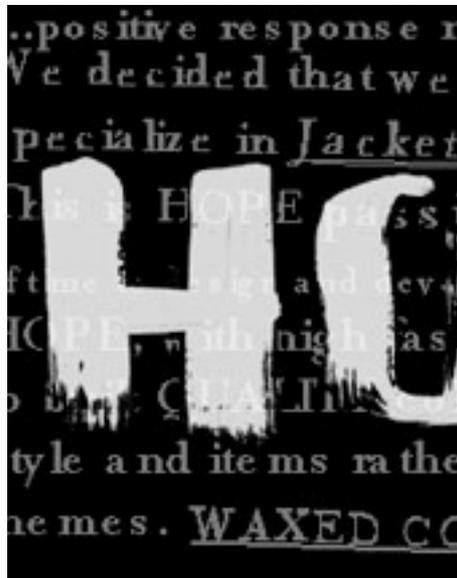


Fashion Forecasting

Example: Hope Sweden



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Title: Forecasting Fashion
Example: Hope Sweden

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Problem: How can articles and volumes sold better be forecasted in a fashion company?

Purpose: The purpose of this thesis is to find or develop a method enabling more certainty in the prediction of the volumes apparel sold for a smaller fashion company.

Keywords: Apparel, CRM, Derived & Independent Demand, Fashion, Information Sharing, Procurement, Production, Retail Buyer, Sales Forecasting and Supply Chain Strategy



Preface

The journey started on a train going south.

An unexpected call unfortunately interrupted due to the lack of reception. When the train an hour later slowed down at the platform in Helsingborg I could finally regain contact with Malin Söder at Hope. It was the conversation that initiated this thesis.

Lack of reception often arises in relations or in contact between any two parties. The situation for a Swedish fashion company does not constitute an exception.

When I am now slowing down, about to hand in this master thesis, my desire is to have created a communicative link between Hope and its retailers.

I would like to thank Ann Ringstrand, Stefan Söderberg and especially Malin Söder at Hope for giving me this opportunity and each single person in their vicinity that contributed in the making of this thesis for their time and valuable information.

Carl-Johan Asplund, my supervisor at Lunds Tekniska Högskola, thank you for your energy, great knowledge and positivity at all times during this project.



Abstract

Hope was founded in 2001 by Ann Ringstrand and Stefan Söderberg. Since then the company has grown rapidly. It has won many prestigious design awards and is considered one of the most promising Swedish fashion companies. To gain control of their expansion they needed a sales forecasting tool.

The search for a suitable method started with Hope's sales order history. Due to very short and irregular records showing no noticeable patterns, the information had to be left aside and considered as of no use for forecasting future sales. A sales forecasting benchmarking study was carried out among Hope's competitors. It revealed how little faith was put into forecasting when it came to fashion. Production orders are always made upon known demand in Hope's segment of the industry and that is why no one of the interrogated companies even considered forecasting. The theoretical study depicts fashion as an unpredictable and volatile industry where few rules apply. To unite the empirical findings of fashion articles with quantitative forecasting techniques has due to many factors shown to be difficult. A quantitative method requires often 20 time periods, for Hope corresponding to 10 years of history. An article rarely lasts more than a season and it would consequently have to be linked, subjectively, to a similar item. Furthermore the conditions are changing rapidly. Yesterday was yesterday and today the circumstances are new. The retail buyer function is essential to Hope's sales forecasting. In the end it determines the sales results. Its function was closely investigated in the pursuit of universal behaviour that could be the foundation of a forecasting tool. The procurement investigation brought a buyer portrait far from the analytic and calculating purchaser in the little existing literature. Instead he was impulsive and intuitively deciding his shop's assortment and quantities.

According to retail buyers, sales history is of little use in the fast moving fashion business. They do not employ mathematical models, however still their experience is founded on in store sell-through figures. As the sales records available to Hope include the retailers' forecasting error, they should not be utilised.

The conclusion is that in order to improve forecasting methods, a closer relationship with the retailers is required. Even then, other precautions are necessitated to reduce the risk of predicting the volatile fashion market. By continuously sharing inventory numbers, two-ways, Hope can anticipate a sell out and restart its production in time. The importance of the forecast is thus reduced through an open and more flexible supply chain.

HO

Sammanfattning

Hope grundades 2001 av Ann Ringstrand och Stefan Söderberg. Sedan starten har företaget expanderat kraftigt. Det har vunnit många prestigefulla designpriser och ses som ett av Sveriges mest lovande modeföretag. För att ta kontroll över tillväxten söker de ett prognostiseringsverktyg.

Letandet efter en fungerande metod påbörjades med Hopes orderhistorik. Den visar sig vara både alltför kort och oregelbunden och anses därför vara svår att använda i prognostiserings-sammanhang. En benchmarkingstudie gjordes inom prognostisering bland Hopes konkurrenter. Den avslöjade hur låg tillit man har till säljprognoser i mode. Produktion sker i Hopes segment av klädindustrin mot känd efterfrågan och av den anledningen är företagen som ens överväger diagnosställning om framtida försäljning få. Den teoretiska studien framställer modeindustrin som oförutsägbar och ombytlig. Att förena empiriska observationer av modeartiklar med kvantitativa prognostekniker har av flera anledningar visat sig vara svårt. En metod kräver ofta information från minst 20 tidsperioder vilket för Hope motsvarar 10 års orderhistorik. Ett plagg varar ytterst sällan mer än en säsong och måste följaktligen kopplas till en liknande modell. Dessutom förändras villkoren snabbt. Igår var igår och idag råder nya omständigheter. Återförsäljarens inköpsfunktion är betydelsefull för Hopes säljprognostisering. Det är i slutändan den som avgör säljresultatet. Dess funktion har noga undersökts i jakten på ett generellt beteende som skulle användas till prognosverktyget. Studien gav en bild vitt skild från den analytiska och beräknande inköpare som läggs fram i den i området begränsade tillgängliga litteratur. Istället är den impulsiv och intuitiv i sitt bestämmande av butikssortiment och kvantiteter. Enligt inköparna är säljhistoriken föga användbar i den snabbt föränderliga modeindustrin. De förlitar sig inte på matematiska modeller men deras erfarenhet baseras ändå på genomförsäljningssiffror. Eftersom orderinformationen som Hope har tillgång till har inköparnas prognosfel inbakat ska den inte användas. Slutsatser är att för att lyckas förbättra prognosmöjligheterna krävs ett närmare samarbete med återförsäljaren. Även då finns ett behov av andra åtgärder för att minska risken med att förutspå den ombytliga modemarknaden. Genom att löpande dela lagersaldo, kan Hope följa slutförsäljningen av sina artiklar och därmed också starta nyproduktion av dessa varor. Vikten av att i första läget ställa rätt prognos minskas på så vis genom en öppen och mer flexibel produktkedja.

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1 Introduction

This section serves as an introduction to the framework of facts, views and underlying issues that has become the foundation of this thesis. Its purpose and the problems involved are discussed here. A short company background opens the chapter.

1.1 Background

1.1.1 Hope

Hope was founded in 2001 by Stefan Söderberg and Ann Ringstrand. The two designers met when working at H&M a few years earlier.

Initially Hope carried only a female collection. The company has grown since then and is today one of the most promising fashion companies in Sweden. 2005 they won the “Café Designer of the year” award and before that “Café Rookie of the year”. These are some of the most valuable prizes within Swedish fashion.

After winning these design awards, the company has been growing rapidly the past few years but without base or directions for this expansion. Today they employ more than 10 persons and have a turnover of 25 Million Swedish kronor.

Hope competes in the premium segment of Swedish fashion. Their target group is male and female, aged from 25 to 35, with a sophisticated interest for fashion (see Appendix 3 an image of Hope). They have retailers worldwide but the focus is still strong on Europe and Sweden in particular in order to not grow faster than they can handle. The relation to the retailers is important. A quick expansion requires not only a higher sales activity, but also more resources in production and customer care, which is why the development is scheduled step by step. Offering two major collections and two smaller annually Hope is not a part of the rising fast fashion segment.

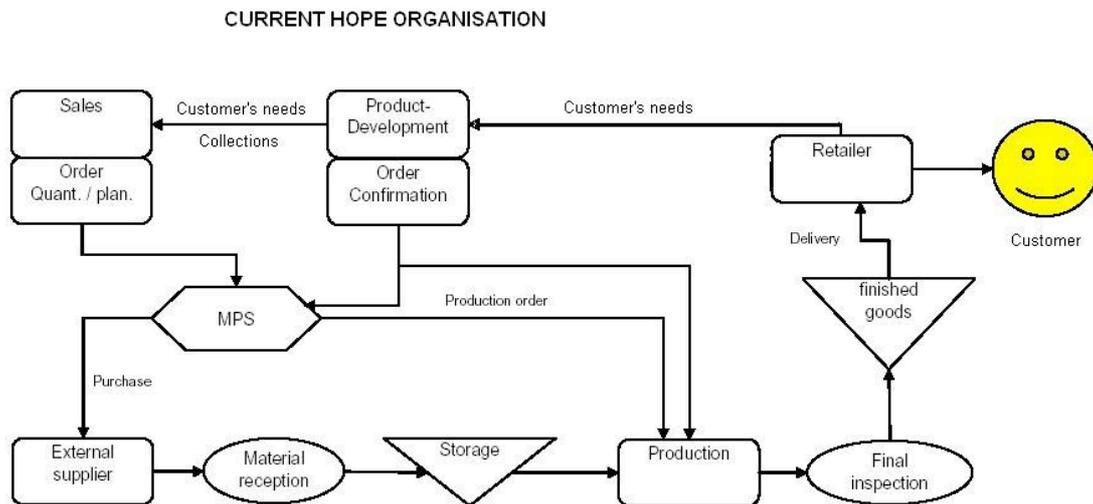


Fig. 1 Hope's work organisation

In broad outlines Fig. 1 shows how Hope works. The customers' needs are anticipated by the designers that create the collections. Retailers' orders are received through marketing and sales efforts and are forwarded to production. Constituent parts are coordinated through Material and Production Supply along the supply chain before they are assembled at final production. Finished goods arrive at their Stockholm warehouse before being repacked and sent out to the retailers.

1.1.2 The phenomenon of forecasting in the premium fashion industry

In order to gain control of the progress the head of sales department asked for a forecasting tool that fits the industry and business in which Hope operates. She wanted to know more about the retailers' buying behaviour and if there was a general pattern in the order value of one client from one season to the next. Could the behaviour of a certain market's customers or a determined shop size be generalised and thus be valid for a larger group of customers.

When forecasting next season sales figures, Hope just adds 15% to each customer's last order value. Order value here refers the sum of the prices of all garments bought at a single occasion by a retailer. Then, a few new retailers are added to each market. The number depends on efforts inserted on the particular market and the order amount is of a standard value.

This is by Moon & Mentzer (2005) referred to as "*inadvertent sales forecasting behaviour*". It is an act of merely assuming the value of forth-coming sales based on history alone, instead of evaluating the state of business and the current situation in order to estimate a feasible set of figures.

As external capital for the first time is brought into the company the need for guidelines is greater than ever. The second Hope Concept Store opens in January 2008 and future expansion strategy calls for financial resources. In order to plan the company development, Hope requires a forecast based on the actual industry and market conditions. The reason is to find the actions that are needed to reach the desired targets, where and how sales- and marketing resources are best set in. The forecasting tool should be a platform from which the company can operate. It should simplify projection of profits and cost levels to determine capital necessary.

The forecasting tool serves to show stakeholders why a certain development is expected. In order to achieve the market's desired sales volume market, a certain number of new clients must be acquired. A determined amount of sales personnel's hours will then be required. It serves to set targets for the employees and to motivate to exceed them.

The initiator of this project was the head of Hope's sales department. Under her, two salesmen are positioned. At this stage the forecasting tool was not a priority that would involve all company functions. The group of three will thus be responsible for exercising this sales forecasting. Their schedule already prior to the initiation of this task is rather busy and consequently it is important that the method does not become too time demanding, as they then most likely would not be employing it.

The search for a tool that will embody the relation of cause and effect in the ambiguous world of fashion is about to start.

"The culture of the industry and the mind of the analyst is very important for the outcome of the forecast." (Lawless, M. 1990).

This quote gives an indication of where this journey will have to go. The fashion industry hardly resembles any other. Few general theories apply. Emphasis must thus be on gaining acquaintance with the very special conditions that transpires the business.

1.2 Problem discussion

Widerberg (2003) argues that the presentation of the problem in its initial stage is far from final. With time it can be turned, corrected or completely exchanged as research and acquainted knowledge have changed the starting point.

The value of a forecasting method for a fashion company is large. It can be used to set goals for the sales personal and to motivate them exceed their targets. A prediction of future results will help plan the development of the company and project profits and cost levels to determine capital needs. It will also improve the abilities to plan logistics and organisation of the supply chain.

Forecasting for a fashion company is complicated. The fashion industry is known for its volatility and unpredictability.

In order to approach the problem in best possible manner, deeper acquaintance with both the fashion system and the world of forecasting is believed needed. Only when comprehension of the fashion industry has been achieved, general forecasting methods can be considered.

1.3 Purpose

The main purpose is to identify and evaluate a forecasting method that may be applicable for fashion companies with the size and strategies similar to Hope. With the objective to maintain focus along the way a number of smaller sub purposes are considered needed.

The first sub purpose is to collect, inspect and analyse Hope's sales records. The second sub purpose is to explore current theories of fashion that intends to bring understanding of the exceptional conditions characterise the fashion system. A number of potential general sales forecasting techniques will then be explored with the incentive of encountering the most appropriate for Hope's market conditions.

The third sub purpose is to perform a benchmarking study that aims to reveal the current state of sales forecasting at Hope's competitors. That is how they work today.

The last of these sub purposes is to discover the decisive factors of the retail buyers.

1.4 Delimitations

Of great importance in order not to obstruct the creativity when carrying out a scientific investigation is to set up boundaries for the area of studies (Widerberg, K. 2003).

With this thesis the author does not intend to look into existing theories in order to find out if they are applied. Nor is it an attempt to create new theories. Instead there is a problem that has to be solved in best manner for Hope. This report handles sales forecasting for smaller Swedish Fashion Companies. According to the problem discussion, only actors within the premium fashion segment are of interest in the study. Fast fashion actors were left out, as their working manners are completely different. Companies like Zara and H&M may have up to 50 new releases per year, whilst the brands working with high fashion have a maximum of four. Also the customer is another, the supply chain has a complete diverse structure and consequently the conditions are too different to study them as equals.

1.5 Target Group

This thesis was written for an academic target group and for actors in the premium segment of the fashion industry in particular. The level is considered appropriate for co-students as well as researchers with interest in the subject.

1.6 Chapter guide

As a good overview of the report for the reader, its disposition is presented here.

This thesis consists of seven different chapters.

Chapter two generally describes research methods and scientific approaches, how and why they were applied in the making of this thesis. The complete course of action is presented in the practical method in section 2.4.

The theoretical framework in chapter three initially portrays the fashion industry. Acquaintance with its unique conditions is obtained prior to the introduction of general forecasting methods. As these two alone were not considered sufficient in order to solve the problem, two useful topics conclude the chapter.

Empirical results from the Hope case study, sales divisions and procurement interviews make up chapter four.

Chapter five follows with the analysis of the theoretical framework and the empirical results. They are discussed and it leads to a proposed solution in chapter six.

The final discussion in chapter seven focuses on the key contributions to both industry and academy and is also the closure of this thesis.

2 Methodology

This section handles the making of this report and the choice the scientific approach to the phenomena of forecasting in the fashion industry. How information was gathered and why it was performed in certain manners is explained.

2.1 Research methods

The technique used to approach a scientific problem will affect the result of its solution (Wallén, G. 1993). Therefore the method applied has to be carefully chosen according to the conditions. In order to carry out a scientific study awareness of the various methods is vital. They will influence the investigation manner and consequently the outcome. The choice of method is thus fundamental.

A number of techniques are here introduced to the reader.

2.1.1 Inductive method

Induction is the use of empirical information when making theoretical conclusions. The gathered data will found new statements. The inductive principle as formulated by Chalmers (2003):

“If an ample number of A:s have been observed in a large variety of conditions, and if all A:s without exceptions possess the characteristic B, then all A:s possess the property B.”

The method’s obvious complications concern finding the number of observations necessary and awareness of the conditions that may possibly affect the outcome. Current knowledge is used to set up the relevant circumstances. Hence each inductive discourse necessitates prior knowledge. To have it verified inductively requires an additional discussion of induction, which ultimately would create an infinite chain. Thus obtaining all knowledge verified by means of induction is not viable (Ibid). Yet the inductive principle can be verified inductively. The inductive method is justified by its own generalisation. If the inductive method succeeds in numerous occasions it can inductively be concluded that it always succeeds (Ibid).

The inductive method has been criticised widely (Wallén, G. 1993) for not adding anything that is not already there in the observed data. Furthermore, the translation of empirics into theory will result in a reality seen from the perspective of the researcher. Hence the conclusions achieved are not unreservedly impartial.

Explorative studies are inductive, as are many computer programs looking for correlations (Ibid). These are then used to generate new rules of decisions and to carry out new theories.

An inductive research goes from empiric to theory. The investigator studies the objects of research without first gaining approval in previous theory. From discoveries, the researcher formulates proper theories (Patel, R. & Davidsson, B. 2003).

2.1.2 Deductive method

Hypothesis is a statement that reaches beyond the borders of present knowledge and that shall be trialled empirically (Wallén, G. 1993). A deduction's starting point (Molander, J. 2003) is a hypothesis, based on existing data, from which testable logical consequences are derived. Once tried, they are compared to the actual facts to see how correct the hypothesis was. In order to achieve a plausible result from the deductive method the investigator needs an excellent understanding in the area under discussion (Wallén, G. 1993).

The role played by theory is larger in the deductive method than in the inductive. The deductive system starts with a few theoretical statements and is continuously enlarged by new rules. Wallén (1993) claims that the theoretical descriptions cannot be proven using reality since they are based on ideal conditions. The inductive discourse in opposite to the deductive ditto is initiated with statements regarding a few actions. These are then brought to a further generalisation valid for all actions of its nature. Consequently general scientific laws always go beyond the finite amount of observable verifications presented to support them. Hence general scientific laws can never be proven as logically derived from the verifications (Chalmers, 2003).

2.1.3 The scientific approach of this thesis

The scientific approach is not often truly inductive or deductive. More commonly utilized is a combination of the two, namely the abductive method. Patel & Davidsson (2003) stress that a researcher employing an abductive method is not forced to a specific working manner and can thus change path as new discoveries are found.

For this thesis an abductive approach was chosen. Hence, theory and empiric together brought its result.

The purpose suggests that forecasting theories initially are explored in general, without relation to any specific milieus. A number of methods, chosen by the author among general forecasting techniques for their potential feasibility and their simplicity of use together with the conditions of the fashion industry were investigated. They were selected in agreement with Hope's sales department.

Concurrently, the conditions of the fashion system in which Hope acts were examined. Both sales and buying function of companies similar or related to Hope participated in the interrogation. According to these circumstances the theories were applied and tested. Existing general forecasting theories were brought to and applied on the unique fashion climate.

2.1.4 Qualitative and quantitative methods

Information gathered for an investigation is either qualitative or quantitative. Data for statistical techniques that can be categorised numerically is collected with a quantitative method. Larger survey investigations and time series analyses usually have a quantitative character. The data obtained is examined statistically and conclusions are drawn based on the outcome (Ejvegård, R. 2003). They are employed both in order to illustrate the reality and to check hypothesis. A common use is to generalise the behaviour of a test group to apply for the full population.

Qualitative methods refer to the assembling of information that cannot be quantified or computed. Instead a deeper understanding is sought after through a smaller number of research objects. A qualitative investigation is often carried out through interviews and case studies and results in collected material in written form. Qualitative methods lack the structure that is significant for the quantitative techniques and are generally used for explorative research (Patel, R & Davidsson, B. 2003).

In this thesis both methods were utilised. The objectives in various areas of the study were different.

The purpose of the sales department survey was to get an overview, initially, of how the problem of estimating sales is approached by others to give a good starting point for the rest of the study. Its intention was to generate ideas and act as an introduction to the subject rather than finding results to generalise for a larger crowd. They were consequently of deeper art and carried out qualitatively with few respondents. The same line of reasoning goes for the first act of the buyer study. A small number of respondents were questioned, with the purpose of finding factors that affect the orders they make. The outcome became the input of a questionnaire that was sent out to multiple recipients. This pre-study thus helped identify and formulate the questions later used on a larger second group of respondents. With this last survey the author wanted to identify the behaviour of the retail buyers and generalise it as much as possible. Unfortunately the partaking was very low, only 26 of 153 responded. To ensure the truth without modification in answers given, Hope was never mentioned when the companies were contacted. It surely lowered the participation rate but the result obtained was not affected by the fear of exposing themselves to Hope.

2.2 Information

2.2.1 Primary and Secondary data

When conducting any kind of research or investigation, information handling is essential. All facts should be reviewed and evaluated prior to the inclusion in the report (Molander, J. 2003). One must clearly distinguish primary and secondary data. The former derives from the particular study and is collected from the research's objectives. Secondary data was obtained before and independently of the present study (Patel, R & Davidsson, B. 2003).

This thesis was built mainly on first hand information. All primary data in this report derived from companies similar to or with relation to Hope, in order to make it as adoptable as possible to all smaller Swedish fashion companies. The complete period of study for this thesis was spent on Hope's office in Stockholm. Thus primary information of the company and industry circumstances was gained continuously.

2.2.2 Data collection

Techniques used to collect information will have great impact on the final result. To give the study the desired depth, width and credibility, awareness of information assembling is very important (Molander, J. 2003).

This thesis is based of two main sources of information; they are literature studies and interviews. The interviews embrace also the case study of Hope's organisation that was performed continuously during the period of this thesis.

2.2.3 Case study

Holme & Solvang (1991) argue that it is always difficult to interpret information for external researchers when studying an organisation in which they, prior to the analysis, have no knowledge. The authors then claim that before performing the investigation, greater insight in the company must be acquired. A qualitative case study can be used to validate a theory but more frequently it will be the foundation when creating a new one (Merriam, 1994).

In order to gain superior understanding of the company and the conditions in which it operates, the whole investigation period was spent at the Hope office in Stockholm. It is an open landscape environment so the organisation's all functions were brought to the authors attention. Invaluable information for this thesis was obtained in this manner.

2.2.4 Interviews

The purpose of an interview is to obtain primary information not currently available (Lantz, A. 1993). In order to get reliable answers the interviewer should prior to the interview notify its purpose, its approach and how the answer will be treated afterwards. It will ensure the one being questioned to answer as correctly and motivated as possible (Ibid).

Depending on the intention with the interview one can adopt many techniques. The nature of the questions, registration mode of the answers, direct or indirect questioning and number of participants present are only a few factors that will affect the final result. A direct interview is conducted face-to-face or through telephone contact. Indirect interview on the other hand is a written questionnaire often sent by mail (Ibid). A telephone interview can be considered more personal than a questionnaire and is often less demanding to perform than a face-to-face interview. They require less time for all parts involved, but are often accused of lacking validity as misinterpretations occur more frequently. Personal interviews are appropriate when there is a small number of objects to investigate, as they are quite demanding (Svenning, C. 2003). Interviews can be structured or more spontaneous. A structured interview has questions in a fix order that will be kept during the interrogation. A spontaneous interview is open to change direction according to the answers given. Semi-structured interviews are thus prepared but flexible to change as the questioning proceeds (Lantz, A. 1993).

The interviews for this report were conducted face-to-face and were semi-structured. The author had questions prepared in beforehand but was flexible to add and remove due to situation. They were thus conducted with a fairly open framework that allowed conversational, two-way communication. The reason for this choice of technique was that the author initially could not know precisely what to look for. A large part of questions were created in the dialogue, to allow both the interviewer and the respondent the flexibility to search for details or discuss issues initially unknown. Being very flexible at this point was considered crucial. The consequence is that the interview results do not have the exact same structure and neither did the questions. Attaching the base of questions is thus considered to create more confusion than understanding and they are consequently not to be found.

The respondents were prior to the interrogation notified of its content and purpose. The enquiry was based on the knowledge acquisition of secondary data that is carried out in the theoretic section. The questions were adjusted to company characteristics and the outcome may hence vary.

The result of each interview was sent by e-mail to the respondent and was thus approved of before becoming a part of this thesis. In this way the risk of misunderstandings or misinterpretations was diminished.

A second survey was carried out through a written questionnaire with a simple structure of statements connected to agree or do not agree responses. It was sent by e-mail and addressed to retailer buyers with relation to Hope.

2.2.5 Validity

When using secondary data it is essential to confirm the validity of its source (Patel, R & Davidsson, B. 2003). The content in a report needs to be based on true facts, controlled and valued by the author. The sources of information need to be reliable, i.e. official statistics, doctoral thesis and parliament documents, where the author has controlled and verified the written facts (Ejvegård, R. 2003). Since conclusions based on false information automatically turn out wrong, it is very important to carefully control the source (Patel, R & Davidsson, B. 2003).

This thesis is based principally on primary data from Hope or related organisations through interviews. First hand information too, must be reviewed critically (Ejvegård, R. 2003) and the author has endeavoured to do so. The results of the interview were compared to each other, to theories and to knowledge of Hope's employees to ensure that they have been acquired and interpreted correctly.

2.2.6 Choice of subject

“Any subject not sufficiently enlightened scientifically is a good topic for research.”
(Rienecker, L. 2002)

The choice of subject is essential for the outcome of the report. It is most likely easier to write a good report if the author is interested in the subject, because of the importance of his or her engagement into the text (Ejvegård, R. 2003).

Literature in fashion forecasting often regard the prediction of what colours, materials and styles will be in fashion the upcoming season, for example Dennis-Jones, C. (2007) and Hines, T. & Bruce, M. (2007). The few studies that actually handle the subject in the sense it is intended in this thesis does not dig deep in the problem. Besides, they concern larger actors than Hope. As the Swedish apparel market is primarily constituted of small companies mainly, the area of study is considered relevant. The study was conducted in a manner that enables utilisation of the result for all similar companies. To ensure this general applicability the interests of a small number of to Hope similar companies was heard regarding sales forecasting.

2.2.7 Choice of companies

The companies included in this study were chosen so that the information retrieved would bring value to small Swedish fashion companies. The interrogated sales departments were of organisations similar to Hope in size, customer target and business direction. As their forecasting procedure was considered a delicate matter, the four sales divisions that participate in this study all preferred to be anonymous and were hence named S1-S4. It was unfortunate, making this section much less interesting but as no other companies with the desired properties were found they had to be chosen.

The procurement divisions were all within Hope’s network of retailers. Having related buyers was an obvious choice as it is their decisions that determine Hope’s sales results.

2.4 Practical Method

This section illustrates the path that has been taken when making this thesis. It should be skimmed initially and the reader can later return to this guide whenever in need.

This thesis project was carried out at the Hope Office, Stockholm. It involved daily meetings with my supervisor at Hope, Malin Söder, and weekly appointments with the whole company.

The starting point of the project was an investigation of Hope’s sales history. These documents are unfortunately not included nor attached to this report due to secrecy. Sales records since the start 2001 was assembled. The purpose was to identify a pattern in the order size that each retailer makes, from season to season. Consequently, the retailers were divided according to a number of criterions.

These were chosen together with Hope employees and in agreement with retail theories (Saviolo, S. & Testa, S. 2005).

- **Market**
Can order value development be related to the retailers geographical market.
- **Retailer size**
Is a large retailer likely to increase his orders more than a smaller ditto.
- **Time together with Hope as retailer**
Does the relationship duration influence the order development.
- **Retailer concept**
Are there special retailer concepts or strategies giving a certain order value pattern that can be applied for a larger group.

The development of each single retailer was compared to the others within the same group of criterions, in order to discover correlation. A total number of approximately 150 retailers were investigated. The search for patterns was also approached from the sales records point of view. Identified behaviours were supposed to have been another base to divide into groups, to which a general forecast should be given.

Many hours were spent collecting and investigating the sales records and there are two reasons why this part has not been given more attention in this report.

As no correlation or answers were found in these statistics and the time frame for the project was limited, I had to make a choice. It was either to use the rest of the period presenting and explaining why it was not doable or to turn the page and discover another way out. Then secondly the sales history was confidential. It could still not have been fully printed and would hence not constitute an interesting report.

The sales history was analysed simultaneously with a fashion forecasting benchmarking survey of Hope's competitors and theory studies. Suggestions of how to make use of the sales records were searched for in the contemporary studies, but not found in theories nor from the other sales divisions.

Then a minor delivery problem, described further in section 4.4.1, was brought into the light. Delivery accuracy is very important in fashion. To guarantee on time distribution, production would have to be initiated earlier. As the sales-period is predetermined, it implies producing on estimated demand.

With this awareness sales forecasting as considered in this thesis was given a completely new significance. To start production prior to order reception, to unknown demand, means that forecasts must be carried out on article level.

To ensure that moving the production period was possible, concentration was for a short while moved to production. A smaller inspection of the conditions for clothing manufacture is given in section 4.4.

The ones who finally decide Hope's sales results are the buyers of their retailers. In order to find out how they make their choices this very important position in the fashion industry has been investigated closely. Interest at this point had changed from client to article and that naturally affected the approach of the buyer survey.

Deep interviews (see section 4.5) were carried out with buyers at three of Hope's retailers. They were chosen, according to three of the four criterions mentioned above, so that they would appropriately reflect the retailers. All of them however derive from the Swedish market. The intention was to see if and how the retailers' conceptual difference would have impact on their behaviour when making orders.

The first one has been retailer to Hope since the first seasons. The second is a recently opened alternative fashion store and finally a department store that is represented in the larger cities of Sweden.

When performing these interviews an idea started taking form.

“All risks are at the retailer’s side...” Jonas Fridh, Grandpa

By opening up the supply chain it would become more responsive. A certain amount of collaboration could increase the performance of all its actors.

These three interviews were used to generate an image of fashion buying and the result helped formulate the questionnaires. The enclosed questionnaire also looked into the keenness on creating closer bonds within the supply chain.

The proposed solution is described in chapter 6.

This website solution project was initiated and designed by the author. A programmer was found and briefed in the situation. The architecture of the website was created and integration abilities with business and logistic programs were considered. To make the website self-going it had to be integrated and able to communicate with former mentioned systems. This section is left out of this report, as the actual making of the suggested solution is not a part of the thesis’ purpose.

3 Theoretical framework

This chapter starts with an introduction to the fashion system that points out properties that distinguish it from businesses where sales forecasting is successfully conducted. It then handles supply chain strategies, production and retailing before portraying what did become the core of this study, the retail buying function. A selection of forecasting methods, both qualitative and quantitative, are listed as a part of the chase for applicable techniques within existing theories. Fashion and sales forecasting are first treated separately and then combined. Customer Relationship Management and Information Sharing conclude the chapter. Both added by the author as he struggled to find a solution to the prediction of fashion.

“How we perceive and interpret phenomenon within ourselves and our surroundings depend on our prior knowledge” Lindholm, S (1999)

All theories are simplifications of a very complex reality (Rosing, 1996). They enable description and explanation of the real world, using only a small number of notions. A successful generalisation has to bring up the essential principles and simultaneously disregard the less important ones (Ibid).

3.1 Fashion

“Knowledge and understanding of the meaning of fashion and the reasons for its creation is vital in order to successfully conduct business within the industry.”
Saviolo, S & Testa, S (2005)

3.1.1 Introduction to the fashion industry

Traditional literature in management fields as communication, marketing and strategies has only shallowly emphasised fashion. This is according to Saviolo & Testa (2005) due to the complexity of understanding, explaining and forecasting fashion attributes from either a theoretical or empirical point of view. Not even expert’s working within the industry can satisfactorily illuminate these very special features. For this reason a short background to enlighten the characteristics that distinguish fashion from most other businesses is obligated. There is a need to explain the complexity in forecasting and why general tools may not be appropriate.

The markets for food and apparel are two of the oldest in the world. Together serving the most basic human needs, it is by no means surprising.

History reveals that clothing was first introduced as protection against climate and sexual exposure. Only later, when the use of apparel had spread to all social groups, fashion was recognised as a means for communicating identity through your body (Anderson Black, J. 1985). The manner in which clothing is used and interpreted varies with culture and social status. Appearance, more than functions, becomes important as garments worn reveal social identity. This is the origin of the fashion concept (Barthes, R. 1990).

An item or a service is fashionable if at a certain time and place it is endorsed within a social ambient. However withdrawn from this environment it will no longer be in fashion and hence not add product value (Saviolo, S. & Testa, S. 2005).

The Italian dictionary Garzanti (2003) explains fashion as:

“...the more or less changeable use that, deriving from the prevailing taste is imposed on habits, ways of living and forms of dress.” (Author’s own translation)

Commonly fashion is understood as the textile, clothing and shoe industry. Furniture and interior design might be included. From the late 90’s fashion, as fast moving trends, is spread further to new areas. Shorter Product Life Cycles can be seen not only in the designer business, but also in industries traditionally characterised by a slow modification rate (Hines, T. & Bruce, M. 2007). The term can equally be applied to food, music, cars and beauty products. Saviolo and Testa (2005) stretch fashion as far as to embrace also areas with little or no aesthetic content as computers, law and scientific research. Fashion injects a movement in rather mature industries by seasonally updating the demand (Hines, T. & Bruce, M. 2007). The shorter Product Life Cycles and more challenging competition have changed the way in which companies must act to meet customer needs (Saviolo, S. & Testa, S. 2005).

Fashion system

Apparel as seen in the eyes of fashion magazines originates from the general science of signs, semiology. Saussure proposed this entirely new discipline in 1963. It was initially refused as its results were uncertain and the subjects not yet explored (Barthes, R. 1990). Uncertainty is a major characteristic of the fashion system. Barthes (1990) illustrates fashion as a code that is neither the visual garment nor language spoken, but the translation. Thus it escapes semiology and linguistics, the science of verbal signs. Between a garment and its carrier, fashion induces luxury and a sense of cultural belonging (Saviolo, S. & Testa, S. 2005).

“...fashion is merely a product of social demands...” (Simmel, G. 1994).

The industrial society has developed a consumption manner that is far from rational. Economy is the incentive. If manufacturer and buyer shared conception, apparel would be bought and produced at a very decelerated pace. There would be no need for the complicated network of suppliers. Production could take place locally as the quantities would be much lower and focus instead on quality (Nordkvist, M. 2008).

“The fashion industry is volatile and a number of aspects are responsible, outstandingly the use of overseas suppliers.” (Kilduff, P. 2005)

While apparel is created to fulfil our physical needs, fashion serves social and cultural requirements of another kind. There is a distance between the fashion industry and the consumer. The former struggling to affect consumer behaviour by creating images and continuously renewing demand by bringing up new tendencies in order to speed up the purchase rate. Hence, no need to doubt the origin of the commercial posture in the clothing industry (Barthes, R. 1990).

New collections are no longer delivered only twice a year, as it traditionally was Spring/Summer and Autumn/Winter. The line between seasons has faded. Many labels in the fast fashion segment deliver new designed merchandise frequently every month (Nordkvist, M. 2008).

The process of change is partly carried out by the cycle of seasons and partly by the fashion cycle itself (Saviolo, S. & Testa, S. 2005). The seasonal change is related to functionality as adaptations to prevailing climate. Colours and materials also follow season as nature. The fashion cycle is defined as the period of time from the initiation of one look until the arrival of a new and the procedure is explained by Saviolo & Testa (2005) from two different angles.

- “...a phenomenon brought about by the industrial, retail and communication system of the fashion business... Forced obsolescence encourages season after season a new demand for products that could last longer considering only their functional and technical features.”
- “Variety and variability are part of a system designed to guarantee the consumer a wide range of choice and the greatest satisfaction...”

3.1.2 Supply chain strategy

The textile and clothing industry represent 7% of total world exports. It corresponds to a trade of US \$350 billion. The industries hold account for approximately 40 million employees of which 19 million are situated in China. In the clothing sector the number of workers from year 1990 to 2000 has declined as a result of the industry becoming more capital intensive. The textile industry has shown the same tendency. Nevertheless clothing and textile remain the most important sector in many developing countries (Hines, T. & Bruce, M. 2007). Both the textile and clothing industry are built up by extensively internationalised supply and demand.

In 2004 as much as 75% of all clothing exports were carried out from developing countries (Barnes, L. & Lea-Greenwood, G. 2006). In January 1st that year the worldwide importing quotas were removed and it clearly affected the supply in the textile and apparel industry. Extended use of distant Asian providers created a fear among European producers. Consequently the tariffs were reintroduced only a year later. The clothing retail industry in EU employs twice as many as the clothing manufacturing industry. The reintroduction of quotas is thus believed to cost more jobs in the retail industry, due to the necessity of reducing costs, than they will occupy in European production. A strong tendency among fashion labels recently is the movement of production to Eastern Europe, Turkey, India and Turkey. One explanation, naturally, is the trade barriers imposed on goods with origin in China. The other, however more significant, is the desire to shorten the physical distance of merchandise transported. Thus the retailer will be able to respond quicker to changes in demand in season. Fashion goods can in this manner be delivered weekly, complicating the work of a retail buyer (Hines, T. & Bruce, M. 2007).

Conventionally the clothing industry has been characterised by long lead-times and nonflexible, complex supply chains. Today as lead-time shortage has become an essential means of survival, the power in the supply chain has moved from supplier forward in the chain (Barnes, L. & Lea-Greenwood, G. 2006). Instead of pushing merchandise out on the market the actual end user demand gain focus through the retailer.

Production

Its artistic yet technological and economical features make fashion a fascinating industry. The course from the fibre stage to garment finally worn by consumer involves a large numbers of players. Skills required at each stage differ widely. Designers, new product developers, textile producers, manufacturers, merchandisers, buyers, marketers, technologists, supply chain experts, logistic managers, strategists and retailers including front line customer staff must all perform in order to deliver the best product to the marketplace in the shortest time, and at the most competitive price (Hines, T. & Bruce, M. 2007).

Information technology has facilitated, not to say enabled, the current structure of the clothing industry. Cotton fibres are shipped from for example Australia to China where fabric is woven. Design takes place in one location, sewing, colouring and treatments in others. For a clothing company with a wide range of products it means working with set of various actors in different countries prior in the supply chain.

Old theories no longer apply for the fashion industry (Barnes, L. & Lea-Greenwood, G. 2006).

“The right product has to be delivered at the right market, at the right price, in the right quantity and in the right moment.” (Barnes, L. & Lea-Greenwood, G. 2006)

It’s a complicated task as fashion demand changes constantly. Sourcing from the Far East means long lead-times due to shipping. Thus some companies employ separate, product-dependent strategies, using both near and distant suppliers. Articles with considered high demand insecurity are produced locally in order to reduce the dependence on forecast. Basic items, whose quantities are easier to estimate, are produced Far East at low cost (Mattila, et al, 2002).

Time has become one of the major critical success factors in the fashion industry. Uncertainty and dependence on forecasts can be reduced. Shipping from China may require 22 days, in comparison to 5 days from Turkey. Not only delivery times are shortened, but also development cycles, logistics and production are becoming more efficient (Nordkvist, M. 2008).

Iceberg theory

Hines & Bruce (2007) apply the Iceberg Theory for fashion retailers sourcing Far East aiming for lower production costs. The costs related to travels, increased executive time in the pre-, during- and post-acquisition phase are often left aside. Costs for lost-sales due to late arrivals must not be overseen and neither should quality issues and other problems that arise as the supply becomes international (Hines, T. & Bruce, M. 2007).

Time to serve is the time from when an order is taken until it is delivered. Traditionally it was often eight to twelve months. The actual sum of production and shipping time for the order is much lower. A large part is consumed by cost reducing logistics as manufacturing and transport only in large batches at each instance (Tyler, D. et. al 2006). Often shipping time other than for final products is overlooked. Transport of fabrics and half-made articles must not be forgotten either. The total cost of the supply chain is not taken into account as lower manufacturing costs are chased (Hines, T. & Bruce, M. 2007).

Wholesale vs. Retail

Wholesale is the resale, without transformation, of new and used goods, to industrial, commercial, institutional or professional users. The clients may be other wholesalers or producers. Retailing is the sale of goods or merchandise from a fixed location, such as a department store or by post, in small or individual lots for direct consumption by the purchaser. (Brannon, E. 2006) The clients are either companies or individuals. Important however is that retailer is at the end of the supply chain. Retailer in this thesis refers to Hope's customers, that is to say shops that buy Hope's articles in order to sell them to final consumer.

Choice of retailer

Changes in distributional manner have been carried out by web-stores, providing the customer the convenience of twenty-four hour home shopping. Additionally, customers are offered lower prices than from the traditional retailer. Internet is not the only recently found way to distribute fashion to consumer. According to Hines & Bruce (2007) there are four segments of fashion retail – luxury, high street, supermarket/out-of-town outlet and Internet. Supermarkets offer not only inexpensive fashion, discounted branded goods and attract customers with the ease of finding apparel during the weekly shopping.

The work of manufacturers, retailers and dotcom companies are extendedly overlapping. Consumers tend to become less loyal. Internet as a supplier of information is transpiring a global market and hence giving the consumers an entirely new opportunity of finding the best offers (Söderlund, M. 2001).

A company's choice of target group is an essential strategic decision (Porter, M. 2004). To be found on the right place is crucial for a small company in order to reach its target group. Hence a company in the fashion business must be careful when choosing retailers (Hines, T. & Bruce, M. 2007).

3.1.3 Fashion procurement

The product quality and the salesman's performance are both essential, but sales figures are still in the end decided by the buyer. The function is thus crucial for the estimation of forth-coming sales.

Often in literature (Jackson, T. & Shaw, D. (2001), Hines, T. & Bruce, M. (2007)) fashion buying refers to the phase of product development and producer selection, everything from design to choice of qualities and quantities. This is the case for own-branded labels whose organisations embrace also sales points as H&M or Zara. Of interest in this investigation is the retailers' purchase of readymade garments, thus the act that determines the demand for Hope's products.

Fashion buying

"If you don't buy enough it sells out and you have to quickly resource, and if you buy too much it goes on discount" Dennis-Jones, C. (2007)

The fashion buying phase takes place one year before the actual season and orders are commonly made six months prior to delivery. Predicting best sellers this far in advance is a challenge, failure instantly bringing lost-sales costs or over stocking levels. Procurement is essential to one of the world's most powerful businesses. (Hines, T. & Bruce, M. 2007).

The general image of fashion procurement is glamorous; mainly consisting in travelling, trend spotting, catwalks and celebrity parties. The reality is another (Dennis-Jones, C. 2007).

The risks are high and miscalculations will influence the whole organisation. The buyer answers to good and bad (Hines, T. & Bruce, M. 2007). The terms are simple though, to buy a product and sell it at a higher price. In order to succeed, the consumer's mind must be read and awareness of upcoming and leaving trends is required. Market research and statistical analysis are large parts of a fashion buyer's duties (Dennis-Jones, C. 2007).

The buying function

Acquisition is a strategic position for the organisation not only as to find merchandise at right quality and lower price. The buyer determines the assortment available to customers. Information of market trends and consumer behaviour are consequently essential skills of a fashion buyer (Johansson, U. 2002).

There is an apparent difference in the demand system between retail and non-retail buying. Retail buyers supply to independent demand. Their task is to satisfy the needs of millions of people as opposed to non-retailers working with demands of organisations in business-to-business (B2B). The former is more complex and errors in forecasts are more likely to occur (Fisher et al. 1994).

One might think that a retail buyer, once trained in one field, possesses skills that are needed for most businesses. It's not the case. Retailers are often unwilling to acquire buyers from other sectors as product awareness is considered the main thing. Hence the best in food buying may not be suited for the fashion business (Dennis-Jones, C. 2007).

Influential decisive factors

Obvious characteristics considered when acquiring fashion are design, trend correspondence, finish and quality. Other decisive factors of fashion buyers were found by Wagner in a study carried out in the US in 1989 (Hines, T. & Bruce, M. 2007) are manufacturer size and reputation, brand name, price, selling history, merchandise quality, product innovativeness and its ability on the market.

The three most important factors are, according to the above-mentioned investigation, selling history, the mark-up price and delivery accurateness.

The buying process in the fashion industry naturally includes terms of negotiation. Price, time of payment, volume, stock ownership, co-operating activities, delivery times, distribution, product quality and manufacturer assortment are common means for persuasion. Furthermore a supplier's capacity to propose new products plays a significant role in the supplier selection (Ibid).

The Buyer

The responsibility of a fashion buyer embraces market evaluation, trend spotting and supply chain management (Jackson, T. & Shaw, D. 2001). Analytic skills to overview statistics and work out article volumes and their costs are necessitated. During the act of negotiation these figures have to be analysed and calculated momentarily (Hines, T. & Bruce, M. 2007). Costs and prices often have to be considered in various currencies. A buyer's achievements are evaluated by the financial result they bring. The buying activities are changing from purely operational to more strategic (Brannon, E. 2006).

The profile of a retail buyer (Dennis-Jones, C. 2007):

- Knowledge of competitors, their strengths, weaknesses and the threat they pose.
- Insight to major trends for the upcoming season.
- Awareness of how buyers add value to their company.
- Good relationships with suppliers.
- Strong performance against targets.

In the segments of fast fashion, new items arrive weekly. The buying cycle has become shorter, some buyers making new deals every six weeks (Ibid).

3.2 Forecasting

“When conducting a forecast, historical data and future expectations are used concurrently.” (Brannon, E. 2006).

3.2.1 Introduction

A forecast is the start of any scheduling activity, its importance regardless (Mentzer, J. & Moon, M. 2005). It is true for a plan made by an individual as well as for a country’s government. Laying out a pair of wool chinos for tomorrow would be based on the prediction of a cold day as well as an investment in military service could imply that war is expected. Predictions are often made unconsciously. The procedure is not necessarily very different from the one a company bases its future strategy on (Ibid).

To know where the clients are to be found and in what quantity they want the product or service is a major success factor for any company. More than 50 % of all sales manager training programs embrace sales forecasting and hence it must be considered an essential part of any sales division (Dalrymple et al. 2004).

The prediction of future demand is based upon data from statistical analysis, sales, market and product management (Mentzer, J. & Moon, M. 2005).

In general, the larger the company the more effort is put into forecasting, more people from different sectors are involved and thus making them less subjective. Often extremely complex, quantitative statistical techniques are developed in their course of prediction. A smaller company is likely to use a less complicated, qualitative method (Herbig, et al. 1994).

Sales forecasting management

Sales forecasting involves a precarious combination of internal decision-making and uncontrollable external factors that might affect the demand for the company’s products (Davis, D. & Mentzer, J. 2007). Mentzer and Moon (2005) describe three management activities that exist in any supply chain; demand management, demand planning and sales forecasting management. The organisation’s position in the supply chain decides its approach.

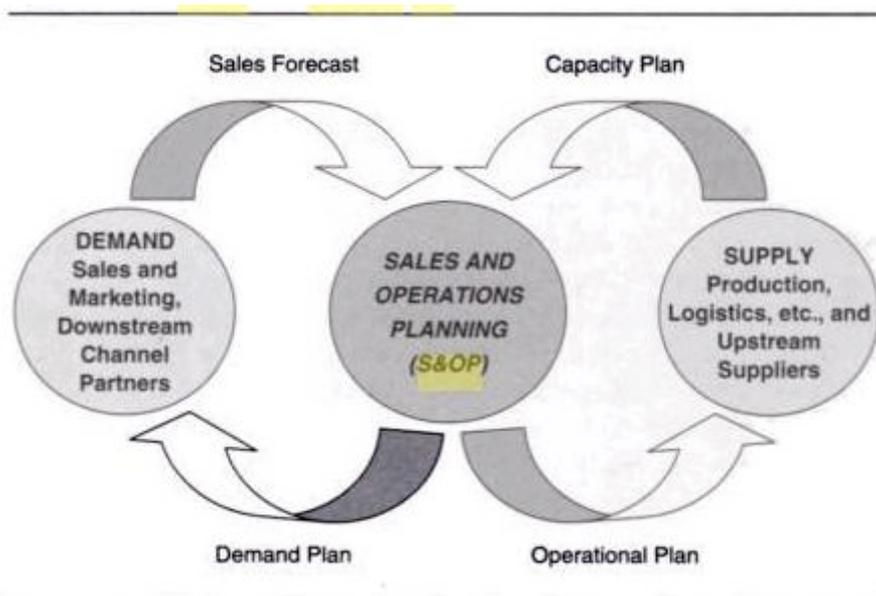


Fig. 2 Sales and operations planning. (Mentzer, J. & Moon, M. 2005)

Sales forecasting is essential for composing actions in any trade-oriented organisation. Fig. 2 depicts two major functions in a manufacturing company. First, the demand function, in charge of sales and marketing, and secondly a supply function working with production, buying, logistics and finance. The prediction of forth-coming sales figures should derive from the demand division. A capacity plan, on the other hand, is realised by the supply function and will contain feasible production data, in volumes and delivery dates. As fig. 2 shows the two will be combined and synchronised to give a demand and an operational plan. The authors argue that these plans should be short-termed and revised every month (Mentzer, J. & Moon, M. 2005).

Derived versus independent demand

The product volume asked for, in time and location, by final consumer of the supply chain is the independent demand. The company may be in the B2B or sell directly to final consumer (B2C), the independent demand of the supply chain is the same, namely determined by the end user. Only actors working directly with the consumer market will sense the independent demand. All other contractors up the supply chain experience a demand subsequently made up by other companies' organisational and sales forecasting policies. As it is based upon the beliefs of other actors this second kind is termed derived demand.

In sales forecasting the awareness of what particular demand the company is facing is essential. Furthermore recognition of the different kinds of demand and their internal relation is of great importance (Ibid).

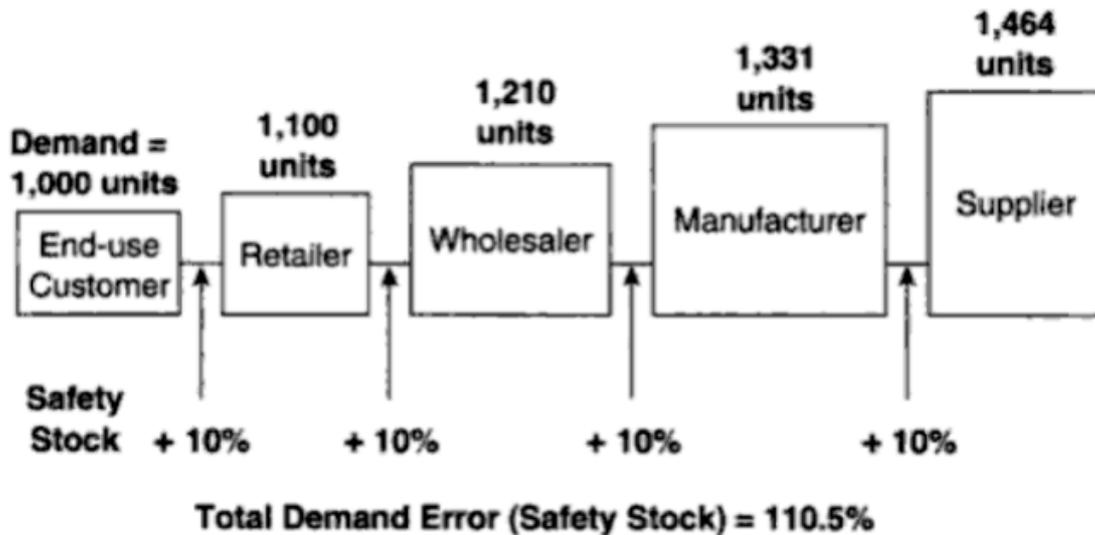


Fig. 3 Demand Error in a Traditional Supply Chain. (Mentzer, J. Moon, M. 2005)

“Anticipating demand is fundamental for a profitable supply chain.” (Davis, D. & Mentzer, J. 2007)

Fig. 3 illustrates how everyone adds 10% to the former demand as stocking safety. The retailer has noticed that his forecasts in general differ +/-10%. With expected end-user demand of 1000 units he then orders 1100 units from his wholesaler, an extra 10% to make up for the usually occurring forecasting error. Similarly the wholesaler adds a safety level to his order volume, but this will be based upon the retailer’s demand being 1100 units.

The example illustrates a normal failure in sales forecasting, that is to not distinguish the independent and derived demand. The former must be estimated. The latter, on the other hand, can be derived and planned. It can be seen that the errors in the predictions add up quickly in a supply chain with miscalculations as small as 10%. The demand flow, dependent and derived, must be coordinated through the companies of the supply chain. The retailer supports the other actors in the supply chain with the point-of-sale demand figures and a necessary time plan. It can easily be concluded that the further up the supply chain the more is gained from the coordination. Hence the companies that have to start the supply chain demand planning, the retailers, are least motivated economically. Demand management is this creation of a coordinated flow of demand across the supply chain and its markets (Mentzer, J. Moon, M. 2005).

Three step approach

Donaldson (1998) describes a three-step approach to sales forecasting. Initially an analysis and forecast of the general economic state must be carried out. The outcome is then brought to the current circumstances within the industry in particular. This second part involves competitor behaviour and market potential. The last step is the prediction of the company’s sales based on current market share, sales and marketing actions throughout the period. This is often mistaken and carried out the other way around. Marketing efforts are made to achieve the forecasted level. In this manner the forecast is more of a target and the terms have been confused (Donaldson, B. 1998).

Market Potential

Market potential is defined as the demand, in a certain time interval, derived from potential users and their purchase rate. Real sale figures are always poorer as a potential user does not necessarily need to be a user. Neither does the purchase level have to meet up with the estimated one.

Company sales potential refers to the single actor's share of the total industry. It represents the upper limit of what the company could possibly put on the market in that period (Dalrymple et al. 2004).

Closely related to the market potential is the Buying Power Index (BPI). It contains population quantity, income level and retail sales in certain areas. Consequently it can be used as a measure or pointer for market demand divided geographically (Donaldson, B. 1998).

3.2.2 Forecasting techniques

Since 1970 sales forecasting techniques have been developed considerably to better suit the market conditions. Still the performance in these prediction tools has not improved significantly (Davis, D. & Mentzer, J. 2007). Qualitative sales forecasting methods are used more frequently despite the fact that studies have proven the quantitative method to generate higher accuracy (Lawless, M. 1990). A qualitative method refers to the opinion of a manager or a decision maker in the department whereas a quantitative employ statistics (Patel, R & Davidsson, B. 2003).

“If you sell more than one type of product or service, prepare a separate sales forecast for each service or product group.” Canada Business (2008)

For individual products, also a unique demand patterns can be expected and they should hence be considered separately when predicting forth-coming sales.

As authors often are enthusiastic in naming models and methods, the same or similar techniques may carry several titles. With the intention of not confusing them, one single source has been chosen for the quantitative and qualitative sales forecasting respectively. The methods were chosen according to Hope's requirements. Application and use have to be simple and quick. Furthermore the technique has to function accurately in the conditions of the fashion industry, which among other complicating issues means very short historical data. Some methods can directly be eliminated from use for Hope but are still portrayed with the intention to give a good image of forecasting in general.

3.2.3 Quantitative sales forecasting

“There are three kinds of lies: lies, damned lies and statistics” Mark Twain

There are more than 70 forecasting techniques only among the time series methods. Finding the most appropriate is consequently not simple.

The evaluation founding the forecast may be statistical or subjective. It may utilise only historical data or take other factors into account. These may be price variations or marketing efforts, the business cycle or other external factors. The former is in the world of forecasting referred to as exogenous data and the latter endogenous (Mentzer, J. & Moon, M. 2005).

Naive forecasts

The naive forecast is the most primitive numerical forecasting methods. For its simplicity it is despite a somewhat questionable accuracy utilised frequently in 30 % of U.S. firms (Dalrymple et al. 2004). It assumes no changes and thus predicts the future period to turn out the same way as the current one (Mentzer, J. & Gomes, R. 1989).

Moving averages

The moving average method treats the sales for a chosen number of periods to predict future quantities. It gives a resultant that is an average of past sales. The longer time series used, the slower it will respond to changes (Ibid).

Exponential smoothing

Exponential smoothing is a development of the moving average, giving each sales period a weighted value. Thus bringing the user the possibility of giving more importance to recent sales. The smoothing constant must be carefully selected (Ibid).

Correlation analysis

This method is also known as regression analysis and it uses exogenous data and looks for correlation between sale figures and all parameters that could possibly be affecting. Marketing efforts, price, economical cycle, product life cycle, product quality and upcoming competition are examples of considerations in such an analysis. All variables found are investigated with the purpose of finding a relation to historical sales. Close correlations will, if found, be the base when creating the sales forecast for next time period. These variables can be analysed together as well as apart. The attention they get in the forecast corresponds to their affection.

Correlation analysis is the method that generally brings best results in forecasting. Unsurprisingly it is also the technique necessitating the most input information. A regression analysis, taking price, publicity and product quality into account requires data from 20 time periods in order to give a good result. The technique is thus more useful in longer terms and where a long record of data history is available. Due to the quantity of historical measurements in use it adapts slow to changes (Ibid).

Fixed Model Time Series

There are many occasions when the regression analysis cannot be used properly. There may not exist sufficient measurement periods or it could be too complicated for a large product assortment. Fixed Model Time Series (FMTS) is then a good alternative. It has four features, each affecting the forecast in its own manner. They are level, trend, seasonality and noise. Level is the general sales volume in the past. Trend is a continuing behaviour, rising or declining, of sales volume. Seasonality is the repeated sales pattern and last noise, which is a random variation that cannot be justified by time-series studies. A forecast made by FMTS will look for relations between variables and sales figures historically and then analyse if and in what level the pattern occurs. Potential correlations will be used and applied for future periods.

As it considers historic data not only at a general level but also divided into tendencies, seasonality and noise it will react quickly to changes in situation. In order to give an appropriate forecast the links between events and results must be found. Exponential smoothing presupposes the past sales curve only as level and noise. In this case it will, obviously, not bring a valid forecast if seasonality and trend are present in the period of study.

The method is in comparison easy to implement, necessitates a smaller amount of data but does not give as precise result as the regression analyse (Mentzer, J. & Gomes, R. 1989).

Open Model Time Series

Open Model Time Series (OMTS) and FMTS are similar as they employ the same four variables to describe the curve behaviour. In an OMTS-study all sales data is reviewed in order to find patterns. FMTS, on the other hand, starts with hypotheses that certain relations exist and others do not. Based on them equations are carried out and used to transform historical data to future expectations. Only very few companies practice the OMTS-technique. This is explained to be due to its complex and demanding analysis. The extra effort, in comparison to FMTS, pays off only in a modest improvement in accuracy.

The correctness of the technique is very much dependent on its user's skills. Data from 48 periods may be needed to conduct a good analyse. It should be used when there is a considerable amount of old sales volumes and only a few products are concerned (Ibid).

3.2.4 Qualitative sales forecasting

A subjective method uses experienced employees within the organisation and their personal opinion will form the forecast. It requires little or no data and can hence be beneficial in organisations where actual sales figures are difficult to find or do not exist, as is the case when introducing a new product. The qualitative, or subjective, method can also be used when there is a need to interpret new external conditions that could never be interpreted in a time-series analysis. These could be new circumstances in the competitive climate, improved production capability or changing market demand (Dalrymple et al. 2004).

Unfortunately it is a time demanding task that often cannot often be pursued by staff in these important positions. For this reason it is often used once a year to set a long term general forecast but rarely on article level (Mentzer, J. & Moon, M. 2005).

In cases where no historical sales data exists one cannot use statistical or mathematical methods to predict future outcome. This is the reality for new product releases. There are occasions, as well, where the past is no longer applicable for the forth-coming period and it may be due to drastic changes in environmental or economical conditions (Dalrymple et al. 2004).

Sales force composite

This approach to forecasting employs the knowledge of the sales personal. They will themselves estimate the quantities to be requested by the clientele in their districts. Executives will then evaluate the result and bring it to further discussion. Sales force composite is one of the most commonly used forecasting techniques with its regular occurrence in 45 % of U.S. firms. It is a widespread method in the business-to-business sector as it is characterised by a small number of clients and sales personal with good ability to foresee demand (Ibid).

Jury of Executive opinion

As the name suggests there is a group of experienced managers giving their view forthcoming sales for a set of products. The method is quick and can consider subjective aspects as competitors and economic climate. Almost 40 % of U.S. firms exercise this method regularly. The high user rate indicates that many executives rather rely on their own judgement than statistical forecasting techniques (Ibid).

Leading Indicators

This forecasting technique uses factors, leading indicators, linked to the sales quantity for the product of interest. The leading indicators have a close correlation to the products that are objectives in the investigation and their sales data can be accurately anticipated. They will warn a change in customer behaviour in a way that most methods are unable of (Ibid).

3.3 Fashion forecasting

Fashion forecasting often refers to trend spotting, a task most commonly carried out by designers or buyers. This thesis will treat the emerging and prediction of fashion tendencies only shallowly. Instead emphasis will be on forecasting from Hope's point of view, in other words the estimation of their sales volumes.

Fashion forecasting for retailers

The importance of predicting the demand is higher for the retailers than for the brand owners. A retailer could never wait for their customers to buy the products they want and then make their orders. As for the classical newsvendor problem, demand for fashion products is not known until the end of the selling period and thus must be forecasted. Once the season starts it's too late to produce, since apparel manufacturers need time to carry out the orders (Hines, T. & Bruce, M. 2007).

Inventory management is a crucial aspect in fashion as in any business with merchandise that quickly goes out-of-date. Emphasis has to be on forecasting the volatile demand in order to lessen costs and achieve efficiency in the supply chain.

Brannon (2006) suggests the use of a generalisation of client behaviour after market, time period and distribution method.

- Sales volume by product group: What share of total sales is brought by a specific product group.
- Sales volume by geographical area: Divide total sales in geographical location with the purpose of finding a universal compartment in the area.
- Sales volume by time period: Is there a seasonal dependant purchase pattern.
- Sales volume by distribution channel: Can market volatility be due to choice of distributional channel.

Articles sold at discount prices in department stores have escalated from 8 % in 1971 to 33% in 1994 (Fisher et al. 1994). One out of five customers are declined buying as the desired item is sold out (Nyqvist, M. 2008). Forecasts are made with the intention of optimising stock levels. Yet incorrectness in the prediction causes lost sales and excessive stocking levels that tie up financial resources and render sales at discounted prices. In addition, the service level to customers will be low, as they might not find what they were looking for. The ambition is to forecast the volumes produced that

minimise expected total costs for the company (Mentzer, J. & Moon, M. 2005). The cost of excessive inventory can be calculated straightforward. Estimating the cost for out-of-stock articles is, naturally, more problematical (Fisher et al. 1994).

The deterioration in accuracy in anticipating demand is serious and worse is that producers carry on as if the forecasts were trustworthy. The fashion industry today is unpredictable, making forecasts no longer a constructive means in the chase of improving the performance of a company (Christopher, M. et al. 2004). First, the market conditions are changing from one year to the next. The kinds of products demanded vary rapidly. Then articles rarely overlap seasons. Forecasts will thus be based upon similar items, as no data at all is available for the current product. The uncertainty naturally increases with the time perspective of the forecast. Hence, according to Christopher (et al. 2004) emphasis should be on shortening lead times, and consequently the prediction horizon, rather than improving unreliable forecasting methods.

Fashion markets have a character that requires quick response (Hines, T. & Bruce, M. 2007). Long time to market means the company will lose sale occasions, as the moment will most certainly be gone. Demand for fashion items is changing rapidly. Mattila (et al. 2002) argue that product groups where demand can be predicted more precisely should be treated differently than more volatile ones. Garments that are easier to forecast should be produced at lower costs far east, while local manufacturers can be utilised for others.

3.4 CRM

“Creating relationships with key customers to rationalise the offer is one of the critical issues for the fashion industry.” (Saviolo, S. & Testa, S. 2005)

There are many definitions of the term Customer Relationship Management (CRM). Fundamental in all is the bond between two actors. Through a profound relation higher profitability, trust and loyalty is achieved.

Buchanan & Gilles (1990) suggest that the increased profitability associated with customer retention efforts is a consequence of several factors that occur once a relationship has been established with a customer.

- There is always an acquisition cost for a new customer. The longer the relationship lasts, the lower that cost over time will be.
- Clients with whom one has a mutual history are less inclined to change supplier and also tend to be less price sensitive. This gives stability in sales volume and increased profitability.
- Long-term clients are more likely to create positive word-of-mouth.
- Long-term clients staying with the company are often satisfied with the relationship and thus not tend to switch suppliers. Hence making it difficult for competitors to win market shares.
- Frequent clients are often cheaper to service as they are already familiar with the process and for that reason requires less information.

Customer Relationships Management was observed in practice at the turn of the millennium. Its initial thought, however, proposed by Philip Kotler in the 1990s as a new vision of the marketing theories applied at the time:

“..if companies are to compete successfully in domestic and global markets, they must engineer stronger bonds with their stakeholders, including customers, distributors, suppliers...common practices such as whipsawing suppliers for better prices must end. Companies must move from a short-term transaction-orientated goal to a long-term relationship-building goal.” Kotler (quoted in Payne, A. 2006)

According to Björnberg (2000), CRM is about consciously trying to establish, develop and conclude relationships to customers with the intention of creating mutual value and competitiveness.

The strategy is set up by technological solutions and information technology in order to manage the customer relationships. The customer is portrayed as a business asset rather than simply the other side of a transaction (Payne, A. 2006). Grönroos (2000) describes CRM as an attitude towards the customers intending to deepen the cooperation in order to improve customer value and increase profitability for both parties. This reciprocal gain can only be created by keeping close to the customer.

Isaksson (2005) refers to CRM as the communication carried out by a company with the intention of improving the awareness of the customer's needs and the ability to affect its behaviour. Value is created with and not for the customer (Payne, A. 2006). It is a strategy that has to be implemented on the whole organisation to succeed, not only on certain functions. Customer value is the total impression, for the customer, of having the relationship. The customer value is determined by the advantages brought in contrast to the effort put in (Grönroos, C. 2000).

Interpersonal relations

Many studies carried out in the area of CRM have shown that interpersonal relations, between companies, are of great importance when creating relationships. When a relationship is brought to a personal level the desire to remain loyal rises as a part of the friendship developed among employees. Barnes (2000) discovered that what the customer dislikes the most in a corporation is neither high prices nor products not measuring up but a bad personal treatment. A vital part of the relation is on personal level and divides the relationship into brand-, distant-, face-to-face and intimate customer relationship.

Brand relationship refers to the customer being acquainted only with the brand and there is no direct contact to the company personnel.

A distant relationship is carried out through technology as Internet, email and telephone with little personal interaction.

Face-to-face relationships involve several in person meetings and staff from both firms is likely to be familiar. The difference between the two latter is that the intimate relationship brings the bond further, to also involve information sharing. In order for a relationship to reach the two closer degrees a history of collaboration is required (Ibid).

3.5 Information sharing

A supply chain achieves supreme results only when its actors work together with mutual objectives (Lee et al. 2000). Through coordination of the tiers; efficiency and quick response can be created in the supply chain. For synchronisation, that is to make supply match demand at all times, information sharing is vital. Storage at each level can then be reduced and concurrently the supply chain will react faster. Done properly, lead-times will be shortened and excess inventory will be eliminated (Coyle et al. 2002).

Forecasts bringing worse estimations each step they take away from the final consumer is a phenomenon, by some authors, termed “the bullwhip effect”. Where the supply chain is far from transparent, the forecasting error is accumulated at each tier. Information sharing thus is a solution to the “bullwhip effect” (Lee et al. 2000).

3.6 Summary of the theoretical frame work

A short summary including some of the author’s reflections of and interconnection between the different theories, models and concepts conclude this chapter.

A number of forecasting methods were portrayed in this chapter, some of which can be immediately eliminated from use for fashion products. There is a need for 20 time periods in order to create a valid outcome for some of the quantitative techniques. Conventionally in the clothing industry, with the Autumn/Winter and Spring/Summer seasons this requirement equals 10 years of history.

Fig.3 illustrates how forecasting errors escalate with each actor from the independent demand. The phenomenon is important for any supply chain, but in fashion it is crucial. The miscalculation can as seen often reach 40%, which leads to a disastrous result only a few steps up the supply chain.

Matching fashion and forecasting is not a simple thing to do. Fashion adds a dimension to apparel that makes it difficult to predict. Without that extra feature many forecasting techniques would be applicable and bring a somewhat accurate result. The circumstances call for other means to solve the problem of fashion forecasting. These last two sections were explored as I realised that the task was much more complex than I had anticipated.

4 Empirical results

This chapter contains primary data, gathered by the author through interviews and research. In line with the third sub purpose, the current state of sales forecasting in four to Hope similar companies is given just after a short introduction. A discovery made in production brought an interesting turn in section 4.4.1. Then focus is transferred to procurement to reveal decisive factors behind the buyer behaviour. A quantitative and a qualitative study of the latter function follow. The interviews constituting this chapter were not completely designed and phrased ahead of time. A large part of questions were created in the dialogue, to allow both the interviewer and the respondent the flexibility to search for details or discuss issues initially unknown. Consequently the interviews are not presented with the exact same structure.

4.1 Introduction

As described in the Practical Method the empirical study started within the organisation of Hope.

4.1.1 Factors that can affect Hope's sales figures

To initially enlighten Hope's sales environment the author has listed factors that can affect sales volumes for a smaller fashion company. They were obtained through early conversations with the Hope staff, among others sales responsible Malin Söder and their PR-agency. They are listed according to importance.

External:

- Fashions, styles tendencies
- Competition, direct
- Competition, indirect
- Productivity changes
- Special Events
- Political events
- Consumer earnings
- Seasons
- Weather

Internal:

- Product changes, style, quality
- Promotional efforts
- Service changes, type, quality
- Inventory shortages
- Price changes
- Distribution methods used
- Sales motivation plans
- Labour problems
- Credit policy changes

4.1.2 Sales records

All customer orders from S/S 2001 to A/W 2008 were assembled, reviewed and compared with sales forecasting theories and methods in order to find a pattern and a suitable technique. No immediate correlations were however found and the author soon realised that a new approach was needed.

4.2 Benchmarking study

The sales data examination and the benchmarking study of fashion companies' sales divisions were carried out simultaneously. With the intention to learn how forecasting was approached and conducted by others the sales departments of four, to Hope similar, companies were interrogated. Short summaries of the interviews follow.

4.2.1 Interview Sales Division – Fashion Company (S1)

The company S1 is a small Swedish designer clothing firm with three employees, a designer, a designer and chief of production and last a salesman. Their first collection was launched in 2004. Today the brand is represented in clothing stores all over Sweden.

The year is divided into Autumn/Winter and Spring/Summer. Each season has four different phases for the seller.

First, the recognition period which is used to increase brand awareness among new store managers. At this stage look-books are sent out to prospect shops and calls are made to their buyers in order to achieve acquaintance.

Then there is the meetings scheduling period. At this point as many appointments as possible are arranged, preferably at the Copenhagen fashion fair with the buyers visiting the exhibition. Since they don't have a showroom he travels himself to the client to demonstrate the full collection during the sell-in period. Even though they have only two clients outside the borders of Sweden the Danish fair is a good meeting point as most influencing people of the Swedish fashion industry go there.

After the sell-in period, when all orders have been taken in and sent to production, logistic and customer serving are the main preoccupations. However concurrently the cycle starts over again and further attempts to acquire new customer are made.

At the start of each year the three together set up a plan, including a sales target. The target is a number they want to reach within reasonable limits. It should not be confused with a forecast that brings the most probable outcome. No estimations of future demand are made as they consider the company too small to have any use of such an activity.

4.2.2 Interview Sales Division – Fashion Company (S2)

Company S2 has a store concept with sales points in the larger cities of Sweden. To consent their request of being anonymous unfortunately interesting information about the company presentation will have to be left out. Their assortment includes both own- and exterior branded garments. It means they will have to forecast sales for their own production and for the items they buy in ready-made. The quantities of both kinds are decided on unknown demand. As their suppliers manufacture upon customer order these styles and quantities have to be determined even earlier than the own production. The forecast initially derives from a mathematical model based on similar styles and their historical data. Analysts, whose only task is to investigate these numbers, together with executives then bring up the result to discussion. The executives with their industry experience bring in fashion and article knowledge. The analysts on the other hand contribute mainly with mathematical skills. The final result is generally an adjustment of the outcome of the statistics made more intuitively by the executives. S2 were not willing to reveal its exact forecasting model. However it is not very important, as the impression is that most of the decisions in the end were made by heart. Many changes were conducted in the discussions. The statistical forecast is more a base or a starting point that most likely will be changed radically. S2 expressed its technique as a quantitative but this thesis' author would rather classify it as a qualitative, however with some elements of a quantitative research. It should be noted that this is a conclusion drawn on a 60 minute long interview. There may of course have been misunderstandings. The interpretation is that the analysts are totally run over and that the final version of the forecast is a result of the executives' personal appreciations and beliefs rather than mathematical models.

4.2.3 Interview Sales Division – Fashion Company (S3)

Company S3 is quite similar to Hope in both style and size, however S3 is somewhat less spread internationally. S3 was founded in the late 90's. It still has not seen the expansion boom that Hope experienced a few seasons ago, neither in Sweden nor internationally. Most of their retailers are on the Swedish market and outside of Scandinavia they have are only a few. The reason for this is claimed to be the desire to grow carefully, almost groping. They want to know and be well recognised on one market before entering a new one. With this motive they have not yet attended fashion fairs outside Scandinavia and hence they remain unknown in other parts of the world. In this manner they have managed their development and growth without hiring many new employees. S3 still has only one designer, one production responsible and one salesman. As their growth has been cautious, the production volumes have not been higher than for them to stick with a small number of manufacturers. The relationships to both suppliers and retailers have from the start been very important and are said to be the major reason why they have not tried to follow the success wave of Scandinavian clothing designers in Europe and the rest of the World. When sales forecasting is brought up, an honest look of surprise is shows on her face. Why would we need a forecast? S3 has order-based production. The garments pass by their Stockholm office only to be repacked and then sent directly to the proper retailer. There is no storage and no unsold articles. No need for a forecast.

4.2.4 Interview Sales Division – Fashion Company (S4)

S4 is a relatively young Swedish company that by the fashion connoisseurs is predicted a brilliant future. In only a few years the two designers have created a name in Sweden, they have most retailers in Europe, some in North America and a few in Asia. The international audience has been found through fashion fairs in Barcelona and Paris. This path of internationalisation was taken already from the start. For four years they have shown their collections at the two above mentioned fairs, at the Copenhagen vision and at Stockholm Fashion Week. S4 does no marketing themselves apart from the fashion fairs. Knowledge about the brand was spread mouth to mouth and through press where the company has been given a lot of attention lately. S4 do not work with forecasting in the sense of only predicting. What they actually do is more a combination of forecasting and target setting. A reasonable target is set based on the beliefs and hopes of the employees. It is set per market in total order value and in number of clients. The last seasons' results are analysed together with the long-term business plan. From that stage a compromise is reached halfway from where they are and where they want to go. How to reach the result is then calculated backwards. It is a result based target setting rather than a forecast, something of a realistic target setting.

4.2.5 Summary of Sales Benchmarking Study

Forecasting is not a priority in any of the investigated companies, often not even considered. Instead the sales personal asks for motives of why to estimate forthcoming sales figures. A reason for this attitude is deeply rooted in the fashion system. Conventionally the sales period precedes the production and the demand is consequently known. The system has not yet adapted to the new conditions of the fashion business where time is a critical success factor. The educational level among sales personal in fashion is in general poor and that is another probable cause why forecasting is not employed further. There is a lack of know how. A third explanation is the complexity of forecasting fashion. It is so difficult that no one dares trying.

4.3 Demand

“Anticipating demand is fundamental for a profitable supply chain.”

Davis, D. & Mentzer, J. (2007)

There are two kinds of demands to distinguish between for a company like Hope. First, the direct demand that is received from the retailers. Being based on estimations made by others it is in theory termed derived demand. It comes from the retailers' predicted demand, their considerations of what their customers will buy in store. What the customers actually acquire, the independent demand is never available to Hope but will be the foundation of the forth-coming demand from the retailers. The forecasting model, in fig. 3, adds a 10% miscalculation in each step and only a few actors up the supply chain the error is significant. The corresponding figure for a fashion retailer company often reaches 40% (Fisher et. al, 1994). It confirms the complexity in fashion forecasting and demonstrates the importance of improving its accuracy. There is a seasonal change in demand reflected on order values that are generally higher for Autumn/Winter since expensive items, as jackets and shoes, constitute a larger part.

4.4 Production

Long lead times and the chase for the best producers obligate the determination of manufacturer, articles, models and volumes six to nine months in advance (Smith, A. 2007). The better the producer, the more urgent is the need for anticipation. Hope is always a small customer to its suppliers. This means that the company rarely gets the benefit to make late orders.

Booking production time does not necessarily mean a definite decision upon what articles to bring into production. In fact any item within the capabilities of the manufacturer can still be manufactured. Suppliers of fabric often have very long lead times. Thus, unless the textiles can be used for multiple items, the range still has to be determined just as early (Ibid).

The retailers' year is divided into periods, the selling seasons and so is the producers'. The production peaks are however two to three months prior to the start of the retail seasons. In between occupation is lower. This means that lead times are shorter and there is no need to notify far advance. Besides, the price of production capacity is below standard (Ibid).

4.4.1 Production problem

Fabric is generally bought from a factory in Italy, from which it has to be transported to Portugal where it is produced. The supply chain is fragile. Italy has frequent transport strikes. Stoppages in production occur occasionally and only a small disturbance further up the supply chain at any of the passes creates delays. As a small client to all their producers Hope is never high priority and can consequently in case of crisis expect to be postponed (Ibid).

Being present at the Hope office in the time of delivery of the Autumn/Winter 2007-2008 collection the author of this thesis noticed a large number of retailer phone calls regarding late deliveries. In a discussion with chief of production a new problem was brought up. Hope is sometimes having troubles with delivering on time. Delays caused by the manufacturer, fabric supplier, transport losses or strikes are common. Yet they cannot be tolerated. In a rapid moving business like fashion, also short postponements can cut the product lifecycle in half. Consequently the retailers are not understanding, nor accepting this behaviour. Delivery accuracy is a crucial basic requirement for a fashion company (Asplund, U. 2008).

4.5 Interviews procurement

The factors that affect the demand for the company's products must be found in order to conduct sales forecasting (Davis, D. & Mentzer, J. 2007). The retail buyers make the final decision regarding Hope's sales results. To discover how their choices are made this very important position in the fashion industry was investigated closely.

The survey includes three in dept interviews and a questionnaire (see Appendix 2) filled in by 26 respondents to be exact. The authors approach when exploring the retail buyer function was naturally affected by the discovery of the problem with on time delivery.

4.5.1 Interview Procurement Åhlens

[Åhlens](#) is one of the major department stores in Sweden. More than their own clothing lines they also retail about 60 different brands. The apparel acquisition team consist of four buyers, each responsible for one field; women, men, boys or girls.

The buyers go to the fashion fairs Copenhagen Vision and Barcelona Bread 'n Butter. Earlier many deals were closed directly on the fairs but their procedures have changed. Today more frequently the orders are made during visits at the supplier's showroom. The fairs serve as a point to meet with new brands and the ones they have been contacted by during the year. Experiencing the supplier face to face is essential in determining whether the collection, and the organisation behind it, could be something for Åhlens.

A new brand is never brought into the store unless it is prospected to be selling well for at least a couple of seasons. Initially there is always a period before the customers find the new brand. Besides the slow moving starting selling figures the new supplier must be added in the logistical and business system, which can be quite costly.

Prior to the buying period they analyse last season's sell through figures down to article group level. The sales volumes of each brand are also examined. This investigation is the groundwork of the buying budget.

At a meeting with a supplier, the buyer has an intended spending amount from which deviation preferably should not occur. The plan also includes a quantity of garments that the order ought to result in. Which articles are bought is however decided during the meeting. They prefer to buy as large part of the collection as possible. In cases when the buyer is not satisfied with the full range of garments offered, there is a minimum order value. In this way labels are rejected for not presenting sufficiently large collection. A fashion buyer at Åhlens must be aware of the current tendencies but they trust their brands to know them even better. There are different premises under which buying occurs.

Most common is still the traditional way where the contract ends with delivery and invoice. With some suppliers they have a commission based sales deal, meaning that the seller owns and is responsible for filling up the merchandise. Once they are sold the store gets a lower percentage of the selling price since Åhlens is free of risk of over stocking. The third is to sublease store space to the contractor that then will have to provide personal to sell and display the merchandise.

How often orders are made depends on the kind of product. Volume articles, like jeans, cannot be stored and must be ordered weekly. Otherwise most of the buying is made when the collections are released, two to four times a year, and not often in-season. A contractor on commission basis naturally wants to remove articles not selling well from the assortment. Åhlens' administration is not happy with this behaviour as the removal and addition of articles in the system, packing, unpacking and sending is costly. It is time that the personnel could have spent selling and for that reason it should be avoided.

All brands they buy are well known. It is very important that they appear regularly in the press for customers to come and look for them. Each season brings about four new brands. Finally, they could share sell through figures if the situation gained from it.

4.5.2 Interview Procurement Grandpa

[Grandpa's](#) first store opened in 2004. Today they have two in the Stockholm centre. They have an alternative, sophisticated target group in ages from 25 to 30, both man and woman. Their customers look for something special that is not to find in every corner. The shop contains no publicity of the brands hosted, something that is very unusual. Instead they consider themselves the brand. Everything retailed is enhanced by the simple fact that it is sold within their four walls and not the other way around, as more commonly would be the case. It is a concept that disagrees with the view of most suppliers, yet proved to be successful.

Since the founders originate in other businesses than fashion, initially many elements were entirely new. Purchase was completed without outlining the amounts spent or which would actually be the appropriate quantities.

There is a learning- or adaptation period while entering the world of fashion, when you realise that nothing is black or white. An acquired article does not necessarily have to remain on the shelf if it is not selling. It can often be replaced by the supplier's other items. Sell-through is naturally of highest concern for the supplier, as it will affect the orders for next season.

At first, when the assortment was bought with a diminutive knowledge of forecasting demand, empty shelves occurred frequently. On these occasions, a freelancing designer with her custom made garments came as a blessing. Today they are contacted by a couple of new brands a week, Swedish as well as foreign. During the sell-in periods the number is five to six a day. A position has been achieved where it is hard to weed out among old and new brands. The choices regarding suppliers are made principally upon impulses and irrational feelings. They can not exactly identify what causes these decisions. The manner in which they have been approached by the supplier and meetings with its personal give indications about the company. Do they agree with impression of their brand and more importantly with the image of the store? Often a look-book is sent out before contact is made. In this way the purchaser can already at an early stage determine if the collection of garments is worth looking further into. Usually press images, stores of reference and names of brands they are sold together with, are enclosed in a first time contact. It does not give any guarantees of how the garments will sell once in store but it gives signals of the supplier capacity. It is not all about design; a brand has to be built around the products. Ambitions and network around the organisation is just as important. Many designers are naïve, thinking that a good product will sell itself. There is no mind for business. They try to get sales exclusiveness of the brand in their area, a demand rarely causing problems. Most suppliers, in their segment of the fashion business, are eager not to become overexposed.

To maintain their image as an alternative retailer Grandpa goes to fairs for rookie designers with the intention to bond new, unknown and upcoming brands. Of course there is a risk with a small, newborn designer. Not only the uncertainty in consumer demand, also do they not have the same assurances regarding product quality and delivery times as an established supplier.

The price level is fundamental in the purchase, but is considered only at a later stage along with negotiation terms of delivery and payment.

A company's reputation concerning on time delivery has an effect on the buyer. Current relationships can be cancelled if the supplier fails to deliver agreed quantity on time. An action like this will show in store delayed as buying takes time six months prior to the retailing season.

Most important for the garments bought, is that they have something that separates them from the crowd. The items' agreement with current tendencies is not a primary concern, as trends are not followed strictly.

A Norwegian trademark of substantial size in Norway and a top seller in UK is brought up. The storeowners love it but it has not had a real breakthrough in Sweden. Worries regarding possible sales figures have made them hesitant to buy until now, when an agreement has been reached. The collection is bought with full right of returning unsold merchandise and concurrently the supplier will make a marketing effort in the area. It shows again that the rules of fashion are easily bended. They claim that generally the retailer has all the risks. Orders are made six months in advance. They must pay rent and staff, while their suppliers manufacture items and quantities as requested.

This risk can beneficially be shared and give profit to both parts.

They are open to closer relationships with their suppliers and would gladly share sales figures if it would promote improved in-season ordering. Their cashier system brings statistic over sold items down to article level over time and a seasonal closure of sell-through. This presentation of best selling brands and articles is used to analyse and plan the purchase for upcoming season. Consciously they choose not to interpret the numbers too much. The reason is that the store could become quite boring if the assortment was based only historical data of the top-selling garments. It is not fashion.

A sign of the irrational mentality and a part of the store image is the buying of products known in advance that they will not sell. They are there just to bring character.

4.5.3 Interview Procurement Paul & Friends

The shop [Paul & Friends](#) was established in 1993 and carries today products from more than ten different suppliers, including an own brand.

Since the opening the founders have had a vision of only developing long-term relationships and it is still in practise. They have seen that a new brand does not become profitable before the third or fourth season. This is partly because the cooperation with the supplier works better, but mainly due to the fact that finding its place in the store requires time.

Furthermore they have the philosophy that once the customer has located the brand he should be able to return, knowing he will find it again. In this way the long-term relationship is passed on to the customer.

When considering a new foreign brand for the shop the sales exclusivity is an essential part of the negotiation. Exclusivity could be the rights to alone sell the brand in Sweden, Stockholm or at least the area where the shop is located. Paul & Friends have no interest in retailing the same product that can be found on the other side of the street. Neither do the brands they carry want to be overexposed so it rarely generates a discussion.

The shop area is fully used and hence there is no room for new brands. To create space for a new supplier the relationship with an existing has to be cancelled. As the current assortment is performing pleasingly, an action of the type is preferably avoided.

A well-known retailer is often contacted by apparel manufacturers offering their range of items. However, once Paul & Friends have chosen to enrol a new brand they have always made the first move, a conscious selection.

At the start they went to all the fashion fairs with the intention to spot the latest trends and make new acquaintances. They no longer do. The development is natural when having a relatively stable collection of suppliers. Instead they visit the show-rooms of their suppliers to see the collections and make the order. Also their behaviour in this situation has changed. In the early years they always spent some days considering and calculating the order that was to be made. These days it is closed straight away. In advance they have a budget, the amount or kind of garment however not decided. The budget may not be reached if the collection doesn't measure the expectations or it may be exceeded if for instance shoes are added to the range. They rather buy the full or at least a large part of the range.

4.5.4 Summary of Procurement Survey

The interviews show three completely different buying manners. They were chosen due to concept in order to reflect the whole group of retailers and variations in behaviour were thus expected. The diversities were however more than the points of contact. This alone is of course a very important discovery. The larger company, Åhlens, is supported by statistical framework and clear guidelines for how their buying activities should be carried out. Paul & Friends show a long lasting plan with each supplier. They leave most decisions to the last minute and base them rather on intuition or tacit knowledge than analysis of historic data. The young organisation behind Grandpa employs a learn-by-doing-strategy. Initially they made many mistakes but with time and experience the results have improved significantly. They claim it is the only way to gain understanding of the industry.

The diversity in the base for the decision process is very interesting.

4.5.5 Procurement questionnaire response

The three buyer interviews were used also to find the appropriate questions when formulating the inquiry.

153 buyers were asked about factors that affect their decisions when making orders. 26 of them replied. The interrogation was conducted through questionnaires and all respondents were Hope's retailers. The intention was to find parameters that affect sales volume, in order to anticipate and increase. Awareness of actions that influence quantities would naturally give a straight marketing focus and make sure that market- and sales resources are inserted where they are most useful. Higher efficiency rate would be the outcome. Knowing what is important for their customers, Hope will certainly increase their ability to serve these needs. Where they cannot adopt they will at least know what market circumstances may affect sales results.

The respondents had to fill in, on a scale from 1 to 10, to what extent they agreed with a statement or how important the mentioned factor is. Tab. 1 shows the average. All individual forms are to be found in appendix 2.

<u>Assortment</u>	
Collection follows trends	6,5
Brand provides a wide range - full wardrobe	8,6
Reviews by "experts"	6
<u>For a new label, currently not in store</u>	
Reference shops	7,1
Flagship store	4,6
Lots of press and media	6,8
Publicity and look-books	4
Fashion fairs	6
Orders made at fairs	3,3
Price range	6,5
<u>For brands in store today</u>	
On time and correct delivery	8,3
Beneficial credit terms	5
Service level-in season order	6,7
Last season sales	8
Customer asking for brand	8,4
Look of current collection	9,5
Could share sales figures	8,7
Already share 1 no 10 yes	2,7
<u>Buying process</u>	
You travel for buying	8,7
Seller expected at your door	2,5
Volume and articles decided before meeting	3,9
Decided impulsively at meeting	5,2
Affection by seller at moment.	4,3
You look much at statistics.	5,5
<u>Retailer concept</u>	
Change brands often	6,3
New brand has advantage	4,4
Existing brand have higher probability of receiving a large order	5,3
After 4 seasons a brand is considered tired. To be replaced.	6,4

Tab. 1 Buyer questionnaire response, the average is shown.
Scale 1-10, 10 meaning: "I totally agree with statement".

According to Wagner, the most important determination factors in fashion procurement are historic data, mark-up price and delivery accuracy. The buyer investigation among Hope's retailers gave a somewhat different picture. Sales data was not as important. It must not however be overlooked as in one way or the other the buyer intuition or experience is based on the history they have with the brands and in retail in general. It is formed as tacit knowledge.

Since mark-up price in Swedish fashion retail, as far as the study has shown, is a standard percentage employed by almost all actors it is rarely used as a competitive factor.

Delivery accurateness is absolutely among the most important issues. In the world of fashion, where today only short delays may imply half a sales period lost it is not surprising. It is a basic requirement though. Distribution failures may cancel a relationship but only performing well will probably not gain new customers.

That bringing up new products is crucial, as suggested by Hines & Bruce (2007), is made clear by the responses regarding the importance of wide collections. It is however not always sufficient. Some retailers have a constant circulation of brands. They exchange even if the label is inventive only because that is the way it has to be. Their customers expect new labels and to gain space for the next, old ones have to leave. It is fashion. Few brands remain trendy and hip for a long period of time. Since the retailers' strategies vary, a general pattern for how the relations develop over time has not been found.

4.6 Conflict of interest

There is a conflict of interest between the retailers and the fashion labels. It was found through discussions with Mats Nordqvist at Swedish School of Textiles. It very well illustrates the complexity in the relation between the two actors as their needs are somewhat contradictory.

<u>Retailers' requests:</u>	<u>Fashion labels' requests:</u>
Low stock levels	Reliable sales prognoses
Major part of sales, at regular price	High volume orders
High Customer service	Low labor costs
Flexible suppliers	

Tab. 2 Conflict of interest.

4.7 CRM

Maintaining the current set of customers has more benefits than simply not having to pay the cost of acquiring new ones. A known customer base facilitates forecasting demand. The retail procurement investigation has also shown that it takes a certain trust, often originating from a shared history, to give out inventory numbers.

The same study gave an average of 5, on a scale 1-10, that a label currently in store is more likely to receive a higher order value. This is very much dependent on the kind of retailer. There are retailers changing suppliers every season in order to always keep what they consider up to date. Other has as concept to store what the customer expects, the same brand from year to year. Hope has both types. Hope's sales records reveal that order values generally increase after a few seasons, more than the interviews have disclosed, indicating that a purchaser becomes more confident with the brand once it has been in store for some time.

5 Analysis

This section combines theory and empirics to explain why general forecasting techniques do not apply. Hope's current method is briefly handled and the significance of the production problem is discussed. All forecasting methods encountered earlier are analysed according to the findings from the study of the fashion industry. The retail buyers decide the sales quantity and are thus a crucial part of this thesis. The outcome of the survey is analysed in the later part of this chapter. Each section brings small clues towards the proposed solution.

5.1 Hope in the fashion industry



Fig. 4 Hope shoes

“If you close in the toes they will sell more, but they are much funnier like this.”
Ann Ringstrand, founder of Hope.

Ann Ringstrand, considering two different designs for the front of a woman's leather boot. The discourse led to production of both models. The first for commercialisation and the second for design status.

The example very well illustrates the segment of fashion where Hope competes. It is a delicate balance between reaching quantity and maintaining the brand status and exclusivity. To gain profitability you need volume but with volume you will lose the refined target group. That is the constant dilemma of a talented designer.

These are the conditions in the world of fashion. It is often far from logic. Its players consistently think in one way but act in another and consequently making the business rather unpredictable.

A unique industry

A buyer is, according to Johansson (2002), qualified to work only with products and markets of which he has experience or knowledge. The best purchaser of food is not necessarily good in fashion. It indicates that general rules of forecasting may not apply either. They must be brought and adopted to the unique system, products and markets of fashion. The fashion industry is different from many other manufacturing industries. The creators consider themselves artists, not constructors, and buyers are stylists, not economists. This is the mentality found among many of the players within the industry. It can be said they act by heart more than brain and that is one of the reasons to why it is so ambiguous. According Saviolo & Testa (2005) the fashion business is so complex that not even experts in the topic understand it well.

The uncertainty is linked also to the behaviour of the final user. Possessing the number of newborns, current and expected market share it is a simple task to estimate the volume of diapers to be sold in a period. It is not as easy for an actor in the fashion industry. Only to find the market potential for a certain type of garment is complicated. Then, in order to locate market shares the customers' minds must be perfectly understood. The client will choose the item bringing him the highest value at the given price. In this value, not only the product's physical properties as quality and design are included. The lifestyle aspect and brand image, in this matter, separates fashion items from goods serving the basic needs (Saviolo, S. & Testa, S. 2005).

Literature in fashion forecasting

The theories of forecasting and fashion forecasting in particular do not consider the smaller fashion companies. They are designed for major actors that possess the whole supply chain to the sales points where products meet end user. There is an enormous difference in the data accessible between the two. These larger companies know exactly when and where their articles sell. Furthermore, as weekly deliveries are not uncommon they will achieve a large number of sales periods in short time and this is crucial. As demonstrated earlier, a quantitative forecasting technique requires more data sections than what can normally be obtained by a traditional A/W and S/S fashion company. It should not be forgotten that the gain naturally is higher for these multinational organisations.

Since it has not been an obvious need for companies like Hope, the subject has not been further explored. These companies have been, and still are, working in the traditional system as seen in the sales department benchmarking study. Logistics and forecasting is considered means for low-cost labels that do not possess design skills and thus have to compete through other means. The convenience of a satisfyingly functioning technique is however apparent. It can be used to set goals for the sales personal and to motivate them to exceed those goals. A forecast serves to project profits and cost levels to determine capital needs. It can help organising the supply chain and plan company development.

5.1.1 Current state of Hope's sales forecasting

Hope's current technique of simply adding 15 percent to previous orders is not uncommon among similar companies. Its efficiency however must be questioned. It is a confusion of forecasting, planning and target setting. The target is set without real grounds. As the development is the same for all customers at all markets, it can promptly be concluded that no market specific circumstances are taken into account. Saying that sales must increase on each market by a certain percentage is to start in the wrong direction.

"The plan cannot drive the forecast; it has to be the other way around"

Mentzer, J & Moon, M. 2005

Instead, first the factors affecting sales, internal as well as external, must be found. They are the foundation of the forecast that in turn will be the input to the market plan and target setting.

Fisher (et al. 1994) argue that forecasting is more complex in B2C than B2B, because the needs of millions of customers have to be estimated in comparison to the needs of few industrial clients in the latter. For Hope, currently, the case is even worse. They have to estimate the forecast of an actor in B2C.

5.1.2 Production

Late delivery in the fashion business is a serious issue. As the Product Lifecycle for a fashion item is very short, also the smallest delay will cause lost sales and inferior result of the store. Consequently the patience among retailers, as shown in the buyer investigation, is low. Bad reputation is shed immediately and this behaviour repeatedly will most certainly result in costumers lost. In a business moving as fast as fashion there is no room for failures of the kind.

A safety time margin would thus be very useful. The sales periods are definite, a part of the fashion system and cannot be adjusted by a single actor. Hence moving them earlier in the season to gain time is not a solution. Therefore, in order to resolve the delivery problem production must be ordered prior to the sales period and thus to unknown demand.

It should be noticed that there are other angles from which to approach the problem. More logical would probably have been to address the production and logistics. Analysis of the suppliers, sign delivery-on-time contracts, investigation of logistics and distribution could have been done. However, the task was assigned by the sales department and the solution will thus be sought after in their field. The late discovery of the delivery problem will not change the approach.

5.1.3 Production problem

When the problem of items arriving late from producers came to my knowledge the whole task was brought into new light. The need to move production earlier in time was discovered. Suddenly the forecast was more useful on article instead of order level. A task more complicated than the one I initially confronted.

If actual sell-through figures could be obtained weekly from the retailers, they would render not only the primary data that is interesting for forecasting. It would also bring detailed knowledge of which articles are selling, when they are sold and on which markets. Hence it would provide useful information to ensure the most accurate prediction. Secondly it would enable production of best selling items in season. Articles that were miscalculated in first manufacturing period and models that sold out at retailers can be reproduced in time. A fashion garment that is out of stock can rarely be found again in the market segment where Hope competes. Offering in season delivery would thus mean a competitive advantage, as no shop manager is content demonstrating empty shelves. Production in season is not only possible to carry out with shorter notice. It is often also both cheaper and faster as the occupation at the manufacturer in general is lower.

5.2 Sales Forecasting

Initially a quantitative sales forecasting approach was chosen and all order data was collected. It was divided after country, size, age, customer target, city location, S/S and A/W to see if any correlations were to be found. The objective at that stage was to predict the order values of each client. The intention was to use the forecast in order to clearly demonstrate to stakeholders where the company is going and to distribute market- and sales resources where they are needed the most. A number of methods were applied on single clients, geographical markets and group divided on other bases without finding any good correlated results.

At an early stage when considering the fashion products' lifecycles it occurred that they rarely last longer than a season. The change in range of products could invalidate the use of past sales records for predicting new values. Since articles will have to be replaced with similar items in the forecast, the validity of earlier data can be questioned. At least no forecasts can be carried out completely quantitatively. They will require a subjective ingredient to link a new product to its predecessor.

The sales records did, as mentioned in the empiric chapter, show that order values generally increase after a few seasons, indicating that a purchaser becomes more confident with brand familiarity. The causes of this development could naturally be others. Hope has continuously grown, that the retailer or its market was in an expansive phase. Possible explanations are many. The question is whether any of them are trustworthy.

5.2.1 Forecasting within fashion companies

The empirical study of fashion companies' sales forecasting activities must not be treated too seriously. As only four sales departments were examined, no major generalisations should be made based on them alone. I have however also been in contact with other to Hope similar companies, yet found none employing forecasting. It can be seen that estimating sales volumes is not a major concern in these cases.

The reasons are two. First the attitude declaring that these predictions are of no use to the company. Production is currently ordered based upon actual demand. When the information needed is available, it is fully understandable that they find no use for the making of forecasts. The vision in this particular aspect has been rather narrow and is probably the reason to why the subject has not been investigated more. An aspect that should not be forgotten in this discourse is that the academic background among sales personal in the clothing industry is relatively poor. As stated earlier, 50% of all sales manager-training programs contain sales forecasting. It is thus a natural ingredient in many sales departments. However in fashion, knowledge in the discipline is less common and it is consequently not very surprising that this way of working has not been questioned.

Secondly, of course, the complexity in carrying out an accurate prediction. The fact that the fashion industry is unpredictable, much more than most other businesses could be a reason why forecasting often is simply left aside. It may be considered an act too uncertain to even try. Some companies do not find it necessary as they always can produce on a given demand.

5.2.2 Quantitative methods

As seen, time series analysis makes no use of data consisting in less than twenty consequential periods. A period in fashion must still be interpreted as the two traditional yearly reoccurring seasons autumn/winter and spring/summer, even though some actors launch new collections more than once a month. This is how Hope experiences it. There is no further contact with retailers or any other input causing another division of the time intervals. Thus in order to properly apply statistical analysis a historical record of ten years would be required. Furthermore if the seasonal disparity, which in many clothing companies by value is considerable, is to be considered then additional periods are needed.

Correlation analysis

Employment of this method is impossible for Hope as it requires data from 20 time periods. Even if the company had a historical record of 20 seasons with the exact same product, it alone would still not bring a viable outcome according to this study. The circumstances change, making use of a quantitative method alone not very useful. What happened two or ten years ago is history and that alone will no lead to the future results. The fact that circumstances change rapidly and unpredictably in fashion must be added to historical data.

Fixed Model Time Series

With its four features affecting the result in different ways, the technique seems good for forecasting a volatile business. Besides it reacts quickly to changes and is said to be useful for products with shorter sales records. Fashion items have however, as mentioned earlier, a very short history. They rarely reoccur from season to season and even when they do, the conditions may have changed. Finding the conditions, quantifying them and applying them in a mathematical model was more than the author of this thesis could manage and probably out of hand for most fashion companies' sales departments as well.

Open Model Time Series

As this forecasting technique is even more complicated mathematically than the FMTS it is not even up for consideration. The hunt for correlations is not facilitated by initial hypothesis making as for the above-mentioned model. All relations are found statistically only. With the short record of historical data that is the case for a smaller fashion company like Hope, a method of this kind can be ruled out without hesitation.

5.2.3 Qualitative methods

Sales force composite

This method could be used and would probably bring good results. The problem however is that the sales personal, being best informed and in closest contact with the client, still do not know that much about each retailer and what to expect for next season. The number of clients is high and estimating them one by one would be more of a guessing game. The relation them in between is not close enough for the salesmen to make reliable predictions. Involvement of the executives, in Hope's case the two designers and founders of the company, would add experience and product knowledge, but not so much customer acquaintance. It is a very time and resource demanding method and it would not be justifiable to spend that much qualitative resources when the expected outcome accuracy is not higher.

Jury of Executive opinion

To have the executives alone creating the forecast is not considered a good option for Hope. They know their products the best, have long experience and possess the intuitional feeling of which articles will sell the most. They do, however, lack the acquaintance of the clients. For this reason they would most certainly leave out client or market specific aspects where their knowledge is not as high. Furthermore, they would not liberate the time to do all the forecasting themselves. For this reason they have simply set the current forecast, or target value, roughly 15% higher than the preceding order value.

Leading Indicators

This method was initially considered useful, alone or in combination with one of the others. It has shown difficult to find the leading indicators. Having listed a number of probable parameters it is very complicated to prove their correlation to the sales volume. In the end, this is what most subjective methods do, consider internal and external factors that give indications of where business may go.

Market Potential or BPI

There is a Buying Power Index (BPI) related to the market potential. It may not be very constructive in the act of forecasting but more as a means when deciding upon where to make marketing and sales efforts. Together with local fashion interest and agreement with Hope style it could give a clue of where the actions will be most profitable.

Three step approach

The sales forecasting method as proposed by Bill Donaldson (1998) is general and has no special relation to fashion nor consumer goods. It must hence be carefully and critically reviewed before applying it to the activity of Hope.

The first step of analysing the economical climate is considered important. When apparel becomes fashion it satisfies needs above the basic necessities and are thus among the first expenses to be cut down in poor financial times. Especially sensitive is the higher price range of the middle class customer segment where Hope competes. However to include the economical conditions in a forecast is considered more time consuming than constructive. It would have to be done for each market. Bearing in mind that some markets carry only a few retailers it this part of the analysis would most certainly cost more than it would give back. Performing an analysis of the kind one must not forget that a fashion company's target group in different markets often varies. Customer's age, occupation and style diverge. A detailed customer research would thus have to be made on each market to know in which segment the user is found, before applying the general economical climate technique. It becomes much more important when markets outside Scandinavia are regarded as they are far from as homogeneity as the Swedish. The importance of the national financial condition may be very small if the customer target is a minority, not representing the total crowd.

The second step, market potential, in the volatile fashion business is very complex. As the products not are of every day need it is very difficult to predict the total demand of a market. The empiric, as well as the theoretical investigation has reinforced this belief. Actors within the industry claim that general rules do not apply. Fashion is an artistic business and it pervades the industry at all stages. As these articles rather are bought on impulse than rationally a normal conception is that basing a forecast or relying on statistic is not feasible in the fashion business. Saviolo & Testa (2005) argue that the lack of literature and theories in fashion is due the extreme complexity. The difficulty in finding a good measure of the market potential should not be underestimated. The possible users are not easily found and their purchase rate is even worse. To, from that stage, find Hope's share of the potential market implies not only finding the most important competitors but then also being able to rate them. To serve any purpose this would have to be done at article level or per client area. The number of forecasts would be enormous and time to perform each is long. In the end it will only be qualified guesses that could be done more efficiently without these three steps. Forecasts, of course always being assumptions, however the author considers the use of the financial climate as a base for Hope's predictions rather far fetched. It is obvious that the method is better adopted for a company with fewer and more reliable products and fewer clients.

5.2.4 Summary of forecasting methods

The fashion industry is unpredictable and volatile and few rules apply. To unite the empirical findings of fashion articles with quantitative forecasting techniques has for three reasons shown to be difficult.

Reasons:

- Products rarely overlap sales periods. Since few products are used more than one season, in order to employ a statistic forecasting method one would have to use data of similar articles as the exact item is not available. Then in order to project a product to next season, subjective means must be employed.
- Products are too many. If forecasts were to be carried out for each product, as the theory implies, Hope would be in an unbearable situation. They would have no resources to perform other activities than estimating forth-coming sales.
- Methods require too many periods. Even if the garments went continuously from one season to the other the use of purely mathematical tools must be questioned. The conditions change rapidly in fashion. Last year's best seller is probably not even on the shelves today.
- No certain pattern has been found on order values for the different customers. Having applied all possible forecasting tools to Hope's sales records, no appropriate method or pattern has been found.

5.3 Buyer survey

"The only real, valuable thing is intuition." Albert Einstein

The predictions are according to the analysis of the forecasting methods better carried out subjectively. In order to find metrics on which to base the forecast a smaller survey of the purchasers' behaviour was conducted. It was performed on three carefully chosen clients through deeper face-to-face interviews. The outcome became the foundation of the questionnaires completed by a larger number of fashion retailers, all related to Hope. The procurement interviews were initially intending to find aspects that affect the buyers' decisions and how these factors could be used to predict forth-coming orders. The desire was to divide them according to company style and then apply a certain forecast to each group.

Employment of statistics among the purchasers when determining order quantities has in the investigation shown to be poor. From the result of the interviews it can be concluded that fashion buyers are artists more than analysts. Instead of using mathematical models and statistical data they are by heart making the perfect compilation of models and colours for their particular store. The author however considers this intuitive decision-making being more the way they want portray their working methods. What they use is tacit knowledge acquired through experience. The experience is founded on sell-through data and consumer feedback in store. The fashion buyers will thus use historical data when deciding upon order values consciously or not. It doesn't necessarily mean setting up equations and statistical calculations. May even be so that they are not aware of it or just have the references of prior sales memorised and do not regard it as using statistics. The experience and skills of a buyer are a combination of the history and a sense for upcoming trends. Even if they are only modestly based of last years' sales, the foundation will be the sell-through data. For this reason the statistics are still considered very important.

5.3.1 Questionnaire result range

The complete result of the questionnaire is shown in appendix 2.

It can be seen that the spreading of results in many of the questions is very wide. This can only be interpreted in the way that the customers are very different. It is somewhat surprising that the distinction of the retailers is so significant also for a smaller fashion company with a very restrained target group. This variety in customer behaviour makes forecasting even more difficult to carry out.

The wide range in responses of some questions makes the use of an average value as shown in Tab. 1 somewhat questionable. It will obviously give a distorted picture. The retailers' behaviours in some aspects are divided in two extremes, the average then revealing nothing of the actual condition. Naturally the attitude towards sales forecasting varies with the size of the retailer. A larger organisation is more likely to have developed methods and rules for purchase.

This fashion procurement survey has shown that among Hope's retailers few or no generalisations can be made. The respondents all derive from companies with different concepts and business strategies. Not only size, location, market and end-user target set them apart but also owners' plans and strategies and the condition or phase of the retailer's business. The organisations are unlike, as are the individuals possessing the acquisition posts. The individual effect on the buying procedure and outcome is essential, unquestionably stronger than in many other industries. There is no tangible convention stating that one label is better than the other. A camera or an automobile engine can be tested and the result printed black on white. Fashion, on the other hand, is abstract and is judged by opinions, which are individual. Many factors decide, the personal association to the label considered among the most important (Saviolo, S. & Testa, S. 2005). Brand perception can be affected through interpersonal relations (Barnes, J. 2000). This discovery is unfortunately, for the author of this thesis, more useful in marketing than in sales forecasting.

5.3.2 Sales data

I consider the sales records more important than the purchasers willingly admit. The artistic side of a fashion buyer's image is stronger than the numerical. My personal interpretation is that the purchaser's skills are valued higher if they can predict a big seller by looking at it rather than investigating history. A good buyer knows and understands the fashion industry. For this reason sales history may be more important than the interviews suggest. It is still the foundation on which each decision is made, consciously or not. The experience gathered by a buyer is the result of this history and will, at least indirectly, affect his future decisions.

It is however not the last order value that is important. It contains secondary data. For Hope that is all they can base their forecasts on today. Of interest are naturally the sales in store, to the final customer. No buyer will take last seasons order value into account when settling on the new ones.

Brannon (2006) wrote that a forecast is a combination of historic sales data and future expectations of the industry. I would say that in fashion the future expectations have higher significance, relatively, than in many other industries.

5.3.3 Questionnaire response disagreement

The answers regarding the effect of a label's sales previous season and the use of historical data when making order decisions do not agree. The average of the last season's sales' affection of current order decision is 8,0 while the corresponding figure for using statistics is as low as 5,5.

It could be the result of how the questions are formulated; the latter may have a more negative ring from the intuitive buyer point of view. There is also a major difference between the two statements. Sales from last season may simply be seen as good or poor and the outcome can effortlessly be brought to forth-coming evaluations. Reviewing statistics has a deeper meaning. It also interferes with the artistic intuition. As anticipating the optimal assortment is very difficult it can be better to not have gone through historical data than having done so and failed.

Many buyers claim to be reluctant to look into statistics; possessing an attitude that fashion is something you know by heart. Mathematics does not apply. Yet the survey shows that few of them act impulsively when completing the actual orders. Hardly anyone acquires at the fairs and not many conclude a deal at the first sales meeting. It indicates that other aspects than solely the appearance of the collection are considered. Determining the assortment may not be done as intuitively as these interviews suggest.

5.3.4 Tendencies

A very interesting response is that the importance of following fashion tendencies is only 6.5 on a scale from one to ten. For a retailer in Hope's segment that is surprisingly low. One thing for sure in the fashion system is that the tendencies from the major catwalks demonstrate what will become the major sellers. The buyer should thus be more concerned with what happens on the stage in Paris and Milan. It could be an attitude issue or a case of pride in the world of apparel procurement. They don't see the trends deriving from the fashion capitals. Instead they set them themselves by the range of product they bring in store. It is more artistic to make up the assortment based on personal opinion than stolen ideas. This attitude is commonly encountered in the fashion industry and then not only among the designers. The author would argue that the correspondence with tendencies is somewhat higher. It may be without thinking but a retailer, according to the author, is more ruled by the fashion trends.

Hope has many kinds of retailers they must not be thought of as one. Some of them want only the bestsellers and will make an effort to find them. This means going to fashion shows, reading magazines and reviews and trend spotting in clubs and cities together with an intuition of what the actual user wants.

Then there are merchants that for design status, a refined target group or other reasons look for the items that are less commercial and less agreeing with the most obvious tendencies. This is another probable reason to why the number was as low as 6.5. Naturally, also the latter abide by the trends but in a less apparent manner. Hence these actors are less likely to declare themselves as followers.

The behaviour is unpredictable and thus indeed complicates the forecasting.

5.3.5 Service level

Respondents were asked how they would relate to have the ability to make orders also continuously during season. Interest in the service level was in general positive, but very dependant on what kind of organisation stands behind the retailer. Responses have been either high or low, few in between. In season order was significantly more important for the smaller retailers where the owner and buyer is the same person.

Additional orders during the season will not affect the purchasers' individual results considerably but create extra workload. For the owner however it could increase both profit and image of the retailer. Thus by contacting company executives, interest is expected to rise further.

They were also asked about their attitude towards sharing inventory numbers. The general response was not to just anyone and not for any reason. It will have to be to a special supplier and with a motivation of something in return.

5.3.6 Indicators of forth-coming sales

This section actually concerns strategic business planning and target setting more than forecasting. It was found when looking for indicators of forth-coming sales, as a part of the buyer survey, and that is still the motivation for its presence here.

Reference shops are essential. Especially when it comes to establishments on a new market, where awareness of the brand is poor. Then only being sold together with fashionable labels or in top rated stores is much more important than the publicity the label can create themselves through traditional marketing. It is also considered more important than the image that is built in media and fashion magazines. In the market segment where Hope competes, there is a fairly reluctant attitude towards advertising in general. Buying space in Vogue or Elle is not even considered. Instead the publicity has to be more sophisticated, less obvious. The clientele is refined. It is a delicate balance of obtaining volume, yet not losing the design status or exclusiveness that is central for the customer target. Marketing efforts should be put in a way that spreads the brand vision mouth to mouth. Exposure in other manners may receive the opposite effect. To the customer target, recognition has to be earned, not bought.

According to buying process theories the purchasers are travelling in general. Sellers on the road are however common for young and anonymous brands that furthermore cover a small geographical market. Generally, however, salesmen use fashion fairs to demonstrate their garments to new and current customers or invite them to the proper showrooms. Travelling, packing and unpacking with a large collection are tiring and wear out the items. It is however not an act considered to have great direct impact on the sales figures of an established brand. New customers are contacted prior to the fairs and meetings are set up at these occasions or later at Hope's showrooms. Visits out of sales periods in order to maintain and build relations though are very valuable. As interpersonal factors have shown important, they must not be forgotten.

5.4 Retailer problem

The forecasting risk is completely left on the retailers. They need to decide product assortment at least six months in advance without knowing what their clients will want. Furthermore the end user client is less predictable than the customer in business-to-business.

The initial objective of the retail buyer investigation was to find factors that affect their choices of models and quantities, thus information that would be very useful when predicting the sales orders. The retailer possesses however not only these rather abstract ideas that have shown to be somewhat difficult to concretise.

The retailer does also access the independent demand. A forecasting method using Hope's order history as input would employ incorrect data already initially. The probability of it bringing accurate results would be low.

It would be in the interest of the retailer to split his risk. By sharing information the supply chain would be linked together and made more responsive.

5.5 Demand

"Sales forecasting is a key process for maintaining efficiency in the supply chain."
(Lawless, M. 1990)

Ideally, the two kinds of demands would be one united and known. It means that all articles produced by Hope would be sold to their retailers and later, that same volume is retailed to the final consumer. If the retailer acquires more than he sells, he will probably change the order value radically for the next season. Hope, not aware of the situation, continues their forecast based on last order.

Sharing inventory numbers two-ways is a start in uniting the two demands. Even with correct information on which to base the forecast the accuracy in general in fashion is quite low. Improvement is found through the enabling of extra orders in season. As Hope becomes aware of the current total inventory status they could anticipate the need and initiate production earlier.

6 Recommendations

The study so far has shown that general forecasting techniques do not apply for smaller fashion label's product range and the fashion market conditions. The empiric survey suggests more or less that the demand sensed by Hope is created by the retail buyer's intuition. The circumstances of the industry in which they compete, make it problematical to conduct the estimation of demand accurately. Ever-changing situations make yesterday's conditions inadequate.

The solution proposed here is based on discoveries of the state of the world of fashion. This section demonstrates a tool that adapts to the prevailing circumstances. It will increase Hope's ability to estimate demand accurately, but more importantly it decreases the need to completely rely on forecasts. It shortens the distance to the final market and hence enables a higher ability to achieve precision in the predictions.

"Internet brings you the possibility to communicate with the market. By having customers interacting in the company's processes unique competitive advantages can be achieved." Payne, A. (2006)

Generating information means finding the correct sources, internally or externally. The internal information interesting for sales forecasting is statistic data, whereas external information consists in market trends, customer and competitor facts (Dalrymple et al. 2004). Currently the sales information available to Hope is second hand and its source is inappropriate. It includes the retailers' forecasting error.

A superior sales forecasting capability is likely to be found in organisations possessing well performing cross-functional communication and an agreement upon how the forecast should be planned and carried out (Davis, D. & Mentzer, J. 2007). Enlarging this concept to embrace not only Hope's organisation but also the supply chain on to the final consumer the correct sources of data are found. Cross-functional communication facilitates the spreading of information. By adopting this organisational cross-function philosophy to the whole supply chain, the same results can be achieved between the united actors. They will work jointly with information sharing. Considering the ample number of retailers the complete procedure has to be automated or else it will not be practicable. For this reason a website will be useful.

Support from management, a credible sales forecasting organisation and reward structures should give a healthy forecasting climate (Lawless, M. 1990). The combination of these elements should motivate personal to participate in the information logistics process and the cross-functional cooperation necessary to create sales forecasting capability.

6.1 Login-site

Each retailer will be given a user account to the website where they will login weekly to give their Hope inventory data. They will also find current balance of all products at Hope's storage when extra orders are desired.

The supposed login-site serves many purposes. Most importantly it continuously brings primary data, sell-through figures down on article and size level per market to Hope. Its architecture is shown in fig. 5.

6.1.1 Sell-through data

Hope will look at the demand of the final user, the sell-through data. Still it is their customers, the retailers, that will decide the order volumes. The improved service level, that is to offer the retailer in season order abilities will change the references of demand. Hope will then serve the end user demand, which is the case in a perfectly synchronised supply chain (Fisher, et al. 1994). A step in the supply chain (see fig. 3) will in this case be omitted and probability of forecasting accuracy will increase.

Besides it will continuously keep track of the current total inventory numbers. Consequently the login-site enables complement production as soon as indications of articles selling out are given. In this way Hope can start manufacturing prior to customers orders.

6.1.2 Complement orders

The communication will be two-way. The retailer too, will be able to login, find the current inventory at Hope's storage and make continuous complement orders. They will also see when items momentarily out of stock are expected in.

As well as improving the service to the retailer this function will increase Hope's total sales. It is not common that orders are taken outside the normal selling periods. It will also decrease the risk for Hope of starting production prior to order reception, as articles initially unsold will be for sale during the whole season. Hence reducing the need of forecast accuracy in the sense that an incorrect estimation will not immediately result negatively on the cost account.

6.1.3 Customer Relationship Management

Jonas Fridh at Grandpa mentioned that the risk was all on the retailers. They estimate the demand of the end users while the fashion labels manufacture on request. By initiating production prior to order reception the risk taken will be equal between the retailer and fashion label. The need for collaboration is now bigger than ever before. The fashion industry is moving faster and consequently is more difficult to predict but also because of this new situation for Hope. Since both parts carry the risk under these circumstances, the desire to cooperate is mutual.

The conflict of interest as mentioned in section 4.6 can through collaboration instead become the base when creating the perfect responsive supply chain where the demands are united. The study shows that retailers have a positive attitude towards a relationship of intended kind. Sharing of inventory figures for more flexible order abilities.

A condition for success with Customer Relationship Management is acting in a manner that measures up to or exceeds the customer's expectations (Grönroos, C. 2000). The service Hope will offer is exclusive in their segment of the industry and will by all means go beyond the clients' requests. This action is predicted to improve Hope's relation to their retailers, making them more loyal and more willing to continue the collaboration. CRM theories have said that a satisfied customer not necessarily is loyal (Isaksson, P. 2005). Profitability is however an incentive that will make customers stay. A relation of the intended kind will most certainly increase the revenues of both parts. By coordinating the actors of the supply chain superior performance can be reached (Mentzer, J. & Moon, M. 2005). The concept follows the

idea of CRM. An effort is made by both parts and they will all gain from cooperation (Payne, A. 2006).

Theories about CRM often refer to personalising the customer proposal (Grönroos, C. 2000). The products will not be customised but the way in which they are offered, the ability to order extra in season. Selling in season too would from Hope's point of view reduce the jeopardy of forecasting. They will produce an extra buffer, with less risk of preserving it unsold. The retailer will find the chance to earn more on the bestsellers and to gain good consumer reputation through recovering sold out articles.

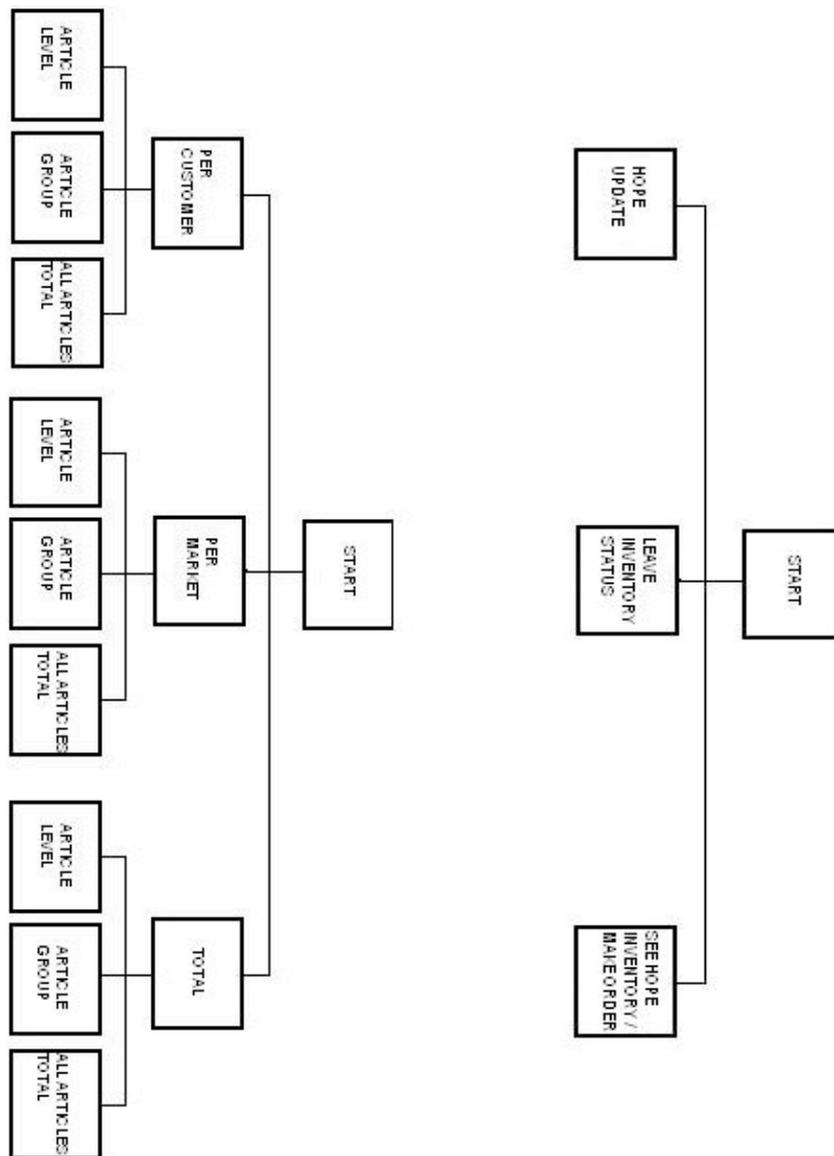


Fig. 5 Login-site layout. On top: Retailer view. Below: Administrator view.

6.2 Critical aspects

There are some critical aspects that must not be overlooked when initiating the project. They have been taken into account when performing the buyer interviews and have also been discussed with Hope's sales department. The conclusion is that they no longer are considered a threat for the success of this login-site.

6.2.1 User frequency

First and foremost the responsible, store manager or owner, has to be convinced that sharing inventory numbers is a good thing for the company, that no integrity will be intruded and that the payoff will exceed the cost of the deed. The survey carried out among Hope's clients has shown that this persuasion will not bring too much problem. A high percentage of the respondents agreed to continuously provide their Hope sales records, if there is a mutual gain. It should not be forgotten that there is a huge difference between approving to share these numbers and actually doing it. The inventory has to be carried out weekly or at least twice a month. Unless the sales point is very small, the person who once agreed to give the sales figures will most certainly not perform the act.

6.2.2 Interpersonal relations

As the cashier computer systems used in clothing stores worldwide are numerous integration with the website was not considered doable and hence the inventory must be typed in manually. For this reason the task must be made as attractive as possible. It will be brought to a personal level. The shop assistant should feel wanted and chosen to do it. Other than bonuses and small weekly competitions, the Hope crew will publish blogs with the latest tendencies and with what is new in the world of Hope. It will also increase the knowledge of Hope products among the retailers' staff. It is a very important aspect as a seller in a multi-label store is more likely to demonstrate a garment from a certain brand if he or she is acquainted with it and knows background information.

6.2.3 Risk

There is of course a risk that retail buyers play it safe and order a lower quantity, knowing that if it sells out, more can always be found. A risk that Hope, being almost alone to offer this service, becomes a complement brand brought in mainly in a second phase when the shelves are empty. I have seen this comportment among retailers that have both regular sales and on commission. In these cases, efforts are naturally put in to first sell garments on standard basis while items on commission are left somewhat aside.

With the end user customer base that Hope possesses the risk is considered trivial. A large clientele requests their products worldwide and stores apply to become retailer. Many are turned down.

Instead the thought and hope is to increase total sales due to the complement orders and profitability because of less overproduction.

6.3 Hope

Hope has agreed that the login-site was a good idea and had two major requirements. It cannot cost too much initially and it has to be easily updated.

As most fashion companies Hope already has a very busy calendar. Whether new employees must be hired to analyse inventory data and execute the supplementary orders is still beyond my knowledge. As the tasks of both production and sales department are unevenly spread over the year and this additional workload will interfere with their low season, Hope may very well make it with current staff material.

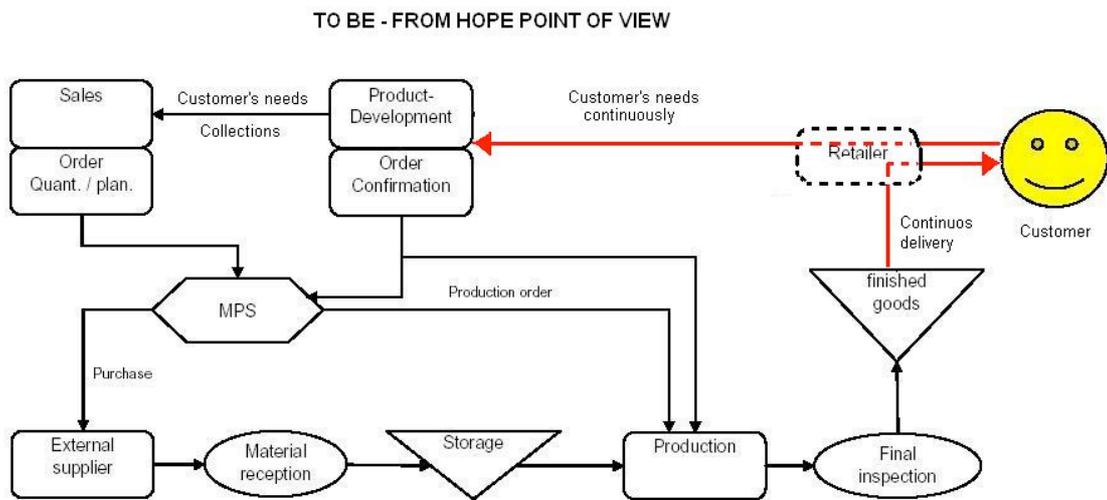


Fig. 6 State as to be

The retailer will still keep its physical position but its interrupting function in the information flow will not be sensed as illustrated in fig. 6. Two-way continuous communication will help to combine the interests that were discussed in section 4.6.

6.3.1 Use of inventory data

For employment of the inventory data the Sales force composite technique is recommended. The jury should consist in the two executives, sales personal and an extra employee in charge of the statistics coming from the homepage. Then the executives' part of the forecasting will be smaller in time. Important is however that they will participate as they possess crucial knowledge, the executives about the products and fashion industry in general and sales possess invaluable information of the clients.

It is fast and efficient. A method based in primary sell-through data and the expertise of a group that probably knows this fashion segment the best will result in the most accurate forecast that could possibly be carried out in the unpredictable reality Hope faces.

6.3.2 Pre-Sales period

Hope can start a pre-sales period with specially chosen retailers in order to receive a real market opinion of how the collection is interpreted. The result will be considered and then reflected over market specific information and sales data to render as correct production quantities as possible. In this manner sales volumes can be estimated but the major gain is another. It is linking the actors in the supply chain together, opening and transpiring it. The constitution of the supply chain today is closed and rigid. New products are showed in twice a year. They may be too many or too few; nothing is done to solve the matter. The demand sensed by the retailer is and will remain unknown until the season is over. The supply chain prior to the sales points can however be designed much more responsive. Sharing sales records, inventory data and a continuous offering of in season orders create a flexible chain.

7 Key contributions to Hope and the Academy

This section presents the final discussion. The conclusions made are based on the interviews with persons within and around the Hope network.

7.1 The purpose

The course of making this thesis has certainly not been straight. Turns were taken many times. Its outcome is somewhat different than what was anticipated. The purpose was to find a method for prediction the retailers' order values. A question that perhaps should have occurred earlier is why. Why do we need this forecast?

I was there, touching the surface shallowly. I just did not dig deep enough. Sure, there were reasons for and convenience of a forecasting tool with its originally intended features, bringing expected development per retailer and market. Many parts of the puzzle were however still missing. At that point I was satisfied with the intended use of the forecasting tool as a strategic platform.

According to Widerberg (2003) the problem formulation often changes along the way and that was obviously the case this time. Once I better got to understand Hope's way of working and the environment in which they compete, the question why re-entered my mind. Suddenly it stroke me with a new meaning. This time, the forecast tool I searched for was set on individual products and the answer to *why* was to initiate production prior to order reception.

The project thus resulted in an extension of the early intentions. The end product can only be considered better than what was initially meant. It indicates that pre-skills are required in order to find the essential aspects and approach the problem from the most suitable point of view. Perhaps one should not rush into the outline and setting specific objectives of a study.

It was however never a conflict of interests though. The purpose as initially formulated has been fulfilled too.

By combining the empirical findings of the unique fashion industry with sales forecasting theories, a proposed solution that serves the thesis' purpose was found.

It is a forecasting tool but it should perhaps rather be considered something larger than that. It is a communication link that transpires and concurrently tightens the supply chain.

We could see that for many reasons it was not only to apply general forecasting methods. Already theories of the fashion system hinted that it would be more complicated. As fashion was approached empirically it became even more apparent. The most obvious finding of study was that the fashion industry is extremely uncertain.

The unique conditions of the fashion industry make many general methods inappropriate. Changing circumstances make past situations somewhat less interesting. Often a fashion company has a wide range of products but lower quantities and, more importantly, lower profitability on each. Theories suggest that the demand should be estimated for each product individually. Compared to manufacturers of goods where variants are few and expensive, the relation gain – effort of forecasting for a fashion company is significantly lower. It is thus not surprising that the situation of fashion is not forecasted more frequently than the investigation has shown and that the issue has not been studied further.

Knowing how volatile and unpredictable the fashion industry is I tried to approach the problem from another perspective. I went back to its root, which has become starting production to unknown demand. If I cannot estimate the demand accurately, can I change the conditions causing the need to forecast?

Essential in the proposed solution is that it decreases the dependency on forecasting. It indeed facilitates estimating demand but primarily it lessens the reliance on accuracy of the estimations made.

The strategic function of the fashion buyer has been given very little attention in literature studies. Considering its central position in the industry it is rather surprising. As decision maker of retailer's assortment and quantities, its importance cannot be questioned.

This study has focused on the fashion buyer, but still leaves much unspoken about this key function in fashion. Theories suggest that the role is very mathematic and requires analytic skills. According to the buyer survey, intuition and fashion sense, in other words tacit knowledge is more important. The truth is most likely somewhere in between.

7.2 Validity

The validity of this study can be questioned for reasons as insufficient number of respondents, the chosen ones do not reflect the whole group or the questions not being asked properly.

The low participation and the variety in responses have been taken seriously in the analysis and also in the discovery of the proposed solution. The retailers' organisations are so different that their behaviour can hardly be generalised and it was therefore not attempted. Few conclusions have thus been drawn based on simplifications, which is a common formula to reduce the validity.

The results have been consulted with Hope employees, literature and each other in order to ensure a valid outcome of the primary data of this thesis. Hence the validity of this study is considered high.

7.3 General applicability

The study has been performed in a manner, enabling application of its result to all actors similar to Hope, that are smaller fashion companies. Most of the respondents have some kind of relation to Hope and it is not considered a weakness for its application abilities. Instead the Swedish fashion industry is well represented and to some extent also the European.

7.4 Contributions

7.4.1 To Hope

The study has shown that carrying out forecasting in fashion is a complex task.

The contribution of this study to Hope is a platform from which they can operate and lay out strategies. By adopting this new manner of working Hope will not only enable more accurate forecasts; they will also create flexibility in a very rigid textile and fashion supply chain. It enables a superior organisation of present and future of the company functions production, sales and market.

7.4.2 To the Academy

The fashion buyer function, in general, has been given little attention in relation to its importance for the industry. Procurement for smaller companies, as most of Hope's retailers, has not been handled at all. The diminutive existing literature regards purchase for larger organisations, for which the conditions and needs are completely different. It is of course reflected also in the buyer profile. The portrait given in this report is very distant to previous literature, less analytic and instead more intuitive.

General forecasting theories do not apply in an industry as unpredictable and volatile as the one of fashion. The complexity of fashion forecasting calls also for other alternatives. The survey has shown that closer relationships with the retailers and producers are required to create an efficient supply chain.

7.5 Conclusions

The fashion industry is unpredictable. Sales records have shown important but there are also many other factors in the fashion system that invalidates the use of a purely quantitative method. Conditions are changing rapidly and articles do not last long enough to have a sufficient sales history. For these reasons many buyers employ something they describe as intuition when making their decisions. In fact this intuition is built up through experience and must be referred to tacit knowledge of the fashion industry and the particular market and customers with whom they work. Only by minimising the gap between this experience of the retailer and the one Hope they can make equal interpretations. Other than external fashion- and general tendencies, which also Hope senses, the retail experience is founded on sell-through data and end-user feedback given in store. By reconnecting this internal retail information to Hope they can build the knowledge process from equal grounds.

Having seen the complications of fashion forecasting, a logical step is to look in other directions for solutions. If the future is too difficult vague to predict, instead the importance of the forecast should be diminished. With the open structure in the supply chain created in this thesis, errors and miscalculations in forecasts can be forgiven. They are repaired due to continuous update of the actual demand through retail inventory figures. Additional production can thus be anticipated.

7.6 Suggestions for Future Studies

7.6.1 Login-site follow up

It would be interesting to follow up the login-site and its performance as forecasting/relationship tool. Analyse it and make best use of the data obtained.

Then to find ways to make it used more frequently. Make it a means to strengthen the relations to retailers. In other words, develop it further.

7.6.2 Fashion procurement

As mentioned earlier, the fashion retail buyer function has not been given the attention it deserves in academic literature. In this thesis the procurement was central, yet from an external point of view. A study of the purchasers' role and responsibilities and how they are dependant of the kind of company they work for. What kind of regulations they have and how their performance is measured are issues very important in order to understand their behaviour. Exploring this position deeper is unquestionably valuable for the whole fashion industry.

7.6.3 Production approach

The problem of this thesis could, as stated in a previous section, have been approached from other perspectives. Another way to decrease the importance of forecasting is to make the product development phase more efficient. If time from order to delivery can be reduced, so will the dependency on estimations. By analysing the network of suppliers and create agreements Hope's performance could most certainly be enhanced.

7.6.4 Knowledge process

Both the retailers' and sellers' behaviour seem based on tacit knowledge. An interesting approach would be to look at the knowledge process from their perspectives respectively.

References

Literature

Anderson Black, J. & Garland, M. (1985) A history of fashion, William Morrow & Co; Revised Edition

Barnes, J. (2000) Secrets of Customer Relationship Management: It's All about How You Make Them Feel, McGraw-Hill Professional Book Group.

Barnes, L. & Lea-Greenwood, G. (2006) "Fast fashioning in the supply chain: shaping the research agenda" in Journal of Fashion Marketing and Management, Vol. 10, No.3

Barthes, R. (1990) Fashion System, University of California Press

Björnberg, D. (2000). "CRM är både teknik och attityder mot kunder" in Datateknik 3.0, September

Brannon, E. (2006) Fashion forecasting, USA Fairchild Publications

Buchanan, R. & Gilles, C (1990) "Value managed relationship: The key to customer retention and profitability" in European Management Journal, Vol. 8, No. 4

Canada Business (2008), "Sales Forecasting", www.canadabusiness.ca, (2008-03-14)

Chalmers, A. (2003) Vad är vetenskap egentligen?, Bokförlaget Nya Doxa AB

Christopher, M., Lawson, R., Peck, H. (2004) "Creating agile supply chains in the fashion industry" in International Journal of Retail & Distribution Management. Vol. 32, No. 8

Coyle, J.J., Bardi E.J. & Langley, C.J. (2003) The Management of Business Logistics: A Supply Chain Perspective, South-Western/Thomson Learning

Dalrymple, D., Cron, W. & DeCarlo, T. (2004) Sales Management, John Wiley & Sons

Davis, D. & Mentzer, J. (2007) "Organizational factors in sales forecasting management" in International Journal of Forecasting, No. 23

Dennis-Jones, C. (2007), "Up on the catwalk" in Supply Management, Vol. 12, No 3

Donaldson, B. (1998), Sales Management, Palgrave Macmillan

Ejvegård, R. (2003) Vetenskaplig Metod, Studentlitteratur Lund

Fisher, M., Obermayer, W., Hammond, J. & Raman, A. (1994) "Making supply meet demand in an uncertain world" in Harvard Business Review, Vol. 72, No. 3

Garzanti (2003) Il GRANDE Dizionario ITALIANO, Garzanti Linguistica, Divisione UTET S.p.A. Edizione rivista e corretta.

Grönroos, C. (2000) Service Management and Marketing - A customer relationship management approach (2nd ed.), John Wiley & Sons

Herbig, P., Milewicz, J., Golden, J. E. & Smith III, H. C. (1994), "Differences in Forecasting Behaviour between Industrial Product Firms and Consumer Product Firms" in Journal of Business & Industrial Marketing; Vol. 9, No. 1

Hines, T. & Bruce, M. (2007) Fashion Marketing (2nd ed.) Elsevier Ltd, Oxford

Isaksson, P., 2005; "Kundrelationer – Nöjd kund är inte alltid nog" in Affärsvärlden

Jackson, T. & Shaw, D. (2001) Fashion Buying and Merchandising Management, Palgrave

Johansson, U. (2002), "Food retail buying process – a study of the UK, Italy & Sweden" in International Journal of Retail & Distribution Management, Vol. 30, No 12

Kilduff, P. (2005), "Patterns of strategic adjustment in the US textile and apparel industries since 1979" in Journal of Fashion Marketing and Management, Vol. 9, No.2

Lantz, A. (1993) Intervjumetodik, Studentlitteratur, Lund

Lawless, M. (1990) "Effective sales forecasting—a management tool" in Journal of Business Forecasting, Vol. 9, No. 1

Lee, H. L., Kut C. S., & Tang, C.S. (2000), "The Value of Information Sharing in Two-level Supply Chain," Management Science, Vol. 46, No. 5

Lindholm, S. (1999) Vägen till vetenskapsfilosofin - En introduction, Academia Adacta, 1st edition

Mattila, H., King, R. & Ojala, N. (2002) "Retail performance measures for seasonal fashion" in Journal of Fashion Marketing and Management, Vol. 6, No. 4

Mentzer, J. & Gomes, R. (1989) "Evaluating a Decision Support Forecasting System" in Industrial Marketing Management, Vol. 18

Mentzer, J. & Moon, M. (2005) SALES FORECASTING MANAGEMENT: A Demand Management Approach (2nd ed.) Sage Publications, 2005

- Merriam, S. (1994) *Fallstudien som forskningsmetod*, Studentlitteratur, Lund
- Molander, J (2003) *Vetenskapsteoretiska grunder*. Studentlitteratur AB
- Patel, R & Davidsson, B. (2003) *Forskningsmetodikens grunder: Att planera, genomföra och rapportera en undersökning*. Tredje upplagan, Studentlitteratur, Lund
- Payne, A. (2006) *Handbook of CRM: Achieving Excellence through Customer Management*, Elsevier Science & Technology Books
- Porter, M. (1985) *Competitive Advantage: Creating and Sustaining Superior Performance*, First free press edition, New York
- Porter, M. (2004) *Competitive Strategy: Techniques for analyzing industries and competitors*, Simon & Schuster LTD
- Rienecker, L. (2002) *Att skriva en bra uppsats*, Liber
- Saviolo, S. & Testa, S. (2005) *Le imprese del sistema moda (2nd ed.)* RCS Libri S.p.A, Etas
- Simmel, G. (1994) "Fashion" in *American Journal of Sociology*
- Svenning, C. (2003) *Metodboken*, 5th edition, Lorentz
- Söderlund, M. (2001) *Den lojala kunden*, Liber
- Tyler, D., Heeley, J. & Bhamra, T. (2006) "Supply chain influences on new product development in fashion clothing" in *Journal of Fashion Marketing and Management*, Vol. 10, No. 3
- Wallén, G. (1993) *Vetenskapsteori och forskningsmetodik*. Studentlitteratur, Lund.
- Widerberg, K. (2003) *Vetenskapligt skrivande: kreativa genvägar*. Studentlitteratur, Lund.

Interviews

Sales division

Company S1, Anonymous 2007-10-23

Company S2, Anonymous 2007-10-23

Company S3, Anonymous 2007-10-25

Company S4, Anonymous 2007-10-26

Procurement

Grandpa, Jonas Fridh 2007-11-06

Paul&Friends, Magnus Gustafsson 2007-11-05

Åhlens, Ulrika Asplund 2007-11-09

Production, logistic

Mats Nordkvist, Swedish School of Textiles, Borås. Returning discussions, Jan 2008.

Axel Smith, Production, Hope Stockholm, 2007

Appendix 1 Design Brief – Buyer Connection

As the creation of a website was not intended an element of this thesis I have decided to leave most technical details of this part of his job out of this report. A brief description or overview is yet considered motivated and will thus be included.

I am the architect and initiator of the site. However not possessing sufficient skills in CMS programming this part had to be outsourced. The budget of the project was not enough to hire a local web-designer firm. Instead a very skilful programmer in Jordan was found through contacts and recommendations.

The login website is generated as the result of this investigation of sales forecasting for a Swedish fashion label. The study involved current theories of forecasting in general and the unique environment of the apparel industry. Volumes ordered by Hope's retailers are in the hands of the purchasers. They have been examined and the unpredictability in their behaviour brought me to the conclusion that the solution to the forecasting dilemma was neither to be found within the mind of this key player. Their acts cannot be accurately anticipated and generalized for the whole group of clients.

A transparent organization would make the supply chain more responsive. First, the production function at Hope could access the same information as the buyers use when they make their decisions. Then continuously they would see inventory records at all retailers, hence a forth-coming sell-out can easily be anticipated and reproduction initiated. The two-way communication allows Hope to display their storage quantities and thus offer in season orders when desired.

Buyer Connection – Specification

Buyer management

Administrators of the system must be able to log in and see as well as modify the following:

- Buyer instances (add remove edit)
- Buyer last login

Product management

Administrators must be able to modify product instances, as well as easily see product by product:

- Inventory levels (per buyer, market and in total)

Report generator

The systems administrator must be able to create reports with automatic distribution containing:

- Buyer activity
- Fast moving products
- Slow moving products

Systems integration

The following data needs to be integrated automatically into BC0.1:

- Inventory numbers
- Stock inventory numbers
- Current buyers
- Current buyer orders
- Current product database

Buyer inventory updating

With significant ease, buyers must be able to:

- Update current inventory
- See ordered quantities
- See stock inventory (many/few/out of stock)
- Make orders
- Reminder to buyer, this product is out of shop or soon to be

Administrator update

The administrator should effortlessly be able to:

- Update blog and initial site
- Demonstrate special offers
- Organize frequent competitions with giveaways

INFORMATION INPUT TO WEBSITE				
TYPE		INITIALLY	CONTINUOUSLY	FROM
1	Clients	400 clients	New clients 2 times/year	Sales dep, manually
2	Articles	200 articles	Update/exchange 2-4 times/year	Garp (excel), automatically
3	Main orders	400 orders	Frequency 2-4 times/year	Garp (excel), automatically
4	Inventory record (client)	-	Frequency every 2 nd week	Login-site, automatically
5	In stock quantity (Hope)	-	Daily	Garp (excel), automatically
6	In-season orders	-	Occasionally	Garp (excel), automatically

Hope's current clients, their retailers, will initially be inserted in the website register by the sales department. As new arise, they will be added together with the order making which will occur 2-4 times a year. Since both number and frequency are moderate, this act can be performed manually. Furthermore, they necessitate information not available in Garp, as login and password, that precludes a direct import. Garp is the business system, keeping track of all customers, their orders, invoices, delivery status addresses etc. From this software data export will be scheduled and imported in the website. This regards primarily the inventory from Hope's storage, that has to be updated daily in order for the clients to find the actual quantities. The inventory data should be given by the client every second week. As they possess numerous different cashier systems, integration is considered too complicated. Instead it has to be typed manually. To facilitate each client will only see its last inventoried articles and hence do not need to look through all.

To give a quick and straightforward overview of all the data attained from the clients, each discipline of data will be shown in numbers and diagrams. There will also be notions of fast and slow moving products, as well as alarms prior to sellout. History will be saved over seasons to build a forecasting base.

Appendix 2 - Buyer questionnaire

	1 - Do not agree														
	10 - Agree totally	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Collection follows trends		6	8	2	8	10	7	6	8	8	10	1	2	8	2
Wide range - full wardrobe		10	10	10	8	6	9	9	9	10	6	9	10	9	9
Reviews by "experts"		7	1	3	9	10	7	8	7	8	9	3	2	6	2
	X														
Reference shops		6	6	8	7	8	6	7	7						
Flagship store		2	1	4	5	7	4	4	7	4	4	5	2	6	4
Lots of press and media		4	8	4	7	9	8	8	8	9	5	4	3	8	7
Publicity and lookbooks		3	2	4	6	8	6	7	3	2	4	3	4	6	4
Fashion fairs		4	9	3	6	7	7	7	7	6	8	6	7	7	3
Which ones?	cph		cph												
Orders made at fairs?		0	3	3	5	6	2	7	5	2	9	2	1	6	2
Price range		7	7	8	7	5	8	8	4	6	4	7	7	5	7
	X														
On time and correct del.		8	10	9	9	10	8	9	9	9	8	9	9	10	7
Beneficial credit terms		5	8	6	7	6	6	5	6	6	6	6	4	2	7
Service level-inseason order		5	8	8	8	5	7	7	8	8	7	5	6	7	6
	X														
Last season sales		7	7	9	8	10	7	8	7	9	9	9	8	9	6
Customer asking for brand		7	8	9	9	10	7	8	9	9	8	9	8	8	7
Look of current collection		9	10	10	9	10	10	10	10	10	9	10	9	8	10
Could share sales figures		10	7	8	7	9	10	10	9	10	7	10	8	8	9
Already share (1 no 10 yes)		10	1	1	1	1	1	10	1	1	1	10	1	1	1
	X														
I travel for buying		8	9	8	10	8	10	10	9	9	9	7	8	7	8
Seller expected at my door		3	3	2	2	2	1	3	2	2	2	2	3	4	4
Volume and articles decided before meeting		2	2	3	6	8	3	3	4	5	5	5	5	4	7
Decided impulsively at meeting		2	2	6	5	2	6	8	8	5	6	2	5	4	3
Affection by seller at moment.		5	7	5	6	2	7	6	4	2	3	2	4	3	2
I look much at statistics.		6	3	9	5	9	6	3	3	8	6	10	6	3	9
	X														
Change brands in store often		8	7	6	6	10	8	6	9	8	6	5	9	8	9
New brand has advantage		6	5	4	4	7	6	5	4	1	6	5	8	4	7
Existing brand higher possibility of large order		4	5	7	7	3	6	5	3	7	7	3	2	4	4
4th season - brand is tired -> exchanged		9	10	3	6	9	7	3	8	7	4	6	10	7	10

Table 2.A. Result of buyer questionnaire, respondent 1-14

1 - Do not agree		15	16	17	18	19	20	21	22	23	24	25	26	Summary
10 - Agree totally		15	16	17	18	19	20	21	22	23	24	25	26	Summary
Collection follows trends		10	3	2	9	8	10	9	10	3	1	9	10	6,5
Wide range - full wardrobe		10	8	8	9	3	9	10	9	7	8	10	8	8,6
Reviews by "experts"		7	1	2	6	6	9	9	9	2	2	10	10	6,0
Reference shops		8	6	7	8	9	7	9	9	6	5	7	7	7,1
Flagship store		4	3	6	7	4	8	4	7	5	6	6	6	4,6
Lots of press and media		6	8	6	6	6	10	6	9	7	6	7	7	6,8
Publicity and lookbooks		5	3	3	2	3	6	4	4	3	4	2	4	4,0
Fashion fairs		7	5	3	6	8	4	6	8	6	6	6	4	6,0
Which ones?			cph/sth											
Orders made at fairs?		2	3	6	2	3	1	3	5	2	3	3	3	3,3
Price range		8	5	6	7	6	6	7	8	5	8	6	7	6,5
On time and correct del.		7	8	9	7	8	7	8	5	7	9	8	8	8,3
Beneficial credit terms		3	5	6	4	3	2	7	1	4	6	3	6	5,0
Service level-inseason order		8	6	7	9	5	4	7	6	4	7	7	8	6,7
Last season sales		8	8	9	9	8	6	8	9	9	9	7	7	8,0
Customer asking for brand		9	10	10	8	9	7	9	8	8	9	8	7	8,4
Look of current collection		10	10	9	10	10	8	9	9	10	10	9	10	9,5
Could share sales figures		5	9	10	10	10	10	7	9	9	9	10	8	8,7
Already share (1 no 10 yes)		1	1	10	1	1	1	1	1	1	1	10	1	2,7
I travel for buying		8	9	9	10	9	9	8	9	8	9	9	9	8,7
Seller expected at my door		3	3	3	4	2	2	2	1	3	2	2	2	2,5
Volume and articles decided before meeting		4	5	3	2	3	3	2	1	3	7	2	2	3,9
Decided impulsively at meeting		5	6	7	6	8	7	4	8	4	4	5	6	5,2
Affection by seller at moment.		2	4	3	4	6	4	6	5	5	6	5	3	4,3
I look much at statistics.		4	7	5	6	7	8	6	2	4	2	3	3	5,5
Change brands in store often		5	7	6	2	4	5	5	4	6	4	7	5	6,3
New brand has advantage		4	7	6	1	2	1	4	4	4	3	3	3	4,4
Existing brand higher possibility of large order		4	3	3	9	9	10	6	8	8	7	5	4	5,3
4th season - brand is tired -> exchanged		8	9	4	3	5	7	9	2	4	4	8	5	6,4

Table 2.B. Result of buyer questionnaire, respondent 15-26

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