

Internal Benchmarking at IKEA

- Continuous improvements in the Store Development Process

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In order to fully enjoy and appreciate this Master Thesis you - the reader - ought to find yourself in an IKEA store. Allocate the armchair Poäng – when doing this it is best to firmly carry the report in a yellow bag, hanging from your shoulder. Then make yourself really comfortable, open the first page and just enjoy your reading.....

And by the way, on the way out, don't forget to...

Acknowledgements

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Abstract

Title	Internal Benchmarking at IKEA - Continuous improvements in the Store Dimensioning Process
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Supervisors	Niclas Andersson, Department of Construction Management, Lund University Per Magnus Andersson, Department of Business Administration, Lund University
Problem	<p>IKEA uses a standard store concept when building IKEA stores. Developing a standard store concept simplifies the procedure to build many similar stores in a more efficient way. However, a difficulty in the process of establishing and using a standardised concept is how to continuously update the concept itself. Today there are big differences in retail construction costs between different IKEA countries, which indicate that there are differences in construction performance and efficiency in different store projects. Therefore it should be possible to find good and bad solutions through a benchmark analysis. Benchmarking can thus be a proper tool in the continuous process of updating the standard store concept. However, essential when conducting a benchmark analysis is to have comparable economic data.</p> <p>In the case of IKEA it would be interesting to examine how big the problem is for IKEA today with incomparable economic data deriving from the store projects in the different countries. And, if this is a big problem, what can then be done in order to come to terms with it?</p>
Purpose	The purpose of this Master Thesis is to examine how IKEA can develop an appropriate economic framework for an internal benchmarking procedure, in order to update the standard concept, decrease construction costs and improve construction performance when building new stores.
Method	This research follows the systemic methodology approach where the main system is the IKEA store project development process. Further more it can be considered a case study. The cases studied are four IKEA store projects in the four countries Poland, Germany, the United Kingdom and the United States. These were primarily chosen because of the great differences in retail construction costs. The data is mainly collected in three ways; quantitative data sent from the contact persons in the different store projects, qualitative

data through visits and interviews with contact persons and other key persons within IKEA and through everyday conversations with people at IKEA while conducting the research.

Conclusions Major problems concerning the store project cost follow ups are identified in the store project analysis. One great problem is that the legal accounting system in all the store projects studied in various ways influence the store project cost follow up. Another big problem is that there is a lack of understanding as to why the project cost follow up is important. Further more, the conclusion of the store project analysis is also that the store project cost follow up is too inflexible and deliberate deviations from the specification has to be done in order to study costs for different items specifically. These problems result in incomparable economic data in the project cost follow ups.

To be able to accomplish an internal benchmark analysis in order to improve the store development process and the standard store concept within IKEA, the project cost follow ups from different store projects all over the world have to be comparable. This can be accomplished by implementing the three cornerstones: *Better specification* and cost follow up structure, *Automatic accounting* through EDI and *Increased understanding and motivation*. Better specification and cost follow up structure concerns changing the build up and use of the specification stated in the IKEA Financial Manual. This is essential in order to simplify the project cost follow up process and to be able to analyse cost variations easier. By using automatic bookings through EDI less manual work will be made. This will result in less wrong bookings, deliberate as well as undeliberate, and hence a great potential for saving both time and money arises. Finally an increased understanding of the full use of the store project follow up process and higher motivation for making correct bookings is essential in order to establish an appropriate economic framework for internal benchmarking.

Key words Internal benchmarking, continuous improvement, IKEA, store dimensioning, store development, internal accounting.

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*Foolish men learn only from their own mistakes.
Wise men learn from the mistakes of others.*

(Chinese saying)

1 Introduction

In this chapter the guidelines for this Master Thesis will be presented. A brief background description will introduce the subject of the research and will then be followed by the more specific problem description and main purpose and objective of this Master Thesis. Finally, the main chapters are presented in a short reading instruction.

1.1 Background

The furniture retail industry is an industry with many different stakeholders and with both global and local actors. New actors on the market appear all the time and it is not always easy to keep track of who your competitors are. On these premises it is important to constantly monitor the changes in the market and either stay one step ahead or be able to quickly adapt your business to them.

IKEA, the big well-known Swedish furniture company, was founded by Ingvar Kamprad as a very small and local company in 1943, selling pens, wallets, picture-frames etc. IKEA expanded quickly and in 1963 the first IKEA store was built outside Sweden. This was the kick-off for IKEA's expansion abroad. Today, IKEA is located in 22 countries and has approximately 170 stores all over the world.

IKEA has for many years mainly had local competitors on many of its markets. This has given IKEA the upper hand since they have been able to take advantage of their global strength. However, in the end of the 20th century, actors who previously operated on a local market, started to expand globally and compete against IKEA on an increasing number of markets. This increased the pressure on IKEA as these new global competitors could compete on the same premises as IKEA, as opposed to many of the previous local competitors.

In the competitive climate described above, the companies in the furniture retail industry have to decrease costs and improve quality in order to increase revenue. This is even more important for IKEA, since increasing the prices is no option in the long run, which is understood by reading the IKEA Business Idea.

"We shall offer a wide range of well-designed, functional home furnishing products at prices so low that as many people as possible will be able to afford them"

The IKEA Business Idea

One step IKEA has taken in order to decrease costs and improve quality is to look for improvements in the development and build-up process of new IKEA stores. In the coming ten years, IKEA is planning to double its size and as a result of this many new stores will be built. To accomplish this, the dimensioning and build-up process of new IKEA stores has to be simple and efficient and the store dimensioning and build up process of IKEA stores is therefore being reviewed and ideas for improvements are being developed.

With the help of different key measures and a computerised tool developed by IKEA, a standard store is automatically developed. This tool also contributes to the ambition of decreasing costs and improving quality when constructing and building new stores at the same time as it ensures that the IKEA-concept is spread and that every store looks and feels alike wherever you are in the world.

However, the standard store, mentioned above, needs to be updated as the surrounding world changes and as new and better solutions are discovered in different new store projects. In this process an internal benchmarking procedure can be of great use. Nevertheless, to be able to conduct a proper benchmark analysis in order to update the standard store, proper data and information have to be collected from all new store projects. Today the construction costs for fixtures and fittings in different countries have great variation. Possible explanations to these variations could be found in differences in construction methods and price levels, but it could also be found in differences in accounting systems and project cost follow up procedures in the different countries. With different project cost follow up procedures in various countries it is difficult to get comparable data and hence, the possibility to compare store projects in an efficient way and to reuse knowledge and experience from old store projects will be limited. This in turn will limit the evaluation process and the updating process of the standard store.

By conducting an internal benchmarking procedure within IKEA, between different countries and different store projects, great potential savings and improvements could be accomplished. However, in order to do this an appropriate comparable economic framework is of great importance!

1.2 Problem description

Developing a standard store concept simplifies the procedure to build many similar stores, in a more efficient and cheaper way and within a limited time span. However, there is a difficulty in the process of establishing and using a standardised concept. As development moves forward, the standard must also be updated in order to be of use. Therefore the process cannot be of a one time character, but preferably a continuous way of working.

The big differences in retail construction costs between IKEA countries indicate a possibility that construction performance and efficiency in different store projects differ. In that case it would be possible to find good and bad solutions through a benchmark analysis. Thus, benchmarking could be a proper tool in the continuous process of updating the standard

concept, decreasing construction costs and improving construction performance and efficiency in new store projects.

Essential when conducting a benchmark analysis is to have comparable data. Thus, in order to conduct a benchmark analysis in the IKEA store development process, it is important to have store project data that is comparable. One further problem of conducting a benchmark analysis in a process like the IKEA store development process is that the objects on which the benchmark results will be implemented do not exist when the benchmark analysis is conducted, since these consist of future store projects. Hence, in the cases of the IKEA store development process, it is even more important to have a structured process, with a standardised framework for working with data, to build the benchmark analysis on.

A second possible explanation to the variations in store project costs between different countries could be differences in accounting and project cost follow up procedures. Low costs in one cost section do not necessarily indicate that something has been done in an efficient and cheap way. It could also mean that not all costs have been booked in the correct cost section. In the last case, there is no use comparing cost sections between store projects since the comparison would then be between “apples and pears”. Thus in the IKEA case it would be interesting to examine how big problems IKEA has today with incomparable data produced in store projects in different countries. Furthermore, if this is a big problem, what can then be done in order to come to terms with the problem.

These are problems not easy to grasp. However, in order to develop a well functioning benchmark procedure and to be able to compare performances between store projects in different countries, an appropriate economic framework is of great importance.

1.3 Purpose, objectives and expected results

This Master Thesis is written with the base in a project description given by IKEA. The project description has worked as the foundation when constructing the purpose and the objectives of the Master Thesis.

1.3.1 IKEA project description

The target of the project is to develop a base for comparison between different retail investments in new stores. The project includes the following actions:

- Verification of the reconciliation between the legal accounting and the project internal reporting (Project Cost Follow Up/CFU).
- Check if the definitions for the project operational reporting is followed and suggest improvements.
- Comparison between the selected projects with a specified report of all deviations. Suggest improvements.
- Conclusions and action plan.

Selected store projects are “Warsaw North” in Poland, “Regensburg” in Germany, “Glasgow” in United Kingdom and “Washington” in the United States.

1.3.2 Purpose

The purpose of this Master Thesis is to examine how IKEA can develop an appropriate economic framework for an internal benchmarking procedure, in order to update the standard concept, decrease construction costs and improve construction performance when building new stores.

1.3.3 Objectives and expected results

The objective is to generate an action plan for IKEA concerning how to develop an economic framework for a continuous internal benchmarking procedure, with proper project cost follow ups and comparisons between store projects in different countries. The objective is also that these actions should be applicable for other companies.

1.4 Delimitation

This Master Thesis will mainly focus on economic data and thus, other factors affecting the benchmarking procedure will not be taken into account. Furthermore, the Master Thesis will only focus on how to develop an economic framework for a well functioning benchmarking procedure. Hence, the actual benchmarking procedure and the implementation will be targets for further studies.

The study is conducted with focus on four different countries: Poland, Germany, United Kingdom (UK) and United States (US). In each of these countries the study is further concentrated on one primary new store project. When making comparisons between these different store projects the study only considers the fixtures and fittings of the building and thus not the outside walls, roofs and framework. These fixtures and fittings correspond to cost section 12 and 14 in IKEA’s project cost follow up specification, found in the Financial Manual.

1.5 Background of the authors

Both authors of this Master Thesis are at the end of their studies in Master of Science in Civil Engineering, specialising in Technology Management at Lund University. Besides specialising in Technology Management both authors have studied specialised courses within the Construction Management department at the civil engineering program.

In this research competencies within both business administration and civil engineering are of great use, as the research deals with accounting issues and internal benchmarking as well as construction issues. Hence, the backgrounds of the authors are well in line with this study. The supervisors at Lund University are also chosen with consideration to the subject of the research. Niclas Andersson works at the Construction Management department and Per Magnus Andersson works at the Institution for Business Administration and is specialised in

accounting. In this way, any lack of knowledge among the authors is likely to be covered by the supervisors.

1.6 Target group

The Master Thesis is written mainly for people within IKEA who can influence the store development process and should provide IKEA with useful guidance on how to continuously improve the store development and build up process. The target group also includes anyone who has interest in how internal benchmarking continuously can improve reoccurring projects, like the construction of new stores following the same concept and how an appropriate economic framework is achieved.

Furthermore, the thesis is written with the assumption that the reader has at least the same level of knowledge as a student in his or her final year of a Master of Science or Master of Business Administration education.

1.7 Thesis outline and reading instructions

The thesis follows the normal layout of an academic report with the main areas frame of reference, empiricism and analysis. In figure 1.1 below the layout of all chapters are shown.

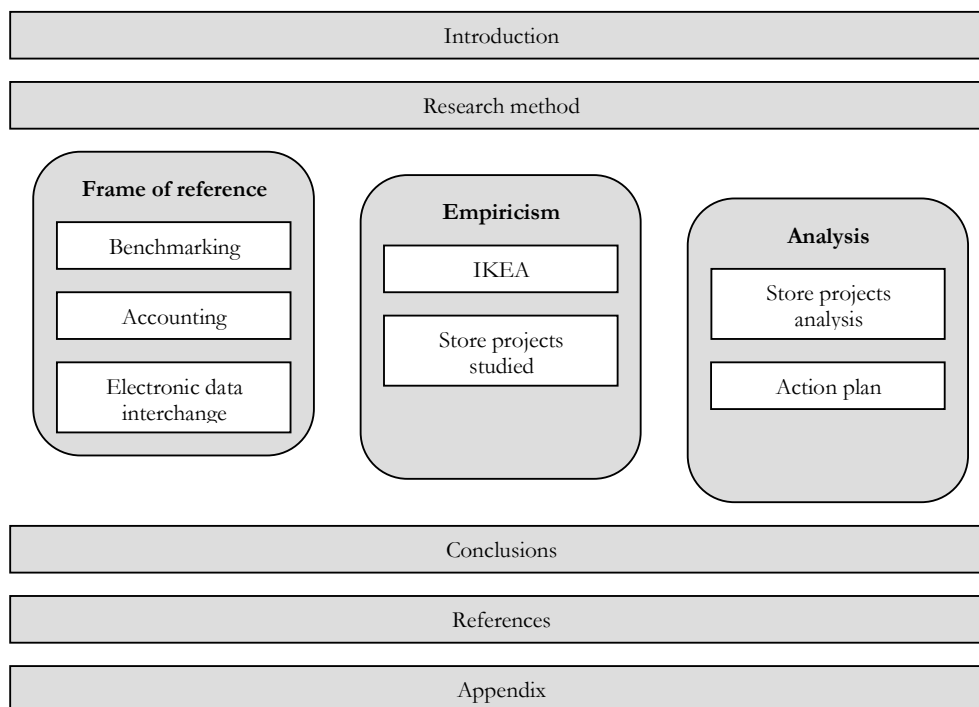


Figure 1.1 Layout of this Master Thesis

The frame of reference works as the theoretical foundation of the Master Thesis. The main theory, which permeates the entire Master Thesis, is the benchmarking theory. Accounting offers the reader a very basic theory regarding different accounting systems and the purpose of accounting. Finally the theory regarding electronic data interchange is vital in order to understand the action plan in the analysis.

As can be seen in figure 1.1 above, the empiricism is divided into two parts. The first part explains how the IKEA company is organised. It also contains a thorough description of the store development process with its different stakeholders and follow up routines. The second part is focused on the four store projects studied and describes the store projects as well as the accounting systems in each country. In this Master Thesis it is very hard to draw a distinct line between the empiricism and the analysis. An example of this is that most of the economic data is presented in the analysis without being introduced in the empiricism. This is done deliberately as it does not add any value to the report to present the raw material received from the store projects studied. Instead, the data is directly analysed in the analysis section.

The analysis is also divided into two parts. The first part analyses the four store projects studied and describes the main reasons thoroughly as to why the different store project follow ups are not comparable. In this process, the main deviations from the IKEA project cost follow up specification are shown. The result from this part of the analysis is then used for the second part of the analysis, in which an action plan is developed, that, if introduced within IKEA, should enable the company to compare store projects and find good and bad solutions in the future. This action plan is built up of three important corner stones, which are introduced in this chapter.

2 Research method

This chapter describes the research method concerning this Master Thesis. It is divided into two parts, the methodological approach, which tries to place this research in the “research web” and the practical method, which describes the frame of reference, empiricism and analysis in this Master Thesis.

2.1 Introduction

Every scientific researcher needs to clearly state how the study is to be carried out. The purpose of this is twofold. First, the reader must easily be able to position the study into the research web, i.e. among other researches that has been and will be carried out. Second, in order to conduct a successful research, you have to have an awareness of general methodology as well as clearly specify the methods used in your research. You cannot simply gather data for the general purpose of analysing, as different observations and statements are closely linked to the method used when gathering the information.

2.2 Methodological approach

In the following subchapters the general methodological approach is explained. Furthermore, the question as to where this research is to be positioned in the research web will be answered.

2.2.1 Analytical, systems or actors approach

According to Arbnor and Bjerke (1997), there are primarily three different methodological approaches; analytical, systems and actor’s approach. The *analytical* approach assumes that reality has a summative character i.e. the whole is the sum of its parts. Furthermore this approach assumes that the knowledge created in a research is independent of the observer and that it is always possible to argue that all other things remains the same when conducting a research with a number of factors. The *systems* approach claims that the whole differs from the sum of its parts, which points out that it is essential to examine the relations and the synergy between the parts as well as examining each individual part in order to understand the whole. To be able to do this the focus must be more on understanding than on explaining. Finally the *actors* approach puts the individuals in centre and takes into account the meaning that the actors associate with their acts and the surrounding context. Hence, the reality is therefore seen as a social construction.¹

¹ Arbnor, I., Bjerke, B. (1997)

When conducting a research that is closely connected to the benchmarking theory, it is very important to realise that there are so much more influencing a performance than you first see. Benchmarking aims at finding the best in practise and when doing so many different factors has to be taken into account, e.g. low price might indicate a very effective process as well as poor quality. This research therefore follows the systems approach, which means that it takes into account not only the system as a whole but also the synergies and the relations between the parts building up the system. The main system studied in this research is the IKEA store project development process. This system can then be further divided into three different subsystems; the project design process, the accounting routines and the store project follow up process. These are all further described in chapter 6.

However, the workload to take all factors and the synergies into account when making this study is not possible. Some simplifications and delimitations have to be done in order to come to any conclusions within the time span stated. These delimitations, which are presented in chapter 1.5, have been carefully selected together with the supervisors at IKEA in order not to miss any important details.

As mentioned above the systems approach points out the importance of understanding rather than just explaining. This also suits a study with the focus on benchmarking since it is more important to understand, than to explain, the data in order to find good and bad solutions.

2.2.2 Goal-mean vs. trial-and-error study

Within the systems approach there are two main groups of studies. The first group states that it is possible to define the goals of the system at the beginning of the study and tries to eliminate any gaps between the goals and the reality. The second group states that it is impossible to plan the study and lets the course of the study provide material for successive continuation. Arbner & Bjerke (1997) define these two groups as goal-means orientated and trial-and-error orientated.² As the purpose and objectives of this thesis are well defined and as the method to attain these is structured, this Master Thesis will be goal-means oriented.

By following the goal-mean oriented study, the research as a whole will also be conducted according to a general plan, which is illustrated in figure 2.1. The theory states that the research starts with a problem in a real system.³ In this research the main problem is how to create an appropriate economic framework for internal benchmarking in order to continuously improve the store dimensioning and build up process.

² Arbner, I., Bjerke, B. (1997)

³ Ibid

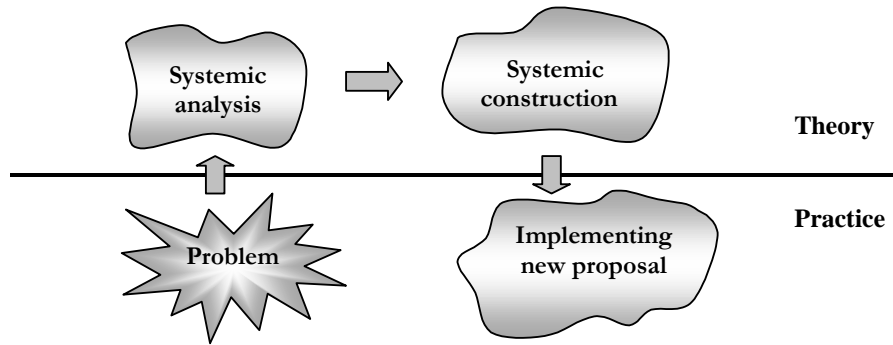


Figure 2.1 Goal-means oriented study

2.2.3 Positivist vs. hermeneutic research

The *positivist* research has its ground in the perception that a research must and can dissociate itself from all metaphysical speculations, i.e. everything that is not real and perceivable. Everything stated in the research must be possible to confirm or disclaim through empirical experiences. For this type of study, the goal is normally to find causal relations. The main purpose for the *hermeneutic* research is to interpret and understand the reality. It is not possible, and not always desirable, to conduct a totally objective research and the main purpose for the research is normally to establish a change, and then observe what happens.⁴

The current study can most preferably be classified as a hermeneutic research. As the study has its focus on benchmarking theory, the understanding is more important than just the explanation.

2.2.4 Type of study

In the subchapters above this research is described as a hermeneutic study with a base in the systems approach, see figure 2.2 below. One type of research that is normally closely related to this framework is the case study. Lundahl and Skärvad (1999) describes a case study as a research that focus on one or a limited number of cases and tries to penetrate these more thoroughly. The primary advantage with a case study is the possibility to study the full complexity of a problem without trying to simplify it or make artificial assumptions.⁵

⁴ Lundahl, U., Skärvad, P-H. (1999)

⁵Ibid

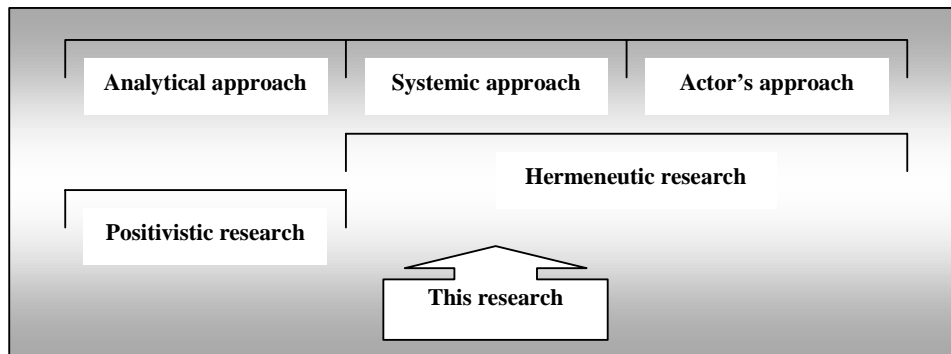


Figure 2.2 The methodological position of this Master Thesis.

It is important to choose the cases to study correctly in order to achieve the best result. Most frequently the cases are chosen as a best and a worst case, but this is not always preferable. It is often better to choose cases that together provide a wide spectrum of different types of structural changes or differences.⁶

This research can be considered a case study. The cases studied are four store projects in the four different countries Poland, Germany, the United Kingdom and the United States and were chosen because of the great differences in retail construction costs. Furthermore, the construction finish dates for the store projects chosen are approximately the same and all of them are finished very recently. However, the choice of reference store projects was made before the authors were assigned this research project, due to the limited time frame. It would perhaps have been better to first get accustomed with the research project and the information needed and to study different store projects in order to find the most appropriate reference store projects for this research.

One aim of this study is to analyse the main differences between the reference store projects, in order to suggest actions to create an appropriate economic framework for internal benchmarking in the store dimensioning and build up process. To do this it is of great importance to see what is hidden behind the facts and figures of the store projects. The number of cases chosen in a case study will influence the work method as well as the results of the study. One possible alternative could have been to choose only two store projects and thus be able to study these more thoroughly. However, this would not give the sufficient width of the research. With four store projects a wider picture of the overall process can be analysed, which agrees with the purpose of this Master Thesis. On the other hand, in order to examine four store projects some delimitations are necessary. Furthermore, the study will focus on a great deal of quantitative information. Thus, it can be questionable if the research can be stated as a genuine case study but more preferably a form of case study.

⁶ Lundahl, U., Skärvad, P-H. (1999)

2.3 Practical method

There are many things in the practical work method that can influence the final result of a study and it is therefore important to examine which research method that best fits with the current type of study. In the following subchapters, which are structured around the main parts of the report, i.e. frame of reference, empiricism and analysis, the practical research method will be discussed.

2.3.1 Frame of reference

This Master Thesis is based on three main theories, which are benchmarking, accounting and Electronic Data Interchange, EDI. Literature is collected with the help of a number of search engines, primarily LIBRIS and LOVISA. The main references for the benchmarking theory is literature by Robert C Camp, who published the standard work for benchmarking in 1989, and “Benchmarking – vägvisare till mästenskap i produktivitet och kvalitet” by Karlöv & Östblom. Regarding the accounting theory, the literature, which is written on a rather comprehensive level, is selected in discussion with the supervisors. The reference mainly used is “Den nya ekonomistyrningen” by Ax, Johansson and Kullvén. This literature is considered to be enough since the study is not analysing the accounting theory in detail. The main references used in the EDI theory are “E-commerce” by Turban, “Elektroniska affärer” by Fredholm, and “EDI purchasing” by Marks.

2.3.2 Empiricism

There are two main categories of techniques for collecting data; collecting new data, i.e. primary sources, or using information previously collected, i.e. secondary sources. When working according to the systems approach, the primary data is normally collected through direct observations and personal interviews and secondary data is normally collected from within the system. This is also the case in this study.⁷ The primary data is collected through personal interviews with contact persons in the store projects and other key persons within IKEA. However, a main part of the information gathered comes from secondary sources within the system studied (see chapter 2.2.1). One problem using secondary data could be that the data is not compatible for the actual study and that the sources might not be trustworthy⁸.

The data for this research will primarily be collected in three ways; quantitative data sent from the contact persons in the different store projects, qualitative data through interviews with these contact persons and other key persons and through every-day conversations with people at IKEA while conducting the research. As described earlier, this research will be conducted according to the systems approach, which emphasises the importance of the interactions and relations between different parts in a system. Accounting routines in four different countries, with different cultures and different legal accounting systems are analysed. This makes the research even more complex. Hence, all the techniques for

⁷ Arbnor, I., Bjerke, B. (1997)

⁸ Ibid

collecting data, described above, are of great importance to be able to draw useful conclusions.

Quantitative data collection

In the case of this study, there might be a problem with the compatibility of the quantitative data collected. This data, collected from secondary sources, is mainly extracts from the internal reporting of the store projects studied. It is thus not collected for the purpose of this research alone. Even if the trustworthiness of the sources is not a problem there might be a problem with the compatibility of this data. The degree of detail between the data collected from each country might differ. There might be problems with translating the language the data collected from the different countries are written in and last but not least there might be difficulties with currency variations. In the chapter concerning systematisation of data the detail variation problem will be discussed further. By using fixed annual exchange rates determined by IKEA, the currency problem will be solved. Yet it is important to have the currency issue in mind, when analysing the problem. Other secondary data will come from articles and other written information. For this information both the compatibility and the trustworthiness must be questioned.

Qualitative data collection - Interviews

In order to fulfil the objective of this Master Thesis, i.e. to generate an action plan for developing a framework for internal benchmarking at IKEA, it is important to understand the differences in the store projects and the countries studied. Therefore, a visit in the countries and at the store projects studied, where interviews and discussions with key persons are made, is vital. The visits will take place a couple of months into the research project in order to have time before the visits to analyse the data sent from the contact persons. The focus during the visits will be to discuss the accounting procedure in the country and to, together with the contact persons, go through the economic data of the store project. Furthermore the visits will focus on the store project organisation and development process in each country.

In order to get a wide and complete picture of the store dimensioning and build up process, interviews will also be made with people within different departments at IKEA in Sweden. Both the interviews on the store project visits and the interviews at the IKEA departments in Sweden will be of the type *unstructured interview*. In these the interviewer is aware of the subject that the interview will cover, but asks the questions in no particular order and with no predestined formulation⁹. In this way the interview can take different turns, depending on the person interviewed. This fits the current study, since the way of working and the accounting procedure varies in the different countries and thus the interviews can not be exactly the same for each reference store project.

⁹ Winter, J. (1992)

During the visits, the persons interviewed are primarily the contact persons in each store project. The reason being that it is difficult to get in touch with other suitable persons before arriving. A weakness in this method is that valuable information can be missed if not getting in touch with the right person. However, by preparing the contact persons with questions before the visits part of this problem is eliminated.

2.3.3 Analysis

As mentioned in chapter 1.7 the line between empiricism and analysis is hard to distinguish. In this Master Thesis, all the economic data is presented and analysed in chapter 7, where the analysis of the store projects studied is conducted. The method for the systematisation of data, which primarily concerns the economic data, is therefore discussed below in this chapter.

Systematisation of data - Validity and Reliability

When all necessary data is collected, it is important to systematise the data in a way to create clearness and to establish relevance, reliability and validity of the data. This is a prerequisite for deciding how reliable conclusions can be drawn. The reliability of data is defined as “the dispersion of the data”, while the validity of data defines to what degree the current data shows what is supposed to in the study. This can be illustrated by studying arrow targets. Reliability is shown by the concentration of the arrows, while validity is shown by how far away from the bulls eye, which represents the desired object of the study, they are. Figure 2.3 below illustrates the expressions validity and reliability.¹⁰

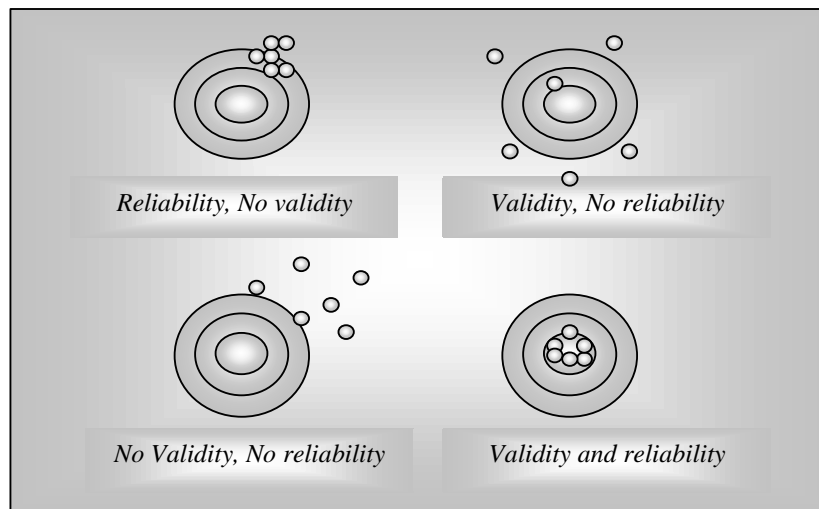


Figure 2.3 Reliability and validity of data.

¹⁰ Arbnor, I., Bjerke, B. (1997)

The systematisation of data means that the data collected will be compressed and that certain details will be left out. However, this is in order as long as the information needed to solve the problem remains.¹¹

Compressing data can be done with the help of different tools and methods. When using mathematical or statistical methods, the risk is that the understanding of the result will be lost, especially when advanced calculations are used. The risk is that the validity will be poor, thus the systemised data and the result will show something that is not questioned for. With the help of computers, calculations will be very easily done and thereby another risk occurs, which is to make too many calculations and tests when working with the data. Thus, it is of great importance to really think the systematisation procedure through before getting in to work, in order to reach an understandable result.¹²

In this study it is important to find the right degree of detail of the data in order to solve the problem. When data from accounting systems is received from the different store projects, the degree of detail probably differs. In this case it is important to systemise the data in a way that it is possible to work with it and to compare it between the different store projects. In a first phase the study of the material is examined on a rather aggregated level. The study then focuses on where big differences are found and analyse these on a more detailed basis. However, all the material is also examined on the more detailed level in order to eliminate the risk of missing some differences due to synergy effects, i.e. differences that counter balance each other so that they does not show on a more aggregated level.

Analysis of data

From a hermeneutic point of view the analysis is a result of human interpretation within the frames of a certain social context. The superior purpose of the analysis is understanding, which presupposes insight in social phenomenon within relevant contexts.¹³ As the collection and systematisation of data goes on, the understanding of the relevant context of the study will increase and thus the analysis will be built up continuously along with the data systematisation. However, the actual analysis will have its primary focus in a later stage of the research. Only after all interviews are conducted a total understanding will be possible and thus it is after the visits and all the interviews are carried out that the analysis will be fully conducted.

¹¹ Winter, J. (1992)

¹² Ibid

¹³ Darmer, P., Freytag, P.V., Johansson, G. (1995)

3 Benchmarking

In this chapter the theory of benchmarking is presented. The basic steps, advantages and shortcomings will be described together with a short introduction to the more uncommon term benchlearning.

Dantotsu = "The aspiration to be the best of the best"
Japanese saying

3.1 Introduction

In 1979, the company Xerox Corporation developed the concept of benchmarking. They used this technique frequently in order to gain competitive advantage. The benchmarking technique was initiated at the production unit level as an attempt to study the production costs more thoroughly than what had been done before. Fuji-Xerox, a subsidiary to Xerox, conducted a more extensive benchmarking exercise where the production costs for copying machines were studied. This study was very successful and as a result, the company management decided to implement the benchmarking technique throughout the whole company. One definition of benchmarking can be:¹⁴

Benchmarking is the continuous process of measuring products, services and work methods in relation to the hardest competition or the companies that are considered industry leaders.

David T Kearns, CEO at Xerox Corporation (1982-1990)

In modern English, the word benchmark means a "fix point". It is a term that has its origin in the surveying industry, where a "fix point" is used when setting out buildings. When discussing benchmarking, the expression "fix point" is a metaphor to point out in which direction a company should work in order to reach set goals.

The purpose of benchmarking is to find the companies, irrespective of what business they are in, that shows superior performances in the different functions studied, in order to map their processes, methods and systems. The outcome of a benchmark analysis should be detailed information about what best in practice is.¹⁵

¹⁴ Camp, R. (1993)

¹⁵ Ibid

3.1.1 Reasons for conducting a benchmark analysis

Five main advantages that come with conducting a benchmark analysis can be pointed out. These are as follows:¹⁶

1. The demands of the customer will be better satisfied.
2. Goals are being established with a common understanding about the surrounding world.
3. Real measures on productivity are received.
4. Competitive strength is established.
5. Awareness about the search for the best is achieved.

Further more, a benchmark analysis provides a structured approach to meeting the goals and objectives set out and links to the overall mission of the organisation. Benchmarking can also help motivating the staff and broaden their knowledge as well as widening their horizons by searching for improvements outside the division, company or industry.¹⁷

3.2 Different types of benchmarking¹⁸

Benchmarking can be divided into four different types depending on who the comparison is done against. These are internal, external with focus on product competitors, external with focus on industry leaders and finally external with focus on general processes - also called functional benchmarking. As can be seen, these four types have either an internal or an external focus.

When conducting an *internal benchmarking* the comparison will be between different divisions or subsidiaries within the company. When conducting an *external benchmark* a company, who is doing the same activity that you want to improve, is sought out. This company can either be a product competitor, an industry leader or a company in a totally different business, but who conducts a specific function exceptionally well.

The main idea is that the company, which the benchmark analysis is conducted against, should be the company performing the studied process best. Functional benchmarking is a type of external benchmarking where the benchmarking partner is chosen with respect to a specific function and with no respect to what type of business the company is in. For this type of benchmarking, the potential of finding new and genius ideas is the highest, since it takes into account all existing companies.

When selecting which one of the different benchmarking types to apply, it is important to consider the simplicity by which data and information can be gathered. However, it is also important to take into account the comparability of the information gathered and the

¹⁶ Camp, R. (1993)

¹⁷ Tutchter, G. (1994)

¹⁸ Camp, R. (1993)

company information. In figure 3.1 below, important aspects that should be considered before making a final decision about which benchmarking type to use are shown.

Benchmarking type	Relevance	Easy data gathering	New genius methods
Internal		X	
External, product competitors	X		
External, industry leaders	X	X	
Functional		X	X

Figure 3.1 Important aspects to consider when choosing benchmark type

As this Master Thesis studies how to accomplish an economic framework for internal benchmarking within IKEA, the rest of this chapter will focus on internal benchmarking.

3.3 Internal benchmarking

A big global company is normally divided into different geographically located subsidiaries, divisions and service-groups. There are normally different activities conducted in more than one subsidiary or division, and when the comparison is made between these internal units, it is called internal benchmarking.¹⁹

Even though internal benchmarking does not necessarily take into account the absolute "best in practice", it has many advantages. For example, information will be easier to gather and the gathered information is also more likely to be comparable with the data within your own business unit. This increases the potential of making the benchmark analysis more precise and accurate. However, a disadvantage with internal benchmarking is that there is often much rivalry and inertia within a company which can influence the benchmarking process.²⁰

Nevertheless internal benchmarking can be a very helpful tool for achieving goals and making improvements within a company. But in order to be successful, preparation and commitment is important and this will be described in the following subchapters.

3.3.1 The key steps to undertake in a benchmarking procedure

In the benchmarking literature many work plans and different steps to undertake when conducting a benchmark analysis can be found. Overall, they are all quite similar and many of them can be summarised in a five step model. These five steps, seen in figure 3.2, have been developed through the accomplishment of several benchmarking exercises and have

¹⁹ Tutchter, G. (1994)

²⁰ Ibid

been proved to work in reality. It is applicable for external as well as internal benchmarking.²¹

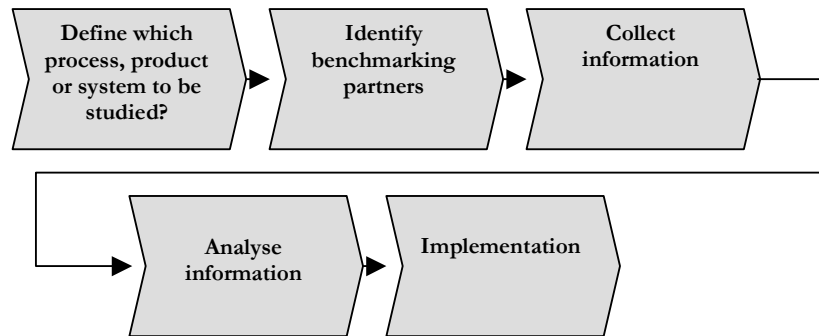


Figure 3.2 The different steps in a benchmark analysis

The *first step* is to define which process, product or system that has the greatest need of improvement, i.e. identify the needs of the organisation. It is important that the organisation and structure of the company as well as the customers' demands are studied closer in order to decide exactly what is going to be benchmarked. The structure and organisation of the company can preferably be studied with the help of Michael Porters (1985) value chain analysis. In this step, the level of detail that will be used in the benchmark analysis is normally defined. However, this differs depending on what function, industry or product the analysis will focus on. It is also important, in this step, to collect and document important data and information about the current process, product or system within the business unit in order to know what to request from the benchmarking partner. Further more, it is essential to first understand your own business in order to understand how your partner's business is working.²²

The *second step* is to identify who the desired benchmarking partner is. The first decision to make is what type of benchmarking is going to be conducted (see chapter 3.3). Is the study going to be within the company or is it going to include external companies. As already mentioned this thesis focuses on internal benchmarking and thus, the benchmarking partner will be chosen from within the company. Having decided internal benchmarking, the next action is to choose which division, subsidiary or business unit to make the comparison against. This can be done, for example, with the help of statistics, internal networks or databases.²³

After deciding what to benchmark and whom you are going to benchmark against, the *third step* is to collect the information. This is the main step in the procedure and is considered to

²¹ Karlöf, B. & Östblom, S. (1993)

²² Camp, R. (1993)

²³ Ibid

be the heart of the benchmarking process. If considering benchmarking in general, the data collecting step can be divided into three parts. First, the search will be focused within the own company or division for information about the benchmarking partner. This can be done by analysing the benchmarking partner's products (for example by purchasing the product and disassembly it), by asking people within the company (preferably the market division) and by using available studies and researches. Second, secondary information outside the company will be gathered. This information is gathered through, for example, database searches, consultants or external experts and studies. A third way of collecting information is to conduct own researches. These can include questionnaires, phone interviews and direct site visits. As already mentioned these search methods are valid for benchmarking in general and might have to be modified when conducting an internal benchmarking.²⁴

The *fourth step* in the benchmark analysis is to analyse the information collected and to compare this data with the data from the internal activity. This comparison will reveal positive or negative performance gaps. These gaps are then analysed further in order to find and set suitable goals and to discover how to improve the process or product that is benchmarked.²⁵

In the *fifth and last step* the results from the benchmark analysis are communicated to the organisation and acceptance is established. This can sometimes be difficult, since new ways of working are often seen with scepticism and aversion. However, in order to succeed with the benchmark analysis it is important that acceptance is achieved throughout the organisation. It is also in this step that goals are set, based on the benchmarking results. The goals must then be interpreted into descriptions of how the organisation must change in order to reach the goals set and work plans are prepared. Important is also to follow up on the improvements made.²⁶

Benchmarking is not a onetime occurring event. The surrounding environment is constantly changing and the company must do so as well. Therefore, as the definition of benchmarking also states, it is of great importance that the benchmark analysis becomes a continuous way of working in an organisation.²⁷

3.3.2 Factors for successful benchmark analysis

As seen in section 3.2 the advantages of benchmarking are numerous. However, in order to conduct a successful benchmark analysis - internal as well as external - it is important to consider the following:²⁸

²⁴ Camp, R. (1993)

²⁵ Ibid

²⁶ Ibid

²⁷ Ibid

²⁸ Tutchter, G. (1994)

Management involvement: The managers have the ability to remove barriers and to facilitate access to information and resources. This is especially important for internal benchmarking, since almost all information will come from within the company. The management involvement will also show all employees that the benchmarking process is valued. Furthermore, it is also important that the managers ensure that the benchmark analysis is conducted in line with the overall direction of the organisation.

Openness: It is very important to have a cross-functional communication within the organisation if a benchmark analysis is going to be successful. With suspicion and rivalry between business units it can be very difficult to share information with each other, which is an important step in the benchmarking procedure.

Commitment and understanding: In order to conduct a successful benchmarking procedure all people involved have to be committed to the exercise and conduct every step properly. It is also important that the organisation understands its own operations and products to be able to improve them through a benchmark analysis.

Integration: If the benchmarking procedure is integrated throughout the whole organisation and made a commonly accepted activity at all levels, it will become really effective.

Base for comparison: Finally, in order to make a proper benchmark analysis it is important to have comparable key measures. Otherwise the comparison might be between fruit baskets instead of between apples and apples.²⁹

3.3.3 Shortcomings with benchmark analysis

Despite all the advantages of benchmark analysis, some shortcomings can also be found. Foremost these shortcomings concern the lack of continuous learning in an organisation and the focus on the company management when conducting and implementing a benchmark analysis. When the employees are not fully involved there is a risk that, for example, key measures are compared without first making them comparable and without really knowing why. These comparisons will never lead to any changes or improvements.³⁰

3.4 Future development of benchmarking

As mentioned above some shortcomings have been noticed with benchmarking. Traditional benchmarking is a great tool when trying to achieve improvements within the organisation from a management point of view. However, it does not take into account the possibilities to create a collective learning within the organisation that could lead to a self-improving system. In order to focus more on these aspects the concept of benchlearning has been developed.³¹

²⁹ Karlöf, B., Lundgren, K., Edenfeldt Froment, M. (2000)

³⁰ Ibid

³¹ Ibid

Benchlearning is based on the traditional benchmarking theory, but it place more focus on the importance of the involvement and learning of people throughout an organisation. With the whole organisation involved the expectations and learning will be greatly improved and the ambition to improve will get higher. Thus, the potential of creating a self-improving system will increase.³²

"Every time I have prepared for a battle I have found that plans are useless but planning indispensable."

Dwight Eisenhower

By this Eisenhower meant that it is not only the result that is important, but also the procedure of getting there. This also applies to benchmark analysis.

³² Karlöf, B., Lundgren, K., Edenfeldt Froment, M. (2000)

4 Accounting

The main purpose of a company's accounting is to make it possible to see relevant information about the economic result of the company. Different stakeholders, external as well as internal, have different need of information and the accounting is therefore done in more than one way. In this chapter the basic theory of accounting will be presented.

4.1 Introduction

The most common forms of accounting are the legal accounting and the internal accounting. The legal accounting is conducted according to regulations and laws and is mainly a tool for external stakeholders, for example stockholders, suppliers and customers to see how the company is doing. The internal accounting is used for stakeholders within the company and does not have to follow any laws or regulations. It is up to every company to form the internal accounting system to best suit the company's own business and needs and several different internal accounting routines can exist in the same company. The internal accounting is normally a part of the company's or the organisation's economic control system. Figure 4.1 shows the main differences between legal and internal accounting.³³

Legal accounting	Internal accounting
<ul style="list-style-type: none">• External and internal stakeholders• Shows the company as a whole• External transactions• Compulsory• Controlled by laws and regulations• Shows economic results and position of the company	<ul style="list-style-type: none">• Internal stakeholders• Parts of the company• Internal transactions• Voluntary• Build up from internal demands• Provides a base for decision making, follow ups and planning.

Figure 4.1 Main differences between the legal and internal accounting

³³ Ax, C., Johansson, C., Kullvén, H. (2001)

As the purpose of this Master Thesis is to examine how IKEA can develop an appropriate economic framework for an internal benchmarking procedure, there will only be a very short overview of the legal accounting. The main focus will be on the internal accounting.

4.2 Legal accounting

The legal accounting has the purpose of presenting economic results for a particular time period. It is a way to look at the company's business processes and how the company value has changed over time. How this information should be presented is strictly regulated by laws in every country.³⁴

4.3 Internal accounting

As explained above, the legal accounting shows comprehensively how the company is doing economically. For the different internal stakeholders, i.e. company management, division managers, department managers and project managers etc, this information is often not detailed enough. Therefore, larger companies also have different forms of internal accounting.³⁵

4.3.1 The purpose of internal accounting³⁶

It is possible to divide the purpose of internal accounting into three parts, better control of the business, define responsibility areas and control internal businesses.

Better control of the business: Normally a company wants to control many different things in a project, e.g. result for different products, the position of different projects or special ventures. In order to fulfil this need, budgets and follow ups are constructed with the help of internal accounting.

Define responsibility areas: A company can define different responsibility areas by for instance allocating cost or profit responsibilities. This demands an internal accounting system, which also takes internal withdrawals into account.

Control internal businesses: A common way to follow up, for example, withdrawals by different departments, shipments from production to stock or between different distribution centres, is to retrieve data from the internal accounting system.

4.3.2 The construction of internal accounting

The only thing controlling how the internal accounting is built up is the internal demands of different information. However, to save time and to decrease administrative work, there is

³⁴ Ax, C., Johansson, C., Kullvén, H. (2001)

³⁵ Prenekert, T. (1998)

³⁶ Ax, C., Johansson, C., Kullvén, H. (2001)

normally a well-defined link between the legal accounting and the different internal accountings.³⁷

According to Ax, Johansson and Kulvén (2001) the process of internal accounting is divided into four steps. These steps, which can be seen in figure 4.2, are collecting data, registering data, analysing data, and reports and presentations. Collecting data is normally done in the day to day business and information can often quite easily be extracted from the legal accounting. Registering this data is the process of booking different costs into the right place in an accounting system. Analysing the data is done in order to present different reports and presentations, i.e. status reports, sales report budget follow ups etc. These reports are then used for showing the result of a period, measuring performances by different units, deciding correct price setting (externally as well as internally), doing budget follow ups, valuing level of stock, etc.³⁸

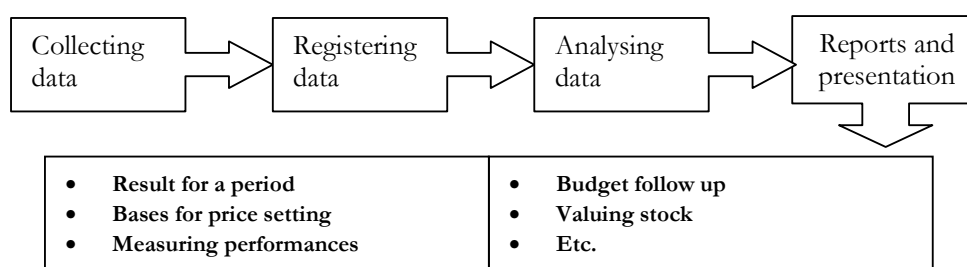


Figure 4.2 The four steps in internal accounting

4.4 Monoistic or dualistic accounting

There are two approaches to internal accounting depending on how integrated this system is with the legal system. The two approaches are called monoistic and dualistic and are shown in figure 4.3. The most common approach is the monoistic. In this approach some level of integration exists between the two accounting systems, as they are built up on the same bases in economic figures. In the dualistic approach, on the other hand, a company has two completely separate systems for internal and legal accounting. This approach exists in some companies and can work well. However, the workload increases with a dualistic accounting system.³⁹

³⁷ Ax, C., Johansson, C., Kullvén, H. (2001)

³⁸ Ibid

³⁹ Ibid

Internal Benchmarking at IKEA
- Continuous improvements in the Store Development Process -

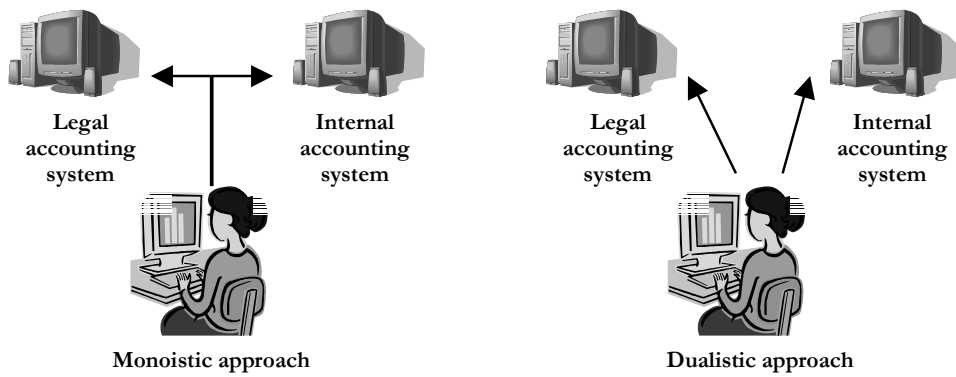


Figure 4.3 Monoistic and dualistic approach

4.5 Multidimensional accounting

Each section where costs are booked in the internal accounting has its own section code. The section code shows where each booking belongs and is normally closely connected to either a department in the company, or a product. In order to be able to register more information into one booking, multidimensional accounting can be used and is used by most companies.⁴⁰

In multidimensional accounting each booking receives a section code, which represents a costs position in more than one dimension. The coding can for example show the position in the legal accounting, which sales department that sold the product, which product it was that was sold and which resource that gave rise to the cost. The need for multidimensional booking varies in different companies and in different businesses.⁴¹

⁴⁰ Prenekert, T. (1998)

⁴¹ Ibid

5 Electronic Data Interchange

Electronic Data Interchange, more commonly called EDI, is a tool that has been used in the car industry for many years. With the help of EDI the business systems of two companies, often a purchasing and a supplying company, can communicate without manual intervention. In this chapter the basic theory of EDI will be presented, together with the wider expressions E-business and E-commerce.

5.1 Introduction

For as long as one can remember, man has traded goods and services with each other. Since the beginning of the human history, when barter was the only form of trading, the art has evolved greatly. Barter acquired the physical meeting between the two parties in trading, whereas today we trade without even having to meet with each other in person. Instead, commerce is done with the help of computers and one of the most advanced forms today is done, not only through computers but by computers. A simple example of this is when a computer in a producing company notices low in-house stock automatically and sends this information to the computer system of the supplier, which automatically issues an order to send new parts to the producing company. Everything is done without any human interference.⁴²

In the middle of the 1990's, IBM introduced the term Electronic business (E-business) to the market in one of their advertising campaigns as something that would permeate all IBM's products and services. E-commerce was already a common expression in the computer industry, but it was considered to have a too narrow meaning.⁴³ E-commerce focuses mainly on the technique and method of trading electronically whereas E-business is a wider expression that includes the whole business systems and routines of a company.⁴⁴

The first form of E-commerce was ordinary computer files transported from one computer system to another. Some form of an agreement as to how these files were to look like existed and they were sent from one system to another on magnetic tapes. These tapes were physically moved from one computer system to another.⁴⁵ As E-commerce grew bigger and

⁴² Fredholm, P. (2000)

⁴³ Ibid

⁴⁴ Turban, E. (2002)

⁴⁵ Fredholm, P. (2000)

bigger, the need for a standardised format to control the syntactical and semantical structure of the information was increasing, and Electronic Data Interchange, EDI, was developed.⁴⁶

5.2 The concept of EDI

As explained in the introduction, EDI can be considered as part of the wider expressions E-business and E-commerce. However, the difference between E-business and E-commerce is not always easy to clarify. Furthermore, EDI can be used both between companies, i.e. business to business, and within companies, i.e. intrabusiness. Different networks can also be used today as a base for information exchange in electronic businesses.

5.2.1 E-commerce and E-business

E-commerce is an expression used to describe the process of buying and selling or exchanging products, services and information via computer network systems, including the Internet. As explained above, this term was found to narrow and therefore the term E-business was introduced. E-business refers to a broader expression that includes the entire aspect of doing business, not only the buying and selling of goods and services. It includes also for example servicing customers, collaborating with business partners and conducting electronic transactions within an organisation.⁴⁷ It often affects the business process and involves the business system of a company.⁴⁸

In many written reports, the two concepts are often used without a clear distinction between them. It is therefore difficult to say what belongs to E-business and what belongs to E-commerce. In this Master Thesis the term E-commerce will be used, when referring to the wider picture of EDI, but it will have a very broad meaning and will probably include parts that some would describe as E-business.

5.2.2 Internet, extranet and intranet

E-commerce, and thus also EDI, uses different forms of networks to exchange information. The most common forms of these networks are Internet, extranet and intranet (see figure 5.1).

Internet, as most people know today, is a global network for everyone to use with the help of a computer. It is a virtual marketplace where the exchange of information, marketing, selling and buying of products and services are done. *Intranet* is a computer network used within a company or an organisation. In its most basic form it is only used for exchanging information internally but it can also be used for more advanced purposes, for example as a virtual internal market place. *Extranets* are delimited networks, where for example important customers and retailers are allowed entrance with the use of a password. An extranet

⁴⁶ Turban, E. (2002)

⁴⁷ Ibid

⁴⁸ Fredholm, P. (2000)

normally connects intranets, giving an external actor access to a small part of the company's intranet, for example an internal web-shop.⁴⁹

Both intranets and extranets are normally connected to the Internet which enables the company to conduct E-commerce activities, such as cooperating with suppliers and customers or checking a customer's inventory level before making a shipment.⁵⁰

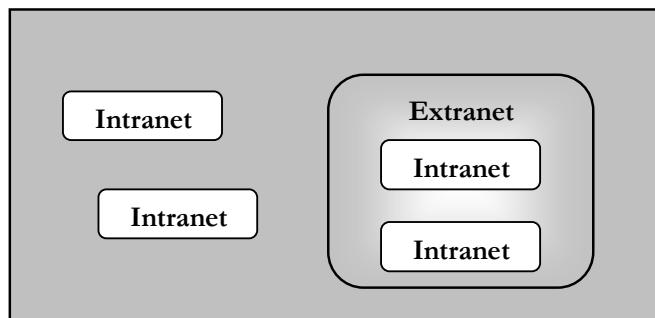


Figure 5.1 Schematic picture over the links between Internet, Extranet and Intranet

5.2.3 Business-to-Business E-commerce

There are many different forms of E-commerce and EDI. Below the most common forms are listed⁵¹.

- Business-to-business (B2B)
- Business-to-Consumer (B2C)
- Consumer-to-Business (C2B)
- Consumer-to-Consumer (C2C)

As this is a study of IKEA and how IKEA internally can develop a framework for continuous improvements, the only form described further will be B2B.

Characteristic for B2B is that all participants involved are either businesses or organisations. In 2002, most of E-commerce is considered to be B2B⁵². According to Fredholm (2000) it is possible to distinct three different levels of this form⁵³.

⁴⁹ Fredholm, P. (2000)

⁵⁰ Turban, E. (2002)

⁵¹ Fredholm, P. (2000)

⁵² Turban, E. (2002)

⁵³ Fredholm, P. (2000)

1. *Open web-trading* where the different parties do not have a business agreement. This form of trading is very much alike the trading between businesses and consumers.
2. *Web-solutions* where one participant has parts of its business system linked to the Internet, and the other part is using a web-browser to receive and give information in a standardised format.
3. *Electronic Data Interchange*, which means a standardised flow of information between two company business systems. Both parts has a strong business agreement and do business with each on a regularly basis.

5.2.4 EDI build up and function

Of the three levels of E-commerce listed above EDI has the greatest potential for time saving, increasing quality and decreasing costs. EDI concerns electronic exchange of business data (such as purchase and selling orders, invoices, payments, shipping manifests and delivery schedules) within a company, between a company and an intermediary network, or directly between two companies. The data is structured in a way that the computer systems understand each other and most importantly can communicate with each other with no or very little human interference.⁵⁴

EDI build up

The base for EDI is electronic messages built up according to an, by all involved parties, agreed standard. Because the information is sent according to this standard, it is possible for the different computer systems to understand the message. An EDI-software, called converter, is used for changing the information from the format used in the business system to the agreed standard format. This enables the different business systems to interpret the message automatically. The basic build up can be seen in figure 5.2.⁵⁵

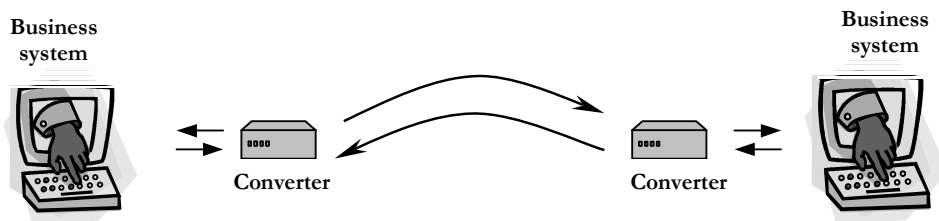


Figure 5.2 The basic build up of EDI

As shown in the figure 5.3 below, EDIFACT and XML are just two different formats of standards used in the EDI-system. In the same way, EDI is just one level of E-commerce and E-commerce just one of many methods and techniques used to enhance the total business system of the company.⁵⁶

⁵⁴ Marks, S. (1996)

⁵⁵ Fredholm, P. (2000)

⁵⁶ Ibid

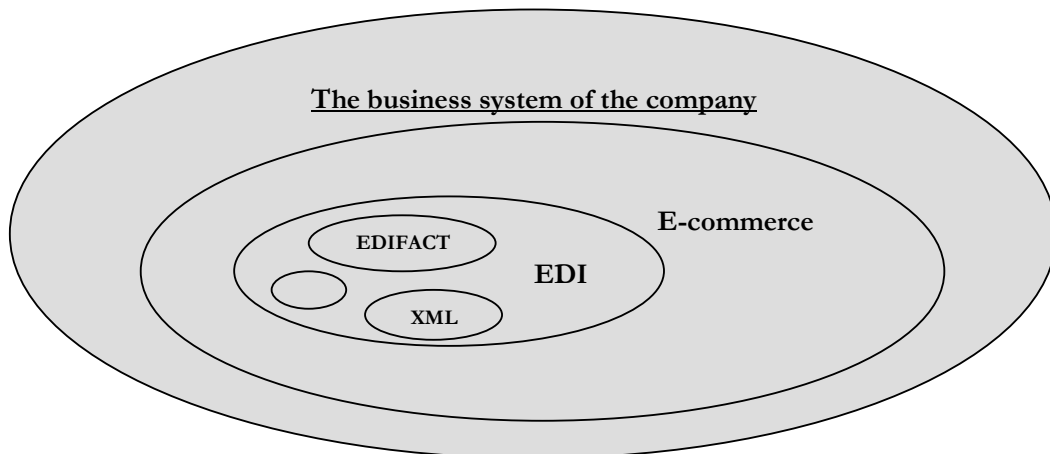


Figure 5.3 EDI, E-Commerce and business system

No official definition of EDI exists, but there are some criteria that should be fulfilled in order to call a communication an EDI-communication. These criteria are listed below:⁵⁷

1. The communication must be directly between different information systems, internally or externally, without any manual intervention.
2. The communication must be in a standardised format, e.g. EDIFACT or XML.
3. The information must be structured, i.e. information previously written in standardised forms.
4. The information must be possible to process by the receiver without administrative work.
5. The communication has to be independent of what hardware, operative systems and information systems used.
6. The communication has to be reliable. Breakdowns in the system could cause great problems.
7. The communication must be based on agreements.

Typical for EDI-communication is that it is frequently reoccurring.

An EDI transaction

Figure 5.4 below is a very simple and schematic picture of how EDI can work in reality.⁵⁸

⁵⁷ Fredholm, P. (2000)

⁵⁸ Marks, S. (1996)

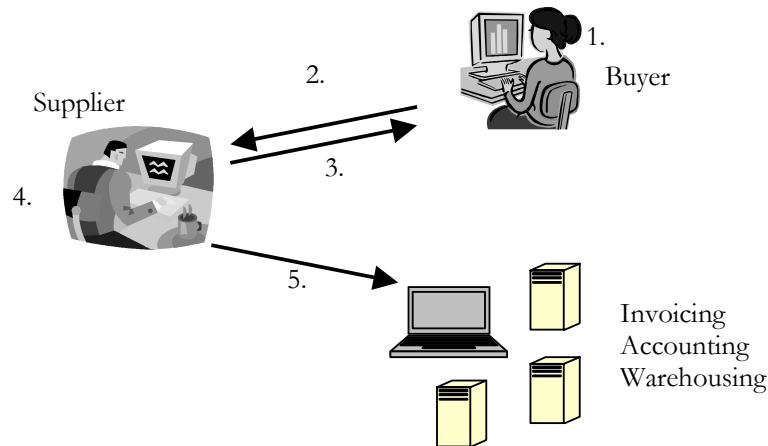


Figure 5.4 How EDI work in reality

An operator enters purchase order information into her system which creates an electronic purchase order (1). This electronic purchase order is then structured and sent via EDI to the supplier's computer system (2). The supplier's computer system receives the order and automatically sends back an acknowledgement that the electronic order has been received (3). The supplier's computer system takes the structured data and translates, or reformats, the purchase order information so that it is readable and thus usable (4). This newly received information electronically enters the supplier's system and is processed. Instructions are sent via internal EDI to production, warehousing, invoicing, etc. to fulfil the purchase order (5).⁵⁹

5.3 Advantages and limitations with E-commerce and EDI

Advantages with E-Commerce and EDI can be divided into two different categories. The first category is advantages deriving just from using the technique of E-commerce, a production-oriented view, and the second is advantages deriving from the effect on the whole business system in the form of new routines and ways of doing things when implementing E-commerce and EDI, a strategic-oriented view.

5.3.1 Production-oriented advantages⁶⁰

Listed below are some of the main advantages deriving from the production-oriented view.

Decreased costs: The paperwork can in many cases be very time consuming, especially when doing business over country borders. By using E-commerce, information can be registered into computer systems automatically and without human interference. One invoice

⁵⁹ Marks, S. (1996)

⁶⁰ Fredholm, P. (2000)

might take about 10-12 minutes to process, and when multiplying this with the number of invoices received by a company the savings can be immense. Interesting is that both parts, the buyer as well as the seller, are given opportunities for decreasing costs.

Increased quality: By reducing much of the human interference a decrease in man-caused errors is accomplished. Many users state that this increased quality is the biggest and most tangible advantage accomplished by E-commerce.

Shorter lead times: Fast transportation of information is a condition for efficient distribution and shorter lead times. To gain the full advantage of E-commerce it is important to not only receive electronic messages, but also to assure that this message is automatically forwarded to the receiving computer system, for example ordering or production system. These messages do not have to wait to be registered into the system by an administrator, as a for example message sent by facsimile must, which shortens the lead-time.

Easier planning: Since it is an automatic system, it is possible to update information continuously instead of waiting until all information is gathered. For example, an order can be sent as soon as there is an item needed instead of waiting until all items are gathered. This makes it possible for the distributor to plan in advance.

5.3.2 Strategic-oriented advantages⁶¹

Some main advantages deriving from the strategic-oriented point of view are listed below.

Long-term partnerships: E-commerce means fewer mistakes, i.e. better quality and less work between the two parts of trading. As a result of this the collaboration between two companies or businesses runs smoother and long-term partnerships are therefore built up.

Stronger bindings: Most companies do not engage themselves in trading electronically with just any distributor, which creates stronger bindings with the distributors they actually choose to conduct E-commerce with.

Better follow ups: With a system that continuously monitors and reports changes it is easier to receive better follow ups. One example of this is keeping track of how the level of stock is changing over time, which is a good way of analysing how business activities vary.

Internal efficiency: By having business systems that really can make use of the potential that E-commerce is offering, more efficient business routines can be developed. An example of this is the authorisation of invoices, which can be eliminated with the use of bar codes on the merchandise and a system which confirms the received merchandise with the electronic order sent.

⁶¹ Fredholm, P. (2000)

5.3.3 Limitations and risks

Just as there are many advantages with conducting E-commerce, there are of course also limitations and risks. The main limitations are listed below.⁶²

- System security and reliability as well as software development tools are still evolving.
- It is sometimes difficult to integrate the Internet and E-commerce software with some existing applications and databases.
- Vendors may need special Web-servers, network servers and other infrastructure developments.
- Some E-commerce software might not fit with some hardware, or it may be incompatible with certain operating systems or components.
- The cost of developing E-commerce in-house can be very high and mistakes made due to lack of experience may result in delays. To justify the system one must deal with some intangible benefits, which are difficult to quantify.

Good planning and foresight can minimise the impact of these limitations on the implementation of E-commerce.

⁶² Turban, E. (2002)

6 IKEA

In this chapter the company IKEA is presented. This is followed by the store development process within IKEA and its key internal stakeholders. Furthermore, the project cost follow up specification is described.

6.1 Introduction

IKEA was founded in 1943 by Ingvar Kamprad who at that time was only 17 years old. The name IKEA has its origin in the initials of Ingvar Kamprad and the names of the farm and the village where he grew up, Elmtaryd and Agunnaryd. In the beginning the IKEA product range consisted of pens, wallets and other small items that fulfilled a need at the same time as they were easy to distribute and could be sold at a reduced prices.⁶³

In the years that followed, the product range changed continuously until it finally consisted mainly of home furnishing products. In 1958 the first IKEA store was opened in Älmhult and it was at that time, with its 6 700 sqm, the largest furnishing display store in Scandinavia. The business developed rapidly, and in 1973 the first store outside Scandinavia was opened in Switzerland. This opened the door to the German market, which today is the largest IKEA market with about 20 per cent of the total sales of IKEA. In 1985 IKEA expanded even more as they entered the US market. The expansion proceeded and from 1983 till 2002 the number of co-workers increased from 6 000 to 70 000.⁶⁴ Today IKEA is a big global company with 175 stores (including external franchisees) in 22 countries and approximately 70 000 employees. The turnover for financial year 2002 was 11 billion EUR.⁶⁵

The vision and the business idea are considered to be the cornerstones of IKEA operations, and these are as follows:⁶⁶

”To create a better everyday life for the many people”
The IKEA vision

⁶³ IKEA Intranet; 2002-07-11

⁶⁴ Ibid

⁶⁵ IKEA, Facts and Figures 2002

⁶⁶ IKEA Intranet; 2002-07-11

"We shall offer a wide range of well-designed, functional home furnishing products at prices so low that as many people as possible will be able to afford them"

The IKEA business idea

6.2 IKEA today

IKEA is owned by a Dutch foundation called INGKA Holding B.V. Ingvar Kamprad is still a member of this board, and serves as senior advisor. IKEA is then divided into three main corporate groups, internally referred to as the blue, the green and the red group.⁶⁷

The IKEA that most people know belongs to the *blue group*, which is often also called the IKEA group. Within this group product development, production, procurement (trading), distribution and selling takes place. One of the main companies within this group is IKEA of Sweden, which is the company where all the development and design of new products takes place and it has about 760 employees.⁶⁸

The *red group* is coordinated by Inter IKEA Systems B.V., which is the concept owner of IKEA. External as well as internal franchisees within the blue group rent the IKEA concept from Inter IKEA Systems B.V. and pay a fee depending on the sales figures of the store.⁶⁹

The third group is the IKANO group, which is also internally called the *green group*. IKANO B.V. is responsible for the coordination of this group. The main businesses within the green group are financial services (Bank services), leasing, real estates and insurance.⁷⁰

This Master Thesis mainly considers mainly the IKEA group and this will therefore be the main focus of the rest of this chapter.

6.2.1 The IKEA group

The heart of IKEA is still located in Älmhult as this is where IKEA ones was founded and this is also where IKEA of Sweden is located. The operations of the IKEA group are based on four key functions: The Product Range, Purchasing, Distribution and Stores. How these operations are connected with each other is shown in figure 6.1.⁷¹

⁶⁷ IKEA Intranet; 2002-07-11

⁶⁸ Interview with IKEA Services AB & Inter IKEA Systems Service AB

⁶⁹ Ibid

⁷⁰ Ibid

⁷¹ IKEA, Facts and Figures 2002

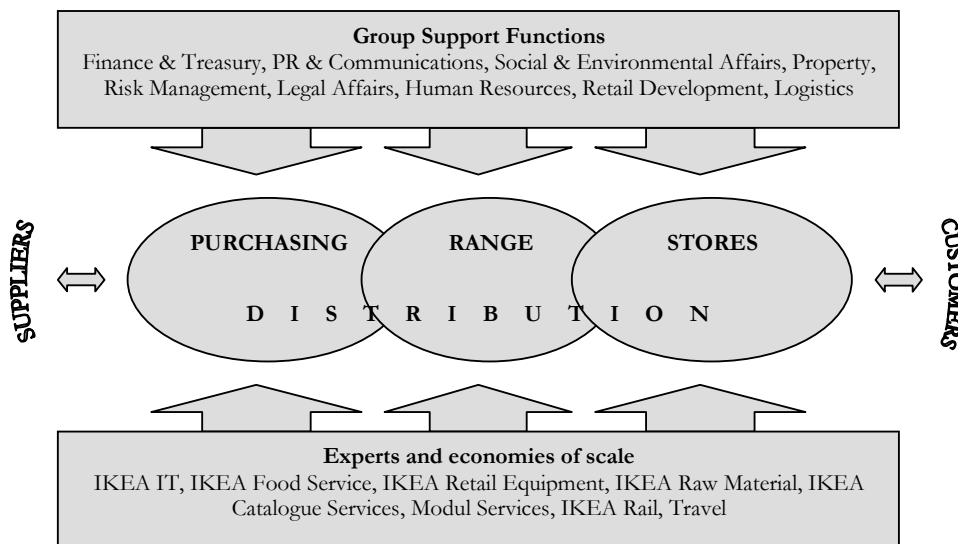


Figure 6.1 Schematic picture of the IKEA Group

6.3 The store development process

Before the main parts of the actual store development process is described, the main areas in an IKEA store is presented followed by the main stakeholders in the process.

An IKEA store can be divided into commercial area and other areas. The commercial area consists of four other main areas and these are: Sales Area, Warehouse area, Food services area and Sales support areas. The other areas mainly consist of Office area.

The *Sales Area* is further divided into three different subareas: *Showroom*, *Market Hall* and *Self Serve furniture areas*. The *Showroom* is where all items are shown in order to inspire the customers by letting them see the furniture in its true environment. The specific areas showing for example sofas, beds and kitchens also belong to the showroom area. The *Market Hall* is where homefurnishing accessories, as for example lamps, cutlery and fabrics, are displayed. These items are also fetched in the same place. The *Self-serve furniture areas* are situated in the self serve area of the warehouse (see next paragraph) and this is where seasonal campaign items are displayed and stored.⁷²

The *Warehouse* includes the *Self-serve warehouse area*, where bigger furniture can be fetched by the customers, the “actual” *Warehouse area*, where goods are stored, and the *Goods Receiving*. The *Food Service area* includes all areas for restaurant and bistros and finally the *Sales support areas* consist of entrance and exit areas.

⁷² Interview Property Department, IKEA Services AB

Office area includes all office areas and staff areas.⁷³

The sales area in an IKEA store is always built up to make “a long natural way” for the customer to walk. This should wind through the whole store and letting the customer miss nothing. In addition to this long natural way, there are also possible shortcuts, which the customers can choose in order to return to a certain point. These shortcuts also exist in order to facilitate the transportation of goods through the store and for the personnel to easily move from one area to another.⁷⁴

6.3.1 Internal stakeholders in the store development process

There are many different stakeholders in the store development process. The main actors, interesting for this study, are INGKA Holding, Inter IKEA Systems B.V., the Property department, the Retail department and IRE. Below, the responsibilities of these different stakeholders are described.

INGKA Holding B.V. is based in the Netherlands and is responsible for operations and the top level management within the IKEA group. Once a year they approve a total establishment plan for new IKEA Stores, with three to five years perspective. INGKA Holding B.V. must approve all larger investments.⁷⁵

Inter IKEA Systems B.V. is, as mentioned earlier, the owner and franchisor of the IKEA concept. They have appointed their service company Inter IKEA Systems Service AB (IISAB) to provide architectural services concerning the IKEA concept for all new IKEA stores. In new store projects they are responsible for the concept being followed and they assist the different project managers in the planning process.⁷⁶

The *Property department (management)* supports the retail organisation in store projects. They are working with finding proper land sites to process and they are responsible for the construction of the store building, which the retailer then fits and decorates. In new store projects they handle everything concerning the shell and core of the building.⁷⁷

The *Retail department (management)* is overall responsible for the whole process of new store projects. They make sure that everything inside and outside the store building is making it possible to present and sell the IKEA range of products and to be able to run the store.⁷⁸

⁷³ Interview Property Department, IKEA Services AB

⁷⁴ IKEA Intranet, ("Layouts at IKEA, in practise"; 2002-02)

⁷⁵ IKEA, Facts and Figures 2002 & Interview IKEA Services AB

⁷⁶ Interview Inter IKEA Systems Service AB & IKEA Services AB

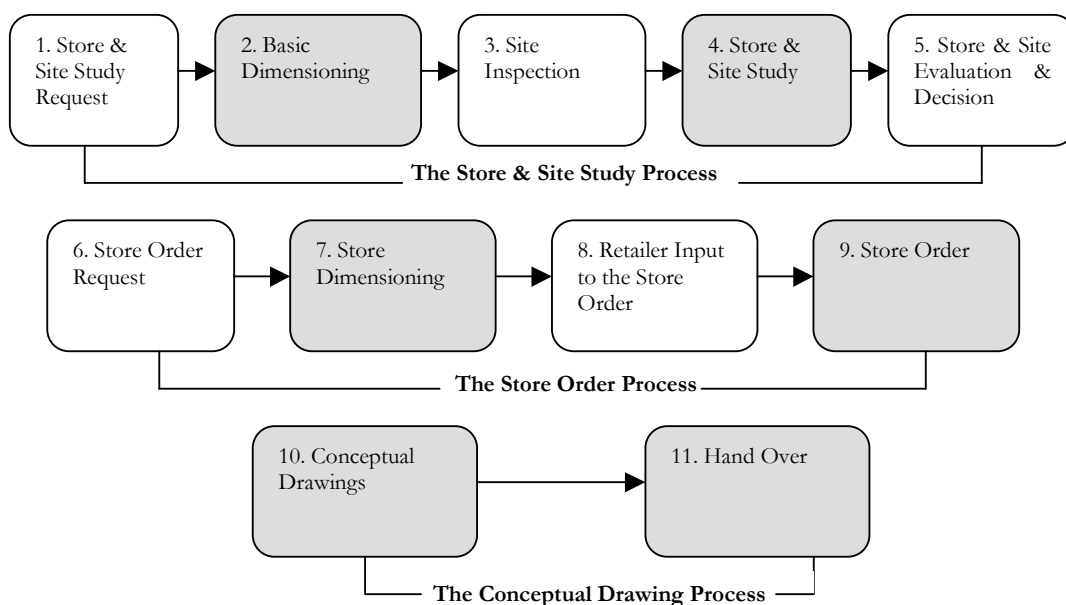
⁷⁷ Interview Property department, IKEA Services AB

⁷⁸ Ibid

IRE – IKEA Retail Equipment is responsible for the central and internal purchases of fixtures and fittings as well as equipments in the IKEA store. Their main task is to supply the stores with everything needed to be able to sell the IKEA range of products. The fixtures and fittings are supposed to have a standardised look world wide so that customers feel at home in an IKEA store wherever they are in the world. Since IRE purchases huge volumes they have the potential to keep the prices low. This department is situated in Älmhult with subsidiaries in Germany and North America.⁷⁹

6.3.2 Store design process⁸⁰

The IKEA store design process is the part of the overall store development process where the actual IKEA store is dimensioned and designed. It follows the steps shown in figure 6.2. The process can be divided into three main steps: The Store and Site Study process, The Store Order process and the Conceptual Drawing process. Each of these three steps consists of a number of sub-steps.



- Inter IKEA Systems is responsible for the outcome
- Retailer is responsible for the outcome.

Figure 6.2 *The Store Design process*

⁷⁹ IKEA Intranet, IRE; 2002-07-30 & Interview Retail department, IKEA Services AB

⁸⁰ Interview Inter IKEA Systems Service AB & Property department, IKEA Services AB

The Store and Site Study process

1. *Store and Site Study Request:* The IKEA retailer fills out and sends a Store and Site Study Request to IISSAB, mainly consisting of basic dimensioning input and site documentation.
2. *Basic Dimensioning:* IISSAB reviews input figures from the Store and Site Study Request and set basic dimensions for the main areas of the IKEA store and site.
3. *Site Inspection:* An IISSAB architect and the retail project leader visit the site and study the physical limitations and possibilities of the site. After this the Store and Site Study inputs and outputs are confirmed.
4. *Store and Site Study:* The architect at IISSAB creates Store and Site study plans and finalises the store program together with the retail project leader. The Store and Site study includes store position, traffic, flows and main dimensions and functions.
5. *Store and Site Evaluation and Decision:* The retail project leader evaluates the potential of the site after which the IKEA Retailer board decides whether to go on with the project or not.

The Store Order Process

6. *Store Order Request:* The retail project leader requests a store order by using a Store Order Request template. Estimations regarding the market potential etc. are also described.
7. *Store Dimensioning:* IISSAB reviews all input figures and sets the dimensions of all main areas in the store using a computerised tool called SDT (see chapter 6.3.3) based on the Store Order Request. The result is sent back to the retail project leader together with the standard store.
8. *Retailer Input to Store Order:* The retail project leader studies the result given by IISSAB and makes deviations due to local conditions. The various reasons for the deviations must be clearly stated.
9. *Store Order:* In a store order meeting between the retail project leader and IISSAB, the different dimensions and solutions for the store are agreed upon. This agreement serves as the main framework, together with the Store and Site Study drawings, for the creation of the Conceptual Drawings.

The Conceptual Drawing Process

10. *Conceptual Drawings:* IISSAB designs the IKEA store according to the Store Order and the confirmed Store and Site Study and secures the implementation of the IKEA concept and proven standard solutions in the store project.
11. *Hand Over:* After an internal quality check at IISSAB, securing conceptual demands and standards defined by IISBV the material is handed over to the retail project leader.

6.3.3 Store Dimensional Tool

The Store Dimensional Tool (SDT) has been used within IKEA in the store design process for a couple of years. It is used by IISSAB in order to help the store planner by setting the dimensions for areas and bigger fittings (e.g. number of cash lanes) in a new or rebuilt store. The inputs to the SDT are key measures deriving from the market-and sales study. The

output is a drawing of a standard store that corresponds to the input data given, which then has to be revised according to local conditions of the site.⁸¹

6.3.4 Retail Equipment Dimensioning

The Retail Equipment Dimensioning (RED) is a tool that is under development within IKEA. The main purpose of this tool is to simplify for project leaders in the planning and budgeting process of new store projects. With RED the SDT is taken one step further. Not only the dimensions for the main areas and bigger fittings will be produced, but every single retail article in an IKEA store. The result is a checklist with all retail items that are supposed to be included in the store, including price estimations. This checklist will be of great assistance to project leaders to plan the new store project. The checklist will also make it easier to produce a more accurate budget for the store project.⁸²

An important aspect to the checklist is that the project leader and the store manager make the final decisions when setting the dimensions in the store. They know the market and the local circumstances best for the new store. When the checklist has been adapted to local conditions and the project leader has come to an agreement with IISSAB, an ordering form is sent to IRE for those items that shall be purchased internally.⁸³

Every item in the checklist is also connected to a cost section according to a specification in the Financial Manual of IKEA. By using the checklist developed by RED, the project leader will have a list of all items to be purchased for the store project along with accurate cost sections to each item. The idea is then, that all items purchased in the store project will be booked continuously all along the store project according to the checklist.⁸⁴ When the project leader receives an invoice he divides the cost into the correct cost section according to RED. The costs will then be correctly booked by the controller in the accounting department. With a continuously built up project costs follow up like the one shown in figure 6.3 the project leader will also accomplish a day-to-day accurate control over how much money is left in the budget.⁸⁵

Items	Estimated/ Budgeted			Not yet ordered			Ordered			Received			Left to go
	Cost	Nbr	Tot	Cost	Nbr	Tot	Cost	Nbr	Tot	Cost	Nbr	Tot	

Figure 6.3 Suggested new project follow up using the RED tool

⁸¹ Interview Inter IKEA Systems Services AB

⁸² Interview Property department, IKEA Services AB

⁸³ Interview Property department, IKEA Services AB & IKEA FörsäljningsAB

⁸⁴ Interview Property department, IKEA Services AB

⁸⁵ Interview IKEA Försäljnings AB

In the first three columns the estimated (budgeted) costs are put. In the next column, the project leader can put costs, which are not yet ordered. In this way the project leader can analyse the effect different solutions has on the total project sum. In the three columns under “ordered”, the costs for products that are ordered but not yet paid for are entered and in the last three columns the costs for products received and paid for are entered. A great advantage by implementing this procedure is that the project cost follow up will be finished no later than one month after the opening of the store. Another advantage by using this form is that the project leader has day-to-day control over how much that has been spent in the project and how much is left to go.⁸⁶

6.3.5 Purchases

The purchases when building a new store are mainly done with the help from IRE. It is also strongly recommended by the IKEA board that the store project leaders buy as many products as possible from IRE. The idea is that the products sold by IRE should be cheaper thanks to economies of scale and they should also have better quality. This is also a way to ensure that the true IKEA concept automatically is build into every store.⁸⁷

For the items that IRE does not distribute, IRE often has commission agreements with local distributors in the different countries. In this case a price has been negotiated between IRE and the local distributor and purchases in this case is conducted directly between the distributor and project leader without the interference of IRE. At the end of the year IRE receives a commission from the store project for everything purchased from these distributors. The system for freight costs payments has been changed recently. Today each store project is paying the true amount for each shipment. However, all store projects studied in this Master Thesis has paid their freight costs according to a percentage system that was used earlier.⁸⁸

6.3.6 The follow up process

The follow up part of the store development process can be divided into two steps. These are presented in the following subchapters together with how they contribute to the updating of the SDT and the RED tools. The project cost follow up and different cost sections will be even further described in chapter 6.4.

6.3.7 Conditions Follow up

Three months after the opening of a new store and on a yearly base for already established stores, a conditions follow up is carried out. The conditions follow up takes into account both quantitative and qualitative data. Factors like functionality, flows through the store, capacity and customer satisfaction are examined. The purpose of the follow up is to make sure that the new store is suitable for the existing conditions as for example the number of

⁸⁶ Interview IKEA FörsäljningsAB

⁸⁷ Interview IKEA Retail Equipment AB

⁸⁸ Ibid

customer and sales rates. This follow up also tries to find the reasons for any deviations from what was planned. This follow up is then used by Inter IKEA Systems in order to update the SDT.⁸⁹

6.3.8 Project Cost Follow up

Six months after the opening of an IKEA store a project cost follow up must be produced. This project cost follow up primarily includes information of the final total costs of the store project and the deviations from the budget. The costs should be organised and booked according to a specification in IKEA's Financial Manual. All project cost follow ups are sent to IKEA Services AB for further compilation.⁹⁰

The project cost follow up is also used by IISSAB in order to update the SDT and thereby improve the standard store. From experiences, IISSAB does not take into account costs for items like IT and security because these costs vary too much between different countries. These variations exist mainly due to different regulations and local purchases in different countries. Another limitation with the project cost follow up is that the follow up process is conducted differently in different countries, which affects the comparability of the results. However, IISSAB believes that these variations do not exceed ten percent.⁹¹

6.4 The project cost follow up and cost sections⁹²

As described in the introduction chapter this Master Thesis studies investments in section 12 and 14 in the store project cost follow up. Below, the different cost sections in the project cost follow up will be described.

In the Financial Manual of IKEA, Investment Instructions can be found. These describe the working procedure for the planning and follow up of different kinds of investments. It also includes the various definitions for all cost sections under which all investments and costs related to a new store investment are supposed to be booked. The costs of a store project are divided into cost section numbers 1 to 16, where cost sections 1 to 11 are Property investments, cost sections 12 to 14 are Retail investments and 15 to 16 are Retail costs. This system is specific for IKEA's internal project cost follow up and should not be adapted to legal costs accounts in different countries. In figure 6.4 the different sections are listed with the belonging type of costs. As already mentioned, this study focuses on cost section 12 and 14, i.e. retail investments concerning building construction and machinery and equipment.⁹³

In cost section 12 retail building investments should be included. Retail building investments include investments for making the store suitable for showing the IKEA product range. Other building and construction investments belong to the property cost sections. Thus, it is

⁸⁹ Interview Inter IKEA Systems Services AB

⁹⁰ IKEA Financial Manual (2002)

⁹¹ Interview Inter IKEA Systems Services AB

⁹² IKEA Financial Manual (2002) & Interview Retail department, IKEA Services AB

⁹³ IKEA Financial Manual (2002)

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only building investments in the sales area that are included in cost section 12. Furthermore, cost section 12 is divided into subsections like lighting, roof, ceiling, floor, walls and wall coverings.⁹⁴

Cost section 14 includes investments for all equipment and machinery that completes the store building to a fully equipped IKEA store. This includes, among other things, racking and shelves, signs, trolleys, counters, cash registers etc. Cost section 15 includes various operational costs and cost section 16 includes opening costs for a store project.⁹⁵

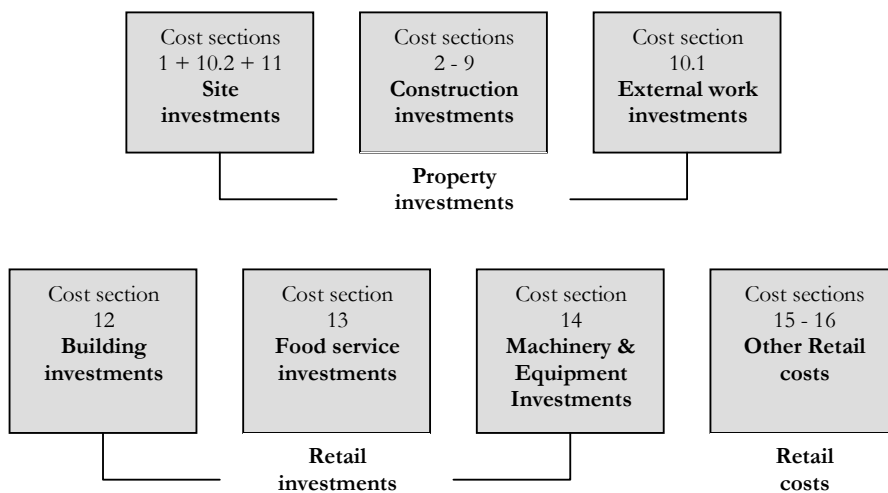


Figure 6.4 The different cost sections for a store project follow

⁹⁴ IKEA Financial Manual (2002)

⁹⁵ Ibid

7 Store projects studied

In this chapter the store projects that have been studied are presented. The store projects are presented with main focus on the accounting routines affecting the store project follow ups in each country.

7.1 Poland - Warsaw North, Targowek⁹⁶

There are seven IKEA stores in Poland. Two of these are situated in the Warsaw region, Janki and Warsaw North. The Service office in Warsaw serves, apart from the stores in Poland, also store projects in other parts of Eastern Europe. They are for example involved in a new store project in Budapest, where they are contributing with their experience and use many local Polish suppliers.

Warsaw is the most important market in Poland for IKEA. In the city there are 700 000 households with more than 2 100 000 people. Earlier there were two existing stores in the centre of Warsaw, Janki and Plattan. The Janki store, which is located in the southeastern part of Warsaw, was remodelled in 2001 and Plattan, the city store, was closed down in October 2001. In order to secure development on the Warsaw market a new store, Warsaw North, was built northeast of the centre. The site location of the new store is attractive with easy road connections from the centre and from many suburbs.

7.1.1 Project description

The Warsaw North store has an area of 23 112 sqm and surrounding the store is 1 377 parking lots to serve the customers. Construction start was in August 2000 and the store was opened in June 2001.

The store project is considered to be a quite successful one. It was finished with total costs below budget and opened within the predicted time span. However, some problems with building permissions in the beginning of the store project resulted in an extended total building time compared to other store projects. The retail part of the construction work was very short, between three to five months. This is considered to be one of the explanations to the low construction costs, since this lowered the number of labour hours and thus the labour costs.

⁹⁶ Interview IKEA Service Office Poland

In all store projects in Poland one main contractor has the main responsibility for all smaller subcontractors. The retail and property departments have one project leader each, working side by side, which was also the case in the Warsaw North project. The budget is generally made by using economic data from old stores, which are then adjusted to the current store conditions.

Suppliers

For the Warsaw North store project approximately 30 per cent of the retail costs, i.e. sections 12 to 14, come from IRE. Moreover, the main part of all invoices is IRE invoices and consequently a lot of work was done booking IRE invoices.

There is one supplier in Poland with close relation to IRE who sells store racking. The racking for the Warsaw North store project was bought directly from the IRE supplier. This reduced the racking costs for the store with approximately 20 per cent. In order to make the purchases directly from the IRE supplier the polish retail department had to pay a fee to IRE. However, the final cost was still lower than buying through IRE. The fee is included in the booked racking costs.

Other local suppliers have no connection to IRE, but many of them have a good relationship with IKEA in Poland and have been used for a number of years in different store projects.

Accounting - The procedure

In Poland legal accounting and internal project reporting are done simultaneously, i.e. a monoistic accounting system, in a program called CODA⁹⁷. This has not always been the case. Earlier the internal project reporting was conducted in a program called SUN parallel with the legal accounting, which was conducted in CODA. However, this could result in differences between the bookings in the two programs, which in turn resulted in many hours of extra work, finding out the source to these differences.

The accounting procedure was thus changed and today both legal accounting and internal project reporting are conducted together in CODA. The section numbers, which follow the specification in the Financial Manual, are the same for both legal accounting and the project cost follow up. Since they are conducted together both legal accounting and the internal project reporting are conducted accordingly to polish law.

According to Polish law, items more expensive than 3 500 PLZ shall be booked as fixed assets. All other items are being booked as operational costs. Consequently all items over 3 500 PLZ are booked in cost section 12 through 14, while other items are booked as operational costs in cost section 15. Furthermore, it is more practical to book things in cost section 15, since items booked there do not have to be followed up and treated as fixed

⁹⁷ CODA: Accounting program used for primary legal accounting by IKEA.

assets. The result is that as many items as possible are booked in cost section 15. Thus, the specification in the Financial Manual is not completely followed for the project cost follow up. When compiling the final project cost follow up the cost section totals of each section are taken directly from CODA. In order to show total figures below budget, some adjustments are sometimes made between subsections. These adjustments do not always correspond to the specification in the Financial Manual. Further more, the legal accounting is done in Polish and hence also the internal reporting.

7.2 Germany - Regensburg⁹⁸

There are 29 IKEA stores and about 8000 employees in IKEA Germany in the year of 2002. This makes Germany the country where IKEA has the most stores. With a build up speed of between two to three new stores a year, the number of stores is also increasing rapidly. Further more, IKEA Germany has, with about 20 per cent of the total sales within IKEA, the highest amount of sales.

Regensburg is located in the region Eastern Bavaria, in which it is the region capital. The city has a population of approximately 135 000 people and 75 000 households and it is situated 120 km north-east of Munich. The IKEA store is situated along the freeway approximately 6 km from the city centre and is very easy to reach. The closest IKEA stores are located in Munich and Fürth. The primary trading area, i.e. where the primary customers come from, for the Regensburg store contains a population of about 584 000 people, and the secondary trading area has a population of 647 000.

7.2.1 Project description

The investment request for a new IKEA store in Regensburg was approved by the board of INGKA Holding on June 6th, 2000. The construction started rapidly after the approval and the store was opened on August 16th, 2001. The IKEA store now has a total store size area of approximately 23 400 sqm and a sales area of approximately 13 700 sqm.

Special about this store project was an electricity wire exactly above the location where the IKEA store was to be built. This wire had to be redrawn around the building site during the construction time and when the store was finished, it was repositioned just above the store. This has made it necessary to have extra computer equipment, e.g. covers, in order to prevent the radiation from the wires to affect them. This has increased the costs for computers in the store.

Generally in Germany the manager of the expansion department is in charge of all new store projects. In every new store project there is also one project leader from the property department and one from the retail department who have the responsibility for their area of competence. It is also the project leaders how are responsible for the budgeting, which they do mainly on experience, in different levels of detail. Furthermore it is the property

⁹⁸ Interview IKEA Service Office Germany

department, not the retail department, who is responsible for the budget of cost section 12. There is no main contractor for the property part of the store project. It is the property project leader who is responsible for all subcontractors. For the responsibility of the coordination between the different subcontractors he pays an external architect.

Suppliers

For the Regensburg project, the estimated percentage of costs coming from IRE for cost sections 12 to 14 is 40 per cent. The number of so called frequent external suppliers, i.e. suppliers used in more than one project, was 30 and approximately 25 per cent of the total purchases in the Regensburg store project was conducted with these suppliers. The rest was bought from smaller local distributors.

Some items had to be bought from IRE in order to establish the IKEA concept in the store. Generally IRE is considered to be expensive but easy to do business with. There are also some major external suppliers that IKEA Germany has to make their purchases from because of different country agreements. These suppliers are often much more expensive than smaller local suppliers. Examples of suppliers who fall under this category are Hewlett Packard, from whom IKEA must buy their printers, and DeTeWe, who is the supplier of the telephone system.

Accounting – The procedure

The legal accounting is entered directly into CODA as the store project is proceeding. The account numbers for the legal accounting are not the same as those for the project cost follow up specified in the Financial Manual. Instead, a built-in function in CODA makes it possible to build groups of legal account numbers which are then connected to the different subsections in the project cost follow up. In this way the project cost follow up derives from the legal accounting in CODA and it is also, during the store project, possible to retrieve a preliminary project cost follow up. Hence, IKEA Germany also uses a monoistic accounting system.

The limit for fixed assets in Germany is 410 EUR. According to German law, all items below 410 EUR are considered operational costs and should therefore not be booked as fixed assets. In the legal accounting system, CODA, costs for these items are booked under accounts for operational costs together with salary costs, rental costs, etc. This means that operational costs in the CODA-system consists of a mixture of bookings that, in the project cost follow up, belong to cost sections 12, 13, 14 and 15. In the end of the project, a controller must manually go through all the operational costs in CODA and assign the bookings to the right subsection in the project cost follow up. For items considered as fixed assets the procedure is easier as these costs, after being grouped as explained earlier, are withdrawn automatically from CODA into the project cost follow up with the help of a computer program.

The project cost follow up for retail costs in Germany is done by controllers in the retail department and for property costs by people in the property department. When the project cost follow up is made, the project leader is always present as he is the one who has the best knowledge of the store project and is the one who has signed all the invoices. Traditionally in Germany, cost section 12 is the responsibility of the property department, even though the investments belong to retail. The reason is that bookings in cost section 12 contain mainly building investments inside the store and the property department is considered to have a better knowledge of this.

In 2001 there was a change of routines, when some investments which traditionally had been booked as property investments were to be put in cost section 14. This change was carried out after the Regensburg store project and hence some investments that were supposed to be booked in cost section 14 were put in cost sections 2-11, i.e. as property investments. Among other things this included investments for loudspeaker system, telephone system, burglar alarm and IKEA logos, which are quite large investments. The change also influenced cost section 12 in the project cost follow up and what was supposed to be booked there. For the Regensburg store project the specification was not followed at all concerning cost section 12. All investments that are supposed to be booked there were booked as property investments. The reason for this was that investments belonging to cost section 12 were included in property construction investments and it was impossible to extract these from the lump sum invoices from the contractors. The only things that have been located in cost section 12 is some lighting, section dividers, costs for external consulting and a washing table. Investments for items that are supposed to be located in cost section 12, like floors and walls, are located in cost section 4 together with other construction works.

7.3 The United Kingdom - Glasgow⁹⁹

IKEA in the UK has 5 600 coworkers and 11 stores located all over the country, one of which has the biggest turnover of IKEA stores in the world. During the coming years the aspiration is to expand with approximately three new stores each year. However, the government is very restrictive on giving planning permission for new stores, which makes it hard to realize the expansion aspirations. The concept of IKEA is to have big stores outside town centres with easy connections to the main roads. The restrictive approach by the government derives mainly from a desire to keep the city centres alive by trying to avoid big shopping centres outside the city centres. The restrictive approach from the government also originates from environmental issues. By placing the stores in the city centre less traffic and thereby decreases in emissions are accomplished.

7.3.1 Project description

The Glasgow store, which opened in August 23rd, 2001, has a gross area of 29 000 sqm. It is located in an area with many other retailers. Adjoining the IKEA store is a new shopping

⁹⁹ Interview IKEA Service Office UK

centre with a total area of 60 000 sqm. The area attracts up to 320 000 visitors each week and there is a parking lot with over 7000 spaces and a large bus terminal supporting the area.

As explained earlier, it is not easy to get planning permission from the government, and this was also the case for the Glasgow store project. The store project had to be divided into two phases, as IKEA did not receive a planning permission for the whole warehouse area in the store. However, after construction had started, the government also permitted the rest of the planned warehouse area.

The Glasgow store project can be considered as the takeoff for a new way of working with new store projects in the UK. In the previous new store project in Edinburgh, there were dissatisfactions with technical solutions and finishes as well as insufficient planning. Consequently it became obvious that something had to be done in order to ensure a higher quality and a better follow up in store projects. To accomplish this, a template that shows all fittings and fixtures to be purchased for a new IKEA store was developed. The template is to be used during the planning phase as well as during the construction phase of a new store and will help project leaders in their work of planning and conducting a new store project in terms of both budgeting and project cost follow up.

Suppliers

In the Glasgow project retail fittings purchased from IRE correspond to about 25 per cent of the total costs in cost sections 12 to 14. Mainly all fittings were purchased from IRE, apart from the warehouse racking which was purchased from a local supplier through IRE. The general opinion of IRE is good in the UK and they try to purchase as much as possible from them. However, when new things are being introduced in the IRE range it is often a bit expensive and not so well developed.

External suppliers have also been used in the Glasgow store project. These are often suppliers that are used for many store projects. The reason is that these suppliers often know the IKEA store structure and installation procedures, resulting in lower installation costs and the ability to set a fixed price on the work. Examples of long term suppliers are those selling cash registers and tube systems¹⁰⁰. Different suppliers are always consulted in the planning phase of a store project in order to get the best price but since longterm suppliers often are able to set a lower fixed price than new suppliers, they are also often chosen.

Accounting – The procedure

In the UK, the system for legal accounting as well as internal reporting is the CODA system. When making a booking in CODA, the store number, project number, legal account number, cost centre and the project follow up cost section number are entered. The cost sections correspond to the ones specified in the Financial Manual. In this way both legal

¹⁰⁰ Tube system: The link, transporting money from the cash registers to the valve.

accounting and internal reporting is conducted at the same time without any direct connection, i.e. a monoistic accounting system.

In the UK it is, in great extent, up to a company how they want to book their investments and costs. There is no law regulating which items should be booked as fixed assets or which can be booked as operational costs. However, according to guidelines from the authorities, items booked as fixed assets should be durable for at least five years and have a value of more than 1000 GBP. Today IKEA in the UK books as much as possible as fixed assets by tradition, but they are getting pressure from IKEA Sweden to book more costs as operational.

As mentioned previously a new way of working with new store projects was introduced in the Glasgow store project. Much of the planning and the continuous work of the store project were conducted with the help of a template. The template shows among other things all items needed to fit out a store, the quantity of items, unit price for the budget, order date and who is responsible for the ordering, cost centre and cost sections, check list if the item has been ordered and the preliminary costs as well as if the invoice has arrived and been paid for. By using this template the budget will be easier accomplished as well as more accurate. The use of the template will also make it possible to have a day-to-day update of the project, with the total amount of money that have been spent on each subsection, the total sum of invoices paid and the amount for items ordered. The project cost follow up is therefore much easier controlled and when the project is finished the project cost follow up is completed.

7.4 The Unites States – Washington relocation¹⁰¹

There are 24 IKEA stores in North America in 2002. 15 stores are located in the United States and 9 in Canada. These stores are run by internal as well as three external franchisers. An expansion of approximately 9 new stores is planned this year and in ten years 50 new stores are planned to open. Local regulations can put the building plans on hold on some sites, but this it not considered as a problem since IKEA has so many other sites to build on. Sooner or later building permission for the other sites while be approved.

In 1998 the Washington region had a population of approximately 2 270 000 and the population is forecasted to increase to 2 404 000 by the year of 2003. The strongest increase will come from families with children, which continues to be IKEA's priority. The closest IKEA stores are located in Baltimore and Philadelphia.

7.4.1 Project description

The Washington store was relocated in 2001. The reason for the relocation was a potential growth, 50 per cent sales growth over the last three years, in spite of the disadvantage of a poor location of the old store. The old store was opened in 1986 and was a one-store

¹⁰¹ Interview IKEA Service Office US, Washington

building with approximately 14 800 sqm. It was only possible to distribute a selected range of products.

The investment request for a new IKEA store in Washington was approved by the board of INGKA Holding on June 6th, 2000. Construction start was in September the same year and the store was opened on November 28th, 2001. The store has a gross area of 27 973 sqm.

Some items were taken from the old store to be reused in the new store. Since the two stores were located in the same state this was rather easy. If the stores had been situated in different states, the procedure would have been much more complicated, since IKEA stores in different states are considered to belong to different companies. As mentioned before, the old store was built in 1986 and thus the fittings and equipment in this store were rather used and old. Therefore, it was not many items that were reused in the new store. Consequently, the costs for the store project were not reduced in a notable way.

The Washington store project was a bit delayed. One reason for this was an abnormal amount of rain days during the construction period. Furthermore there was a government recall of the entire sprinkler system, the warehouse concrete flooring had to be repoured and the racking had to be installed a second time.

Suppliers

Everything that could be purchased from IRE for the store project was purchased from there. IRE recently opened an office in North America and they are considered to have reasonable prices and good service. Approximately 30 per cent of the costs in cost sections 12 and 14 come from IRE.

Other big suppliers used in the store project were Dell and MUSAC. Dell was delivering all computers to the new store and MUSAC is a company in the US, delivering music.

Accounting – The procedure

In the US only the CODA system is used for the accounting. The legal accounting is first conducted and thereafter information from CODA is extracted to an Excel sheet in order to be further transferred into a project cost follow up. Items, with exception for computers, with costs below 1 000 USD are to be considered as operational costs. Computers can be considered as fixed assets even with costs below 1 000 USD. The reason for this is that the total investment in IT is large and it would be misleading if these costs were booked as operational costs.

According to US law items booked as fixed assets in legal accounting must be booked as investments in the internal reporting, i.e. the project cost follow up. Thus, all items booked as operational costs in the legal accounting has been put as operational costs in cost section 15 in the project cost follow up. In many cases this contradicts the specification in the

7 Store projects studied

Financial Manual. Some items are by tradition booked in cost section 14 that should belong in cost section 15, including rental equipment, waste disposal, and maintenance.

As the Washington relocation project was the second new store project in ten years in North America people involved in the store development process were not very familiar with the different IKEA procedures. This resulted in difficulties getting accounting and project cost follow ups correct. Wrongbookings resulted in many hours of unnecessary extra work. Therefore the procedures are now reviewed in order to make improvements for the future.

8 Store projects analysis

The main focus of this chapter is to in detail discuss the differences between the various store projects in the four countries studied. The analysis will foremost correspond to the task given by IKEA in the beginning of the research.

8.1 Introduction

As mentioned above the analysis in this chapter will focus on the differences between the store projects studied, which corresponds to the task given by IKEA, where the following actions were included:

- Verification of the reconciliation between the legal and the internal reporting (Project Follow Up/FPU).
- Check if the definitions for operational reporting are followed and suggest improvements.
- Comparison between the selected store projects with a specific report of all deviations. Suggest improvements.
- Conclusions and action plan.

This chapter will answer the first, the second and partly the third note in the list above. The analysis regarding the action plan in chapter 9 will describe improvements and action plan. In the process of trying to make the store projects studied in this Master Thesis comparable, the analysis will focus on the main deviations from the specification and why these deviations exist. This will then make a better understanding as to why the different store projects show very different amounts for the retail investments, see table 8.1 below.

	Costs section 12	Costs section 14	Total (12 & 14)	Total per Gr.A
Poland	591 ' EUR	1 664 ' EUR	2 255 ' EUR	96.0 EUR
Germany	531 ' EUR	2 757 ' EUR	3 288 ' EUR	148.1 EUR
UK	1 042 ' EUR	3 892 ' EUR	4 934 ' EUR	170.0 EUR
US	1 310 ' EUR	3 532 ' EUR	4 842 ' EUR	173.1 EUR

Tabel 8.1 Overview of original Retail costs (Section 12 and 14)

8.2 Analysis model

This part of the analysis follows a model illustrated in picture 8.1 below, which is built up of certain key steps. The model also serves as a guide for the layout of this chapter and is therefore presented here and not in the Research method chapter.

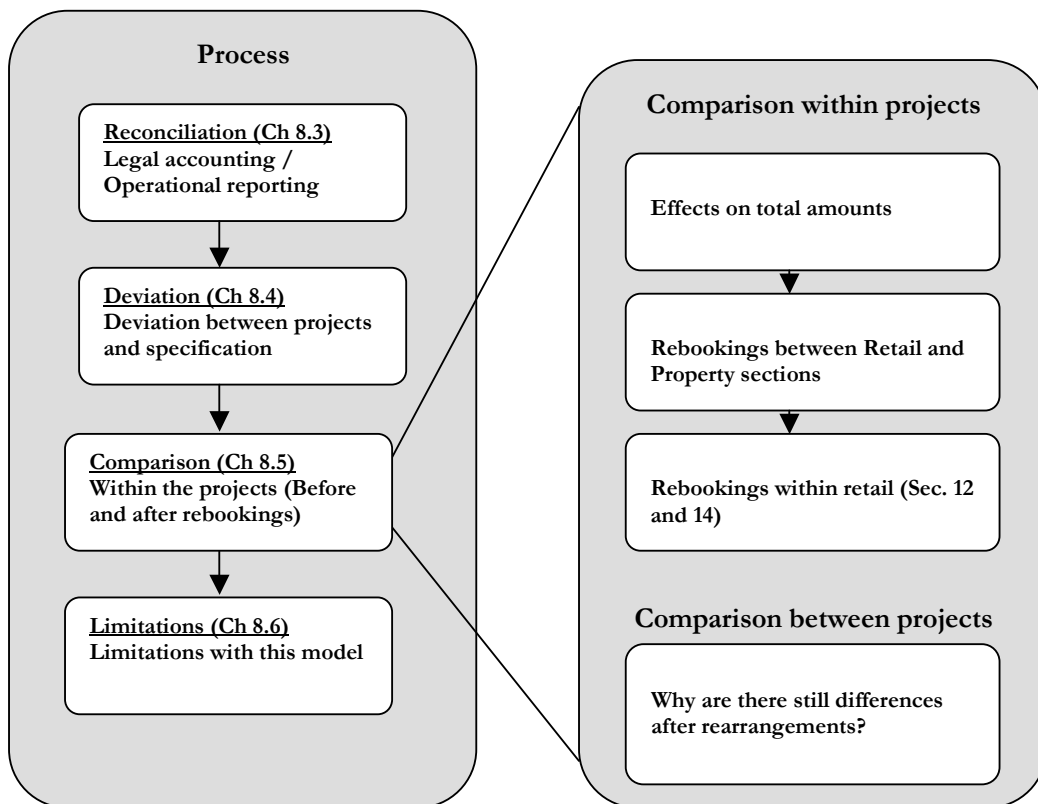
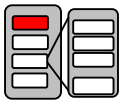


Figure 8.1 The analyse model of this chapter.

The first step is to establish and define the relationship between the legal accounting, controlled by specific laws in each country, and the project cost follow up, which is a part of the IKEA internal accounting. As explained in the empiricism, IKEA in all countries studied has some form of monoistic accounting system which means that the legal accounting often has some effect on the project cost follow up. Once this is established it becomes interesting to analyse how well the different store projects internal reporting agrees with the specification in IKEA's Financial Manual. The different bookings are then rearranged to better comprehend with the specification. However, some deviations, due to different levels of detail and large invoices where the costs are impossible to divide between subsections, have been necessary in order to make a better comparison. The total sums before and after

the rebookings are then compared in order to see how big impact the rebookings has had on the different project cost follow ups.

8.3 Reconciliation between legal accounting and operational reporting



The first important step is to assure that the internal reporting only contains bookings that, according to IKEA routines, are supposed to be there. Taxes and depreciation are not supposed to be taken into account in the project cost follow up. This is followed in all the store projects studied.

The next step is to examine to what extent the legal accounting influences the internal reporting in the different countries. As described in the empiricism, the accounting procedure is very different in the different countries, and this has a great effect on the comparison between the store projects. All the IKEA countries studied have various forms of monoistic accounting systems. These systems makes the accounting procedure easier, but the disadvantage is that in the process of simplifying the system, important differences between the legal and internal accounting can easily be neglected. Another disadvantage with a monoistic accounting system is that different languages in different countries will be used in the internal reporting. Even if the company language is English, in a monoistic accounting system the internal reporting often follows the legal accounting and is thereby in the country language.

One of the most obvious differences between the countries, when looking at the reconciliation between the legal accounting and the internal reporting, is how operational costs versus fixed assets are viewed upon. Costs below a certain value must be booked as operational costs in the legal accounting and in many cases this also reflects on the internal reporting. Table 8.2 below shows a summary of the amounts of what is to be considered operational cost instead of fixed asset according to regulations by the authorities in each country.

	Domestic currency	EUR
Poland	3 500 PLZ	785 EUR
Germany	410 EUR	410 EUR
UK	1 000 GBP (Durable > 5 years) Guidelines by authorities	1 585 EUR
US	1 000 USD	1 022 EUR

Table 8.2 Summary of highest amounts for costs to be booked as operational costs

The table above shows great inconsistencies between how the different store projects are suppose to book costs in the legal accounting system according to various laws and regulations in the countries. While Germany has regulated by the law that everything above 410 EUR must be considered fixed asset, UK has guidelines that everything above 1 585 EUR should be booked as fixed asset. The UK amount is more than three times the German

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amount, but at the same time the German amount is regulated by law and the UK amount is only a guideline by the authorities.

More important though, is to look at how the different countries work with these regulations in their internal reporting, i.e. how big influence the legal accounting has on the internal reporting. Table 8.3 shows a summary of each country.

Poland	IKEA Poland consequently books all costs below 3 500 PLZ (785 EUR) as operational costs i.e. under section 15 in the internal reporting.
Germany	IKEA Germany books costs below 410 EUR as operational costs directly into the CODA-system and at the end of the store project a controller assigns costs to the correct section in the internal reporting.
UK	IKEA UK books by tradition many costs as fixed assets in both legal and internal reporting, even if they could be considered as operational costs according to the guidelines by the authorities. Thus, many costs are put in section 12 and 14 instead of 15 in the internal reporting. Examples are IKEA-pencils & measuring tapes and price tags.
US	IKEA US books their costs in the operational reporting according to regulations by the authorities. However, IT costs below 1000 USD are booked in section 14 (i.e. not as operational costs in section 15 in the internal reporting), because IT costs are immense and the result would otherwise be misleading.

Table 8.3 Summary of the countries approach to operational costs and fixed assets

Summary

According to table 8.1 IKEA Poland has very low costs in cost sections 12 and 14. One reason for this can be that IKEA Poland books many costs as operational costs in cost section 15, as they follow the government regulations in their internal reporting. As a result of the monoistic accounting system, the internal reporting is kept in Polish, which makes it very hard for a foreigner to understand.

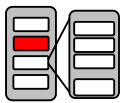
As IKEA Germany manually assigns operational costs, from the legal accounting, to the cost sections in the internal reporting after the store project is finished, it is possible that the controller misses some bookings. There are as much as 10 000 different bookings that are booked as operational cost, so it is a huge task. The German accounting system for IKEA is also monoistic, whereas the same language problem as with Poland arises.

IKEA UK, who has quite high retail investment costs, books by tradition very few costs as operational. The result is that many costs are booked in cost sections 12 and 14 instead of in cost section 15, making the section total amounts higher in these accounts.

IKEA US, as in the case of IKEA Poland, also follows the government regulations for fixed assets in their internal reporting, but excludes IT costs as these costs are very high and would be misleading.

IKEA must follow the specific laws in each country, but the internal reporting should not be influenced by these laws and regulations. To be able to compare figures between IKEA store projects, the monoistic accounting system in each country must be build up in a way that it can take into consideration both IKEA regulations and country laws. Costs must be booked correctly in both the legal accounting system and the internal reporting system without having to book each cost twice, i.e. without applying a dualistic accounting system.

8.4 Deviations from the specification



How well IKEA in the different countries follow the specification varies very much. The experience of working with the specification is also very different in the various countries. IKEA US has only had two new store projects in the last 10 years and the organisation does not have the same routines when it comes to store project cost follow ups. Germany and the UK, on the other hand, have had a lot of practice of the project cost follow up. However, they sometimes make deviations from the specification deliberately in order to focus on different things they want to study closer. One example of this is the Glasgow store project, where IKEA UK wanted to see how much all the lighting in the store cost. They have therefore put almost all lighting in wrong cost sections. This has great effect on the possibility to compare different store projects with each other, since the total cost section amounts in different countries do not show the same thing. It must be possible to focus on different things without making deviations from the specification.

The deviations from the specification (amounts above 5000 EUR) are presented below, country by country, and can be seen in table 8.4, 8.5, 8.6 and 8.7.

IKEA Poland

Poland follows the specification quite well. The main deviations are those mentioned in chapter 8.3 above, i.e. items booked in cost section 15 that should be booked in cost sections 12 or 14. However, a problem is that IKEA Poland sometimes adjusts the total cost section sums by rebooking some costs wrongly at the end of the store project in order to better agree with the budget. Another problem is that the internal reporting is in Polish, so to be able to use a Polish project cost follow up, someone has to translate the bookings into English. This is a very time consuming task and the result will be that only the main headlines are translated. To avoid this, the internal reporting must be in English.

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Item	Item Cost (EUR)	Poland booking	According to specification
Ceiling restaurant	7 715	12.1	13
Billboard lighting	10 750	12.6	12.1
Cart and trolley bays	13 023	12.6	14.32
Customer guidance	15 857	14.2	14.31
Shelving activity area	5 917	14.4	14.13
Night safe	6 390	14.51	14.58
Recycling bins	8 939	14.59	14.4
Server	13 470	14.59	14.54
Store design	34 666	12.62	15

Table 8.4 Items (amount > 5000 EUR) not booked according to the specification

IKEA Germany

In IKEA Germany cost section 12 is property responsibility, as can be read in the empiricism. This has had the effect that cost section 12 is not handled according to the specification. For the Regensburg store project, there are only 9 different bookings (lump sums) in cost section 12. It says nothing about what is really behind the figures and it does not contain, for example, any floors. In this Master Thesis, cost section 12 for Regensburg will not be further analysed, as it is impossible to analyse in a greater extent.

Cost section 14 follows the specification much better than cost section 12. However, as can be seen in table 8.5, there are some significant costs that are wrongly booked.

Item	Item Cost (EUR)	German booking	According to specification
Spotlights	5 360	14.31	12.1
Walls	52 237	14.11	12.3
Stands and bins	43 916	14.31	14.12
Strollers	33 273	14.31	14.32
Computers, printers etc	68 814	14.54	14.55
Safe	12 374	14.51	14.58

Table 8.5 Items (amount > 5000 EUR) not booked according to the specification

IKEA UK

The UK has a very high knowledge of the specification and how to book costs correctly. However, in the Glasgow store project, large amounts have still been booked wrongly with aspect to the specification. IKEA UK wanted to study the lighting costs for the Glasgow store specifically and large amounts for tube lights and other lighting are therefore booked in cost section 12 instead of in the property cost sections as well as in cost section 14 instead of cost section 12, i.e. not according to the specification. Another deviation from the specification is that IKEA UK books computer costs wrongly. What is supposed to be booked in cost section 14.54 is booked in cost section 14.55 and vice versa.

Item	Item Cost (EUR)	UK booking	According to specification
Ceiling grid bistro	9 726	12.1	13
Tube lights	99 306	12.1	Prop
Spotlights	46 434	14.11	12.1
Spotlights	41 116	14.12	12.1
Toolboxes	5 821	14.12	14.2
Room dividers	6 113	14.31	12.3
Cycle rack	17 565	14.31	Prop
Strollers	5 385	14.32	14.31
Wheelchairs	7 044	14.32	14.31
Nixdorf equipment	45 651	14.51	13
Light projector	5 095	14.55	14.52
Customer counting system	10 144	14.58	14.31
Satellite system (radio)	6 023	14.59	14.31
Computer costs	147 514	14.55	14.54
Computer costs	163 753	14.54	14.55

Table 8.6 Items (amount > 5000 EUR) not booked according to the specification

IKEA US

IKEA US has many deviations from the specification. They are aware of that they do not have an organisation that has the routines and the full understanding of the specification as they have not built many new stores during the last years. As can be seen in table 8.7 below, many items have been wrongly booked.

Item	Item Cost (EUR)	US booking	According to specification
Lift rental	9 822	14.59	15
Lighting	99 401	14.11	12.1
Tube lights	40 547	14.12	Prop
Grid ceiling (MP, SR)	64 935	14.31	12.1
Lighting in rack (SS)	8 545	14.4	12.1
Windows	8 701	14.13	12.3
Partician walls	7 799	14.32	12.3
Moulding (SR)	7 435	12.1	14.11
Shelves etc. (Childrens SR)	10 291	14.31	14.11
Podium (SR)	6 104	14.4	14.11
Shelving (MH)	157 155	12.1, 14.13, 14.31 and 14.32	14.12
Rug display items	9 859	14.32	14.12
Strollers	9 985	12.1	14.31
Signs	49 261	12.6	14.31
Comment box	7 760	12.6	14.31
Plywood panel	13 393	12.6	14.31
Info tower	5 356	14.11	14.31
Sign holder & Beam cover	12 034	14.32	14.31
Price tag info, sign holder	64 354	14.4	14.31

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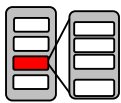
Customer counter	13 667	14.51	14.31
Music system	88 046	14.53	14.31
Shopping and furniture cart	87 239	12.1	14.32
Pallet mesh	10 128	14.12 and 14.32	14.4
Hand trucks	5 209	14.12	14.4
Shelving (SS)	13 320	14.32	14.4
Lockers for staff	16 681	14.12	14.52
Printers	10 859	14.51 and 14.59	14.55
Pager system	10 670	14.31	14.56
Cable for wireless phone system	23 204	14.54	14.56
Store phone system	235 294	14.57	14.56
Security camera system	169 757	14.53	14.58
Tube lights	128 370	12.1	Prop
Bathroom ceramic tile	19 088	12.1	Prop
Rail parking level entrance	8 990	12.1	Prop

Table 8.7 Items (amount > 5000 EUR) not booked according to the specification

Summary

The understanding of the project cost follow up, as a tool to find good and bad solutions, must be communicated to the people responsible for the internal reporting in all IKEA countries. Huge wrongbookings will keep occurring as long as there is a lack in this understanding. It is also important that the internal reporting is in English in all IKEA countries. Otherwise it is impossible to conduct detailed analysis from the information sent from store projects in various countries. Furthermore, in order to achieve comparable project cost follow ups from every country the internal reporting must be constructed in a way that it is possible to focus on different costs without having to make deliberate deviations from the specification (as in the case with UK). The specification must also be easy to follow and to understand. This is especially important for IKEA in countries that do not expand very fast and therefore do not work continuously with the specification.

8.5 Comparison



To be able to compare the store projects studied, the figures and amounts have to be rearranged according to the specification. In the comparison below, the main focus will be to analyse how big the deviations are between the specification issued by IKEA and the actual internal reporting in the different store projects. An important limitation for this analysis is that only cost sections 12 and 14 have been studied, which has the consequence that bookings wrongly put in other cost sections that are supposed to be in 12 and 14 are not taken into consideration. Some information regarding bookings in other cost sections that are supposed to be in cost section 12 and 14 exists, but the information is not complete and this information has not been possible to get from all store projects.

8.5.1 Settings for the comparison

For the comparison between the store projects, a currency must be chosen and a suitable key measure must be used. The obvious currency is euro, as this is the currency used within IKEA. However, a problem lies in defining the exchange rates to be used. Exchange rates differ from day to day, and the workload to find the correct exchange rate for each booking is immense. There are different approaches to this problem and, as already mentioned in the research method chapter in this Master Thesis, exchange rates defined by IKEA has been used. IKEA has fixed annual exchange rates for transactions between different IKEA countries, and as all of the store projects studied had their main construction time in 2001, the exchange rate for that year has been chosen. However, there are some disadvantages to this approach. The main disadvantage is that every cost is not translated to euro with its correct exchange rate and hence it is not the exact correct amounts that are studied. But as the analysis focus is on trends rather than exact amounts, this simplification is motivated.

To be able to compare the store projects with each other even though they have different sizes, a key measure must be used. In this comparison the key measure will be:

Euro/Store gross area

Cost section 12 and 14 are retail cost sections for machinery investments and equipment and fittings investments in the store and therefore a key measure for the whole store is used. Another possibility could be to only use the store sales area (showroom sales area, market hall sales area, self-serve area including activity areas). The difference between these two key measures in the case of this study is negligible, which is shown in table 8.8 below where the sales area for the different stores are shown in percentage of the store gross area.

	Store gross area	Sales area	Sales area / Gross area
Poland	23 480	12 818	55 %
Germany	22 195	12 855	58 %
UK	29 030	16 030	55 %
US	27 973	15 736	56 %

Table 8.8 The different store project areas in sqm.

8.5.2 Effect of proposed rebookings on cost section total amounts

In the table 8.9 below the total amount of proposed rebookings is shown in two columns. The first column only includes rebookings done from the original store project internal reportings concerning cost sections 12 and 14. This includes all rebookings between cost section 12 and cost section 14, bookings from cost section 12 to cost section 1-11 or 15 and rebookings from cost section 14 to cost section 1-11 or 15. However, rebookings from cost section 1-11, 13 and 15-16 are not being included.

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However, the third column also includes some rebookings from cost section 15 to 14 for Poland and from Property cost sections (1-11) to cost section 12 and 14 for Germany. In Poland, Agnieszka Antzak manually retrieved these costs and in Germany Harald Hahn presented a report, showing that IKEA Germany has booked some costs wrongly for all store projects (including the Regensburg project). However, as the same information has not been possible to get from all store projects these costs are shown in a separate column.

	Proposed rebookings (exl. bookings from 1-11, 13 and 15-16)	In % of the total costs (12 & 14)	Proposed total rebookings (To our knowledge)	In % of the total costs (12 & 14)
Poland	140 000 EUR	6.2	290 000 EUR	12.9
Germany	280 000 EUR	8.5	900 000 EUR	27.4
UK	730 000 EUR	14.5	730 000 EUR	14.5
US	1 640 000 EUR	33.4	1 640 000 EUR	33.4

Table 8.9 Total amounts of proposed rebookings

The rebookings in table 8.9 look immense, but when looking at cost section 12 and 14 before and after the rearrangement of the figures, in table 8.10 below, the effect is not very big. The reason for this is that the main part of the total amount of proposed rebookings are rebookings within cost section 12 and 14. The rest of the costs that are rebooked counter-balance each other, i.e. approximately the same amount is transferred to and from each cost section.

Section		Poland	Germany	UK	US
12	Original bookings	25,17	23,94	35,9	46,84
	After proposed rebookings	24,04	(23,94)	33,66	41,17
	After proposed rebookings (to our knowledge)	-	25,37	-	-
14	Original bookings	70,87	124,21	137,87	128,91
	After proposed rebookings	71,65	120,61	131,70	128,27
	After proposed rebookings (to our knowledge)	77,79	147,62	-	-

Table 8.10 Amounts before and after proposed rebookings (Euro/Gross Area)

This shows a great danger! "On the surface" the total amount of each cost section seems to be correct but when looking closer at what each cost section really contains, the differences are immense. As long as this is the case, comparisons between different store projects will not be possible.

8.5.3 Rebookings between different cost sections

After having analysed the data on an aggregated level, it is interesting to study the result of the proposed rebookings on a more detailed level. In this chapter the proposed rebookings between the different cost sections will be closer studied. The analysis is done country by country and for each country a table is presented. The tables show how big amounts, originally booked in the different cost sections (Y-axis) that have been rebooked to other cost sections (X-axis). For example, when looking at table 8.11, 1 200 EUR was originally booked in cost section 14 and is rebooked in cost section 12.

Poland

As can be seen in table 8.11 the greatest rebookings are done from cost section 15 to 14 (which is explained in chapter 8.5.2). Except for this the main part of the total rebookings is within cost section 14. The adjustments made after the store project to make the project cost follow up better in line with the budget in Poland is probably one of the reasons for the rebookings seen in table 8.11.

Booked in section Property	Property	Rebooked in section (proposed booking)			
		12	13	14	15
12		10 800	7 800	20 700	35 200
13					
14		1 200		70 000	
15				144 200	

Table 8.11 Rebookings between sections for the Warsaw North project (EUR)

Germany

As explained earlier, cost section 12 for the Regensburg store project has not been analysed. The amounts rebooked to cost sections 12 and 14 from property cost sections are the costs incorrectly booked in all store projects in Germany (including the Regensburg store project). Proposed rebookings for the Regensburg store project can be seen in table 8.12.

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Booked in section	Property	Rebooked in section (proposed booking)			
		12	13	14	15
Property					
12		31 700		591 500	
13					
14		79 900		197 500	
15					

Table 8.12 Rebookings between sections for the Regensburg project (EUR)

UK

The costs rebooked from cost section 12 to property and from cost section 14 to 12 shown in table 8.13 below is mainly lighting costs. As can be read in the empiricism, IKEA UK wanted to study lighting costs specifically and thereby deliberately booked lighting costs wrongly and the result of this can be seen in the table above. The costs rebooked within cost section 14 are the cause of misinterpreting the specification. IKEA UK booked costs that belonged to subsection 14.54 in 14.55 and vice versa. As both these subsections contain computer costs, the amount is very high.

Booked in section	Property	Rebooked in section (proposed booking)			
		12	13	14	15
Property					
12	157 400		9 700		
13					
14	23 700	102 100	53 300	311 300	
15					

Table 8.13 Rebookings between sections for the Glasgow project (EUR)

US

As can be seen in table 8.14, IKEA US has booked many costs wrongly between all cost sections. Just as the other countries, IKEA US has a high level of costs rebooked within cost section 14. The main part of these costs is represented by a few wrongbookings containing high amounts, e.g. store phone system, security camera system, tubelights and shelving.

Booked in section	Property	Rebooked in section (proposed booking)			
		12	13	14	15
Property					
12	156 400	51 400	700	241 600	
13					
14	40 500	200 800	1 300	934 400	10 700
15					

Table 8.14 Rebookings between sections for the Washington project (EUR)

8.5.4 Reasons for still existing differences between the projects

Even though many rebookings has been done, differences still exists and the project follow ups are not entirely comparable. The main reason for this is that the only cost sections studied has been cost sections 12 and 14. Hence costs wrongly booked in other cost sections are missed. To be able to compare the store projects with each other, all cost sections must be thoroughly studied.

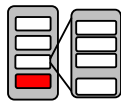
8.6 Summary

The task to make the figures in the four store projects studied in this Master Thesis comparable has been a great workload. However, this analysis has made clear the following main reasons as to why the different project cost follow ups differ so much in the various countries:

- The legal accounting system influences the internal reporting system, e.g. regarding fixed assets and operational costs and the language in which the accounting is done.
- Adjustments are sometimes made after the store project is finished in order to better correspond to the budget.
- The project cost follow up is too inflexible. In order to closer study the costs of a specific item, deliberate deviations from the specification has been made.
- The specification can sometimes be difficult to interpret. The logic, which it is built on, is clear but not communicated through the organisation.

In the next chapter, actions necessary to take in order to get comparable project cost follow ups in all IKEA store projects are discussed.

8.7 Limitations with this model



The main limitation that has been discussed several times in this chapter is that only cost section 12 and 14 have been studied. Therefore, important bookings in other cost sections that are supposed to be booked in cost sections 12 and 14 are not taken into account and this is one of the main reason as to why the figures still are not comparable (see chapter 8.5.4).

9 Action plan

This chapter will start by summarising the facts collected in the store projects studied. From shortcomings found in these, three main actions for improvement are developed. Finally, the analysis considers how the actions developed affect internal benchmarking in the case of IKEA.

9.1 Introduction

In the previous chapter the four specific store projects were analysed in detail. The analysis will now continue by focusing on actions for improvements in order to avoid the problems seen in the previous chapter in the future. The aim is to facilitate the analysis of deviations between different store projects. Hence, the analysis in this chapter will discuss how to improve the project cost follow up and how this can create an appropriate framework for continuous improvements in the store development process by using internal benchmarking. As mentioned above the analysis will start by summarising the facts collected in the store projects studied. From shortcomings found in the store projects, main factors for improvement are highlighted and further analysed. These factors are then taken into account in the action plan built up of three main cornerstones. How these corner stones of improvement actions affect internal benchmarking in the case of IKEA will finally be analysed.

9.2 Summary of the cases studied

In table 9.1 below facts from the four store projects are summarised. The aim is to highlight shortcomings in different areas in order to develop actions that can improve the project cost follow up and its process. The idea is that this in turn can facilitate in making an adequate framework for continuous improvements in the store development process through internal benchmarking.

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	Poland	Germany	UK	US
Understanding of the cost follow up	Do not see the full use of the project cost follow up. It is more important to show section total amounts which are below budget.	IKEA Germany tends to focus on IKEA Germany and not IKEA world wide. Due to differences in the budgeting, it can be difficult to have comparable project cost follow ups.	In projects prior to the Glasgow project, the understanding was poor. This also resulted in poor performance. However, big improvements were achieved in the Glasgow project.	Due to few new store projects IKEA US has a lack of experience. The work procedure and understanding of the full use of the cost follow up is not ok.
Purchasing from IRE	IRE is considered expensive. About 30% of the costs in section 12 to 14 derive from IRE. However, a big part of invoices come from IRE.	IRE is considered expensive but easy to buy from. About 40% of the costs in section 12 to 14 derive from IRE.	IRE is well considered and have reasonable prices. Use IRE as much as possible. About 25 % of costs in section 12 to 14 come from IRE.	IRE is used as much as possible and considered as cheap and reliable. About 30 % of costs in section 12 and 14 come from IRE.
Accounting procedure	The project cost follow up is done by taking totals in legal accounting, i.e. legal accounting and project cost follow up are done together and influence each other.	The project cost follow up is extracted from the legal accounting. This is done partly automatically and partly manually.	Continuously, both the project cost follow up and the legal accounting are done parallel. It is possible to check the money spent during the store project.	Legal accounting is done in CODA. The project cost follow up is extracted from the legal accounting. Mainly manual work.
Following the specification	The specification is known rather well and the aspiration is to follow it. However, a number of items are booked as operational costs in section 15 that should belong under section 12 or 14. Some items are also booked wrongly as property costs. Most wrongbookings are deliberate, due to legal or practical reasons.	The specification is known and the aspiration is to follow it. However this is not done completely. Section 12 is completely abused. However, improvements have been done after the Regensburg store project.	The specification is known well and the aspiration is to follow it. The Glasgow store project was a test project for a new way of working with planning and project cost follow up. The specification has been followed as far as possible. However, costs have deliberately been booked wrongly, in order to analyse their costs.	The specification is known and the aspiration is to follow it. However, due to poor experience it is not entirely followed.
Project planning/budget	The budget is built on previous store projects in Poland. They use the total sums and transform them to fit the new store. There is no standard procedure to do this.	Project leaders do as they think is best. There is no standard procedure. Different levels of detail depending on the project leader.	In the Glasgow project the planning and budgeting procedure were done thoroughly with the goal to develop a useful tool during the store project and a correct project cost follow up.	N/A

Table 9.1 Summary of important project facts

Understanding: When looking at the cases studied, it is obvious that the understanding today of the full use of the project cost follow up is not sufficient. The main purpose of the project cost follow up is considered to be to verify the final costs in comparison with the budget. Even though this is an important purpose of the project cost follow up it is not the only one. For example, the cost follow up is also used by IISSAB¹⁰² in the updating process of the SDT tool, i.e. the standard IKEA store. In the future the project cost follow up will also be used in updating the RED tool. Thus, it is important that the bookings done in each cost section are correct, so that all project cost follow ups will have the same contents and be comparable.

With the understandings of the project cost follow up, experienced in the store projects studied, it is easy to understand that the countries mainly look at the current store project in isolation and not how it can contribute to improvements within IKEA and in future store projects. Consequently, the importance of making correct bookings is in some cases forgotten and the main aim is to show section total amounts that are below budget. By increasing the understanding of the full use of the project cost follow up and hence also the motivation of making correct bookings, the potential of developing proper and comparable project cost follow ups should increase.

Purchasing from IRE: The opinion of IRE prices varies between the different store projects studied. In spite of this, the purchases made from IRE represent a large part of the total purchases in cost section 12 and 14, on average about 30 % of the total costs, for all four store projects. Furthermore, the main part of the total invoices in the store projects derives from IRE. This should also be the case, as all store projects are required to buy as much as possible from IRE. Hence, the choice of supplier will not be discussed further in this Master Thesis. However, it should be possible to make use of the large percentage of internal purchases, in order to make the accounting procedure more automatic. This should result in double gains for IKEA, since both the retailers and IRE can make use of it.

Accounting procedure: The store projects studied have different accounting procedures. Primarily, a monoistic accounting method is used and often a connection between legal accounting and internal reporting systems results in that the project cost follow up is influenced by laws and regulations in the specific country. The project cost follow up is also partly done manually in all four store projects. This increases the risk of wrongbookings, deliberate as well as by mistake, in relation to the specification in the Financial Manual. This in turn creates a framework that is not comparable between different store projects. By making as many bookings as possible automatic, there should be a great potential for saving both money and time. Furthermore the number of wrongbookings, due to manual mistakes, would decrease if using a more automatic accounting system. It is also important that legal accounting is separated from internal reporting so that the specific country laws will not influence the project cost follow up.

¹⁰² IISSAB: Inter IKEA Systems AB, see chapter 6.3

Following the specification: In all four store projects, the existence and main structure of the specification is well known and the aspiration is to follow it. Despite this, the specification is not always followed, mainly due to different practical reasons. Possible explanations are the close connection to the legal accounting system, as mentioned above, and misinterpretations due to grey zones in the specification. Wrongbookings can also be deliberate. By making the specification easier to follow, less misinterpretation would be the case and by making as much of the accounting as possible automatic fewer wrongbookings would be made. As already mentioned, it is also important to clearly separate the legal accounting from the internal reporting without increasing the workload for the controller.

Project planning and budgeting: The planning of new store projects has not been studied specifically in this Master Thesis. Nevertheless it has been discussed in three out of four store projects. Often the budget is conducted by looking at earlier store projects and by using the experience of the project leaders. In this way the total sum of a store project might be correct, but it will be very difficult to estimate the correct costs for each cost section. The risk is then that the project cost follow up will not be in line with the budget, which in turn will encourage wrongbookings in order to produce cost section total amounts that are below budget. The purpose of the RED project is to improve and simplify the planning and budgeting process. With the RED tool the budget will be built up in the same way as the project cost follow up. Thus, the budgets and the project cost follow up will be comparable automatically, with less risk for deliberate wrongbookings.

9.3 Factors for improvement

From the five areas discussed above, three main factors for improvement can be found.

Common for the discussion under "Understanding", "Accounting procedure" and "Following the specification" is that something needs to be done with the specification in the Financial Manual in order to simplify the accounting routines, i.e. create a *better specification*.

When reading the discussion under "Purchasing from IRE", "Accounting procedure" and "Following the specification" closer, another area of improvement is found. This has to do with transforming the accounting system to contain as little manual work as possible, i.e. *automatic accounting*.

Finally, a third area of improvement is identified when looking at the discussion in "Understanding", "Accounting procedure", "Following the specification" and "project planning and budgeting". These discussions all show a lack of *understanding and motivation* as a main problem that is causing many of the wrongbookings in the internal reporting.

These areas of improvements are summarised in figure 9.1 and is further discussed in the following subchapters.

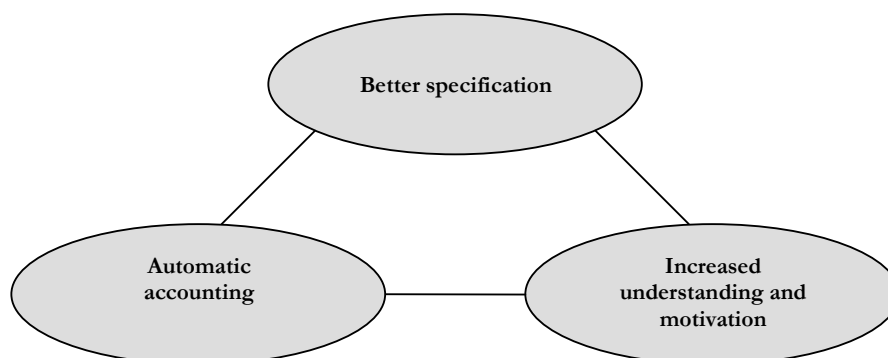


Figure 9.1 Actions for improvement can be divided into three corner stones.

9.3.1 New specification – manual and work structure

The specification, in its current shape offers much room for own speculations and interpretations. It is not sufficiently specific and costs can be booked in different cost sections depending on how the specification is read. Furthermore, the specification contradicts itself on certain points. It is in many cases difficult to know if, for example, to book a cost in cost section 12, as a retail construction cost, or as a property costs in cost section 1-11. Neither is the boundary between cost section 12 and cost section 14 sufficiently determined. Lighting, for example, is one of many items that often are booked under the wrong section number, i.e. under cost section 14 instead of cost section 12. After discussions with Anders Samuelsson, who is one of the creators behind the specification, the logic and the build up of the specification become very clear. However, the problem is how to communicate this logic to the rest of the organisation. If this fails, the risk for misinterpretations and wrongbookings increases.

In the specification today there are cost sections for areas as well as for items. For example, lighting is booked in a specific cost section for lighting, whereas shelves are booked according to which area they belong to. This makes the specification inconsequent and it is hard for a project leader to know were to book specific items. One solution to this is to make all cost section numbers item specific and not take into account the area in which it is situated. However, this would mean that a great deal of information about the costs for different areas in the store is lost. To avoid this, a tool like RED can be of use. In RED all items are, already in the planning stage of the store project, listed in the area where they belong and with a section number connected to it.

By using cost section numbers connected to items (instead of both items and areas) and combining these with the area build up in the RED tool, a matrix will be created. In this matrix it will be possible to analyse both area costs and costs for specific items. It will also be possible to analyse combinations of areas and items. The result will be a greater flexibility in

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the project cost follow up and better possibilities to find the reasons for exceptionally high or low store building costs. Furthermore, the "lighting analysis" in the Glasgow store project would be easily done in this proposed matrix structure of the project cost follow up, without being forced to do deliberate wrongbookings. A schematic build up of the summary of a project cost follow up matrix can be seen in figure 9.2.

Showroom	Amount	Section number	
Counters	2 000	12	
Shelves	1 500	13	
Möbelfakta	1 000	14	
Tables	3 000	15	
...			
	Area Total		

Market Hall	Amount	Section number	
Counters	1 000	12	
Shelves	2 000	13	
Rug eq.	1 5000	17	
...			
	Area Total		

Section	Item	Section Total
12	Counters	3 000
13	Shelves	3 500
14	Möbelfakta	1 000
15	Tables	3 000
16	Display items	0
17	Rug eq.	1 500
...		
...		
...		

Figure 9.2 The final project cost follow up with base in the RED matrix and with item specific cost sections.

By using and updating the matrix resulting from the RED tool checklist during the whole time span of the store project, the project cost follow up matrix will continuously be filled out, similar to the procedure used in the Glasgow store project. (This will be further described in the next subchapter.) By updating the RED matrix continuously, throughout the store project, the project cost follow up matrix will also be finished maximum one month after the store opening (due to invoice payment time). Furthermore, it will correspond better to the budget, which results in fewer deliberate wrongbookings.

In chapter 8, the problem of legal accounting influencing the internal reporting and thus the project cost follow up was thoroughly discussed. To avoid this it is important to separate the legal accounting from the internal reporting. However, it is also important that both legal accounting and internal reporting can be done in an easy and convenient way and that as little extra work as possible is necessary. This can be accomplished by using multidimensional accounting as described in chapter 4.4. In the Glasgow project this has already been applied and cost section as well as legal account number is being entered at the

same time when making the booking. In this way legal accounting and internal reporting can be conducted at the same time but without influencing each other.

In the project cost follow up, all items (or group of items) will, as already described, have their own cost section. Furthermore, all areas will also have a corresponding number so that the combination of numbers, i.e. multidimensional accounting, will show where in the project cost follow up matrix a booking belongs. However, in order not to just impose a new set of number combinations without visual meaning, it is important to visualise what is behind the different section numbers and area numbers. This will be achieved in a great extent through the use of the matrix from the RED tool checklist. When creating this checklist, the project leader will attain a clear picture of which items belong to each area. When receiving an invoice he enters the correct cost section on the items so that the accounting department knows how to book.

9.3.2 Automatic accounting

By making the changes described above, the accounting procedure is made easier and better for the project leaders to follow. However, there will always be some errors done as long as manual work is involved. By making as many bookings as possible automatic the room for manual wrongbookings is reduced. In chapter 5 EDI is described and this can be a suitable tool in order to achieve automatic bookings. However, not all bookings can be done automatically, since it will be neither practically nor economically possible to use EDI in all supplier relations.

A great potential for savings in both time and money would be possible if introducing EDI for all purchases done internally with IRE. The total costs coming from IRE correspond to an average of 30 per cent of the total costs in cost sections 12 and 14. Moreover, the main part of the invoices received concerning costs for cost section 12 and 14 are coming from IRE. Also, the savings achieved by introducing EDI would be double, since both parties involved in the purchase are IKEA companies.

From the checklist matrix made by the RED tool, the project leader or store manager makes the final store matrix with all items and areas. This matrix, which will be used and updated continuously throughout the project, as described in the previous subchapter, contains cost sections for all items and areas. Based on this matrix, orders are then sent to IRE during the store project. The order- and booking procedure can have the principle structure as described in figure 9.3 below.

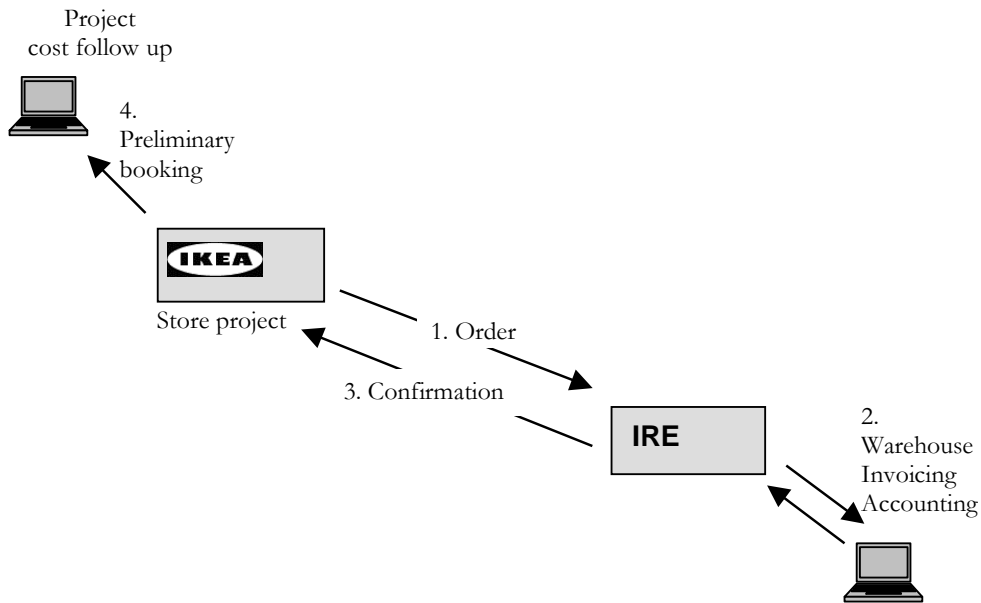


Figure 9.3 Principle structure of an order procedure between a store project and IRE with the use of EDI.

An order based on the RED matrix is sent to IRE (1). This order is received by IRE, where the information is converted and handled in the IRE business system (2). Simultaneously an automatic confirmation is immediately sent back to the IKEA store project (3), where a preliminary booking is made (4). This booking is based on the preliminary price stated in the order confirmation and is represented in the column "order cost" in figure 9.4 below.

Item	Estimated cost	Order cost	Final cost	Left to go
Counters	2 000	2 000		
Shelves	3 000	3 500		
Rug rack	1 000	700		
Dust bins	500			
				120 000

Figure 9.4 The project cost follow up is updated with preliminary costs and the "left to go" column shows how much money is left.

The "left to go" column in the matrix is automatically updated as the booking is automatically made, which enables the project leader to continuously have control over the economic status of the project – even though the invoice has not yet been received and paid.

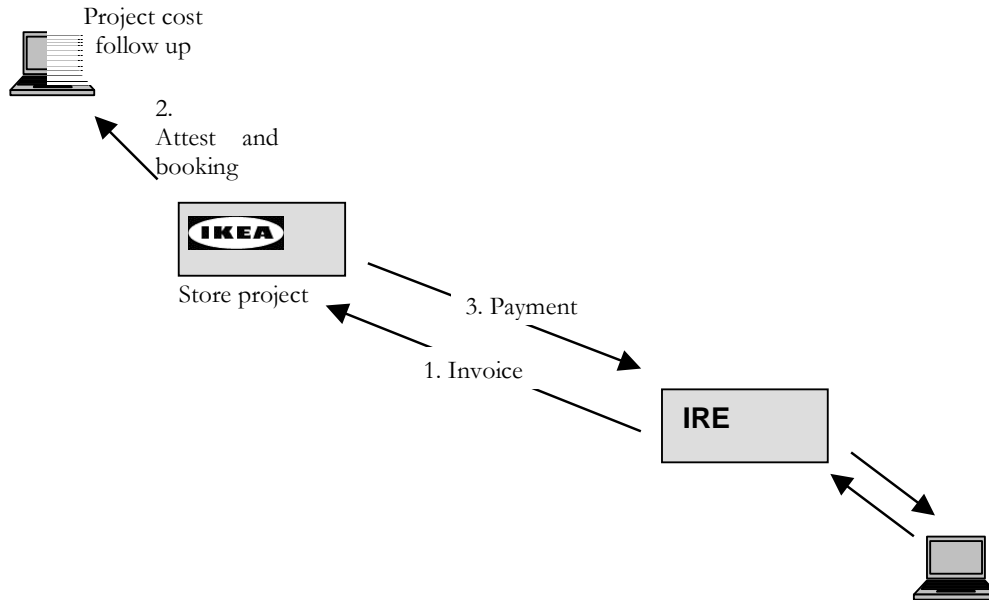


Figure 9.5 Principle structure of an invoicing procedure with the use of EDI.

When the order has been handled by IRE, an invoice is sent back to the IKEA store project (1), which can be seen in figure 9.5. This invoice contains the ordered items with final prices and belonging cost sections. An authorised person at the IKEA store project checks the invoice and the cost section and when attested, an automatic booking with final prices is made in the right cost sections (2). After the attestation of the invoice, the payment is cleared and made automatically to IRE (3). As can be seen in figure 9.6 below, the project cost follow up matrix is also updated with "final cost" and the "left to go" amount is adjusted.

Item	Estimated cost	Order cost	Final cost	Left to go
Counters	2 000	2 000	2 700	
Shelves	3 000	3 500	3 500	
Rug rack	1 000	700	1 000	
Dust bins	500			
				119 000

Figure 9.6 The project cost follow up is updated with final costs.

One of the advantages stated above, achieved by using EDI, is time saving. A large part of all invoices in a store project is coming from IRE and by making all these bookings automatic, much manual work will disappear. Instead people involved in the store project can focus their time on more value adding tasks, as for example inventing better and cheaper solutions in the store development process. By using EDI and automatic bookings the potential for saving money will also be considerable. In chapter 5.3.1, the average time for handling an invoice was stated as 10 to 12 minutes. If multiplying this with the number of

IRE invoices in an IKEA store project and an average employee salary the result would be a quite considerable amount for each store project. Furthermore, automatic bookings results in less manually made wrongbookings, which in turn results in a better project cost follow up. The bookings made are based on the cost sections stated in the RED matrix. Thus, no wrongbookings, due to for example misinterpretations or misunderstandings will be made. The potential advantages of using EDI can be summarised in the following points:

- Time saving
- Money saving
- Less wrongbookings, i.e. better project cost follow up

In the discussion so far, the use of EDI looks like a very favourable solution. However, the use of EDI also has some disadvantages. Foremost, implementing EDI will result in considerable implementing costs, which has to be put in relation to the possible savings made. Another issue that has to be considered before implementing an EDI solution is how to keep up the “human involvement” in the accounting process when much of the work is done automatically. The project leader must still be able to make changes and adjustments in the project cost follow up matrix and in the bookings when new and better solutions are found. “Human involvement” is also important in order to motivate the project leader and other persons involved in the store project to look for new and better solutions, which in turn can improve future store projects within IKEA and not only the current store project. However, if handled correctly, EDI is still considered to be a useful tool in the store development process.

9.3.3 Motivation and understanding

By using a tool like the matrix achieved from the RED checklist throughout the whole project, the likelihood of achieving a proper project cost follow up in the end of the project will increase significantly. With this tool all items in the new store will be addressed the correct cost section from the beginning and thus, the likelihood of making wrongbookings will decrease. Also, by making as many bookings as possible automatic, the likelihood of wrongbookings will decrease even more. However, as already discussed, EDI and automatic booking will not be possible to use for all purchases. There will always be invoices that have to be booked manually and even if the cost sections have been stated in the planning stage by the RED matrix there will always be some room for own interpretations and wrongbookings. Moreover, no matter how well the order procedure is structured, there will be a risk of last minute orders. These often result in "lump up" invoices, which are difficult to divide and book in a correct way.

In order to make as many of the manual bookings as possible correct, including those for "lump up" invoices, it is crucial that the people involved in the project cost follow up process are aware of why correct bookings are important. Hence, understanding and motivation are factors of great importance in the process of establishing a proper project

cost follow up and a framework for making continuous improvements in the store dimensioning and build up process. Without the understanding of the full use of the project cost follow up and motivation of doing a proper project cost follow up there will always be wrongbookings, deliberate as well as undeliberate.

By introducing to the people involved in the process the full use of the project cost follow up and how comparable project cost follow ups can contribute to continuous improvements in the store development process, the understanding and the motivation for making proper project cost follow ups would increase. By increasing the understanding and the motivation by communicating the use and purpose of the project cost follow up it would also be possible to engage people involved in the search for improvements and to forward good as well as bad solutions to future store projects. This then results in a form of internal benchlearning. Project leaders and other persons involved in store projects will start to look beyond their own store project and think on how they can contribute to the continuous improvement of the store dimensioning and build up process. However, in order to achieve a benchlearning mentality much more than just an introduction of the full use of the project cost follow up is needed. This is something that has to be implemented step by step in the way of working and that has to be constantly acknowledged. Contributions to improvements of the store process have to be put to attention so that people can see the results of their contributions and thus become motivated to make further contributions and take part of contributions of others.

9.4 How does this affects internal benchmarking

The actions discussed in previous subchapters, all contribute to the process of making proper project cost follow ups. It is now interesting to analyse how well these actions can contribute to the development of an economic framework for internal benchmarking. If considering the factors for successful benchmarking, stated in chapter 3.3.2, these actions go well in line with what is needed to conduct a successful internal benchmark analysis. Increased understanding and motivation correspond to the factors about openness, commitment, understanding and integration. Together with the actions about creating a better specification and automatic bookings, the result will be better project cost follow ups, which can be used in a benchmark analysis. The new proposed project cost follow up will also result in an appropriate economic framework for comparison between store projects and thus a comparison between "apples and apples" is possible. Finally, the first factor for successful benchmarking - management involvement - will not be affected by the actions suggested. Instead, in order for the actions to be realised, management involvement is essential. Thus, figure 9.1 should be complemented with management involvement (see figure 9.7 below), which is an important factor in order for the other actions to be realised.

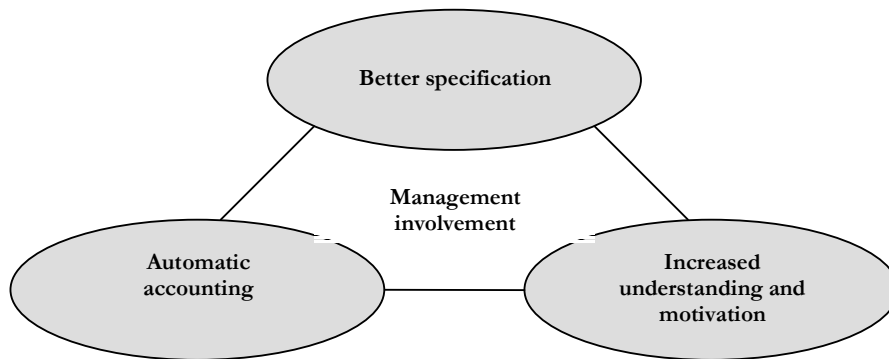


Figure 9.7 Management involvement is important for the other corner stones to be realised.

How the suggested actions can contribute to developing an appropriate framework for a continuous improvement in the store development process through internal benchmarking will now be analysed. The analysis will be based on the five main benchmarking steps described in chapter 3.3.1. However, in the case of IKEA, the benchmarking procedure will be slightly different as is described in the following subchapters.

9.4.1 Step 1 - What is going to be studied

In a wide sense, the IKEA store is what is going to be studied and benchmarked. The overall aim of the benchmarking study is to build better IKEA stores more effectively and within a limited time span. To do this a benchmarking study will include the dimensioning and build up *process* as well as the actual store, i.e. the *product*. Hence, the benchmarking study can be divided into one process part and one product part, which affect each other greatly. The product part of the benchmarking will result in an updating of the SDT and RED tools and hence the standard store. The process part will result in a new way of working. As already mentioned the process and product parts will also affect each other as can be seen in example 9.1.

Example 9.1

According to the RED and SDT tool a certain store should have 40 cash lanes that fully equipped should cost 8 000 EUR per pc in a certain country.

Case 1: The finished store will have 40 cash lanes, but due to purchase from a different supplier and to a new and more effective way of installing them the cost will only be 6 000 EUR. After analysing the new way of working it is clear that is possible to use this in other store projects. This will result in the following:

Update of the prices in the RED/SDT tool

Update and communicate the new choice of supplier and the new way of working to future store projects.

Case 2: A new type of pay and queue system is tested which results in that only 30 cash lanes are needed. These cash lanes cost 8 500 EUR. The new pay and queue system is, after a thorough analysis, found to work well. This will result in the following:

Update of the number of cash lanes in the RED/SDT tool.

Update of the prices in the RED/SDT tool.

Update and communicate the new choice of supplier and the new way of working to future store projects.

However, it is difficult to study the whole store, and different parts of a store can be interesting to study in different store projects. In the search to find what to focus the study on in a benchmark analysis, the project cost follow up matrix, described in chapter 9.3.1, is of great help. With the project cost follow up it will be possible to find areas, items or combinations of these that have low costs, high costs or just unusual cost combinations. In addition to costs, it is also possible to study number of items in different areas of the store. If having an appropriate framework with comparable project cost follow ups for all store projects, this can be an indicator for a good or bad performance. Unusual high costs are also of interest, both in order to find bad and expensive solutions, but also to find new solutions that may have high investment costs, but that will result in lower total costs.

It should be noticed that just economic data is insufficient in a benchmark analysis. As mentioned in chapter 6.4 all stores are going through a “condition follow up” in order to see if all conditions are being fulfilled or if changes are needed in a store. This follow up can be used in order to find different areas of interest for further benchmark analysis. Furthermore the condition follow up is made continuously, i.e. also on established stores. Hence, by using this follow up as a tool to find interesting parts for further investigation, already established stores will be taken into account.

With the help of the project cost follow up matrix and the “condition follow up” it will be possible to, in an efficient and rather simple way, sift through all store projects with respect to both hard and soft facts. By increasing the understanding and the motivation of people

involved in store projects and getting them to continuously look for good and bad solutions in their projects, a third way of finding out what to analyse further will be possible. For example project leaders and store managers can communicate aspects that they believe could be of interest directly.

Benchmarking objects can thus be chosen, either by sifting the store projects with the help of the project cost follow up matrix and the “condition follow up”, or by receiving tips about improvements directly from a project leader, store manager or other persons involved.

9.4.2 Step 2 - Identifying benchmarking partners

In the case of IKEA the second step in the benchmark analysis coincide with the first step. It is the store projects with interesting issues, found in the first step that will function as benchmarking partners. Hence, in the process of finding which specific part of the store project to benchmark the benchmarking partner is also identified. Thus, the benchmarking process attains another structure in comparison with the ordinary benchmarking procedure, stated in chapter 3.3.1. The decision of what to benchmark depends on what the benchmarking partners have done well. As already mentioned it is very important that the project cost follow ups are correctly conducted, so that the comparison between different store projects will be between "apples and apples". Otherwise it will be difficult to make the right decisions about whom and what to benchmark against. Differences in price levels between countries are also important to consider. Furthermore, some things are not possible to compare between countries, for example IT- and safety equipment, as these vary too much.

9.4.3 Step 3 – Collecting information

According to the traditional benchmarking procedure presented in chapter 3.3.1, information about the benchmarking partner is collected in step three. In the case of IKEA and the store build up and dimensioning process this step will involve further studies of the store projects that have been selected in the first and second step. This can be done through further analysis of the project cost follow up matrix, through interviews with people involved in the store project and by site visits at the current store and service offices. Valuable information can also be collected from the “condition follow up”. With an increasing understanding and motivation among the people involved in the store projects it will also be easier to attain information directly from them. It is important that the collected information reflects all sides and aspects of the project. Thus, economic information, i.e. quantitative information, as well as information about customer satisfaction and store project process, i.e. qualitative information, has to be collected. For the economic information, the project cost follow up matrix can be of great help, presupposed that it has been made in a correct way. It can be used as a tool to see where to look for further information.

9.4.4 Step 4 - Analysis

In the fourth step, the collected information is further analysed. No matter how well the analysis is being conducted, the result will never be better than the collected information that the analysis is based on. Furthermore, as discussed in previous subchapters, the information depends in great extent on the source. Thus the three corner stones presented in chapter 9.3 do all play an important role in making a valuable analysis. It is important to take into account all aspects, both quantitative and qualitative, into the analysis. However, the project cost follow up matrix is of great help in this step as well. With the project cost follow up matrix it is possible to see how different things in a store affect and change other things. This is understood in example 9.2.

Example 9.2

The number of shelves in the Market Hall area has been decreased. Has the number of shelves increased elsewhere instead, for example in Showroom? This can be seen in the project cost follow up matrix, which shows the interior build up in the current store. From this, further analysis is possible with the help of qualitative information.

However, everything cannot be found with the help of the project cost follow up matrix. The decrease of shelves in the Market Hall, in the example above, can also have explanations that can not be found within the project cost follow up matrix. The decrease can, for example, be a result of another way of distributing and showing goods in the store. There are many things to take into account when making the analysis. However, since it is not the purpose of this Master Thesis to study the whole benchmarking procedure specifically, this will not be further discussed.

9.4.5 Step 5 - Implementation

In the fifth and final step changes and goals are implemented within the organisation. In the IKEA case this step can be divided into two. First, the benchmark analysis can result in an updating of the RED and SDT tools. Second, the analysis can result in new and better ways of working in the store development process. These procedures cannot be communicated through the RED tool and thus have to be communicated in other ways.

As already mentioned, the first part of the implementation step concerns the updating of the SDT and RED tools. Having found what to update and how, this is rather simply done. The information is then communicated through the use of the tools in the dimensioning process.

The second part of the implementation step concerns the communication of new working procedures. By increasing the understanding and the motivation in the project cost follow up and benchmarking process it will become easier to both spread new and better ways of working within the organisation and for people to take part of and work according to them. The overall aim to increase the understanding and motivation will thus be to achieve some

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sort of benchlearning, where people involved are anxious to both share their own ideas of improvements and to learn from others. This will be even more important in the case of IKEA, since the implementation will concern future store projects. Some people involved in the process will have experience from previous projects, but many will be new and inexperienced. For the latter, the RED tool and the help and information from previous projects will be of great help. In addition, some kind of formal and structured procedure is necessary if the communication of new working procedures is going to work well.

From the discussion in the five benchmarking steps above the summarised picture in figure 9.8 can be drawn. The benchmarking procedure in the case of IKEA will be quite different from the basic theory. Step one and two will coincide, since benchmarking objects and benchmarking partners will be selected simultaneously. The selected benchmarking objects will then be further studied and analysed in order to update both the standard store and the way of working.

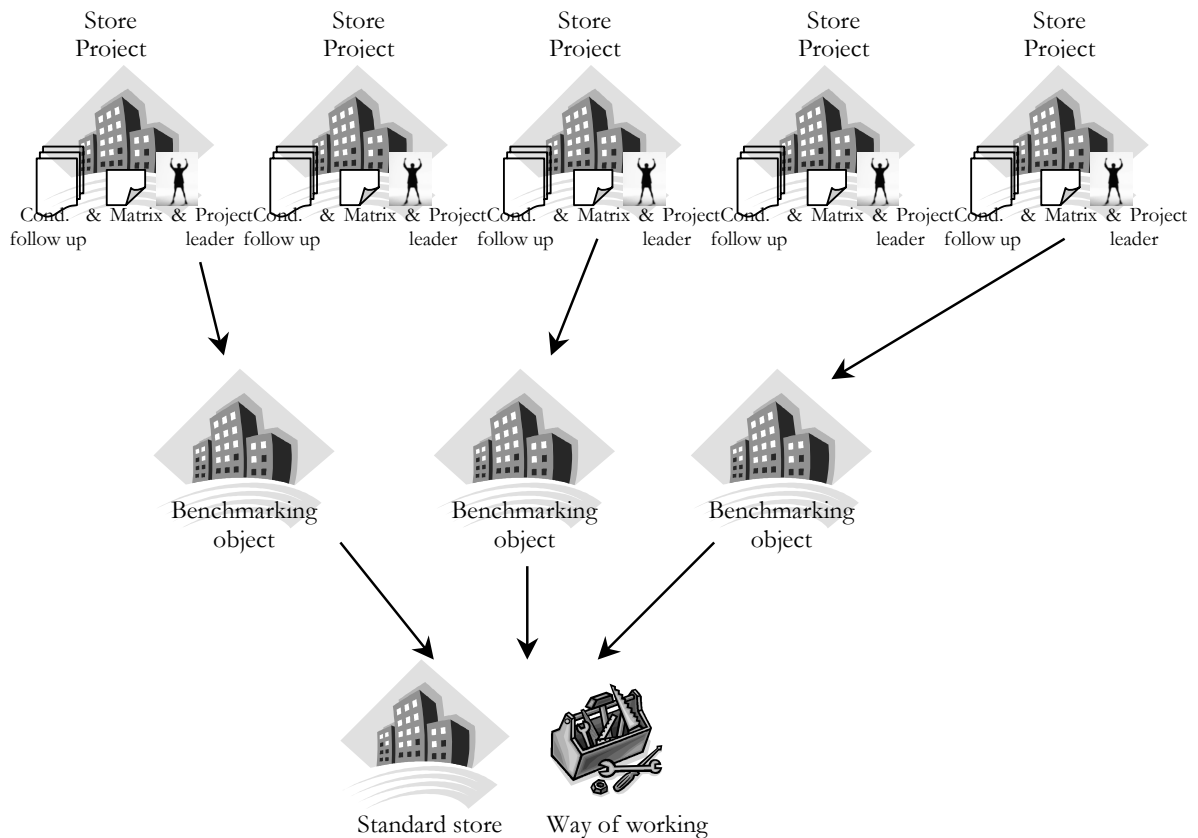


Figure 9.8 The basic procedure of the benchmarking procedure in the case of IKEA.

10 Conclusions

10.1 Introduction

The purpose of this Master Thesis has been to examine how IKEA can develop an appropriate economic framework for an internal benchmarking procedure, in order to decrease construction costs and improve construction performance when building new stores. The objective was to generate an action plan for IKEA about how to develop an economic framework for a well functioning internal benchmarking procedure, with proper project cost follow ups.

Four IKEA store projects have been studied and in the analysis of the project cost follow ups and the accounting procedures of the four store projects, a number of shortcomings have been found. Explanations to cost variations and suggestions to actions for improvement have also been discussed. The result of this has been three main cornerstones, each containing actions for improvement.

10.2 Inference from store projects

Main problems concerning the project cost follow up were identified in the store project analysis. One great problem is that the legal accountings in all the store projects studied in various ways influence the store project cost follow ups. As the laws and regulations differ between the countries, so does the internal reporting. Another problem is that there is a lack of understanding as to why the project cost follow up is important. The main focus is normally to be able to show cost section total amounts below budget and in order to accomplish this, bookings are sometimes transferred from one cost section to another. One conclusion of the store project analysis is that the store project cost follow up is too inflexible. In order to study costs for different items specifically, conscious deviations from the specification has been made.

To be able to accomplish internal benchmark analysis in order to improve the store development process and the standard store concept within IKEA, it is vital that the project cost follow ups from different store projects all over the world are comparable. This can be accomplished by implementing the three cornerstones: *Better specification* and cost follow up structure, *Automatic accounting* through EDI and *Increased understanding and motivation*, see figure 10.1.

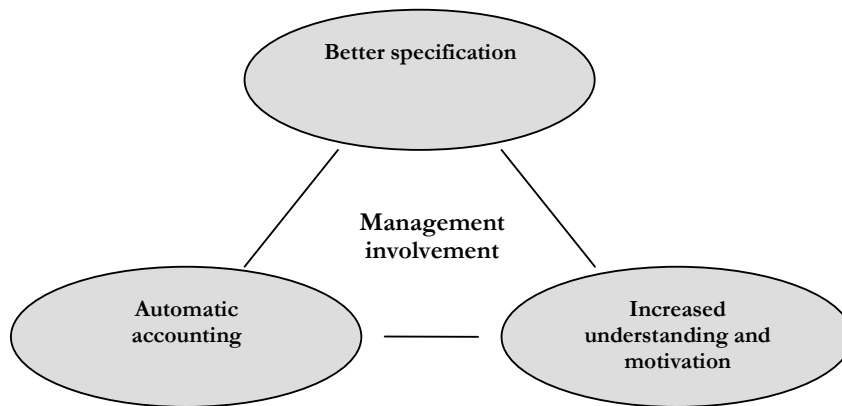


Figure 10.1 The action plan is based on the three corner stones: better specification and cost follow up structure, automatic booking through EDI and improved understanding and motivation

10.3 Specification

The specification in the Financial Manual is, as explained earlier, built on a clear logic. However this logic is not sufficiently communicated to the persons involved in store project development processes around the world. The reason is that the specification itself is not explicit enough, which results in grey zones and room for own interpretations. Since the logic is not communicated thoroughly it is very hard for project leaders to know how to book items that are not specifically mentioned in the specification. In the specification some items are to be booked according to which item it is and other items are to be booked according to which area they belong to, which can create some confusion.

The proposal of this Master Thesis is to change the specification. A matrix, similar to the one developed in the RED tool should be used all through the store project. Furthermore all cost sections should be item specific. This would give less room for misunderstanding and own interpretations of the specification. By using the RED matrix as a framework, which is developed in the planning stage of the store project and which contains all areas with belonging items, it will be possible to extract the costs for a specific area as well as the costs for specific items from the project cost follow up. What is also achieved by using the RED matrix as a framework for the project cost follow up is that it will correspond better to the budget. This will in turn results in a decreased risk for deliberate wrongbookings in order to make the cost section total amounts below the budgeted amounts. By updating the project cost follow up matrix continuously during the whole store project it is also possible for the store project leader to have a day-to-day update of the project costs and the project cost follow up is completed much faster after the store opening.

10.4 Automatic bookings – EDI

A large part of the total costs spent in the store dimensioning and build up process for the store projects studied derives from IRE. Furthermore, the main part of the invoices derives from IRE. This results in a great potential for saving both time and money if implementing automatic handling of these invoices. This will also decrease the number of wrongbookings, both deliberate and mistakes. Hence, the second cornerstone of improvement is to implement Electronic Data Interchange, EDI, between the store projects and IRE. EDI makes it possible for two different business systems to communicate with each other through a converter without manual interference. A lot of information is sent between the store project and IRE including orders, invoices and different confirmation messages and by implementing EDI, the administrative work in the store dimensioning and build up process will decrease.

10.5 Understanding and motivation

Changing the specification in order to make it more structured and logical and implementing EDI in order to improve the project cost follow up process will not solve the problem alone. There will always be, and there should always be, manual involvement in the accounting process. But as manual involvement also means a risk for wrongbookings this risk must be decreased by implementing the third cornerstone for actions of improvement. This cornerstone concerns actions towards an increase in the understanding of the project cost follow up and thereby also an increase in the motivation.

A first step in increasing the understanding and the motivation is to make persons involved in the store development process see the full use of the project cost follow up. It must not only be seen as a tool to show figures below the budget. Instead it should be used as a tool to communicate good and bad solutions to other parts of the organisation and to contribute to continuous improvement in the store development process. In this way a form of benchlearning mentality permeates the organisation. Moreover, the motivation and understanding is even more important if the automatisisation of the accounting system is increased, as there is a risk that the motivation declines with less degree of manual involvement in the process.

Last but not least, in order to achieve a successful implementation of the three cornerstones above, the involvement of the company management is of great importance.

10.6 Theoretical contribution

The main theoretical contribution of this Master Thesis concerns the benchmarking theory. Much is already written in literatur and studies about how to conduct a successful benchmark analysis in companies with ordinary production lines. Furthermore, most of this theory concerns external benchmarking. However, very little is written about internal benchmarking, within big global companies, conducted to find good and bad solutions in order to improve a standard concept instead of a running process.

Special about the store development process within IKEA is that the main question is not how to improve the stores already built. The question is rather how to ensure that all the stores in the future is built by using the experience gained in previous store projects and thereby implementing good solutions and avoiding bad ones. As mentioned in the problem description, an appropriate framework is very important in order to accomplish this.

The theoretical contribution of this Master Thesis is therefore how to develop an economic framework for internal benchmarking in order to find good and bad solutions to improve a standard concept. This is interesting for all businesses with reoccurring projects, based on some sort of standard. (E.g. different store chains, restaurants or companies constructing plants etc.)

10.7 Conclusive discussion and proposal for further studies

This Master Thesis has studied how to develop an economic framework in order to improve the store project development process with internal benchmarking. A large focus throughout the Master Thesis has been to make the store project cost follow ups comparable. However, this was found impossible due to the main delimitations stated by IKEA at the beginning of the research. In order to make the amounts in cost sections 12 and 14 comparable, the whole project cost follow up of the store projects would have to be studied in detail. Considering the time limit of the research project it has not been possible to do this. Instead, this Master Thesis can be considered as a base for further studies of this subject.

The main focus of this Master Thesis has been benchmark analysis. However, the purpose has been to develop an economic framework needed in order to conduct a well functioning benchmark analysis in the store development process of IKEA. Thus, the actual procedure of benchmarking has not been studied in detail, although this would be an interesting subject for further studies. Overall, IKEA has a well functioning store project follow up process and when studying how the benchmarking procedure should be constructed and implemented, great considerations to the way of working within IKEA today has to be made.

Furthermore, the advantages of implementing the three cornerstones building up the action plan for IKEA have been thoroughly discussed. However, details on how to implement these corner stones were not the purpose of the research and have thus not been described. In order to increase the understanding and motivation many things have to be considered and before actually implementing an EDI-system, thorough calculations have to be done. These are also interesting and important subjects for further studies.

Many suggestions for improvements in the store development process are presented in this Master Thesis and many more can probably be found if someone else where to do the same research again. However, as Eisenhower pointed out, it is not only the results that matter, but also the process of achieving them is of great importance. Thus, in order to increase the benefits for IKEA, the process of writing this Master Thesis has been conducted in close collaboration with key persons within IKEA.

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Bo Christoffersson	Store development
Peter Nilsson	Controller

IKEA Services AB, Property department

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Madeleine Melkersson	Property Controller

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Jenny Åkerblad	Development Coordinator
Per Krokståde	Store Specialist Manager
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Peter Malmros	Project Leader
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Peter Axelsson	Project sales

IKEA Germany, Service Office

Harald Hahn	Expansion Controller
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IKEA Poland, Service Office

Agnieszka Antzak	Operation Manager / Store Controller
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James Pallfrey	Cost Controller
Peter Krumhardt	Arkitekt Manager, UK

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... turn off the tube lights – which by the way belong to the property department (cost section 12.1).