy starts to decrease, reviewing the data sources and the reason for those have to be re-evaluated. A historical forecast with low accuracy shouldn't be taken into consideration when creating the following forecast for the same item. Instead you have to look at where the data comes from and assess if that's quality data. An irregular difference in the forecast accuracy can be due to several factors, if it repeats itself it has to be identified.

3. The reliability of the forecast is parallel to the accuracy. For Fiskars this is currently good, as the forecasts have not deviated too much from the actual values.

4. Fiskars do their forecast dependent of the department in either SKUs or amount of revenue. In the consolidated forecast both are expressed and are in line with each other. These are relevant units for the business and operations of Fiskars.

5. When data from each Sales unit is sent back to the S&OP team after the first draft it's supported by "President's letter". In this letter the manager of each sales units verifies his managers input and explains them. The final version of the forecast becomes the updated budget for the company. Parts of it will be published in press releases and all of internally for the appropriate managers. The emphasis is on how the financial goals change rather than amount of items.

6. The chosen forecasting techniques for Fiskars are well motivated and familiar for the personnel handling them.

7. The current process is repeated in its whole every three months, four times annually. The current time between updates is good. Things have enough time to change between three months. Doing updates every week/month could be pointless as the data does not have time change. The current process requires time from several people on different stages of the business but is most important. With the three month repeat cycle, the data usually changes and therefore the a new updated forecast can be made for the remainder of the year.

All of the elements of a good forecast are taken into consideration in the forecasting process of Fiskars.

7 OTHER FINDINGS

After reviewing the forecasting process from an objective perspective and having interviewed persons involved there are some areas that can still be improved and possibly included or at least take into account for the forecasting process.

7.1 Reducing manual entry

Having several different entities in different countries complying with different laws it's clear that there are differences in the external reporting. However the internal reporting should be as unanimous as possible. Having different tools for reporting can be troublesome for the receiver. The lack of having the same tool also creates a problem of manual editing to the information and therefore also increases the risk of a man-made error.

7.2 Reverse direction of data experiment

The current process is built from the management down, this means that the S&OP create their draft according to the goals set by the management and the sales reps need to plan their sales to match those.
A different approach worth trying at least once would be to create the draft in bottom up order. This would give the sales reps the first say and even more accountability. How-

ever it's debatable if creating drafts is time well spent for sales reps as every minute they are doing administrative work they are not selling.

8 CONCLUSION

During this thesis the basics of forecasting have been presented. The fundamentals of what a forecast is, how it can be done, what things to consider and which steps to follow. In addition to these, elements that define a good forecast have been presented. The Fiskars Business Area Home forecasting process has been compared to these theories.

The forecasting process of Business Area Home has been presented and reviewed. The process meets the standards of the theories. All of the steps are not necessarily done in the same order as the theory would suggest but they are included in the process. As most forecasts differentiate somehow from the theories it is only natural that it's not step by step the same order, keeping in mind that all the steps are still included in the process.

The elements of a good forecast always have to be interpreted case-by-case and the forecast has had to have taken place in order to be able to both measure it and state whether the it has been good. For instance the accuracy of a forecast is impossible to tell before it's completed.

During the review of the process and the interviews, two things arose above else as areas where Fiskars could improve their process. The first one of these was the timeframe of the forecast itself. Fiskars could try out a 12-month rolling forecast that always forecasts a whole 12-month period ahead instead of limiting the forecast to the end of the current fiscal year. The second thing that came up was the amount of manual data entry. It takes uneccessary amount of resources and increases the risk of for instance typed errors.

Without having been part of process in itself the reviews results are made based upon the interviews held. In that way there might be more bottlenecks and details undiscovered, however the forecast structure and its' steps are clear.

For future investigation on this case one would have to be part of the process as a member to gain better and broader knowledge of the process. With that knowledge quantitative research methods would be possible for the study as well and it could break down to the specifics of each bottleneck.

All of the findings in this thesis are limited to the Fiskars Business Area Home forecasting process during the spring of 2014. Business environments change all the time and this time (12.1.2015) Fiskars is already using the rolling forecast in several parts of their forecasting. The structures of the business areas have also been changed.

The transcribed interviews, Appendices 1-4, will not be included in the public verison of this thesis. The appendices have been reviwed by the supervisor and the examiner of this thesis.

REFERENCES

Books

Athanasopoulos, George; Hyndman, Rob J. 2013, Forecasting – principles and practice, Otexts

Bell, Emma; Bryman, Alan. 2011, Företagsekonomiska forskningsmetoder, 2 uppl., Liber AB, p. 49.

Eklund, Klas. 2005, Vår ekonomi – En introduktion till samhällsekonomin, 5 uppl., Nordstedts Akademiska Förlag, p. 60-66.

Lynch, Richard. 2009, Strategic Management, 5 edition, Pearson education limited, p. 472.

Sabri, Ehab; Shaikh, Salim. 2010, Lean and Agile Value Chain Management – A Guide to the Next Level of Improvement, J. Ross Publishing, p. 158.

Stevenson, William J. 2009, Operations Management, 10th edition, McGraw-Hill-Irwin, p. 72, 74, 76.

Electronic sources

Consumer confidence index, Business dictionary. 2015. Available: http://www.businessdictionary.com/definition/consumer-confidence.html
Referenced 3.1.2015

Stock Keeping Unit, Business dictionary. 2014. Available: http://www.businessdictionary.com/definition/stock-keeping-unit-SKU.html

Referenced: 20.11.2014

Nasdaq QMX Helsinki Oy. Pörssin säännöt. 2013. Available: http://www.nasdaqomx.com/digitalAssets/86/86490_prssinsnnt172013.pdf

Referenced: 3.12.2014

How to implement quarterly rolling planning – and get it right the first time. Parmenter, David. Available: http://davidparmenter.com/files/how-to-implement-quarterly-rolling-planning.pdf

Referenced 4.12.2014

Verbal sources

Larsson, Kennet. 2014, *Interview about the general process of Fiskars forecasting and organization*. Transcribed and attached to this thesis, appendix 1. 23.4.2014

Larsson, Kennet. 2014, *Interview about the sales managers perspective in the forecast process of Fiskars*. Transcribed and attached to this thesis, appendix 2. 16.5.2014

Liukko, Jaakko. 2014, *Interview about the Business Areas perspective to the Fiskars forecasting process*. Transcribed and attached to this thesis, appendix 3. 20.5.2014

Piirainen, Niko. 2014, *Interview about the sales regions perspective to the Fiskars forecasting process.* Transcribed and attached to this thesis, appendix 4. 4.6.2014

SUMMARY IN SWEDISH

Detta är ett sammandrag av examensarbetet ”The forecasting process within Fiskars – Business Area Home”. Detta sammandrag beskriver kort vad som undersökts och presenterats i arbetet.
”The forecasting process within Fiskars – Business Area Home” är en fallstudie för Fiskars för att beskriva deras prognostiseringsprocess inom avdelningen Business Area Home (BAH). I sammanhang med denna processbeskrivning skall potentiellt upptäckta flaskhalsar eller andra svagheter i processen upp märkas.

Inom detta arbete behandlas också grunderna för prognostisering i allmänhet. Varför görs prognoser, hur kan de göras och hur de t.ex. skiljer sig ifrån varandra. Dessa grundläggande teorier jämförs med Fiskars BAH prognostiseringsprocess.

Undersökningen baserar sig på aktuell litteratur, tidskrifter och intervjuer. All information för processbeskrivningen av Fiskars baserar sig på intervjuer som är gjorda med personer som deltar i processen. Dessa personer ansvarar för olika delar av själva processen och svaren bygger på varandra för att skapa en helhets bild. Svaren och intervjuerna är för läget under våren 2014.

Prognostisering

Prognostisering är att uppskatta ett framtida värde. För företag brukar detta värde vara efterfrågan för det man säljer. Man vill ha sin efterfråga stött med ett tillräckligt utbud av sina produkter. Med hjälp av bra prognostisering kan man t.ex. undvika situationer där man har sina lager fulla med produkter som inte säljer och föråldras. På grund av det blir det mer problematisk och slippa av med sitt lager och tjäna in pengar.

Det finns flera olika tekniker för prognostisering och valet av rätt teknik beror ofta på hurdan data man har till sin befogenhet. I stort sätt kan man dela in alla tekniker i två större kategorier; kvalitativa och kvantitativa tekniker.

- Kvalitativa prognostiserings tekniker

Kvalitativa prognostiserings tekniker är oftast lämpliga för nya produkter och såna som inte har tillräckligt historisk data. Kvalitativa tekniker är ofta mer subjektiva och beskrivande uppskattningar om ett värde.

- Kvantitativa prognostiserings tekniker

När man har tillgång till tidigare försäljnings data kan man ta vissa nya variabler med i sina prognoser och försöka räkna ut vad som kommer att hända. Ett exempel på detta är t.ex. säsong beroende försäljning av studentmössor. Resultaten ifrån dessa tekniker kan ofta läsas i form av siffror.

Såsom tidigare nämnts, beror det på vad som skall prognostiseras och framför allt vad för data man har tillgång till när man går till väga för att välja den rätta tekniken till att använda. I flera fall är det möjligt att använda sig av mer än endast en teknik samtidigt. Oberoende av hurdan teknik man väljer finns de några saker som är samma för alla. Alla tekniker måste vara:
Realistiskt tidsbundna, noggranna, pålitliga, utförda i relevanta enheter, finnas uppskrivna, lätta att förstå och besväret för att prognosen måste vara värt resultaten.

Fiskars

Fiskars är ett offentligt aktiebolag med verksamhet i flera land som säljer produkter för konsumenter. Inom Fiskars finns det flera olika brand som tidigare varit olika självstän-

diga företag. I och med att förena sig till en koncern kan dessa brand idag stöda varandra istället för att tävla sinsemellan. Idag styrs Fiskars i form av en matris-organisation. En matris organisation innebär att en person eller post kan ha två eller flera övervakare. Fiskars matris har två axlar. En som kallas för ”Sales regions” och bygger på basen av geografiskt läge av personen. Den andra axeln är ”Business Area” och bygger på basen av produkt typen man är sysselsatt vid. Dessa olika axlar har olika uppgifter och mål. Dessa axlars olika uppgifters effekt ökar vid Fiskars prognostisering.

Fiskars prognostisering

Fiskars gör sin prognos för vart räkenskapsår åt gången, för Fiskars är det samma som kalender året. Prognosen görs om och uppdateras efter varje kvartal. Det innebär att processen görs om fyra gånger om året.

Fiskars har ett S&OP-team som ansvarar för att prognostiseringsprocessen går framåt. De börjar själv processen då när tidsramen för vilket den tidigare processen har tagit slut.

Första steget av processen är att se på vad som hänt tidigare och hur de möjligtvis redan har ändrat på den inkommande tidsperioden. S&OP-teamet kör ut en rapport var all försäljning för inkommande tidsperioden kan avläsas.

Följande som händer är för varje försäljare att gå igenom listan och kolla på vad som finns vid deras kunder. De skall då godkänna eller justera rapporten enligt deras bästa kunskap inför den kommande tidsramen. Ofta har säljarna redan planerat in kampanjer som S&OP-teamet inte är medveten och har då t.ex. orsak till att förvänta sig högre försäljning.

När försäljarna och S&OP-teamet är överens om värden i rapporten, slås den fast. Nu går rapporten vidare för ledningen av de olika delarna av Fiskars. Ledning för BAH läser rapporten produkt kategorivis medan ledningen för Sales regions läser rapporten och tar hänsyn till vilka land försäljningen är ifrån. Ledningen i BAH ser på försäljningen i form av produkter, d.v.s. hur många av vadå som skall säljas för att rapporten stämmer.

Sales regions ser på försäljningen i form av pengaflöde – de behöver inte ta ställning till vad som säljs för att komma upp till dessa siffror.

Största och viktigaste arbete är att konsolidera dessa synpunkter så att alla är överens med den slutliga rapporten. Varje gång rapporten går vidare till följande skeden i processen avläses rapporten i större enheter. Efter försäljarnas insats koncentrerar man sig inte längre på enskilda produkter eller kunder utan kategorier och städer. Vid följande genomgång talar man om divisioner och länder, rapporten växer och blir bredare hela tiden.

När alla parter är överens om rapporten kan den godkännas, ifall en konsensus inte hittas måste man kanske rapporten och se tillbaka på de mindre detaljerna och enheterna. Detta upprepas ända tills alla är överens.
När alla är överens, godkänns rapporten och innehållet blir Fiskars nya prognos för den inkommande tidsperioden.
Fiskars process kan anses vara god efter att ha jämförts med elementen som måste finnas för att vara en god process. Några flaskhalsar och förbättrings förslag har också upptäckts.
Fiskars prognos görs för varje år åt gången och uppdateras inte längre fram än det pågående året. Detta orsakar att prognosen blir kortsiktigare efter varje uppdatering. Istället kunde Fiskars introducera en 12-month rolling forecast. Med hjälp av en rolling forecast metod gör man alltid prognosen för minst 12 månader framåt.
På grund av att Fiskars har presens i flera olika land har de också flera olika bokföringslagar att följa. Externa redovisningskrav kan man inte påverka. Intern redovisning kan man dock påverka och försöka uppnå så likadana program och dataöverföring som möjligt mellan de olika länderna. När data inte överförs automatiskt ökar behovet för manuell data inmatning, det ökar risken för felslag och skapar på så sätt ännu mera arbete.

Förhållanden ändrar på sig hela tiden och en prognos är alltid en prognos och bästa bedömning av ett värde med de verktyg man har. Fiskars process har vissa saker som kan förbättras och åtgärdspunkter för dessa har redan tagits.

APPENDICES

Appendices that have been used for the thesis but are not published:

Appendix 1 – Interview with Kennet Larsson 23.4.2014, Fiskars Campus

Appendix 2 – Interview with Kennet Larsson 16.5.2014, Fiskars Campus

Appendix 3 – Interview with Jaakko Liukko 20.5.2014, Fiskars Campus

Appendix 4 – Interview with Niko Piirainen 4.6.2014, Fiskars Campus