

The Existence and Management of Local Assortment in Multinational Corporations

- A case study at DeLaval

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Abstract

- Title:** The Existence and Management of Local Assortment in Multinational Corporations – A case study at DeLaval
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- Issue of study:** In decentralised companies, products that are not in the central assortment, but still sold by the subsidiaries are known as local assortment. Understanding the reasons to why local assortment exists is important for the companies to ensure compliance. To have products that comply with laws and regulations are especially vital in the agricultural industry, due to its large personal risks for farmers. In order to create understanding for this, one must study reasons for why local assortment exists on the broadest level; both externally and internally. Few earlier studies have suggested approaches on how to manage them. Through studying a wide range of management tools in order to find the most suitable ones for local assortment, this gap will be filled by this study.
- Purpose:** The purpose of this study is to provide an understanding to why local assortment exists in multinational corporations and develop a framework consisting of key variables in managing such products.

Methodology: A case study has been conducted at DeLaval. The case consists of four sub-cases where information regarding local products was collected through semi-structured interviews with DeLaval's subsidiaries. The study has used a cross-sectional research design with identical qualitative data collection in each case. This allows for a cross sub-case analysis in order to find general patterns. The deductive research approach was applied throughout the study, which allowed for the usage of a theoretical framework when approaching the empirical study. In order to have an unbiased literature review and find the most important sources, a systematic review was used.

Conclusion: The conclusion is divided into two major parts; an academic contribution and a case specific conclusion.

The academic contribution consists of a framework which explains the five most important reasons to why local products exist. The most important reason is system sell, which indicates that local products are used to support sales of the central assortment. The framework also presents key variables for successfully managing local products, where different types of communication as well as a structured and simple process are extra important.

The case specific conclusion points out the need of local products for the case company. Currently, there are tensions and ambiguities regarding if local product are acceptable or not. Hence, the case company should clarify, within the whole organisation, on what grounds local products are acceptable. This study suggests a global process for local product development as one of those grounds.

Key words: Compliance, Local assortment, System sell, Communication, Farmer-to-farmer influence, Process, Management Control System, Multinational Corporations, Dairy farming industry

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Lund, May 2013

Martin Borgdén, Viktor Svanström, Lannis J.L Zhao

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List of abbreviations

Abbreviation	Meaning
AGP	Attitudes towards Global Products
ALP	Attitudes towards Local Products
B2B	Business to Business
BA	Business Area
BI	Business Intelligence
DCS 015	DeLaval Corporate Standard nr. 15, a product development process
DLI	DeLaval International, the headquarters
ESS	All EU countries as well as Iceland and Norway
F2F	Farmer to Farmer
GSK	GlaxoSmithKline (A pharmaceutical company)
LSO	Local Sales Organisation
MB	Maverick Buying
MCS	Management Control Systems
MNC	Multinational Corporations

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1. Introduction

Chapter 1 provides the background of this study, which leads the readers to the issue of study and the purpose. Limitation, delimitation and targeted audience are later presented, followed by the disposition of the study.

1.1 Background

During the spring of 2013, Europe experienced a major scandal in the agricultural industry. In mid January, the Irish Food Administration found horse DNA in hamburgers that were sold in several retail stores. Later, the Irish Burger King made the same discovery on its hamburgers. Followed by other similar incidents, it was proven that horsemeat was sold as “beef” in large quantities of frozen food. For example, the well-known frozen food brand Findus had 100 % horsemeat in its ready-made lasagne, which forced Findus to withdraw 20 000 frozen lasagnes from the market. Likewise, the food retailers ICA and Coop in Sweden also found high levels of horsemeat in their similar products. Further, the multinational company IKEA stopped the sales of their famous meatballs, as traces of horse had been found even there. Another large global player on the retail market, Nestlé was also forced to withdraw all their ready-made (meat) food from the Italian and Spanish markets (Dagens Nyheter, 2013). The huge horsemeat scandal caused fear amongst consumers to consume any meat products from mentioned brands, regardless of whether it was the meat supplier or the actual brand to blame.

On the other side of the world, a similar scandal occurred in the dairy industry in 2008 – the Chinese melamine milk scandal. In August of 2008, the Chinese dairy company Sanlu Group discovered the chemical melamine in its baby milk powder. The chemical melamine, normally used when producing plastics, was added to milk in order to enhance the protein level, which led to kidney stone among children. Throughout September, several other dairy companies were also dragged into the scandal. When the crisis was finally over, almost 40 000 children were injured, and four of them had tragically died. As a result of this scandal, Sanlu Group suffered a dramatically stop of its milk powder sales. As for Sanlu Group ´s foreign owner, a New Zealand dairy company Fonterra Group, these media press also had strong negative effect on its brand (Xinhua News, 2008).

When companies further up in the value chain, such as the Fonterra Group, are searching for an answer to explain why this kind of scandals happens, all the facts point to one major direction. They have failed in controlling their product compliance issues, meaning that they lost control over the product quality and did not meet the requirements from laws and regulations. The risk of this non-compliance behaviour is naturally larger in companies with many different suppliers and sub-suppliers around the world, which is usually the case for multinational corporations (MNC). MNCs have a more complex organisation structure and have large product assortments that are managed by different units. However, from the corporate point of view, when this kind of scandal becomes a hot topic in the society, it is not a question of whose fault it is, but a question of how to regain the consumers' trust toward its brand. Thus, how to handle compliance becomes a central topic for these companies.

The dairy farming industry has gone through major changes during the last decades. Since the early 1980's, the total number of Swedish milk cows has decreased, while the number of milk cows per farm has increased by approximately 400 %. Throughout the same period, almost nine out of ten dairy farmers have left the business (Karlsson, 2012). The trend can also be found on a European level, where the number of farms on average has decreased by 83 000 per year from 1975 and onwards (European Commission, 2011). This consolidation trend is affected by the high buyer power from the much more concentrated retail market, e.g. supermarkets. In order to supply the mass market, farms have to be larger and ideally integrate forwards, making them strive to gain farm size (MarketLine , 2012). As the number of farmers has decreased, so has the total number of milk cows decreased by 50% since 1983. Therefore, it is notable that the milk production only decreased with 20% (Karlsson, 2012). This increase in productivity is largely explained by new innovations and technological development (United States Department of Agriculture, 2012).

Another factor and major influence in the agricultural industry are laws and regulations. In EU, the two most important directives are the food and safety policy and the CE-mark. The EU food safety policy ensures food product hygiene, animal health and welfare, plant health and to prevent contamination from external substances (European Union, u.d.). The CE-mark, which applies for all ESS-countries¹,

¹ ESS is the EU countries as well as Iceland and Norway

indicates that a product is compliant with the “essential requirements” for health and safety for the product user (European Union , 2008). The CE-mark is especially important in the agricultural sector, as it is one of the most dangerous industries with regards to mortality and injuries (Lundqvist, 2012). Closely related to the CE-mark is the Chinese CCC-mark and US based UL-mark, which both are safety standards required for products sold in each particular region (CAAPRC, 2004) & (UL, 2013).

With increasing size of farms, more advanced technology and higher pressure from buyers and legislators, dairy farming is industrialising at high pace. In order to succeed in business and to be able to comply with the regulations, farmers are becoming far more professional and demanding than before. The time when the suppliers could run the market is now gone. Rather, the industry is market driven where customers require top quality and solutions to meet their specific needs. This trend is undoubtedly affecting the farming equipment and machinery suppliers, who need to fight harder for each sale. Hence, the suppliers to the dairy farming industry in Europe are now facing a pressure from the market, to provide exactly what the customers want. A strategy to meet this requirement is to provide a large assortment.

Remember the scandals described earlier, one major cause was that the companies lost control over the product compliance of their suppliers and sub-suppliers. As for the dairy farming industry, the increasing product assortment leads to more suppliers and the risk of non-compliance is naturally increasing as well. Thus, compliance issues become vital for all companies in the dairy farming industry. Moreover, how to handle these issues become extremely important for them. In order to have a great sense of the whole picture, the question of why the demands of local products are increasing becomes the first issue to solve.

1.2 Issue of study

This study will take the complexity of the issues described in the background to a more specific level. The focus will be on a decentralised organisation where the subsidiaries have large freedom in running their own business and partly deal with their own suppliers regarding products that are not in the central assortment. Such products are known as *local products*. A range of local products is known as *local assortment*. In this study, these two terms have the same meaning. Understanding

why subsidiaries sell local products is an important step when aiming to manage local products from a central level.

Earlier studies on local products usually take on either an internal or external perspective. As this does not provide the whole picture, and since the way of ensuring compliance might differ depending on the reasons to why local products exist, this study studies both perspectives.

In the end, ensuring compliance is a management question, specifically controlling product quality and ways of working. The field of management control systems is therefore a starting point. Much have been written on the topic of management control systems, however, no research has been done on how such systems should be designed in order to manage compliance on local products. Theory on management control systems is therefore studied on a broad level including business processes, information systems as well as social control systems.

1.3 Purpose

The purpose of this study is to provide an understanding to why local assortment exists in multinational corporations and develop a framework consisting of key variables in managing such products.

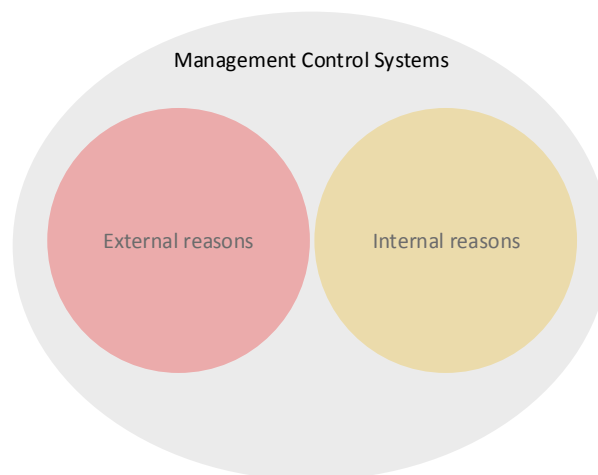


Figure 1 – Theoretical concept

Figure 1 represents the goal for this study; creating an understanding for external and internal reasons to why local products exist, as well as designing a framework on

how to manage local products. External reasons refer to reasons outside of the control of the company, whilst internal reasons are reasons originating from the company itself.

1.4 Limitation and Delimitations

This study has only focused on one company in the dairy farming industry as a case study. The issue of local assortment is only present in decentralised companies and therefore the chosen case company is decentralised. The majority of the interviews were conducted at the subsidiaries. Due to the relevance of the studied area – local assortment, four subsidiaries in the company with large local assortment were chosen in the study as sub-cases. These sub-cases are geographically located in Europe, which delimits this study to the European market. Since the studied company belongs to Business-to-business (B2B) industry, this study does not take the individual values into the consideration while analysing, such as sex and age.

Due to the lack of time and availability, the interviews were only done with personnel within the company, but not with their end-customers. Therefore, results might not accurately reflect the opinions of all the end-customers.

The conclusion of this study is based on the findings of the case company; therefore, results are primarily generalisable for this company and secondary for companies with similar situation.

1.5 Target audience

The primary audience for this study is people who are working with local products at the case company DeLaval. The study would also be of interest for other global organisations working with local products and how to manage them. Finally, academics and researchers in, for example, the area of management control systems, management in decentralised organisations or product management are also a part of the target audience.

1.6 Disposition

Chapter 1: Introduction

Chapter 1 provides the background of this study, which leads the readers to the issue of study and the purpose. Limitation, delimitation, targeted audience are later presented, followed by the disposition of the study.

Chapter 2: Methodology

The chapter will explain the choices of research design, data collection and research perspective. The second part of the chapter describes how the study was done, from literature review to analysis. Finally, the reliability and validity is discussed.

Chapter 3: Theory

In this chapter, theories used in this study are presented. They are divided into three major parts, external and internal reasons to why local products exist and management control systems. The chapter is summarised in a theoretical framework of this study.

Chapter 4: Case Company

In chapter 4, the case company DeLaval is presented. Followed by its current situation and problems they are facing. In order to easily follow this study, the chapter lastly presents a description of the most common definitions used within the company.

Chapter 5: Empirical studies

In this part of the study, empirical findings are presented in the same order as it was presented in the theoretical framework; external reasons for why local products exists, internal reasons for why local products exists and management control systems. The chapter ends with the empirical framework, which is an extension of the theoretical framework.

Chapter 6: Analysis

In this chapter, the empirical findings are analysed through the theoretical framework. The structure of this chapter follows the outline of the empirical framework and is finalised by a summary of the analysis.

Chapter 7: Conclusions

The conclusion is divided into three sub-chapters; an academic contribution, a case specific conclusion and finally a critical review of the thesis are presented.

Chapter 9: Discussion

The discussion gives suggestions to further research and put the findings in the context of the scandals which was mentioned in the background of this study.

2. Methodology

The following chapter will explain the choices of research design, data collection and research perspective. The second part of the chapter describes how the study was done, from literature review to analysis. Finally, the reliability and validity is discussed.

Researchers aiming to present valid and qualitative research have to make highly informed choices concerning research design, type of data collection and which perspective to apply regarding the relationship between theory and research. Even with this choice made, no research can be conducted; a research method enabling the data gathering is also needed (Bryman & Bell, 2007). With this in mind, this study will have a cross-sectional design combined with qualitative data collection. Also, a deductive perspective is applied.

2.1 Research design

According to Bryman & Bell (2007), there are five ways to design research; experimental, cross-sectional, longitudinal, case study and comparative. The experimental design requires a controlled environment and a possibility to manipulate an independent variable. Since this is both troublesome to execute and not a suitable way of fulfilling the purpose of this study, the experimental design is excluded. In longitudinal design, the research is conducted over a long period of time, making it unsuitable for this study as well (Bryman & Bell, 2007).

The empirical data will be collected through a case study which is divided into four sub-cases focusing on the current point in time; making cross-sectional, multiple case studies and comparative valid designs. The comparative design is commonly used for cross-cultural studies and the cases are compared to find similarities and differences between them. Such a research design would not be sufficient to fulfil the purpose of this study; as this requires the possibility to do general findings across the sub-cases.

The design that allows for the cross case comparisons is the cross-sectional design. Using this design, the findings can be generalised to a larger part of the case company than just the specific sub-cases. The alternative, multiple case studies, was

not chosen since this design focuses on the unique sub-cases and not the general result generated when all cases are put together (Bryman & Bell, 2007).

In this study, *case* will refer to the studied company, while *sub-case* refers to the interviewed sub-units. In the cross-sectional design, each sub-case is studied once and they are all studied within one month.

The method for extracting information from each sub-case is identical (Bryman & Bell, 2007). As observable in chapter 2.4, this study will be designed in the same way; interview questions will be derived from a theoretical framework and applied to the four sub-cases. The empirical data gathering method will result in observations in key areas, areas that are the same for each sub-case. This is illustrated in table 1. A comparison of the observations in each key area for each sub-case will ideally show cross sub-case patterns. To focus on the result of the whole sample and not the individual sub-cases, is a key characteristic of the cross-selection design.

	Sub-Case 1	Sub-Case 2	Sub-Case 3	Sub-Case 4
Obs. area 1				
Obs. area 2				
Obs. area 3				
Obs. area 4				
Obs. area 5				
...				
Obs. area <i>n</i>				

Table 1 - Cross-sectional design

2.2 Data collection

There are two types of data collection, qualitative and quantitative, that could be used in a cross-sectional research design (Bryman & Bell, 2007). The main characteristic of quantitative research is that the data is numeric and that the analysis uses quantitative methods, for example regression analysis. On a more fundamental level, the quantitative data collection has a natural science approach; the process is characterised by distance and neutrality. Hence, the quantitative data collection has a high intersubjectivity. In other words, if another data collection would follow the same process, the result would be the same (Halvorsen, 1989).

In qualitative data collection, the data is seldom numerical and statistical analysis methods are not central. Qualitative research is concerned with the interpretation of the world and the data is therefore sensitive to the context in which it was gathered. Consequently, the intersubjectivity is low (Halvorsen, 1989). Unlike quantitative research, qualitative provides more detail and understanding of the complexity of the problem and its context (Mason, 2011).

The problem this study sets out to research is a complex one, mapping reasons to why certain products exist and how they can be managed in the future. Thus, there is a need to understand and analyse the details as well as the context in which the problem exist. Henceforth, the qualitative research strategy is the most appropriate for this study.

Nevertheless, one has to be aware of the challenges that a qualitative research strategy would face. One challenge, which also is a common critique, is that the method for data gathering and analysis is unsystematic. This means that the results from the study could be affected by what the researcher subjectively believes to be important. Another challenge for qualitative research strategy is its problem with generalisation. Critiques argue that one cannot generalise results into other settings than the one where the data gathering took place (Bryman & Bell, 2007). Manson (2011) disagrees and means that research based on qualitative data collection should not only provide explanations, but also limited generalisable results. In order to achieve this, qualitative research must be done in a systematic way, with no ad-hoc approaches (Mason, 2011).

2.3 Research perspective

The two main research perspectives are the deductive and the inductive perspective. When using a deductive perspective, a researcher will study the theory and formulate a hypothesis that will be tested through empirical studies. The test will either prove or reject the hypothesis, and the result will become a part of the current theory. In the inductive research perspective, on the other hand, no hypothesis is formulated. This means that the empirical findings will be analysed and generalised to form new theory. (Bryman & Bell, 2007)

As mentioned above and clarified in figure 2 below, this study will develop a theoretical framework, a set of predictions or expectations, which will then be tested empirically. In other words, this study will apply a deductive perspective. The

inductive perspective was not chosen due to the fact that it would not allow for an initial theoretical research. This would in turn have a negative effect on the understanding of the problem and would also result in a less deep and focused empirical data collection.

2.4 Research method

As stated above, this study uses a cross-sectional design combined with a deductive research perspective to conduct its research. This combination together with qualitative data collection results in a four-phase process, figure 2; a literature review will lead to a theoretical framework and an interview template which will be applied to all cases. The result of the interviews will be analysed using the framework mentioned earlier. Each phase is described in detail below.

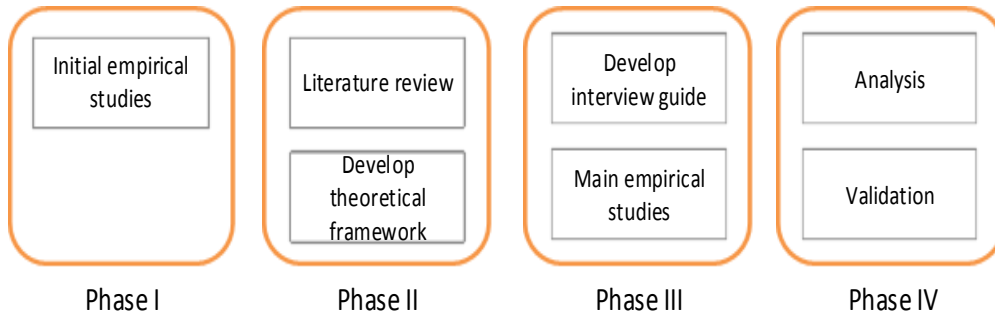


Figure 2 – Research process

2.4.1 Phase I

Initial empirical studies

Before the initial empirical study, the understanding of the problem facing DeLaval was limited to the description given by the two supervisors at the company. Even if it provided a good foundation, the problem was only understood from one perspective. Hence, the purpose of the initial empirical study was to broaden the perspective and also learn more about the company DeLaval. The study was done during a week at DeLaval's headquarters in Tumba and included trainings, meetings, interviews as well as study visits to the factory and DeLaval's concept farm, Hamra Gård.

Training

To get an overview of the product development process at DeLaval, a two hour-long training was attended. The training introduced the DCS 015 – DeLaval Development

Model; intended users, the workflow, the importance of compliance check and how to launch new products on the market. Further, the training focused on how to read process and workflow charts.

Meetings

During the initial empirical study, several meetings between the two supervisors at DeLaval and the authors were held. The main purpose of the meetings was to discuss different perspectives of the problem, the scope of this study and to do the first preparations for the main empirical study.

Interviews

On top of the training and meetings, ten interviews were held. The interviews were partly set up by the supervisors at DeLaval and partly on initiative of the authors. This approach ensured that all initially interesting perspectives were covered. The interviewees were encouraged to take the lead in the conversations and to talk about their roles in DeLaval and their perspectives on the problem. Interviews such as these, where the interview is similar to a normal conversation, are called unstructured interviews (Bryman, 2002). The choice of this method was grounded on the fact that the authors needed to come in contact with as many perspectives on the problem as possible. A structured or semi-structured interview could have limited the findings to the content of the interview template. Further, as the purpose was to learn more and not to compare the findings, the need for a more structured interview was therefore small (Bryman, 2002).

2.4.2 Phase II

Literature review and development of the theoretical framework

The aim of the literature review was to find relevant articles and books covering a theoretical explanation both on why local products exist and how those could be managed. For the literature review to be as unbiased as possible and further to ensure the identification of the most important literature, a systematic review is recommended (Tranfield, et al., 2003).

Compared to the traditional narrative literature review, the systematic review takes a positivistic or natural science approach and strives to be replicable (Tranfield, et al., 2003). Hence, using systematic review by not leaving the literature review to chance but rather ensure the structure recommended by Manson (2011), results in an increased intersubjectivity. Following Johansson et al.'s (2011) practical

application of Tranfield et al. (2003), the literature review was conducted in six steps: identifying relevant keywords, form search strings, initial database search, fine tuning search strings, final database search and lastly evaluation and data collection.

A factor affecting the results of the literature review is undoubtedly the amount of literature that is possible to access, in other words, which databases that are used. In this case, it was *LUBsearch*; a platform that access all physical and electronic sources at Lund University Libraries in Sweden. In LUBsearch, one gets access to over 30 departmental libraries and over 500 databases (Lund University Libraries, 2012). This is judged to be a sufficient source of information.

Identifying relevant keywords and Form search stings

Through a brainstorm session, approximately 60 relevant keywords were identified which then were divided into three groups: central keywords, second and third tier keywords. Central keywords were the ones most likely to result in relevant articles, whereas the second tier was less likely but still relevant. The third tier keywords were assumed not to generate satisfactory results and were therefore excluded from further research. The six keywords in the group of central keywords was combined into pares; forming 15 search strings.

Dividing and excluding keywords as well as combining the most interesting ones into search strings was done in order to narrow down the scope of the literature review and to ensure that the most relevant sources would be found.

Initial database search

The 15 search strings were run through the database and the hit rate² of each search string was recorded according to table 2 below. The combinations that scored a hit rate over 3500 were taken to the next step. Keywords shortened by an asterisk (*) indicate that all possible endings to the keyword have been included in the search.

Central keyword 1	Central keyword 2	Hit rate (14/2 2013)
Process	Decentralization in management	5189
Process	Centralization in management	3161
Process	Multinational organizations	2629
Process	Integration	237127
Process	Purchas*	56063
Decentralization in management	Centralization in management	7173
Decentralization in management	Multinational organizations	129
Decentralization in management	Integration	1004
Decentralization in management	Purchas*	339
Centralization in management	Multinational organizations	141
Centralization in management	Integration	729
Centralization in management	Purchas*	354
Multinational organizations	Integration	1
Multinational organizations	Purchas*	286
Integration	Purchas*	7933

Table 2 – Number of hits from initial database search

Fine tuning search strings

The search strings that had too high hit rates, i.e. more than 3500, were complemented with an additional keyword from the group of second tier keywords; in this way forming search strings three keywords long. The combination was made from the authors' best understanding of what would generate results contributing to the fulfilment of the purpose of this study.

² Hit rate corresponds to the number of articles found

Final database search

The new combinations were used in the second search round in LUBsearch, which generated the following results:

Central keyword 1	Central keyword 2	Second tier keyword	Hit rate 14/2 2013
Process	Integration	Subsidiary	1
Process	Purchas*	Quality assurance	424
Process	Purchas*	Adaptation	341
Process	Purchas*	Economies of scale	260
Decentralization in management	Centralization in management	Culture	282
Decentralization in management	Centralization in management	Autonomy	398
Decentralization in management	Centralization in management	Economies of scale	112
Decentralization in management	Process	Adaptation	115
Decentralization in management	Process	Quality assurance	18

Table 3 – Number of hits from final database search

Evaluation and data collection

The final step, which is also the most comprehensive step of the literature review, was the actual data collection. In total, after the two search rounds, there were 19 search strings that had generated a satisfactory low number of hits. In each case, regardless the hit rate, the first 100 articles were scanned in order to find the most promising ones. In order to identify relevant articles, Tranfield et al. (2003) argues that researchers should have clearly stated inclusion criteria, i.e. criteria for which articles that should be included in the literature review. Following this approach the inclusion criteria used in the evaluation were:

- Article contained a high number of relevant key words
- Abstract and conclusion in line with the purpose of this study

With the inclusion criteria in mind, most of the articles could be discarded judged on title or abstract, but some required a closer study. In the end, this generated 30 relevant articles which were then closely studied. In the reference list of these

articles, additionally interesting articles and books were found; making the total number of sources approximately 45.

The theoretical framework was developed by using the 45 sources that were the result of the systematic review. The articles were thoroughly studied by all three authors in order to determine the key insights of the studies as unbiased as possible. These theoretical findings were discussed, not only among the authors, but also with the academic supervisors. In this way, the theoretical framework was validated throughout its development.

2.4.3 Phase III

Developing the interview template

As pointed out in the beginning of this chapter, the theoretical framework is applied on the cases, thereby enabling a comparison between the theory and the empirical findings. In order to succeed in this, the interview template was developed from the theoretical framework; the questions were created to cover all theoretical aspects.

An important part in developing the interview template is operationalisation; translating the theoretical terms to a more everyday language. The operationalised terms can then be used to measure an abstract theoretical terms in reality (Bryman & Bell, 2007).

In this case, it was only the part regarding external reasons where operationalisation was needed. This was because of the large focus on personal values, which were defined in a very abstract manner. In table 4, the mentioned values are operationalised; in the right column one finds the operationalised description of the theoretical terms in the left column. These descriptions were the foundation when the interview questions for this section were formulated. The theoretical terms and the operational descriptions are formulated by Steenkamp et al. (2010).

Theoretical term	Operationalised description
Traditional value	Acceptance of culture and religious customs; Deference to authority and family; National pride
Secular rational values	Do not follow customs; cherish of the individual; cosmopolite; global mind-set
Survival values	Economic and physical security; affluence
Self-expression values	Individual autonomy; quality rather than quantity; global view
Security value	Safety; harmony; stability of society and relationships
Conformity	Restraints of actions that can upset others, e.g. violation of social codes
Nostalgia	The current behaviour is dependent on the past behaviour
Ethnocentrism	Protect the local; cherish own culture and products
Opportunism	Taking advantage of current circumstances

Table 4 – Operationalisation of theoretical terms into everyday language

Main empirical studies

The bulk of the empirical data was gathered through interviews with representatives of different local sales organisations (LSO) within the case company DeLaval. Some interviews were also conducted with representatives from the headquarters, DeLaval International (DLI). In contrast to the interviews in the initial empirical studies, these were semi-structured which are more formalised than the unstructured interviews. A semi-structured interview is based on a template which gives the interview a clear direction and the researcher can focus on the area he/she is particularly interested in. However, what makes it semi-structured is that the questions are broad and not as precise as in a structured interview. Additionally, one does not have to ask all questions or take them in any particular order (Bryman & Bell, 2007).

The general drawback with both unstructured and semi-structured interviews is that the gathered information will take much time to classify and structure. The strength, however, lies in not being forced into predetermined thought patterned and the possibility to go into issues that emerge during the interview (Halvorsen, 1989).

All the interviews in the main empirical study were recorded on tape in order to have the possibility to clarify any question marks on what was said. To further capture as much information as possible, the interviews were structured so that two

of the authors led the interviews and one took notes. In addition to this, the interviewees were instructed to illustrate their process regarding local products on paper; in this way, their line of thoughts were visualised and recorded at the same time. The interviews were not transcribed.

Sub-case selection

The case selection is affected by the delimitations presented in chapter 1; the sub-cases are all within Europe and involve only one company. With help from DeLaval, four sub-cases were chosen to study. The criteria for an interesting sub-case were that the subsidiary had a large local assortment. This criteria applied on three sub-cases; LSO Benelux, LSO Denmark and Region Central Europe. The last sub-case, Region Northern Europe, was chosen due to the fact that they work in the same office as DeLaval International as well as their notably small local assortment. Overall there are eight sales regions and 35 LSOs, which together cover over one hundred markets.

The samplings were suggested by DeLaval and followed by the authors. The only additional sampling was interviewees from DLI, which was requested by the authors. Sampling in this way is called convenience sampling and is very common in qualitative data collection (Bryman & Bell, 2007).

Interviews

It is not only important to select the right sub-cases, but also which persons to interview. To fulfil the purpose of this study, it was important that the interviewees had knowledge and understanding of local products. Once again, convenience sampling was used when local managers were contacted and asked to point out employees who have worked the most with local products, as these would be the most interesting persons to interview. In total seven interviews were hold at the LSOs and three at DLI.

As the main purpose of this study is to understand why the subsidiaries use local products, most interviews were also conducted in the field. However, in order to get another point of view, three interviews were conducted at DeLaval headquarters. This allowed for a deeper understanding of the results from the field interviews.

2.4.4 Phase IV

Analysis

The foundation for both the empirical data collection and the analysis was the theoretical framework, which is presented in the end of chapter 3. When using a cross sectional research design, one can very easily combine the empirical findings with theory; theoretical framework forms the observation areas which are presented in table 1.

When the empirical findings were matched to theory, as described, it resulted in the empirical framework, see chapter 5.4. In this way, the theory shaped the empirical study, which is an efficient way to create focus on relevant data and ignore blur. Further, this approach intuitively leads to “relevant analysis strategies” (Yin, 1994).

For this study, the relevant analysis strategy was the pattern-matching logic. In this approach, the researchers look for patterns in the empirical findings and compare those to the predicted patterns; the theoretical framework. If the empirical patterns coincide with the theoretical expected patterns, the validity is strengthened (Yin, 1994). On a practical level, the analysis started off from the empirical framework which combines the theoretical framework with the empirical findings. From there, patterns could be identified. The strongest patterns confirmed parts of the theory and non-patterns resulted in exclusion of other parts, leading to the conclusion and results of this study.

To clarify, both the reasons to why local products exist and the key variables for managing them were first theoretically identified. These variables or reasons were then either confirmed by strong empirical patterns or excluded from the final result due to weak patterns.

Even though Yin (1994) has promoted the pattern-matching logic in case study research for a long time, the approach does not only have a qualitative side to it. Rather, it is also commonly used in quantitative fields e.g. mathematics and programming (Zeilberger, 2009).

2.5 Method evaluation

According to Bryman & Bell (2007), qualitative research, which is used in this study, normally face four types of critique; too subjective, difficult to replicate, not possible to generalise and a lack of transparency.

In gathering data in a qualitative manner, the researcher is the main instrument of data collection, which could lead to the research being subjective. If this is the case, the empirical findings will be affected by the researcher's view of what is important and what is not. Following the same logic, it might be unclear for the readers to understand what was not chosen to study further and why (Bryman & Bell, 2007). The method applied in this study will limit the subjectivity in two ways. Firstly, there are three researchers with different educational background which will broaden the perspective of what is important. Secondly, the systematic review of the literature is more structured than other ad hoc literature reviews.

The systematic review also makes the literature review part of the study easy to replicate, which is another major critique on qualitative research. Critiques mean that since the result depend firmly on the researcher as well as the unstructured way in which research is done, it makes qualitative research almost impossible to replicate (Bryman & Bell, 2007). This has undoubtedly affected the data gathering in this study, even if the literature review is possible to replicate. As the interview template is based on theory as well as it is attached in the appendix of this study, the replicability of this study is increased.

As in many qualitative studies, this one does not collect a random sample from a whole population, making generalisation to other environments and organisations troublesome. However, the findings can be generalised to theory. This means that it is the quality of the theoretical inferences made from the analysis of qualitative research that decides how generalisable it is (Bryman & Bell, 2007). This study has a strong theoretical foundation and draws the conclusion from this foundation, resulting in a defensible generalisability.

The method used throughout this study was designed to provide as much transparency as possible. Even so, the method is not completely transparent. This critique, how the researcher actually conducted the study, is common. Normally, this applies to the choice of interviewees and how the analysis was conducted (Bryman & Bell, 2007). In this study the choice of interviewees is transparent and it also strives to when it comes to the analysis.

2.5.1 Reliability and validity

In the most general meaning, reliability is about the accuracy of the research method (Mason, 2011). In other words, will the method generate precise data?

Further, reliability can be seen as an indication on how stable the used measures are. If they are stable over time, the study is repeatable, and it has therefore a high reliability (Bryman & Bell, 2007). Validity essentially means that the study is measuring what it is supposed to measure (Mason, 2011).

Referring to the method evaluation above, the validity of this study is seen as sufficient. This is because of the interview template being derived from a theoretical framework, ensuring that the empirical findings covered all parts of the theory. Further, the interview template was validated with the supervisors at DeLaval. The reliability is also acceptable. The systematic review of the literature is the basis of the reliability. In using this approach, other researchers would likely use the same theories as this study has done. Consequently, the interpretation of the empirical findings would be done in a similar way and the same patterns would be found using Yin's (1994) pattern-matching logic.

3. Theory

In this chapter, theories used in this study are presented. They are divided into three major parts, external and internal reasons to why local products exist and management control systems. The chapter is summarised in a theoretical framework of this study.

3.1 The existence of local products: external reasons

This part will theoretically explain the external reasons to why local products exist. External reasons are all reasons that are outside the boundaries of the firm. The two major external reasons described are values and laws & regulations.

3.1.1 Values

When corporate actions are determined by what the market wants, it is said that the company is *market driven* (Chen, et al., 2012). Further, if different markets demand different products, the companies could be forced to provide locally adapted products; driving sales by providing local relevant products for the market. Another choice is to only offer non-locally adapted products which normally results in higher economies of scale in production (Calantone, et al., 2004). In summary, in order for companies to make a choice regarding what type of products to provide, they have to know if the markets prefer local or global products, as well as how strong this preference is.

Steenkamp et al. (2010) address this issue by the terms *attitudes towards local products* (ALP) and *attitudes towards global products* (AGP). ALP and AGP are not individual attitudes, but could rather be generalised over wide range of product categories. Further, ALP and AGP can be predicted by understanding the values that are prominent on the particular market (Steenkamp & de Jong, 2010).

One should not look upon ALP and AGP as two opposites on a spectrum but rather as a matrix, as illustrated in figure 3 below. Together they form four different types of consumer behaviour. The combination of a strong AGP with a low ALP is called homogenization, meaning that customers substitute local products to global products. Consequently, the products consumed in different markets will become the same; more homogenous. Vice versa, with a low AGP and high ALP, the consumption preference tends to be local products, which is called localization. In a situation when customers have high ALP and AGP at the same time, it is a situation

called glocalization. The last of the four consumption preferences is not to consume at all. In this case, called glalienation, consumers are negative to the consumption culture in the society, especially to the overconsumption of commodity goods. Hence, they prefer to consume as little as possible (Steenkamp & de Jong, 2010).

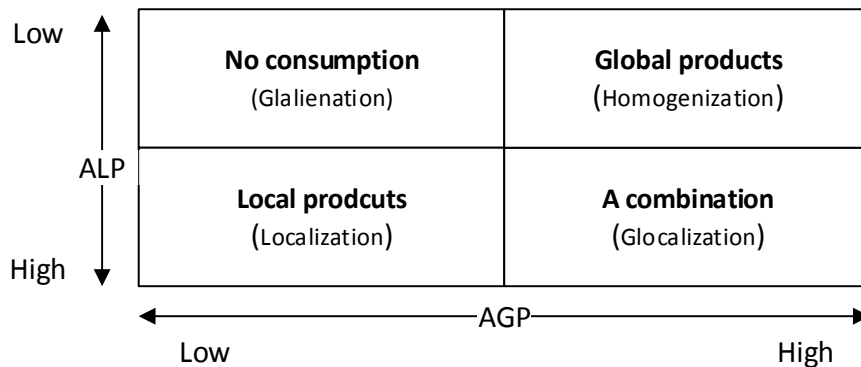


Figure 3 – Consumption preferences derived from ALP and AGP (altered from Steenkamp et al. (2010 p.20)

However, it is not obvious which markets are characterised by ALP or AGP. In order to understand the attitudes of a particular market, and hence recognise which type of product is to be expected. Steenkamp et al. (2010) argue that attitudes can be derived by analysing the values that are prominent on the market.

According to Schwartz (1992), values are the beliefs that we all carry with us, they describe our desired state and behaviour in all situations. Values help us in selecting and evaluating situations. Further, values can be prioritised, which is one important difference from attitudes. Attitudes cannot be ranked in order of importance (Schwartz, 1992). Attitudes can be described as responses to a situation in terms of favourably or unfavourably; they are hence guided by the goal state, i.e. the values (Steenkamp & de Jong, 2010). Values could therefore be seen as what motivate people by being closely knit to emotions, not to objective ideas or rationale (Schwartz, 2007).

Steenkamp et al. (2010) categorise values into three groups: national cultural, general and consumer domain specific values. The national cultural values are values that are shared amongst the members of a nation. These values are the most

abstract ones and could be seen as the common denominator for all people living in a nation. The most famous example of national cultural values is Hofstede’s five culture dimensions (Steenkamp & de Jong, 2010), which however will not be further explained in this study.

The general values describe what is important on an individual level. Ten general values are derived by Schwartz (1992): Self-Direction, Stimulation, Hedonism, Achievement, Power, Security, Conformity, Tradition and Benevolence. These could be put into four categories: openness to change, conservation, self-enhancement or self-transcendence. As the four categories illustrate the general values could be opposites or in conflict (Schwartz, 2007). The last category is the consumer domain values, which are values regarding consumption. Steenkamp & de Jong (2010) identify materialism, innovativeness, nostalgia, ethnocentrism as well as environmentalism to be consumer domain values. Figure 4 illustrates which values that affect the attitudes towards global and local products.

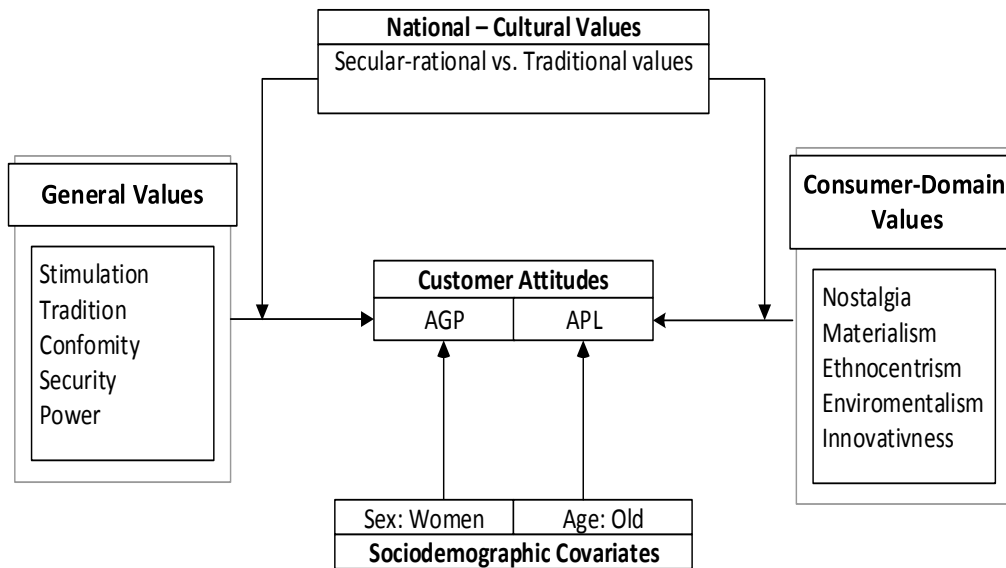


Figure 4 - Value-based framework, alter from Steenkamp et al. (2010)

A country that place importance in family values, protectionism and have a great national pride is called traditional in the national-culture concept. Such countries tend to have a positive effect on the APL. Strong secular-rational countries on the other hand are more individualistic and have a global mindset, consequently this increase the AGP (Steenkamp & de Jong, 2010).

Of Schwartz general values tradition, security and conformity is related to ALP, stimulation and power to AGP (Steenkamp & de Jong, 2010). Here tradition means the acceptance of local customs and religion, whilst conformity is to restrain from actions that would violate norms and social expectations. Security means to strive for stability in society and relationships. Power is to have social status and control, while stimulation is to seek new challenges in life (Schwartz, 2007).

The Consumer-domain values that affected both AGP and ALP were nostalgia and materialism, meaning backward looking and want to own many expensive objects. Ethnocentrism, meaning keeping one's behaviour in line with the group, and environmentalism, consuming eco-friendly only affected ALP. Innovativeness, being an early-adopter, influenced AGP (Steenkamp & de Jong, 2010).

The only socio-demographic covariates that affected AGP or ALP were sex: women and age: old. Women have slightly higher AGP and old age may increase the ALP (Steenkamp & de Jong, 2010). Due to the limitation of this study, the socio-demographic values will not be further discussed.

In summary, markets characterised by strong traditional values have the following values: tradition, conformity, security, ethnocentrism and environmentalism, and are likely to favour local products. Local products could also be favoured if the market have values such as nostalgia and materialism. Steenkamp et al.'s (2010) result shows that cultural differences are important for product adaptation, which is also supported by Johnson and Arunthanes (1995).

3.1.2 Laws and regulations

The theory has so far focused on local products from a point of view where companies can choose to or not to adapt products to meet local demands, this is called voluntary adaption. However, there is also so called obligatory adaption. In such cases, firms are forced to adapt their products in order to be able to sell them in certain markets (Calantone, et al., 2004).

The obligatory product adaption is a result of companies wanting to enter new markets and the governments' interest in protecting their population. In other words, companies have to live up to the local laws and regulations to enter the market. In this way, the market will be protected from low quality goods that might increase the risk to hurt human beings and the environment. There is also a less

noble reason to force companies to live up to strict regulations; creating non-tariff barriers³ to trade, in order to protect the internal market (Johnson & Arunthanes, 1995).

Research suggests that governmental law and regulations are in fact one of the most important drivers for local adaptation. The larger the difference of laws and regulation between the home market and the export market, the more imperative the adaptation become (Calantone, et al., 2004). Further, this effect is larger on consumer goods than industrial goods (Johnson & Arunthanes, 1995).

³ Barriers that are not customs/tax-related

3.2 The existence of local products: internal reasons

This part will theoretically explain the internal reasons to why local products exist. Internal reasons are all reasons that are originating from the company itself. The major internal reasons are tensions and maverick buying.

3.2.1 Tensions

Multinational Corporations have by definition operations in more than one country (Pitelis & Roger, 2000). Multiplicity of business environments, internal diversity of subsidiaries and the different backgrounds of their employees are typical characteristics of MNCs. Hence, they can be described as complex and heterogeneous. Due to this kind of nature, co-ordination and integration have always been crucial for MNCs. In recent years, these issues have become more critical as the rapid increase of the number, size, nationality and geographical spread of MNCs. Globalisation of corporations has also encouraged local adaptation, differentiation and flexibility of product assortment (Busco, et al., 2008).

Another influence on decentralisation is corporate culture, where the key driver arises in the form of innovativeness within the firm's culture. An innovative corporate culture results in innovation and strategic renewal. In such environment, decentralisation enables a quick reaction to changes at a local level (Williams & van Triest, 2009). This has resulted in a great challenge for MNCs over the last 20 years. MNCs have been striving to seek competitive advantage through greater standardisation and co-ordination, but also to be able to stay flexible and locally adapted (Busco, et al., 2008), thus, the citation below expresses the main challenge within MNCs: bad conscious

“On the one hand, GOs [MNCs, authors comment] need to get close to their customers by implementing locally responsive strategies through decentralized decision-making and highly differentiated management practices. But on the other hand, they also need to exploit economies of scale and the synergies that come from knowledge sharing, and to present a coherent and uniform strategy that reinforces their global identity and international brand loyalty.”

- Busco et al. 2008, p. 108

This challenge is also supported by Buckley & Ghauri (2004), who notes that in the strategic decisions of multinational firms, there has always been a tension between the pressures to globalise and the need to stay local and to serve individual customers.

Three tensions were found in processes of integration within MNCs by Busco et al. (2008). As illustrated in figure 5 the tensions are: vertical vs. lateral relations, the convergence vs. differentiation of practices and the centralisation vs. decentralisation of decision-making.

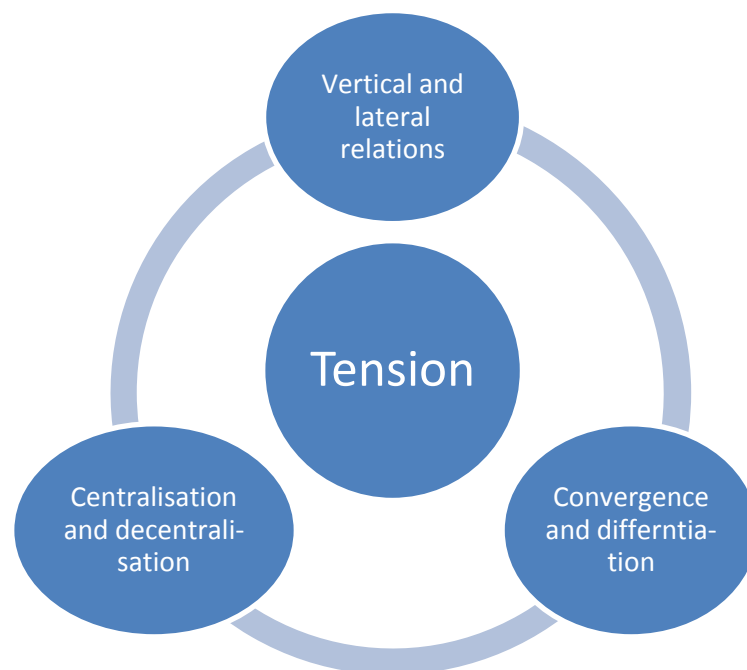


Figure 5 – Three tensions in a Multinational Corporation, altered from (Busco, et al., 2008)

Vertical vs. lateral relations

Vertical relationships imply well-defined superior-subordinate relation, which can be shown in the levels of dependence, trust and identification (Kostova & Roth, 2002). According to Kostova & Roth (2002), this relationship is important, since it affects how the home country is perceived and interpreted within the local subsidiaries.

In lateral relationships the power and authority are more dispersed between the subsidiaries. Lateral relations help horizontal communication and interaction among

the different units within MNCs to facilitate the sharing of knowledge, resource and ideas. (Busco, et al., 2008)

Organisations characterised by strong vertical relations, information flows are mainly vertically driven and co-ordination is achieved through the mediation of the headquarters. This also results in the subunits being less willing to exchange information laterally. Where in decentralised organisations, direct interactions between subunits are more common, and it encourage the lateral exchange of information. (Busco, et al., 2008)

Van der Meer-Koostra & Scapens (2004) argues that a way of practically handling the vertical and horizontal relationships is through management control system. Accounting information facilitates communication, joint decision-making, information/knowledge sharing and the building of trust between parties.

Convergence vs. differentiation

Convergence implies a growing similarity of preferences and practices across national boundaries, with cost savings and leveraging opportunities being secured through global market integration and standardisation. Differentiation, on the other hand, means preserved cultural differences that affect activities and procedures at the local level. Vance (2006) states that these two can work together to support global strategies and implement local business.

According to the study done by Busco et al. (2008), accounting systems are important to integrate local cultures and practices in a MNC, mainly through the diffusion of a global culture of performance measurement. This creates a global language of measurement and accountability which in turn can be a frame for MNCs, creating the most important convergence. This global language could be combined with local financial terms for operational targets and achievements. However, these terms and targets should not be forced upon the subsidiaries, but rather developed mutually. (Busco, et al., 2008)

Centralisation vs. decentralisation

Centralisation and decentralisation reflects the extent to which decision-making authority is delegated by headquarters to the subsidiaries. It is related to issues of power and autonomy within the organisation and describes where specific tasks are assigned to, and how orders are created in the MNC. On one hand, MNCs wants a certain degree of centralisation and co-ordination in order to leverage their

competitive advantages across borders, on the other hand, they cannot skip decentralisation and local autonomy which are needed to adapt to local conditions (Busco, et al., 2008). Other scholars, like Leenders & Johnson (2004), express the same idea as stated below:

“Decentralization provides the benefits of improved service and lower costs by pushing decision-making responsibility closer to the end user, promotes closer working relationships between suppliers and end-users and provides increased opportunities for end users to manage total costs of ownership factors (Leenders and Johanson, 2000). However, despite the potential benefits of decentralization, research does indicate that some level of centralization is required to support strategic initiatives of the supply organisation.”

- Johanson & Leenders 2004, p. 192

Busco et al. (2008) points to that that these tensions need to be brought up as to inform the very nature of MNCs and managed through appropriate integrating mechanisms. In particular, the tensions mentioned above shape the level of knowledge sharing and the tendencies of global uniformity and local adaptation of the assortment for MNCs (Busco, et al., 2008).

3.2.2 Maverick buying

When switching perspective to the purchasing point of view, it is shown that in the past, purchasing literature focused on the advantages and disadvantages of centralised or decentralised purchasing organisations. However, recent literature demonstrates a trend towards a hybrid purchasing organisation (Trautmann, et al., 2009b). A hybrid purchasing organisation has a division of tasks between the headquarters and its subsidiaries. The headquarters assumes responsibility for the negotiation of long term contracts while subsidiaries issue orders that complements these contracts, for example short term contracts. Such an organisation is designed to reap the benefits of global purchasing synergies (Trautmann, et al., 2009a). In the words of Trautmann et al. (2009a) purchasing synergy is defined as:

"The value that is added when two or more business units (or purchasing departments) combine their efforts (e.g. combined buying) and/or share resources, information, and/or knowledge in the area of purchasing management."

- Rozemeijer 2000, p.242

In order to practically achieve this, most companies, especially with hybrid and centralised purchasing organisations, have well established framework agreements with selected suppliers. The aim is to lower costs by high volumes from the same suppliers, developing long term relationships and it is also easier to ensure quality in a few suppliers than several (van Weele, 2010). Even if this is the outspoken strategy, the central purchasing department might face problems of non-compliant behaviour. This is called maverick buying (MB) and occurs when purchasing is done where it should not, or purchasers buy goods off contract (Karjalainen & van Raaij, 2011). An example of maverick buying is when an employee stays in the same hotel that he usually does, even though the company has a negotiated contract with another hotel. Consequently, the benefits of the framework agreements is not utilised and the purchasing synergy is lost.

According to Badenhorst (1994), the risk of maverick buying to occur is especially high in a negotiation situation. This is because when the purchaser and the seller are in interaction, the purchaser might be tempted to use any means to gain an advantage. Another reason mentioned by Badenhorst (1994) is that the purchaser has personal interests in the supplier and thereby sets his/her own interests higher than the interests of the company.

A high number of organisations have moved towards a more centralised purchasing organisation with standardised framework agreements. One of the consequences is that agreements are made with preferred suppliers instead of being handled by each organisational unit. All units within the organisation are then expected to go through these framework agreements when they purchase goods or services. The aim is thereby to decrease purchasing costs through increased purchasing leverage with the remaining suppliers and increased volumes. However, these agreements alone will not guarantee the realisation of the potential savings. For this to take place the organisation has to ensure contract compliance. In many organisations this is troublesome since the authority to purchase is decentralised and dispersed

throughout the organisation. Maverick buying might thereby take place due to unawareness or deliberate disregard of corporate contracts. (Karjalainen, et al., 2009). According to Cuganesan & Lee (2006) and Cox et al (2005b), maverick buying especially occurs with purchasing regarding indirect materials related to maintenance, repair and operations. This is due to the fact that these purchases in general consist of low value items traded in a high amount of transactions.

The five types of maverick buying

In the work of Karjalainen et al. (2009) and Kulp et al. (2006), the authors have identified different forms of maverick buying. According to Karjalainen et al. (2009), there are five different types of maverick buying behaviour; unintentional MB, forced MB, casual MB, well-intentioned MB and ill-intentioned MB. The reasons behind maverick buying differ from the different forms, from lack of awareness to ability and motivation of the employees. In figure 6, an overview of the different forms and their reasons can be seen.

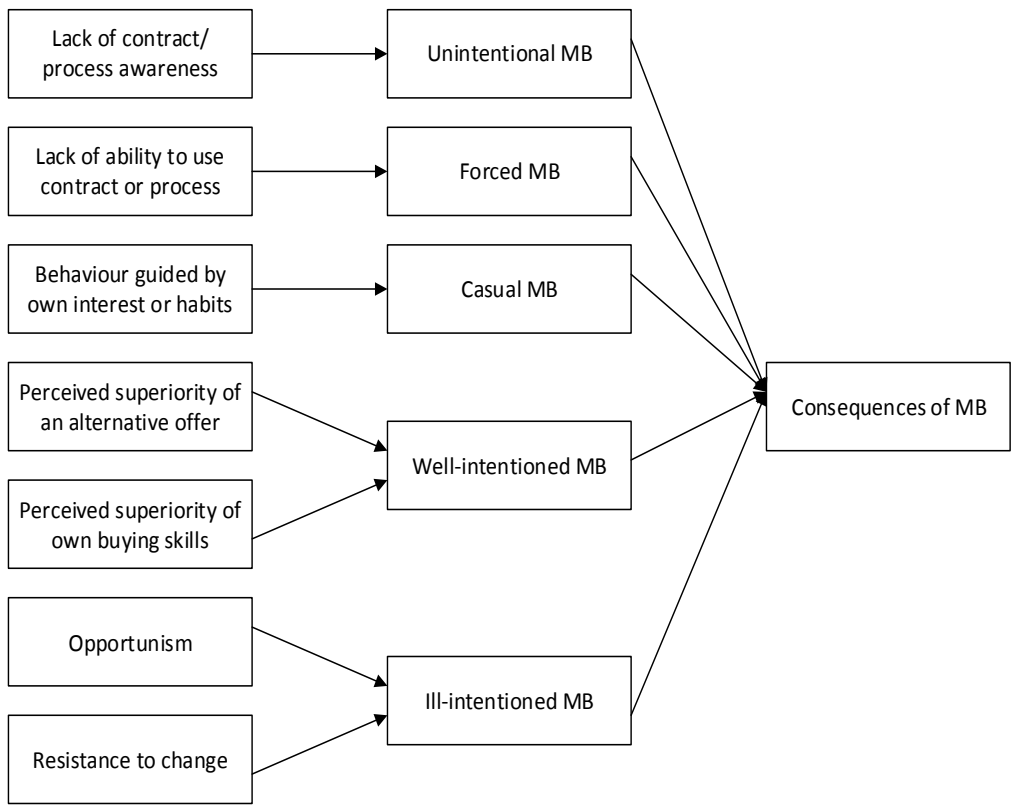


Figure 6 – Different forms of MB and their underlying reasons, Karjalainen et al. (2009)

Unintentional MB – occurs when employees engage in off-contract purchasing because they are not aware of existing frame agreements (Karjalainen, et al., 2009). Kulp et al. (2006) found that this type of maverick buying is the most common; this is also strengthened by Karjalainen et al. (2009). Reasons for unintentional MB are identified by Karjalainen et al (2009) to be lack of contract and/or process awareness.

Forced MB – takes place in situations when the employees are aware of the existing processes, but for different reasons are unable to comply with them (Karjalainen, et al., 2009). Ferneley & Sobreperéz (2006) identified emergencies as a situation when this might occur. Karjalainen et al. (2009) also includes situations where the employees lack the ability to use preferred processes and new items that so far are without frame agreements.

Causal MB – the employees are aware of the framework agreements and know how to use them, but they continue to do as they please. They do not intend to harm the company with this behaviour; it is plainly driven by self-interest or old habits, which goes unchecked by the organisation (Karjalainen, et al., 2009).

Well-intentioned MB – occurs as a result of the employees believing that it is in the best interest of the company to ignore the framework agreements, even though they are aware of their existence and how to use them (Lonsdale & Watson, 2005). According to Karjalainen et al (2009), there are two reasons for this kind of maverick buying, perceived superiority of an alternative offer or perceived superiority of own purchasing skills.

Ill-intentioned MB – the employees are aware of the preferred process and know how to use it, still they take an active choice to oppose it. Two motivational factors lead to this kind of behaviour. Opportunism is the first, where the employee's action is driven by self interest. The second is resistance to change, usually caused by employees feeling of lost power as a result of pre-negotiated contracts (Karjalainen, et al., 2009).

Consequences of maverick buying

According to Karjalainen et al. (2009), there are two different negative consequences of maverick buying; increased purchasing cost and reduced purchasing leverage. Increased purchasing cost is, according to Cox et al. (2005a), depending on that the maverick buyer lack access to information and competence

regarding handling contracts. This leads to further fragmentation of the organisation's spend, which in turn result in a higher amount of established relations with an unnecessary large amount of suppliers. This large amount of relations, together with the use of non-approved suppliers will result in a higher purchasing cost for the organisation (Karjalainen, et al., 2009). Estimation on the magnitude of these costs was made at the pharmaceutical company GlaxoSmithKline (GSK), where about 20-30% of unrealised cost savings was due to non-compliance (Kulp, et al., 2006).

If maverick buying occurs, the purchasing leverage of the company as a whole will be reduced since fragmentation of spend undermines their ability to negotiate prices with suppliers (Karjalainen, et al., 2009). Another result is that the organisation neither provides a high volume of demand nor an account that is easy to service, resulting in the organisation being seen as a nuisance customer by the suppliers (Lonsdale & Watson, 2005).

Measures against maverick buying

According to Karjalainen & van Raaij (2011), task autonomy is the most important variable in terms of trying to reduce maverick buying of all types. Another important factor is training on purchasing practices. Furthermore, Karjalainen & van Raaij (2011) point to that the monetary and performance review, such as punishments or benefits, seems to have little effect on curbing maverick buying.

Karjalainen et al. (2009) presents measures against the five different types of maverick buying. Unintentional MB could best be reduced by creating awareness of contracts among potential users. To manage this, strong purchasing leadership is needed. Forced MB can be reduced by education the employees on the correct procedures and by providing training on the procurement systems in use. Casual MB could be reduced by educating employees about total cost of ownership⁴, and, again, by showing strong purchasing leadership. For well-intentioned MB the same measures are suitable. Ill-intentioned MB can be prevented by checking opportunistic behaviour through alignment of incentives with desired behaviour and by involving employees in the contracting process in order to minimise resistance to change. Karjalainen et al. (2009) also states that some off-contract purchasing is

⁴ A commonly used term in purchasing which relates to the total cost of the product, not only purchasing price (van Weele, 2010)

The Existence and Management of Local Assortment in Multinational Corporations

unavoidable and even desired, as it is practically impossible to have corporate contracts covering each and every good or service required by an organisation.

3.3 Management control systems

From previous chapters, it is apparent that there is a need for control within companies, everything from controlling purchasing to the response to market demands or internal tensions. The need arises due to the management's will of aligning the goals and behaviour of the employees with the goals of the company. Hence, the most important purpose of a management control system is to enable this alignment; creating *goal congruence*. In a goal congruent company, the actions employees take in their perceived self-interest are at the same time in the interest of the company (Anthony & Govindarajan, 2007).

Simons (1994) means that this could be done through "formal, information-based routines and procedures, used by managers to maintain or alter patterns in organisational activities", which is his definition on management control systems (MCS). Ansari (1977) used a similar definition, where control systems need structural arrangements in order to control or facilitate the behavioural process of employees. The reason to why managers want to control the behaviour of their employees is that it is how the company strategy is implemented. Hence, Antohny and Govindarajan (2007) define MCS as "the process by which managers influence other members of the organisation to implement the organisations strategies".

Goal congruence can be seen on other levels than on the level of the company as a whole. Naturally, MCS must create synergies in different aspects and on different levels of the organisation. Rozemeijer (2000) divides synergies into three categories: (1) economies of scale, (2) economies of information and learning, and (3) economies of process. Using the example of purchasing, economies of scale are one of the major reasons to centralise purchasing. By increasing volume, bundling and standardisation of categories the company can attain lower unit costs.

Economies of information and learning relate to sharing information and knowledge across different sites and locations (Trautmann, et al., 2009b). For example, as mentioned in chapter 3.2.2, three out of five types of maverick buying are explained by employees either lack information or lack the ability to use it. In other words, an increased information sharing will create goal congruence within purchasing as the maverick buying would decrease.

For economies of process, Trautmann et al. (2009b) stresses the importance to build common ways of working or establishing best-practice processes across the

organisation. By doing so, the company will minimise transaction- and coordination costs, which means increasing economies of process. To build lean and well-functioning processes is one of the cornerstones in a MCS.

As shown, there are many definitions of management control systems that are all rather broad. However, some cornerstones can be derived from the different definitions. MCS consists of both formal and informal processes, the systems measure and carry information in all directions, and most importantly, the MCS aim to influence the behaviour of others to achieve high goal congruence. Ansari (1977) means that MCS should influence the organisation from three different angles; the structure, the social side and the support functions.

3.3.1 The structure

Measurement systems

Measurement systems measure and spread information through the organisation, i.e. the systems are designed to provide managers with information regarding how their business is doing (Ansari, 1977). The role of the measurement systems is to affect the performance of employees in accordance to figure 7. As observed, the system directs the organisations attention to the most important factors in the strategy.



Figure 7 - Framework for measurement system (Anthony & Govindarajan, 2007)

Strategies and companies are seldom simple entities, creating a need to control several variables and having several measures. However, in order to effectively control the organisation there cannot be too many measures, which would only take up unnecessary management time (Anthony & Govindarajan, 2007) & (Simons, 1992).

The foundation of a functioning measurement system is to know what to measure. As illustrated in figure 7, the strategy is in the centre of the measurement system and is from where measures are derived. The organisation should identify the most critical variables to control in order to implement the strategy and develop suitable measures to evaluate those variables (Anthony & Govindarajan, 2007). For each variable, there is a goal and a measure, which both need to be disaggregated from management level to operating level, allowing for performance measurement in all levels (Ansari, 1977).

Several different variables can be measured but most common is financial variables, such as revenue and cost. Despite their popularity and usefulness, there are limitations to only using financial measures; instead, they should be complemented with so-called *key success factors*, i.e. non-financial measures (Anthony & Govindarajan, 2007). As pointed out by Ansari (1977), key success factors must be broken down so that they can be used in different hierarchical levels. In order to have functioning measuring system on all levels, there must be a cause-and-effect relation between the disaggregated measures from bottom to top. With clear goals and measures on every level, which are connected to the measures below and above, it is easy for individuals to understand how their performance is connected to the company's strategy (Anthony & Govindarajan, 2007) & (Hammer, 2001). This relates to one of three characteristics that a sound measure should have according to Ansari (1977); the employees can *influence* the measure. Besides influence, the performance should be measured in an *objective* manner and be *complete*; everything that makes for a good performance should be measured.

Processes

In today's business world, where competition is becoming tougher at the same time as customers are becoming more demanding and take low cost, high quality and rapid response for granted (Hammer, 2001), it becomes increasingly difficult for companies to reach their main goal; profit. Hammer (2001) and Muffatto et al.

(1995) argue that processes are the best way to approach this environment. This is because the key idea of processes is to always have the customers in focus.

Hammer (2001) defines processes as an “organised group of related activities that together create a result of value to customers”. Consequently, this is an important part in a management control system, which was noted above as formal routines that alter or maintains work patterns.

According to the definition, a process consists of several activities, which are likely to be handled by different departments. Hence, there is a risk that those activities are done with just the particular department in mind, creating a silo-thinking. This is the opposite of a complete process. In order to have such a complete process, the activities must be organised so that they together can reach a result. In other words, a process should be organised in a way so that the activities must be performed in a predetermined order, one should neither deviate from the order nor skip any activities. Further, it is important that the process participants have the end result in mind and not trying to maximise the output from the participants’ particular department (Hammer, 2001). An enabler for the process perspective is that the process is possible to overlook and is designed so that the participants understand the interrelationships among the activities (Weske, 2012).

The process participant, mentioned above, is one of the main stakeholders in the domain of processes. A process participant uses the process on an operational level, i.e. conduct the tasks that are described in the processes model. Another important stakeholder is the process owner, which is responsible for one particular process. He or she should detect and correct inefficiencies as well as consult process participants how to execute the process (Weske, 2012).

Compliance

In this study compliance is defined as to be compliant with laws and regulations. According to Short & Toffel (2010), organisations with a compliance office significantly increase the probability that the whole organisation is working in a compliant way. Since laws and regulations are changed continuously, it is crucial that the compliance office is keeping up to date and revising the compliance guidelines constantly (Jennings, 2012).

There are several advantages for organisations to have a good track-record of being compliant with laws and regulations. Short & Toffel (2010) point out that companies

which are compliant to human rights and environmental laws have high possibilities to increase their goodwill. Another example of the advantage for companies of being compliant is from the U.S. Department of Agriculture, which reduced their inspections of industrial food processors that build systematic safety checks into their production routines (Short & Toffel, 2010). Non-compliant companies are exposed to risks of scandals as introduced in the background of this study, which Surienty et al. (2011) mean can lead to claims and payment of compensations.

Boundaries

The purpose of a management control system is to ensure that the employees' behaviour is in line with the goals of the company. A natural way of ensuring that the goals are followed to a minimum, is to enforce rules and boundaries. Regardless of area controlled by a boundary, its purpose is to avoid major risks and ensure that all individuals follow the philosophy and values of the organisation (Simons, 1992).

Boundaries are generally stated in a negative way; telling members of the organisation what they are not allowed to do. A common example is code of conduct that prohibits unethical behaviour, such as accepting bribes. On a higher organisational level, boundaries could limit what a certain subsidiary could do or could not invest in (Simons, 1992). Such rules are sometimes more like guidelines which the manager in charge can chose to deviate from if he/she believes the action to be in the best interest of the company (Anthony & Govindarajan, 2007).

Manuals describe how work should be done and are therefore a type of rule or boundary. Consequently, processes which control workflows could be defined as a boundary. Once again, some manuals and processes should be followed strictly and some should be used more as guidelines. The need for stricter and more detailed manuals and processes is greater in larger centralised organisations, with several geographical spread subunits compared to the opposite (Anthony & Govindarajan, 2007).

In summary, a boundary ensures minimal goal congruence, as it force individuals to act within certain limits. The organisations' credibility is henceforth maintained and top managers can focus on more important matters than safeguarding.

Information systems

However, boundary is not the only way to assist the MCS, there should be tools that also enable management to make their daily work easier, for example information

systems. Information systems enhance the quality, the capturing and processing of data into information used to assist decision makers (Li, et al., 2012). Information systems can also have an economic impact on the firm's performance via improvement of organisational effectiveness and efficiency (Henry, 1975) & (Redman, 1998).

The importance of information system has been found to be great within MNCs. As these grow larger, co-ordination among different subsidiaries becomes a major problem. In order to solve these types of problems, it is essential to have information system that enables the whole organisation to communicate smoothly (Busco, et al., 2008).

However, wholly an information system is not enough; they have to be operated in the right way. It is therefore important to understand the problems of system misuse, i.e. when the system users do not handle the system in an optimal way. Prior studies have shown that system misuse resulted in a reduction of individual productivity. For an organisation to gain as high benefits as possible from a new information system, the users have to use the information system effectively and extensively (Deng & Chi, 2013).

Three major causes of information system misuse, identified by Deng & Chi (2013), are lack of knowledge, reporting problems and data problems. Lack of knowledge relates to the fact that users do not know how to operate the system, while reporting problems is when users cannot use the reporting features in the system to perform their tasks. Data problems occur when users fail to put in information in the system causing missing data, inaccessible data or non-applicable data.

Information systems also have positive effects on decreasing maverick buying, which was described in chapter 3.2.2. Kulp et al. (2006) points out that one of the primary causes of maverick buying is the lack of accurate information throughout the whole organisation regarding preferred suppliers, changes in preferred suppliers, and contract rates.

In accordance to this, the case company studied in Kulp et al. (2006), GSK, created an internal website called Orange Pages, which communicated procurement information throughout the organisation. With information about alterations in contracts or details on the negotiated rates became easily available in the organisation, the maverick buying decreased dramatically.

3.3.2 Social control

The third type of control is social control, which focuses on communication and leadership. Hence, it is rather a way of affecting people than controlling them. For an organisation to reach high performance, it is of great importance that managers are cooperating with their workers. Blau (1974) points out that the exercising of power only can guarantee that the employees do a minimum effort, while it cannot ensure maximum effort. As a result of this, it is important for the managerial function to focus on leadership, and not only direction. The effectiveness of different styles of leadership depends on the personality of the workers and the tasks to be done (Ansari, 1977).

As defined by Ghoshal et al. (1994), there are two kinds of communication within multinational corporations; horizontal and vertical. Horizontal communication refers to the communication between the subsidiaries themselves, whilst the vertical communication is between each of the subsidiaries and the headquarters. Horizontal communication is regarded to be one of the most important elements in managing information flows within MNCs. An important part of the communication between subsidiaries takes place through meetings and networking mechanisms. It is of the great importance that this is a structured part of the organisation's processes (Ghoshal, et al., 1994).

According to Ghoshal et al. (1994), the responsibility for strategic direction, decision making, and overall coordination rest with the headquarters. Therefore, it is essential to have fast and efficient vertical communication for multinational organisations to stay competitive (Ghoshal, et al., 1994) & (Monge & Fulk, 1999). The level of autonomy for subsidiaries has a limited effect on both vertical and horizontal communication in multinational organisations. Rather, it is interpersonal networking that creates the most positive effect on the on-going communication (Ghoshal, et al., 1994).

The second step mentioned by Edström & Galbraith (1977) is to create commitment to the organisation as a whole. Commitment is divided into three steps; identification, involvement and loyalty. Identification is when the employees adapt their own goals and values to the ones of the organisation. Involvement is the psychological absorption in the activities of the work role. Loyalty is a feeling of affection for and attachment to the organisation (Edström & Galbraith, 1977). As a

result, employees of many different backgrounds and cultures are able to work effectively together as a team.

3.3.3 Reward system

According to Anderson & Chambers (1985), the employees' motivation is strongly connected with the nature of the reward systems used by the organisation. The reward system, and how it is outlined, it is therefore of great importance for organisations to motivate their employees. Wei et al. (2012) suggests that an efficient way to increase the motivation among the employees is to involve them in the process to design the reward systems.

As stated by Anderson & Chambers (1985), there are two different types of rewards; extrinsic and intrinsic. Extrinsic rewards are distributed by the organisation to the employees. Measurement systems are guiding the allocation of extrinsic rewards, which could be salary, promotion, fringe benefits etc. Intrinsic rewards, however, are rewards that are given to the employees by themselves. They satisfy desires as higher self-esteem or self-actualisation, and other higher order needs (Anderson & Chambers, 1985).

Porter et al. (1975) states that even though the organisation is not distributing the intrinsic rewards, their effect is closely connected to the design and structure of the organisation. According to Anderson & Chambers (1985), the potential for intrinsic reward to work as a motivational factor is determined by how much the organisation allows the employee to strive for his/hers intrinsic rewards.

How motivated and satisfied the employee actually gets is related to the level of intrinsic and extrinsic rewards and how the employees perceive if the rewards are fair. Perceived rewards represent the level of reward an employee feels he/she should receive according to the level of effort, task performance and outcomes achieved (Anderson & Chambers, 1985). The best situation, with the highest level of satisfaction, is achieved when perceived reward equals actual reward. On the other hand, the lowest level of satisfaction occurs when perceived rewards exceed actual rewards. In the case where actual rewards exceed perceived reward, the employee might experience feelings of guilt and discomfort (Adams, 1965).

As mentioned, extrinsic rewards are based on measurement systems. The problem with this is that employees who are in their pursuit of extrinsic rewards will focus

most of their time and energy on achieving whichever parameters are measured. Hence, organisations face a big, if not impossible, challenge to measure everything that really counts since they cannot reward what is not measured (Anderson & Chambers, 1985).

3.4 Theoretical framework

In order to summarise the theory and be able to use it systematically in the study, a theoretical framework is developed. This framework will later be the basis both for the interview template during the empirical data gathering and a cornerstone in the analysis and conclusion.

The theoretical framework is based on the concept presented in figure 8. As illustrated, there are two types of reasons to why local products exist; external and internal. External reasons are pressures from outside the company to have local products and internal reasons are behaviours within the company that explains why local products exist. As for the grey circle, Management Control System, it is variables that can be used in order to control or influence the internal or external reasons to why local products exist.

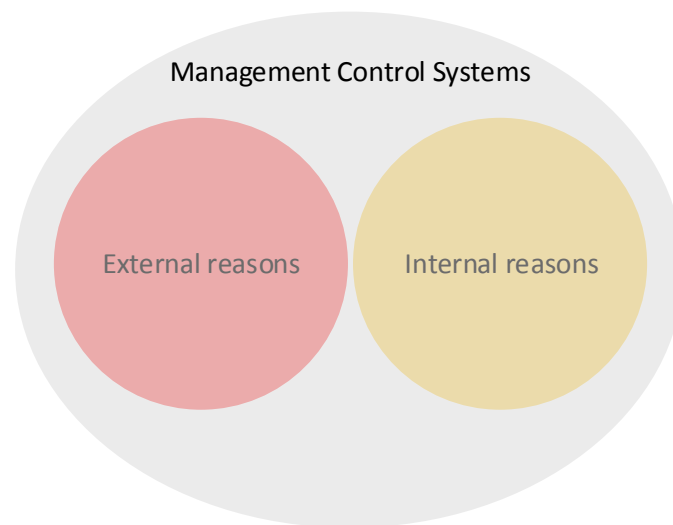


Figure 8 – Theoretical concept

Following the concept in figure 8, the external reasons will be presented and explained followed by the internal reasons. Thereafter, the variables for controlling

these reasons will be presented. In the end, the theory will have been boiled down to the theoretical framework.

The first external reason, presented in table 5 below, is *F2F influence*, or farmer-to-farmer influence; this is a measure combining the values of ethnocentrism and conformity. The combination is due to the fact that the two factors are difficult to measure one by one and that they have very similar meanings. *Traditional/National* refers to tradition value and protectionism, where the market prefers domestic products. *Nostalgia* captures customers who, by tradition, buy the products from the same supplier time after time. These three are the most important values regarding attitudes towards local products, as described in chapter 3.1.1. As pointed out in chapter 3.1.2 *Laws & regulations* result in obligatory product adaptation.

In internal reasons, *tensions* between the headquarters and subsidiaries can through a power struggle, described in chapter 3.2.1, lead to the usage of local products to improve autonomy or prove a point. There are several reasons how *maverick buying* can lead to local products, e.g. when a local purchaser believes that he/she can get a better deal than the central purchasing organisation, see chapter 3.2.2.

The initial variable for controlling the reasons is *measurement systems*. As pointed out in the theory, a measurement system directs the attention to what is measured. Hence, this can control local products. *Processes* and *compliance* do not affect the number of local products, but rather the quality and safety risk of the local products. With strong *boundaries*, the head quarter can control the number of local products. Poor *information systems* can lead to either a lack of information about existing products or the correct price, which in turn can lead to cannibalism and maverick buying, i.e. local products. Measurement systems, boundaries and information systems are all described in chapter 3.3.1.

The most interesting aspect of social control is *communication*, which can be divided into vertical and horizontal, see chapter 3.3.2. The vertical communication refers to communication between subsidiaries and the headquarters, while the horizontal communication is the communication between different subsidiaries. Communication will not directly affect local products, but indirectly through increased tensions and poor information. *Rewards* connected to local products will influence the usage, as described in chapter 3.3.3.

In the table 5 below, the theoretical framework is put together from the reasons and variables presented above.

Factors	Reference
External Reasons	
F2F influence	Steenkamp & de Jong, 2010; Schwartz, 2007
Traditional/National	Steenkamp & de Jong, 2010; Schwartz, 2007
Nostalgia	Steenkamp & de Jong, 2010; Schwartz, 2007
Laws & Regulations	Calantone et al, 2004; Johnson & Arunthanes, 1995
Internal Reasons	
Tensions	Busco et al, 2008; Williams & van Triest, 2009; Buckley & Ghauri, 2004; Björkman et al, 2004; Szulanski, 1996; Kostova & Roth, 2002; van der Meer-Koostra & Scapens, 2004; Vance, 2006; Leenders & Johnson, 2004; Quattrone & Hopper, 2005
Maverick Buying	Trautmann et al, 2009a; Trautmann et al, 2009b; van Weele, 2010; Karjalainen & van Raaij, 2011; Badenhorst, 1994; Karjalainen et al, 2009; Kulp et al, 2006; Lonsdale & Watson, 2005; Cuganesan & Lee, 2006; Cox et al, 2005a; Cox et al, 2005b; Ferneley & Sobreperez, 2006
Management Control Systems	
Measurement systems	Ansari, 1977; Anthony & Govindarajan, 2007; Simons, 1992; Hammer, 2001;
Processes	Hammer, 2001; Muffatto et al, 1995; Weske, 2012; Astrakan Strategisk Utbildning AB, 2003
Compliance	Short & Toffel, 2010; Surlenty & Kee Mui Hung, 2011; Jennings, 2012
Boundaries	Simons, 1992; Anthony & Govindarajan, 2007
Information systems	Li et al, 2012; Redman, 1998; Henry, 1975; Kulp et al, 2006; Busco et al, 2008; Deng & Chi, 2013;
Communication	Ghoshal et al, 1994; Monge & Fulk, 1999; Edström & Galbraith, 1977;
Reward	Anderson & Chambers, 1985; Wei et al, 2012; Porter et al, 1975; Adams, 1965;

4. Case company: DeLaval

In chapter 4, the case company DeLaval is presented. Followed by its current situation and problems they are facing. In order to easily follow this study, the chapter lastly presents a description of the most common definitions used within the company.

In 1878, Gustaf de Laval laid the foundation to the company AB Separator through his invention of the milk-separator. Since then, AB Separator, now known as DeLaval, has kept introducing new and innovative products to dairy farmers all over the world; from the vacuum based milking machine in 1917 to the robot Voluntary Milking System in 2000. In 1963, AB Separator changed its name to Alfa Laval and was later acquired by Tetra Pak, which is a world leader in packaging food products. The liquid food processing parts of Alfa Laval was integrated into Tetra Pak and farming equipment was put in the new company Alfa Laval Agri. Two years later, in 1993, Tetra Pak and Alfa Laval created the Tetra Laval Group. The Tetra Laval Group later sold Alfa Laval but kept Alfa Laval Agri, which changed its name to DeLaval (DeLaval - In brief, 2012).

As shown in figure 9, the Tetra Laval Group consists not only of DeLaval and Tetra Pak but also Sidel, which mainly produce plastic bottles for liquid food packaging. Hence, the group controls two of the major activities in the value chain of liquid food; production and packaging. The whole group employs 39 000 people globally, with Tetra Pak being the largest employer and DeLaval the smallest (Tetra Laval Group, 2012).

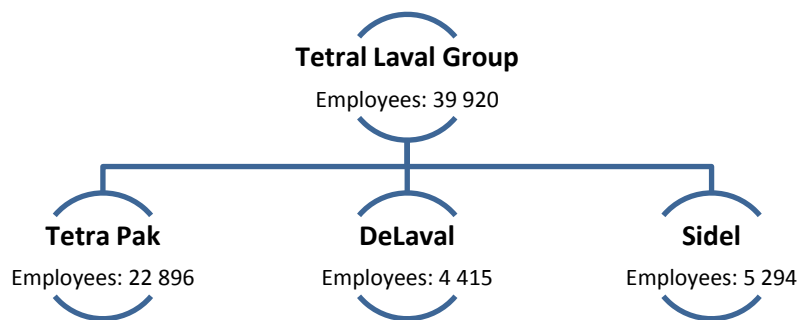


Figure 9 – The Tetra Laval Group

In the fiscal year of 2011/2012, the Tetra Laval Group experienced a 5% increase in net sales and had accumulated net sales of €12 665 million, out of which €955 million came from DeLaval. While DeLaval being the smallest company in the group, it is still truly global; it has 18 production plants all over the world and it is active on over a hundred markets (Tetra Laval Group, 2012).

The main strategy of DeLaval is to be a full-service provider for dairy farmers, meaning that DeLaval will sell every type of equipment that dairy farmers might need. Consequently, DeLaval offers everything from advanced milking robots and IT-systems to detergents and rubber boots. An important aspect of this business model is to provide service and assistance for their customers. Hence, on top of DeLaval's over 4000 employees, they have 3 200 service men who provide emergency service around the clock all days of the year. DeLaval further provides more advanced services such as advisory services and farm planning (DeLaval - The Company, n.d.).

DeLaval is managed from DeLaval International, which is the headquarters located in Tumba, Sweden. As illustrated in figure 10, the company is organised in four main areas. In business area (BA) Aftermarket & Services commodity products are managed, whilst advanced products and R&D can be found in BA Capital Goods. None of these two business areas do any direct sales since this is handled through the Sales Regions, supported by supply chain (DeLaval - Intranet, n.d.).

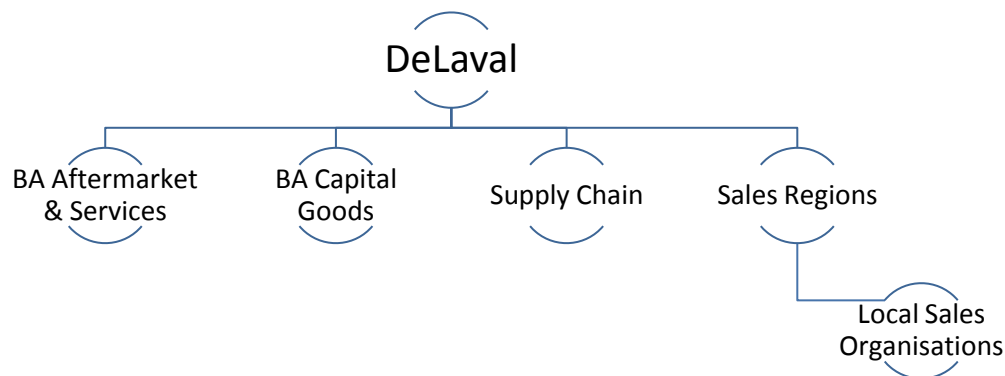


Figure 10 – DeLaval organization chart

Each sales region has responsibility for a number of different countries or markets. For example, the sales region Northern Europe is responsible for sales in Sweden, Norway, Finland, Estonia, Latvia and Lithuania. Whilst Region Central Europe, the second studied region, manage the sales in Germany, The Netherlands, Switzerland,

Denmark, Austria and the Balkans. To fulfil its responsibilities, the sales regions have Local Sales Organisations (LSO) which in turn is responsible for smaller areas. For example, Region Northern Europe consists of LSO Sweden, LSO Norway, LSO Finland and LSO Baltics. There are eight sales regions and 35 LSOs in total, which together cover over one hundred markets (DeLaval - Intranet, n.d.). DeLaval's sales force can therefore be described as decentralised.

4.1 Current situation

Today, DeLaval runs its business as projects with a start and a stop, which makes processes an essential part in the company's daily work. One of the most important processes is DCS 015, DeLaval Development Model, which is a model that is intended to support DeLaval products through the entire lifecycle at all system levels (Larses, 2013). DCS 015 – DeLaval Development Model is illustrated in figure 11.



Figure 11 – DCS 015 – DeLaval Development Model, most abstract level (DeLaval - Intranet, n.d.)

DCS 015 is encouraged to be used in every development project throughout the whole organisation. However, whether the Local Sales Organisations follow this process is still a question mark. Moreover, LSOs have the right to sell products according to each different market's need and consequently they have the right to purchase products that are not in DeLaval's own assortment. A limitation to this is that the LSOs are not allowed to buy products from local suppliers if the product in question is a part of DeLaval's own assortment (Kingstad, 2013). Since DeLaval International at the moment does not control the purchasing behaviour of the LSOs, problems arise. For example, products that the LSOs purchase locally also exists in Delaval's own assortment, which could result in cannibalism. This leads to a lower turnover of DeLaval's own assortment and consequently to losses in economies of scale.

When purchasing, the LSOs should follow the DeLaval purchasing process, which ensures quality, but since the LSOs do not have professional purchasers, the process is not followed. Hence, DLI does not know if the products purchased by the LSOs

have gone through any quality controls. Thereby, DLI cannot be sure that all their products are compliant with regulations and DeLaval's quality standards.

Additionally, there are a variety of different definitions regarding assortment. For instance, *global assortment* and *central assortment* does not refer to that products can be sold on every market, but rather that they are managed through DeLaval's central warehouses. This assortment has gone through DCS 015, and compliance is therefore ensured. The two terms are used parallel within the organisation even though they should refer to the same assortment. In this study, the term central assortment is used.

For the LSOs, there are *local unique assortment* and *local assortment*. Local unique assortment refers to the product assortment that is unique for one LSO and does not belong to the central assortment. DeLaval International has acknowledged the local unique assortment and is accountable for it while the LSO administer it. The difference to local assortment is that it is not acknowledged by DeLaval International, making the LSO both accountable and administrators of the assortment.

On top of the already mentioned terms for different assortments, there are: *GMU assortment*, *LSO assortment*, *DE65 assortment*, *CN64 assortment*, *US65 assortment*, *RU64 assortment*, *saleable assortment*, *non-saleable assortment*, *NORM assortment*, *LOCAL assortment*, *BANS assortment* and *DLI assortment*. These terms are not used in this study, but points to a risk of confusion when discussing assortments within DeLaval (Guhres, 2013).

4.2 Definitions

There are several information systems, processes and activities that are used within DeLaval. Some of them are specifically used within DeLaval, and will be used in this study, which will be described below.

DCS 015

The DCS 015 is DeLaval's global development model, which supports their products throughout the product lifecycle. This process is detailed and contains many sub-processes (DeLaval - Intranet, n.d.).

3M

3M is DeLaval's Launch Planning & Sales Cycle. This cycle describes how DeLaval launches their products and solutions. 3M is taking place twice a year (DeLaval - Intranet, n.d.).

JAG-meeting

Joint Assortment Group-meeting is a meeting between the different markets and the R&D department at DLI. Thereby, ensuring that R&D knows what is happening on the field and which products are demanded by the different markets. It is also a forum for different LSOs to meet and discuss their situation. During the JAG-meeting, all LSOs are presenting their GAP-list. The GAP-list is a list of products that are needed to fill the gap in the assortment experienced by the LSOs (Larses, 2013).

4.2.1 Information systems

MEMO+

MEMO+ is a system that handles the technical documentation that is used within DeLaval. Documentation which describes a product or system and how it is used, e.g. operation, installation procedures and original parts. MEMO+ can be used to find parent product for an article and/or associated products (DeLaval - Intranet, n.d.).

CQT

CQT is the DeLaval Configuration and Quotation Tool, which is used globally. Its purpose is to support and simplify system sales and execute agreed global and local sales strategies. CQT can be divided in logic and pick-list versions. When logic is used, an automatically generated purchasing list on what is needed to construct the system is generated when the system is drawn. For example, when adding a cooling system the automatically generated purchasing list will look like: 4 long pipes, 3 short pipes, 68 bolts, etc. In the case when only pick-list is used, it is only possible to put separate articles in the basket, all the calculations have to be done manually (DeLaval - Intranet, n.d.).

SAP

SAP is an ERP-system which provides the capability to manage financial assets, cost accounting, production operations and materials, personnel, plants and archived documents (SAP AG, n.d.).

5. Empirical studies

In this part of the study, empirical findings are presented in the same order as it was presented in the theoretical framework; external reasons for why local products exists, internal reasons for why local products exists and management control systems. The chapter ends with the empirical framework, which is an extension of the theoretical framework.

5.1 External reasons

The interviewees from all markets described their customers as by tradition being family farms, but a development towards more professional business farms was prominent. Especially the representatives from the LSO Benelux emphasised that their customers were very professional and highly educated. As a result of this, it is the farmers who drive the market, not their suppliers. This is not unique for the Benelux market, the representative of both the Region Northern Europe and Region Central Europe stated that their markets also were market driven. As the Region Central Europe interviewee put it: “We are really trying to develop our assortment to fit the market needs”.

The Benelux market stood out as being the most technical advanced market; it is in the front end of farming. The customers demand very advanced technology, long before certain other markets. Combined with a large number of competent local players, LSO Benelux felt the pressure to fulfil the local needs through local products. The findings from the LSO Denmark varied partly from LSO Benelux. LSO Denmark did not want to handle any local products themselves, but they shared the opinion that in an advanced market there is automatically a need for local products.

5.1.1 F2F Influence

What all regions and LSOs have in common was that the customer buying behaviour is deeply affected by the surrounding farmers, or the farmers who are in the same region. It is often that a farmer demands a product that is used by the neighbouring farmers. In Region Central Europe, they sometimes have “open houses”, meaning that a farm that has installed DeLaval equipment invites the public to go there and inspect the farm and the equipment.

5.1.2 Traditional/national

With regards to the traditional values, the only country that was buying domestic products because of being domestic was Sweden. The reason explained was the fact that customer in Sweden thought that domestic products are better and of a higher quality. However, the European counterparts argued that country of origin only had an effect if the quality of two products would be identical; their customers want to maximize quality and nothing else.

5.1.3 Nostalgia

A trend of going from small family farms to larger business oriented farms was present in all markets. An example is Denmark, where the number of farmers have changed from more than 10 000 to around 3 500 during the last 15 years. This was supported by Region Northern Europe where the trend has affected the farmers to become more professional in business. "The farmers are becoming more skilled in purchasing and we see that *full system buying* is becoming more common", says the interviewee from Region Northern Europe. The same statement was found in Denmark, where the farmers show higher concern to their business than other values. As one of the Danish representatives frankly put it about today's farmers:

"Then the farmer is getting more business oriented. [...] He is not buying on feelings and he is not buying because he will be nice to his cows, he is looking at his turnover"

- Denmark LSO, 2013

In the internal jargon of DeLaval, an "all blue" customer is a customer who buy every product he or she needs from DeLaval and also stick to the DeLaval brand over the years. All markets have experienced a decrease of "all blue" customers and the customers have become far less nostalgic than it was before.

“Nowadays the customers really check the market and buy what they need from the suppliers who can supply it. Our ‘all blue’ are decreasing and is down to 10%.”

- *Region Central Europe, 2013*

It was clear that the customers are becoming increasingly demanding from the Region Central Europe interviewees. According to them, 60-70% of the market belongs to most demanding segments, where customers are looking for top performance products. They are very interested in technical details and how the products work on a detailed level.

5.1.4 Laws and regulations

The laws and regulations affecting DeLaval’s LSOs in Europe is mostly EU-laws, however it varies from country to country. For example, in addition to the EU-laws, Sweden is also affected by the Swedish Animal Welfare Act which could determine the size of boxes and other barn equipment. However, the consequence of Animal Welfare Act is decreasing since it is becoming more and more similar to the EU-laws.

The Region Central Europe is affected by a German law that requires producers to provide instruction manuals for all non-machine products regardless how technical advanced it might be. This law has partial or no effect on product alteration, but it put extra work for the LSO who needs to write manuals and ensure that they follow with the product. The market which was most affected by laws and regulations was Denmark; they follow EU-laws very strictly and often does tough interpretations. On top of this, Denmark has strong environmental organisations and animal welfare groups that push authorities to enforce tougher laws and regulations. This had, according to the interviewees from LSO Denmark, forced them to take in local products. An example of central product affected by this is a water tank for cows to drink water. As a central product, it was compliant with EU-laws. However, according to the Danish laws, the water tank was too small; so that the LSO Denmark had to take in a local product that fitted the local law.

As for Switzerland, which is a part of Region Central Europe but not an EU-member, the EU-law does not apply. Instead it is the local laws of Switzerland that needs to be taken into account. For the farming industry, protective technical regulation is applied. Consequently, Switzerland has a very separate and unique assortment

compared to the rest of Region Central Europe. Further, Switzerland's non-EU membership makes import expensive.

"They [Switzerland, authors comment] have a quite separate assortment. They have always produced a lot of stuff in Switzerland because it would be much more costly to bring it to Switzerland."

- Region Central Europe, 2013

It is worth noting that the laws and regulations in Switzerland have resulted in a completely different assortment, especially in barn stalling. This compared to the German market, which is the largest market in Region Central Europe.

5.1.5 Technical preferences

Due to the fact that different markets are in different phases of technology development and have different traditions, local preferences have developed for products and technology. Such unique technical preferences exist in LSO Benelux and Region Central Europe, but not in the Region Northern Europe. For the LSO Denmark, the interviewee expressed that these technical preferences exist among aftermarket and have an impact on local products, such as shovels and hayforks. They stressed that this type of products looks different all over the world due to tradition, and are therefore impossible to have as central product. When it comes to capital goods, the interviewees stated: "There are some preferences, but I would say that they are on an individual level and not general."

In southern Germany, dairy farmers have a type of cow called Fleckvieh, which is heavier than the normally used Holstein cows. This resulted in two types of local preferences for milk robots and fences within Germany. Yet, the technical preferences are strongest in Benelux.

"In the capital goods area, a quarter of the product range is affected [...], they are pushing us to change something in the product. Sometimes we don't [...] and sometimes we don't think we have an option but to change it."

- LSO Benelux, 2013

5.2 Internal reasons

5.2.1 System sell

System sell is a term used by DeLaval local sales organisations, meaning that sales organisations are not only selling one product at the time, but rather a large system consisting of various products. Such a system could for example be a whole dairy farm with all necessary items or sub-systems such as a cooling solution. Said systems are in DeLaval's central assortment and thus have a good margin and are therefore pricy. Consequently, the farmers want to have all their needs and wants fulfilled before investing in such systems.

In order to convince the customers to purchase a system, all interviewees have pointed to the importance of local products, due to the fact that local products fulfil the farmers' specific demands on small parts. For example, in Region Northern Europe, the farmers wanted a different feeding distribution solution; the farmers requested an automated feeding table instead of a classic feeding wagon in order to purchase the whole feeding system. Hence, a local product was created to fulfil that need. All sales organisations were of the opinion that the specific demands from the farmers could not be fulfilled by DLI's central assortment; local products were therefore used by all LSOs and regions.

Another example of local products that are used to support system sell is locally adapted parlours in the LSO Benelux. The interviewee reasoned as follows:

“To increase our market share, we have to be very competitive and innovative on the parlour side. Since this is the part of the project that is very decisive for the choice of the farmer. So a local parlour might not, or hardly, contribute to the vertical margin, but indirect it will help to sell more parlours and thus automation and clusters. We see parlours as the carrier of automation and the way to get customers for DeLaval.”

- LSO Benelux, 2013

The thought of local products supporting the sales of the central assortment is prominent in all markets and even supported by a Project Manager at the DLI R&D department, who has previously worked in sales. As he pointed out: “there are no clear business cases for local products, but they are used to sell complete systems.”

A similar thought, that local products support system sell, was raised by the aftermarket representative from the LSO in Denmark. According to him, selling local products could also be a way to attract new customers, which could lead to sales of more advanced central products at a later stage.

5.2.2 Tensions

All the interviewed LSOs have stressed the importance of local products. Except of system sell, tensions between DLI and LSOs also contribute to the existence of local products. Different interests between DLI and LSOs were an aspect that was brought up during the interviews. This is especially significant among the LSOs in Benelux and Region Central Europe;

“Most people at DLI think that DLI should develop the product and the LSOs sell it. However, in real life we see that the market is going really fast and the market is local.”

- LSO Benelux, 2013

This is also supported by Region Central Europe, by saying:

“We do not want to be only a sales office; we also want to develop our own local products in order to meet the local needs. [...] Small, simple products should also be developed or produced locally, DLI should only give us directions.”

- Region Central Europe, 2013

According to the citations above, these LSOs expressed a strong feeling for local products and the importance of their own involvement in local products. They also expressed their concerns about being forced to only sell central assortment by DLI, this would be a worst case scenario.

Another aspect the interviewees brought up was the slow decision-making from DLI, especially regarding whether a local product should be included in the central assortments or not. All the interviewees experienced that it takes shorter time to fulfil the customers' requirement if products are developed locally. An example given in LSO Denmark was that if they introduced a local product it would take around two weeks, but if they would wait for DLI to take the product into the central

assortment, it could take up to two years. This is also supported by Region Central Europe and LSO Benelux. However, in Region Northern Europe they did not share the same opinion. They were satisfied in getting direct respond from DLI due to its close geographical locations. This view was also supported by a Project Manager at DLI's R&D department. According to him, the sales organisations want to have the central developed products, but they cannot get them fast enough.

Additionally, LSO Benelux has also expressed their concern of DLI's Not-Invented-Here syndrome, which means that if the product is not invented at central level, the product is not good enough. In other words, DLI is not open-minded towards products that come from anywhere else. However, when asking the same question to a Project Manager at DLI, the reaction is the opposite. He claims that the majority of DLIs' assortment is not developed in house and points out that the same syndrome could be found at the LSOs, which could favour their locally developed products over some solutions from DLI.

5.2.3 Maverick Buying

All the LSOs have their own undefined purchasing process and do not follow DCS 015 or any centrally defined purchasing process. Furthermore, there are no purchasers at the LSOs; the purchasing is therefore handled by non-professional purchasers. The shortage of purchasing expertise was exemplified by Region Northern Europe and LSO Benelux where they requested support to negotiate and establish contracts.

When it comes to how to select their suppliers, all the LSOs have chosen their suppliers upon their earlier experience and their gut-feeling. They are satisfied with this type of supplier selection, and are not keen on using a more systematic approach to select supplier.

Region Central Europe is unique in the way that they do not only have purchasing activities, but also product development and product modification activities. They plan to develop even more local products in the future to fulfil the need of their customers. As the interviewee put it:

“It is very easy for me to do product adaption, since it only takes me five minutes of development and one day of drawing, then you can make the customer happy.”

- *Region Central Europe, 2013*

Case in case - The Touch Screen

Overall, few sub-cases showed signs of maverick buying, but one region stood out. In the last few years, both the Region Central Europe and the LSO Benelux detected a strong need for a touch screen to complement one of DeLaval’s larger product; the rotary. The rotary is a large scale milking robot which can milk 20-105 cows at the same time. This product was not delivered with a touch screen, allowing the farmers to easily monitor the robot. DeLaval’s competitors in these regions offered this interface. Region Central Europe and LSO Benelux identified this as business critical; a product they needed to offer in order to get the deal.

DLI became aware of this and started a development project. However, this project got constantly delayed, causing irritation in the sales force. The Region Central Europe as well as LSO Benelux felt forced to take in a local product to satisfy the customers who wanted the touch screen now and not in the future. Hence, they both separately turned to the French supplier ATOS, an existing DLI supplier, which could develop the touch screen fast. As soon as the ATOS touch screen was finalised, it was sold in Benelux and the Central Europe markets.

When Region Central Europe was asked if they would switch to the DLI touch screen when it is launched, they were very sceptical. The interviewee said that since his opinion was not taken into consideration in the development process, he would not be very engaged to sell the DLI product. Even more so, if the central developed touch screen would not live up to the standards he had requested, he would not sell the DLI product. If he were forced to stop buying from ATOS, he would recommend his customers to buy from ATOS directly.

Discussing the same issue with the project manager responsible for the development of the touch screen provides deeper understanding. According to him, the Region Central Europe and LSO Benelux had quite an influence in the development, at least on the specifications. However, as DLI builds products that must fit in all markets, they first have to prioritize the most fundamental aspects of the products. Therefore, DLI cannot meet all the requirements from their own sales organisations.

The reason why ATOS was not chosen to develop the touch screen for DLI, in other words to take the local product and make it central, was due to potential quality issues. For a product to become central, it has to live up to strict compliance and quality demands, ensuring that the product will work properly in all markets and conditions. ATOS could not live up to this and the decision to make it in house was made.

5.3 Management control system

5.3.1 Measurement systems

As any global organisation with subsidiaries, DeLaval uses measurement systems in order to collect information vertically, from the LSOs to the headquarters. The main measure is the *vertical margin* which is the margin from purchase or production cost to the end customer price. The LSOs are measured on how much vertical margin they provide to DeLaval. Before this system was introduced, the LSOs were measured on *local margin*, which was how much margin the LSO could take on top of the internal price for the product. The problem with the old system was that the LSOs did not know how much the total margin for DeLaval was. Consequently, it could seem better for LSOs to purchase locally for a lower price and add a large margin than to purchase internally and add a lower margin to reach the same end customer price in the end.

5.3.2 Processes

Regarding processes for handling local products, all interviewed LSOs and regions have developed their own processes for purchasing and development. According to Region Central Europe, there has not been any support from DLI in creating the process that they have in use. Further, they pointed out that the layout of the current process might change when they get more knowledge of what works and

what does not. The same interviewee expressed an understanding over the need for processes but also doubt:

“The reason for processes is quality. We need to keep perfect quality. But the processes are so complicated today that we do not have enough power and people to be able to integrate everything we need.”

- Region Central Europe, 2013

The process that is in use for developing central products at DLI, DSC 015, is known by all the interviewees and they all feel that this process is too complicated for local products. Region Central Europe stated that they do not have time to go through DCS 015, as the interviewee put it:

“I am 100% sure that if we go in [DCS 015, authors comment] we would have to take the full development process with the one thousand papers we would have to sign and then we are out because we cannot manage to do all that. Then we need more people”

- Region Central Europe, 2013

An internal Business Manager at DLI supported LSO Benelux and Region Central Europe in that DSC 015 is complex and a lighter version is needed for local products. In an effort of cherry-picking, the Region Northern Europe has used the DSC 015 as a source of inspiration when building their local process.

Even if there is an understanding for the importance of processes within the sales organisation, the complexity of the central processes and the amount of them lead to a tiredness of processes:

“We have killed all the gut-feeling. We have a very process oriented organisation today and if you want to develop a product in Tumba you have to have all kinds of business cases and procedures. [...] After three years you might have a product. We cannot wait so long.”

- LSO Benelux, 2013

Regarding the 3M cycle, presented in chapter 4.2, Region Central Europe thinks that it is too inflexible. It is acceptable that the 3M cycle is only twice a year, the problem is rather that if the deadline is missed with just a short while, the next chance to

introduce a product is in the next cycle, six months later. If the product is crucial to get into the market fast, Region Central Europe solves the problem by selling them as “test-installations”. These test-installations are local products.

5.3.3 Compliance

All interviewees were aware of compliance issues, mostly referred to as CE-mark. What the interviewees also had in common was that they expressed concerns on this topic and that they trusted their local suppliers to be responsible for compliance.

The LSO Benelux and Region Central Europe saw the need for support from DLI in compliance questions; at the very least, they wanted to know who to contact regarding these issues. Region Central Europe stressed that this support from DLI should be without any cost; otherwise they might use an external company instead. Region Central Europe was rather unique in this aspect, as they currently worked together with the German Work Security Authority which ensured that the products that Region Central Europe developed were safe.

Regarding the wish for free support, representatives from DLI stated that this would not be likely. However, when Region Northern Europe introduced their local automated feeding table, see chapter 5.2.1, they received assistance from the compliance office in DLI. Also, the compliance office did not charge Region Northern Europe for this support.

The LSO Denmark fears that if there would be control from DLI regarding compliance it would slow down their process to launch local products. Region Northern Europe, who already has a relationship with the compliance group at DLI, feels that they get sufficient support regarding compliance.

Regarding the selection of local suppliers, LSO Denmark expressed that it is not optimal that they are responsible to find suppliers. Hence, they seldom do this. However, if an existing supplier can provide the product, they trust it on quality and compliance, this could be explained by their earlier relation and the supplier’s reputation in Denmark. At the same time, they are also aware of the fact that it is risky for them to assign all of the compliance responsibilities on their suppliers.

The Region Northern Europe, which does not have as many local products as the others, has also expressed their concerns for compliance, especially concerns for CE-

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mark. They are aware of the fact that some small suppliers do not have the right knowledge to ensure compliance. The same problem is applicable for all LSOs and regions.

5.3.4 Boundaries

Boundaries are the rules and directives that determine how an organisation should work. From the empirical study, the lack of clear boundaries from DLI stands out especially from Region Central Europe’s input. According to the interviewees, DLI cannot force the LSOs to switch from a local product to a central one.

In the lack of clear directions from DLI, the LSO in Denmark established their own boundary regarding local products. Their so called mobile shops, sales men driving with trucks from farm to farm selling aftermarket products, are only allowed to have 10 % of their sales turnover from local products. This setup is in order to promote the central assortment, which in the end has higher margins.

5.3.5 Information system

Table 6 illustrates how the interviewees work with different information systems. A notable difference is that the LSO Denmark can use CQT fully, compare to the others who only uses pick-list. LSO Denmark also claims that they do not use MEMO+, while the other interviewees use it to some extent. A finding from all interviews is that none of them can use SAP to see other LSOs local assortment.

Country/ System	Benelux LSO	Region Central Europe	Region Northern Europe	Denmark LSO
MEMO+	Read only	Can only upload pdf	Can upload pdf with links	No use
SAP	LSO-unique article numbers	Have global article numbers, so they exist in the global SAP level	N/A	LSO-unique article numbers
CQT	Only uses pick-list	Only uses pick-list	Only uses pick-list	Can use in the same way as for central products

What stood out regarding information systems was that the Region Central Europe previously had tested an internal webpage where all employees could find best practises. The exact function of this page was not described in detail, but it had not worked, due to the reasons that the system was not user-friendly and the employees had no intension of using it, the system was therefore no longer operational.

5.3.6 Communication

When discussing communication, it was clear that all the interviewees were appreciating the JAG-meetings, meetings between LSOs and DLI to discuss future products. The LSO Benelux, LSO Denmark and Region Northern Europe would like to see that they meet more often with colleagues from similar markets, especially meetings between Region Northern Europe and Region Central Europe. Today, most JAG-meetings are on a global level, meaning that LSOs with different conditions waste time on unnecessary discussions. For example, LSO Benelux does not want to discuss the same products as LSO Russia whose local products are less technical advanced.

Furthermore, the LSO Denmark suggested that the JAG-meetings could be more efficient through a better use of the GAP-lists. The current problem is that a lot of time on the JAG-meetings is used to present GAP-lists, instead of collecting this information in advance. Through this change, more time on the JAG-meetings could be spent on discussing solutions.

According to Region Central Europe, the communication with DLI and other LSOs works quite well today. The problem is that there is a lack of resources and thereby a lack of time and availability amongst the colleagues. They suggested that a monthly telephone meeting between the portfolio managers at DLI and the region could be a possible way to solve this problem.

The LOS Benelux misses a “go-to guy” at DLI, where they could present their problems. The LSO Denmark feels that the communication with DLI works well in general. What they mentioned could be improved is to have training sessions together, where you meet face-to-face, and not only webinars⁵. Region Northern Europe is located in Tumba, together with DLI, and do not see the same problem as the others;

“There is no problem in the communication with DLI, we take it directly with our colleagues further down the corridor”

- *Region Northern Europe, 2013*

With regard to the more horizontal communication between LSOs, the interviewees describe the internal communication and knowledge sharing as informal. Region Central Europe is of the opinion that if they are aware of the person who can help them with the new product, they will just call the person and ask for help informally. They are satisfied by this kind of set-up.

At DeLaval, there are two different terms that describe the assortment of local products; *local assortment* and *local unique assortment*. These terms are used all over the organisation and are supposed to have different meanings. It was also indicated that the differences were important in managing local products. Hence, all interviewees were asked to define these two terms. All answered confidently, as they were sure about that they used the correct definition. As illustrated in the table 7 below, the answers differed greatly.

Note that in this study the term local product is always used and refers to all products that are not in the central assortment. This choice originates from that there are no clear definitions to use.

⁵ A video conference held over the internet

Term	Correct definition	Benelux LSO	Region Central Europe	Region Northern Europe	Denmark LSO
Local Assortment	Not acknowledged by DLI, making the LSO both accountable and administrator of the assortment.	Same product that is sold in several countries, but not all. DLI need to approve that a product is transferred from a country to another.	Only local unique assortment is defined in DeLaval.	N/A	Local assortment and local unique assortment is the same.
Local Unique Assortment	Is unique for one LSO and does not belong to the central assortment, but DLI acknowledge the assortment and is accountable for it.	Products sold only in Benelux, no formal acceptance form DLI.	Not allowed to use group supplier ⁶ or sell in another country.	Only sold in one or a few LSOs, a limited area.	Not competing with the group assortment and they should support the sell of global assortment.

Table 7 – Definitions of local assortment and local unique assortment

5.3.7 Reward

There is no direct reward connected to local products according to the interviewees, and they all agree that this is preferable. The only exception is in the LSO Denmark, where the mobile sales team gets the same commission for local and central products. As opposed to rewards regarding local products, Region Central Europe express that there are some incentives to use central products instead of local

⁶ A supplier that have a framework agreement with DeLaval

products through the balance scorecard. Region Central Europe also mentions the problem with a reward system regarding local products;

“A reward system regarding local products would be very difficult to design in a good way; therefore it would probably give a negative effect instead”

- *Region Central Europe, 2013*

The idea is shared with LSO Denmark where their mobile shops, described in chapter 5.3.4, get the same commission for local products as for central products. The reason, it is very unpractical to make any distinctions between local and central products when calculating commission.

5.4 Empirical framework

The theoretical framework, as presented in chapter 3.4, has here in the empirical chapter been extended to what this study calls the *empirical framework*. This framework has two additional reasons regarding local products. These two findings were not theoretically expected and were therefore not a part of the theoretical framework.

The first of the new reasons was *technical preferences*, which are preferences for product design, specific for a certain market. The second was *system sell*. System sell refers to that LSOs wants to provide the customers with a complete dairy system. To be able to fulfil this, the LSOs are forced to adapt a small part of the whole system to local demands. Without the adaptation with a local product, there will be no sales. An additional change from the theoretical framework is that communication has been split into *vertical* and *horizontal communication*.

As seen in table 8, the rightmost column, there is a summary of each row, which is used to identify possible patterns. The summary column will be a starting point for the analysis in the next chapter.

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Reasons/ Case	Benelux LSO	Region Cen- tral Europe	Region Northern Europe	Denmark LSO	Pattern
External Reasons					
F2F influence	The farmers are affected by what they see in their surrounding	Cannot have unhappy customers, since they affect each other	Farmers consumption is affected by their neighbours consumption	Other farmers are the main influence on the buying behaviour	Customers' buying behaviour is deeply affected by the surrounding farmers
Traditional/ National	If everything else is the same, domestic products are chosen	No effect	Customers prefer domestic products	No effect	No effect in demand on local products
Nostalgia	Customers are not as loyal as before	"all blue" customers are down to 10 %	Decreasing loyalty among customers	Decreasing loyalty among customers	Decreasing loyalty
Technical preferences	¼ of all local products are affected	2 different types of cows, different preferences for material	Non existing	Mostly in after-market products	Exists among a majority of the sub-cases
Laws & Regulations	N/A	Switzerland has its own assortment due to national, non-EU, laws	Swedish Animal Welfare Act, with limited effect	Tougher extensions of EU-laws	Different laws affect the amount of local products

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Reasons/ Case	Benelux LSO	Region Central Europe	Region Northern Europe	Denmark LSO	Pattern
Internal Reasons					
System sell	Local products are essential in order to sell a whole system	Local products are essential in order to sell a whole system	Local products are essential in order to sell a whole system	Local products are essential in order to sell a whole system	Local products are essential in order to sell a whole system
Tensions	Experience a Not Invented Here syndrome at DLI	Do not only want to be a sales office. Simple products should be local with only directions from DLI	No tension	Not since the introduction of "local unique products", 10 years ago	Tension is experienced in half of the sub-cases
Maverick Buying	Very low. Want DLI support in establishing contracts	Will not switch to central product, if not involved in product development	Very low. Want DLI support in establishing contracts	Very low	It exists, but in general a low effect

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Reasons/ Case	Benelux LSO	Region Central Europe	Region Northern Europe	Denmark LSO	Pattern
Management Control System					
Measure- ment sys- tems	Measured on a verti- cal margin	Measured on a verti- cal margin	Measured on a vertical margin	Measured on a vertical margin	Measured on a vertical margin
Processes	Developed own process without any sup- port from DLI. Thinks DCS 015 is too complex and slow, whish for a more slim process	Developed own process without any support from DLI. Thinks DCS 015 is too complex and slow	Got inspired by DCS 015 when developing own process	Developed own process without any support from DLI	All sub-cases have developed their own independent process
Compliance	Rely on local supplier to ensure compliance . Want support from DLI	Rely on local supplier to ensure compliance . Want support from DLI	Uses compliance group at DLI	Rely on local supplier to ensure compliance. Fears that support from DLI will slow down their work	In general the sub-cases rely on their local suppliers to ensure compliance
Boundaries	N/A	Even if there are strong recommen- dations not to use some local products, DLI cannot force us	N/A	DLI cannot force LSO to switch from a local product. Local products can only be 10 % of turnover	Weak boundaries within DeLaval regarding local products.

Reasons/ Case	Benelux LSO	Region Central Europe	Region Northern Europe	Denmark LSO	Pattern
Information systems	Limited use of MEMO+, only pick-list in CQT. Cannot access other LSOs local assortment through SAP	Tried “orange pages” without success. Limited use of MEMO+, only pick-list in CQT. Cannot access other LSOs local assortment through SAP	Limited use of MEMO+, only pick-list in CQT. Cannot access other LSOs local assortment through SAP	Full use of CQT, no use of MEMO+. Cannot access other LSOs local assortment through SAP	In general a limited use of information systems
Vertical communication	Miss a “go-to guy” at DLI regarding local products	Experience a lack of available colleagues at DLI	No problem, meets with DLI often	Overall good, miss face-to-face training sessions	Half of the sub-cases experience weak vertical communication
Horizontal communication	More regional JAG-meetings	More regional JAG-meetings	More regional JAG-meetings	More regional JAG-meetings	More regional JAG-meetings
Reward	No reward system connected to local products	No reward system connected to local products	No reward system connected to local products	Same commission for selling local as central products	No reward system connected to local products

Table 8 – The empirical framework

The reader might note that there, in table 8, is no summary of each column. This is because of the pattern-matching approach; making general findings across the sub-cases. Hence, only the rows are summarised. However, the column that stands out from the rest is the one for Region Northern Europe. For this sub-case, there are for example no tensions between DLI and the region or any problem with vertical

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communication. Moreover, they are the only region or LSO which has used the compliance office at DLI and have been able to get this support for free.

6 Analysis

In this chapter, the empirical findings are analysed through the theoretical framework. The structure of this chapter follows the outline of the empirical framework and is finalised by a summary of the analysis.

The study has thus far excluded four factors that were supported by the theory, but which could not be validated empirically. Hence, they will not be analysed in this study. As seen in table 9, the four excluded factors are marked in red. The two green factors was on the other hand not anticipated in the theory but was found important through the empirical study. The factors in green and black will therefore be the subject of this analysis.

External reasons	Management Control Systems
F2F influence	Measurement systems
Traditional/National	Processes
Nostalgia	Compliance
Laws & Regulations	Boundaries
Technical preferences	Information systems
Internal reasons	Communication
System sell	Rewards
Tensions	
Maverick buying	

Table 9 – Included and excluded factors in the analysis

6.1 External reasons

The pattern of the empirical findings regarding external reasons to why local products exist is shown in table 10. The analysis is done by comparing this to the theory chapter 3.1.

Reasons	Pattern
F2F influence	Customers' buying behaviour is deeply affected by the surrounding farmers
Traditional/National	No effect in demand on local products
Nostalgia	Decreasing loyalty
Laws & Regulations	Different laws affect the amount of local products
Technical preferences	Exists among a majority of the sub-cases

Table 10 – Summary of the empirical findings for external reasons to why local products exist

6.1.1 F2F influence

In the theoretical study in chapter 3.1.1, various values were found to explain why local products exist, as shown in figure 4. However, through the empirical findings, the only values that were identified as major drivers for local products were consumer ethnocentrism and conformity. The two values have similar meanings; the consumption behaviour is affected by the group. As the two values are difficult to measure separately, they were combined in the measure *F2F influence* in the theoretical framework. According to the interviews, farmers in the interviewed regions tend to have influence on each other, especially when it comes to choosing products. Occasions like open house⁷ in the local region, give the farmers' a greater opportunity to exchange experiences with each other and talk about what products the other farmers have. One reason to local products is that the farmers are able and willing to see what products their neighbouring farmers use. Hence, the region that has more local products also result in a bigger demand of local products. In other words, F2F influence results in increased demand of local products.

6.1.2 Traditional/national

If a country is highly influenced by national and traditional values, that country tends to favour local products. However, it is not supported by the empirical findings from this thesis. Through the findings, only northern Europe has a tendency of favouring domestic products. On the other hand, LSO Benelux and Region Central Europe, which both have high number of local products, shown no strong traditional/national values. However, it has not always been the case. Due to a switching phenomenon in the farming industry today, farmers in these regions are becoming more business-minded and care more about revenues than the origin of the products.

This could be a reason to why the theory is not in line with the empirical findings. In northern Europe's case, it is not necessary that Swedish farmers have higher traditional/national value. The reason to why farmers prefer national products could also be that DeLaval is a Swedish company and is a leader in the dairy-farming industry. All in all, traditional/national value does not contribute to the explanation of why local products exist. Hence, it is excluded from the framework of this study.

⁷ A group of farmers visiting a modern farm where new farming products are presented

6.1.3 Nostalgia

Nostalgia was mentioned as a custom-domain value, which could affect both the preferences for both local and global products. In this study, nostalgia was interpreted as loyalty from the interviewees. Through the interviews, it became clear that customers in every region were non-nostalgic; customer loyalty was decreasing in today's dairy farming industry. Theoretically, this finding is saying that the need of local products is also decreasing. Due to the fact that local products are still on high demand at some certain regions, nostalgia is not a reason that could explain why local products exist and are therefore excluded from this study's framework.

6.1.4 Laws and regulations

Laws and regulations are the main reason explaining why local products exist theoretically. Due to this study's delimitation, the majority of the interviewed LSOs are within the European Union. This makes all of them mainly dominated by EU law, and does not have a significant effect. However, when a non-EU country like Switzerland requires tougher or other laws beside the EU law, it strongly increases the amount of local products. Therefore, laws and regulations do have influence on local products in general.

6.1.5 Technical preferences

Technical preferences are an aspect found in the empirical study. These preferences exist both on capital goods products and aftermarket products. When it comes to aftermarket, due to the different technical preferences in each region, some small detail differences become very important for the customers. For the capital goods products, except the same fact that farmers in different regions have different preferences for locally technical suited products, the size of cows was also a reason towards the need of local products. The reason to why northern Europe does not have the same problem could be explained by the fact that central assortments are developed in Sweden; the central assortment is likely to be influenced by Swedish local technical preferences. Hence, technical preferences contribute to the local product existence.

6.2 Internal reasons

Table 11 describes the patterns found in the empirical study regarding internal reasons to why local products exist. The analysis takes its starting point from this table, together with the rest of the empirical findings and theory chapter 3.2.

Reasons	Patterns
System sell	Local products are essential in order to sell a whole system
Tensions	Tension is experienced in half of the sub-cases
Maverick Buying	It exists, but in general a low effect

Table 11 – Summary of the empirical findings for internal reasons to why local products exist

6.2.1 System sell

According to the empirical findings, one of the major reasons to why local products exist was a term called system sell, as explained in chapter 5.2.1. This is a problem for DLI to understand and measure, due to the fact that there is no measure for how much a local product helps to sell the whole system, which is built up by central products. If the local product is only measured as an individual product, it might not stand out as a product that should be kept in the assortment. However, if it could be measured together as a whole system that is able to show that sales of a local product also help to sell other central products or a whole DeLaval system, it could be easier for DLI to understand the importance of the local products and why they exist.

6.2.2 Tensions

From the empirical findings, different interests have aroused between local and central level. For the local sales organisation, the most important purpose is to satisfy local customers. For a central point of view, one LSO is only a small part of the whole organisation, which could be the reason to why DLI do not concern local demands as the priority, and their actions are not always in line with one certain LSO's needs and wants. Due to the fact that central level cannot always satisfy every local demand, LSOs feel an obligation to satisfy the local demands by themselves. This is a tension caused by centralisation and decentralisation, and could explain why local products exist. For instance, Region Central Europe does not only want to

be a sales organisation, but also an organisation that is able to have its own product development in order to meet the local demand.

There are also tensions present within DLI. Some parts see the need for different products in different markets, while others support a strong global centralisation. The different points of view lead to tension within DLI and mixed signals to the LSOs.

When looking through the empirical studies, a major cause of the tension is inflexibility of DLI, meaning that it takes very long time for DLI to develop a new product and the communication between LSO and DLI takes longer time than LSO wish for, when it comes to decision making. When a LSO notices a local product need, their first intension is to see if there is a possibility for DLI to take this product into its central assortment. Since it can take several years before DLI takes a decision and develops the products, the LSOs are left with no choice but to either purchase from a local supplier or, in the case of Region Central Europe, to start an own product development.

Another tension observed was a Not-Invented-Here syndrome, which is described from LSO Benelux. This partly explains why it takes such long time to develop a new product at central level. This problem is more crucial for a LSO which is active on a market with high demand for advanced technology; hence the life time for a new product could be shorter in these regions. If it takes longer time to develop a new product than the time a new technology or product is replaced, the company cannot keep their competitive advantage. This also increases the incentives for these LSOs to purchase existing local products rather than waiting for DLI to develop an own product which fulfils the same function.

The different interests from DLI and LSO can also be explained by their different priorities. For DLI, their priority is to handle the whole organisation functionally, and for the LSOs, their priority is to fulfil the local customers' demand.

It is interesting to note that the empirical findings indicate that the tension with DLI is higher in LSO Benelux and Region Central Europe, compared to LSO Denmark and Region Northern Europe. It is noteworthy that LSO Benelux and Region Central Europe both are located further away from the headquarters and that they are larger than LSO Denmark and Region Northern Europe.

6.2.3 Maverick buying

One of the major reasons to why local products exist internally is maverick buying, according to the theories mentioned in chapter 3.2.2. However, in the empirical findings, it was not a major cause for local products, but rather a risk for the company to take if their suppliers are non-compliant. One interesting finding is that Region Central Europe chooses to use ATOS as a supplier for a local product, even though they are also a group supplier. According to Region Central Europe, the definition of a local product is that it is not allowed to use a group supplier. Hence, Region Central Europe's behaviour is a good example of maverick buying.

As mentioned in chapter 3.2.2, maverick buying is difficult to measure; this could be a reason to why maverick buying does not appear to be a big problem empirically. Another explanation can be that the LSOs are not aware that they are involved in maverick buying, in case it is unintentional maverick buying. This is supported theoretically, since unintentional maverick buying is the most common type of maverick buying. In general, maverick buying is a reason to why some local products exist, but it is not an important factor in this study.

6.3 Management Control System

The analysis of the key variables for managing local products starts off from table 12, which summarise the patterns from the empirical findings. Naturally, the analysis takes all empirical findings into consideration when it is compared to the theory.

Key Variables	Pattern
Measurement systems	Measured on a vertical margin
Processes	All sub-cases have developed their own independent process
Compliance	In general the sub-cases rely on their local suppliers to ensure compliance
Boundaries	Weak boundaries within DeLaval regarding local products.
Information systems	In general a limited use of information systems
Vertical communication	Half of the sub-cases experience weak vertical communication
Horizontal communication	More regional JAG-meetings
Reward	No reward system connected to local products

Table 12 – Summary of empirical findings regarding key variables for managing local products

6.3.1 Measurement system

In theory, chapter 3.3.1, it was pointed out that measurement systems direct the attention of the organisation towards the important parts of the strategy. The change from local margin to vertical margin is in line with this theory. The new system directs the attention to the total margin of DeLaval, which of course is more strategically important than how much margin the different LSOs have.

Even if it is the vertical margin which is measured, this margin will still be lower for local products than for central. Hence, it is not the margin on the product that concerns the sales organisation. According to the empirical findings, the LSOs want to sell whole systems which have a very large margin. So, even if their margins on the local products are small, they still sell them to benefit DeLaval in the end. Theory calls this behaviour for commitment. However, as the empirical findings on measurement system do not point in the direction to explain local products, this variable is dropped from further analysis.

6.3.2 Processes

Theoretically, see chapter 3.3.1, a process for a multinational organisation should be a global standardised process to be as efficient as possible. Regarding local products, the empirical findings point out that there is no such standardised process. Instead, each LSO has developed its own process and use it in an own way. There is also some resistance against global processes among the LSOs, where they feel that a too process orientated situation becomes rigid and slow. Since a majority of the persons who are handling local products among the LSOs have a sales point of view, they also feel that they lose the gut-feeling as they have to follow a heavy standardised process.

As mentioned earlier, most LSOs prefer products to be in the central assortment. For a product to become a part of the central assortment, it has to pass through the DSC 015 process. The problem is the perceived complexity of DCS 015, it takes too long time. Instead of waiting years before DLI has finalised DSC 015 or use DCS 015 themselves, the LSOs feel that they have to satisfy the market demand faster by using their own processes. However, this is contradicting to the theory. According to the theory, a standardised process ensures that all subsidiaries comply with the headquarters standard operating procedures.

The perceived complexity of DSC 015, discussed above, is not optimal. Even if the process is less complex than it looks, theory states that an enabler for a process to work is that it is designed so that all participants understand it.

One of the most important aspects of a process is that it is supposed to have a customer focus; creating customer value. From the LSOs point of view, the DCS 015 is too slow to create any customer value. Therefore, they use their own processes that create customer value by being fast. This view is the total opposite from DLI's. DLI means that DSC 015 creates customer value by guaranteeing the highest quality and that the product can be used in all markets. Instead of thinking the local processes as fast, DLI sees them as not creating value in important aspects, such as compliance.

Throughout the empirical study, the LSOs requested support from DLI to develop and enhance their processes regarding local products. Since no global standardised process exists, there is a big potential for DeLaval to develop such a process and support the LSOs in the implementation phase to maximise its effect. One challenge

is the different circumstances that exist in the different LSOs. In LSO Benelux there is a request for an adapted process for local products, while Region Central Europe is of the opinion that processes makes them too slow to react to market demand. Even inside LSO Benelux there is a fragmentation where some parts feel that a standardised process would remove the gut-feeling. Hence, it is important for DeLaval to invest resources to support the implementation and continuous work with a standardised process for local products that meets the diverse need.

A finding through the empirical study was that the design of the 3M process is a reason to why local products exist. Since the 3M cycle takes place two times a year, LSOs are sometimes forced to meet the market demand by introducing a local product between those two meetings. These products should only be local products of a short time; until the next 3M-meeting. This is no major issue as long as the local products are taken into the central assortment in the next cycle. A potential problem arises when the local products are left in the local assortment even after it has become a central product, which may result in cannibalisation on the central products.

6.3.3 Compliance

As mentioned in chapter 3.3.1, it is important for companies to have a compliance office. In the empirical study, it is identified that DeLaval has such an office; the problem is rather that their existence and role are unknown to most LSOs. The only exception to this was Region Northern Europe who has used the competence of the compliance group. This is thought to be due to the fact that they are situated in the same corridor at the headquarters as the compliance office. The geographical closeness also serves to explain why Region Northern Europe was able to get the compliance support for free.

According to the theory, it is crucial to implement compliance as a part of the development process. Today, the local processes mostly do not have any compliance check but rather trust their suppliers to ensure compliance. However, in case a problem regarding compliance would occur, it is not certain if the suppliers would take the whole cost. If the product that the local supplier has provided is just a small part of a system and this system brakes down, the local supplier cannot be liable for the whole break down but only for the local product. In such a case, DeLaval would have to take most of the cost, which is in line with theory. These types of compliance issues were raised by DLI, but not in the LSOs. It is not possible to analyse why,

however it could indicate on a need for compliance education among the sales organisation.

A compliance issue that worried DLI internally was that LSOs and regions might think that as long as the product has a CE-mark it is compliant. First of all, a CE-mark does not mean that the product is compliant; it only means that it is compliant with that particular standard. And further, the CE-mark is only valid if the product is used in the environment as it is supposed to and not combined with other products than planned. Hence, there is a risk for non-compliance in two situations.

Firstly, if local products are put into a complete DeLaval system, the compliance is no longer ensured for the system itself. Secondly, when the system is installed at the farm it is important that all products are meant to be used in this way, i.e. in the rough environment of a farm. It was only Region Northern Europe that brought this up as something they worked with regarding compliance. A further concern at DLI is about compliance when installing a system. When a system is installed, the system itself must be CE-certified. How or if this was done was neither brought up by the LSOs nor the regions.

6.3.4 Boundaries

The role of boundaries is to guarantee a minimum level of whatever the rules are for. In the case of local products, a boundary could for example ensure a minimum level of compliance, margin or number of allowed local products. A more advanced boundary could be that to introduce a local product it has to be taken through a certain process. Currently, there are no such boundaries. Hence, there is a risk that there is no minimum level for local products.

The need for boundaries is greatest for centralised companies with many subsidiaries in different geographical regions. Even if this is exactly how one would describe the organisation of DeLaval, there are no boundaries regarding local products. Many LSOs expressed that there is no limit for them regarding local products; if a LSO feels a need from a customer, they will not hesitate to take in the local assortment. The only LSO which has any boundary regarding local products is Denmark, which has limited local products to account for maximum 10 % of its total sales. The reason explained was that local products do not have the same good margin as central products do.

6.3.5 Information systems

Information systems have proven to be an important tool in improving firms' effectiveness and efficiency. It can especially help MNC with knowledge sharing in order to increase economics of information and enable easier decision making. As is shown in table 5, the information systems in DeLaval are used in a sub-optimal way throughout the whole organisation. For some of the information systems, where the LSOs had different access, system misuse might be the problem. A larger problem for transparency is the fact that LSOs cannot view each other's local assortment or GAP-lists. As a result, there is a potential loss in economies of scale from non-used pooled purchasing. Hence, to be able to increase the economics of information and learning among different sites, as is described in chapter 3.3.1, a SAP function that also enable LSOs to be aware of each other's local assortment is needed.

Information systems should also provide best practices and guidelines for LSOs to follow. However, it is not used within DeLaval's information system today. Lack of user knowledge could be a reason to why information system does not functioning as it is supposed to do. It is shown in the empirical study that an internal webpage was introduced once at Region Central Europe. However, it is not used anymore, due to the fact that it was too complicated for them to use. This indicates that a well-functioned information system is dependent on the right competence, which is supported by theory. Therefore, it is crucial for all the users to receive trainings and understand the purpose of information systems.

6.3.6 Vertical communication

The vertical communication at DeLaval has been identified as informal. In chapter 3.3.2, it is pointed out that the personal network is the most important way to communicate within an organisation. This network enables a fast and efficient vertical communication, which is essential for DeLaval to stay competitive. A problem with the informal approach is that both the LSO Benelux and Region Central Europe feel that they miss a "go-to guy" at DLI, one person to turn to with questions regarding local product in general. A further suggestion, mainly from Region Central Europe, was that there should be a monthly telephone meeting between them and DLI. Both these suggestions are in line with theory of good vertical communication; the chance to build interpersonal network. However, it does not exist today at DeLaval. It is worth noting that of all the interviewed LSOs, the two that are not

satisfied with the communication are those geographically furthest away from the headquarters.

Another important finding from the empirical study, see chapter 5.3.6, is that none of the LSOs have the same definition of what a local assortment or a local unique assortment is. It is also noteworthy that none of them have the same definition as the official ones from DLI. Hence, there is a huge potential for DeLaval to improve their communication with the LSOs and at the same time align how the LSOs are working with local products.

6.3.7 Horizontal communication

Theory suggests that horizontal communication is very important in managing a MNC. The best way of increasing horizontal communication is to give the change to networking through integrating personal meetings in the processes of the organisation. This is partly done today through the JAG-meetings, but the full potential is not fully utilized. All the interviewees agree that it would be beneficial if there would be more JAG-meetings on a regional level. Through implementing more regional JAG-meetings in their process, DeLaval would benefit by closer connection between the subsidiaries. With regional meetings instead of global, people with the same interest from similar markets will meet and create valuable networks. This is preferable to meeting people where the similarities are few.

6.3.8 Reward

According to the theory, shown in chapter 3.3.3, both extrinsic and intrinsic rewards have an effect on the employee's motivation. Through the empirical study, only intrinsic rewards, with regards to local products, are found among LSOs in Benelux and Region Central Europe. It can be explained by the fact that local products are not clearly promoted by DLI. In addition, all the interviewed LSOs have expressed that they are not in need of any extrinsic rewards when it comes to local products. Therefore, reward system will be excluded from further analysis in this study.

6.4 Concluding analysis

This chapter has analysed all reasons and key variables separately, but they could also be analysed together. Starting with tensions and compliance; the free of charge compliance support to Region Northern Europe is probably connected to the absence of tensions between DLI and the region. The lack of tension is in turn a

consequence of the natural way communicating between the region and the DLI, in the end they work in the same building.

As for horizontal communication, Region Northern Europe is of the same opinion as the other LSOs; they need to meet more often. This finding confirms that geographical closeness can affect communication. For example, Region Northern Europe is satisfied with the communication to DLI, but not with LSOs that are located further away. For the other LSOs, which always are far away from their speaking partners, the communication is always an issue.

The Development Model in DeLaval, DCS 015, is perceived to be very difficult to use and is therefore not used among LSOs. As there are no effective boundaries or rules instructing the sales organisations to use DCS 015, it is an easy choice for them to not use it. A process could work as a boundary. So, if there were an easy-to-use process for local products, instead of DCS 015, it would probably be used by the sales organisations.

System sell seems to be one of the most important reasons to why local products exist, i.e. local products are used to support the sales of complete systems, systems that are in the central assortment. What is intriguing here are the 50 000 products in the central assortment, would so many products not be enough to fulfil every need? One answer is technical preferences. As these preferences only exist in limited areas, there is no real demand for such product from DLI's point of view. Hence, they are not in the central assortment. For the sales organisation, the demand is very real and to supply what the market wants is how they can sell full systems, which is a main interest for both the sales organisation and DLI.

When analysing the empirical finding through the theoretical framework it has become clear that some reasons have a low correlation to local products. Those reasons, traditional/national values, nostalgia and maverick buying, are excluded. So were other two variables for controlling local products that were excluded; measurement systems and rewards systems.

7. Conclusion

The conclusion is divided into three sub-chapters; an academic contribution, a case specific conclusion and finally a critical review of the thesis are presented.

7.1 Academic contribution

The academic contribution of this thesis originates from the framework developed in chapter 3. The theoretical framework explains why local products exist and which tools a company could use in order to manage such products. As this framework was tested empirically, it expanded from thirteen variables to sixteen. The expansion resulted in an empirical framework that could give a more complete and detailed explanation compared to the theoretical framework. After analysing the empirical findings, a more thorough picture emerged. This study has therefore been able to test a broad theoretical perspective empirically and to provide a final framework. The final framework explains why local products exist and what the key variables in managing such products are. Consequently, the purpose of the thesis is fulfilled.

The suggested framework presented in table 13 describes the five major reasons to why local products exist and the five most important variables to take into consideration when managing local products. Such a broad framework has, to the knowledge of the authors, not been presented before. It is now up to future researchers to validate the framework.

Variables	Why important?
Reasons to why local products exist	
F2F – influence	Both theory and empirical findings indicate that farmers have high influence on each other and have a positive correlation to local products.
Technical preferences	The preferences for how products should be designed differ, to a minimum, over national borders. Companies wanting to operate on several markets are forced to provide local adapted products.
Laws and regulations	As theory suggests, companies are forced to obligatory product adaption in order to operate on certain markets.
System sell	A local product is often an enabler in selling large systems to a farmer. To refuse to provide local products in system sell situations might cost the subsidiary the deal.
Tensions	Tension between subsidiaries and the headquarters can be due to slow contact and a Not Invented Here Syndrome at the headquarters. This tension might force subsidiaries to bring in local products directly.
Managing local products	
Processes	A standardised process which is simple enough to be used on a local level would provide control for the central level as well as increasing the customer value in both quality and availability.
Compliance	In letting subsidiaries deal with local products, the central level has to be sure of the compliance of the local suppliers. Thereby, creating a safety net if an accident involving a local product would occur. It is crucial to ensure that local products that are sold together with a system also are compliant with the whole system.
Boundaries	The rules regarding local products and local suppliers must be clear for the subsidiaries, but also for the whole organisation.
Information systems	A sound information system, providing the possibility to see the complete assortment, would limit the amount of cannibalism, ensuring that the same products do not exist in different subsidiaries and shortening decision making time.
Communication	Structured and formal communication provides a greater understanding vertically as well as horizontally.

Table 13 – Final framework

7.2 Case specific conclusion

Table 14 presents the implications for the case company with regards to the major reasons to why local products exist and how they should be managed.

Variables	DeLaval implications
Reasons to why local products exist	
F2F – influence	It is important that DeLaval continues to develop their “open house” concept, both to show their existing products and talk directly to other farmers to identify their needs.
Technical preferences	Since DeLaval is operating on several markets, they have to adapt their assortment after the preference on each market.
Laws and regulations	As a global company, DeLaval continuously has to adapt their assortments to the laws and regulations. Therefore, DLI has to accept the existence of local products.
System sell	There should be an understanding at DLI that the LSOs have to continue to have local products to enable the sales of whole systems.
Tensions	DLI have to improve their respond time to the LSOs in order to ease the tension. To ease the tensions, communication is very important, see further down.
Managing local products	
Processes	The LSOs would benefit if DLI provides them with a standardised, simple, process regarding local product purchasing/development.
Compliance	With many local suppliers and no compliance check from DLI, the risk of non-compliance in local product is large. Some support to LSOs is needed.
Boundaries	By stating that local products are acceptable, <i>under certain circumstances</i> , DLI can ensure that they fulfil minimum requirements.
Information systems	The LSOs should be able to see each other’s local assortment and thereby increase economies of scale. The GAP-list should be up-to-date and shared among the LSOs, thereby, giving economies of information. DLI ought to increase the knowledge among the LSOs on how to use the full potential of the information systems.

Communication	The horizontal communication within DeLaval would benefit from more regional JAG-meetings. DLI would simplify the communication regarding local products if there was a person responsible for local products. Another improvement is to clearly state the definition of what a local product is and communicate this throughout the organisation.
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Table 14 – Case specific implications

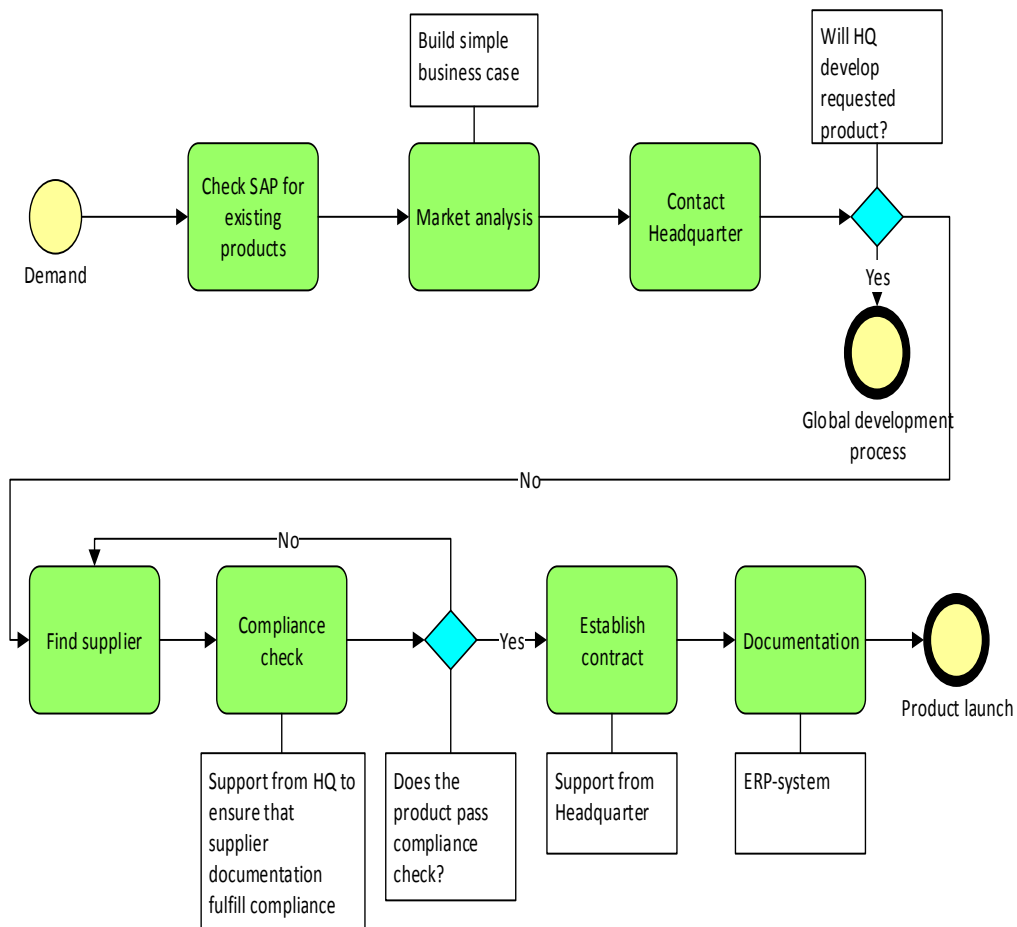
With reference to the analysis in chapter 6, it is clear that local products are needed at DeLaval. However, there is no clear direction regarding local products within the organisation. Therefore, it is crucial for DLI to declare that it is acceptable for the LSOs to have local products, in order to ease tensions between different units. Further, DLI should align how the LSOs are working with local products by communicating a clear definition. It is also important that DLI defines on what grounds local products are acceptable. One of these grounds is the global process for local product development, which has been developed in this study; see process 1 below. The process is developed as a best practice from the processes currently in use at the different LSOs; see appendix 3. Some tasks of the process require support from headquarters, as it was requested by the LSOs.

If DeLaval would like to spread the knowledge on compliance and give support on such issues to the sales organisations, it is clear that DLI need to inform the sales organisations of the existence of the compliance office. It is also important for them to clarify both at DLI and in the sales organisations on what grounds one can use the compliance office. In this analysis, it is important to understand the consequence of a too high price for internal support, which will decrease the willingness to use it amongst the LSOs. Another important factor is the opportunity cost, or the cost that will be inflicted on DeLaval if an accident happens with a local product and no compliance check was made.

Furthermore, knowledge sharing is central for all the units within DeLaval. Meaning, vertically, that DLI should support the LSOs when introducing local products, especially when it comes to compliance and purchasing knowledge. And horizontally, by using information systems and more frequent regional JAG meetings, knowledge and their common needs will be shared between the LSOs, in order to help the LSOs to see what local products other LSOs have. This is to help the LSOs to be compliant with DLI’s global development process, to avoid cannibalism of

existing products and to better follow up with new technological needs from various markets.

Moreover, one of the causes for tension is the long waiting time for the LSOs to get responses from DLI, regarding whether or not the local product should be taken into the central assortment. To be able to reduce the waiting time, the results from the empirical study point to two suggestions. First, a role within DLI that is responsible for local products and secondly to start using an up-to-date, available to everyone, GAP list that indicates most-wanted products among the LSOs.



Process 1 – suggested global process for local product development

7.3 Critical review of this study

The critical review of this study is based on figure 1, which was shown in chapter one and three. As one can see, the figure has changed shape. The overlapping areas now represent what has been studied, but not the goal of the thesis.

According to figure 1, theoretical concept in chapter one, the purpose was to create an understanding of the reasons to why local products exist and to develop a framework that could manage local products. In the end, this study has successfully identified the most important reasons, which in turn fulfils the first part of the purpose.

The identified reasons are rather case specific and there are likely to be other reasons that have not been studied. One example would be how business moral affect local products. This affects the framework for managing local products. The key variables in the developed framework could likely affect the identified reasons to local products. However, the framework might not be sufficient when taking other reasons into consideration.

Figure 13 neatly summaries this, not all reasons for local products are identified but the most important ones are. The overlapping areas represent the identified reasons and that the framework can handle these reasons. This implies that the framework has to be further developed, in order to cover all the reasons to why local products exist, including the non-overlapping areas, as shown in figure 1.



Figure 13 – Resulting theoretical concept

The largest critique towards this study is the analysis approach, or more specifically the pattern-matching logic. When reviewing the study, it becomes clear that only half of the pattern-matching approach was conducted properly. The empirical patterns were identified across the sub-cases for a number of variables, creating a good empirical foundation for the analysis. The empirical patterns should then have been compared to theoretical expected patterns for each variable. The expected patterns only consisted of the theoretical framework. Hence, the empirical patterns could not be compared to explicitly stated expectations.

The question is then how this has affected the reliability and validity. Reliability is the answer to the question if the method will generate precise empirical data. As the analysis does not affect the generation of such data, the reliability is not affected. The validity is also unaffected. Validity means that the study is actually measuring what it is supposed to measure, which cannot be affected by the analysis approach.

8. Discussion

The discussion gives suggestions to further research and put the findings in the context of the scandals which was mentioned in the background of this study.

This study has identified both external and internal reasons that explain why local products exist in the dairy farming industry. It has also stressed the importance of local products in supporting sales of central products. Some findings in this study were contradicting to the theory and some were outside the theoretical framework, which could also be interesting topics for further research. Especially, the major external reason to local products, system sell, needs further research. In particular, how MNCs can manage the performance of system sell and how local products could be used in this context. A further research suggestion would be to validate the framework suggested in this study. In order to explain how the key variables could be used in practise, there is a need for taking the framework to a more detail level. Moving to another direction, making the framework more general is also important. This aims to create a management control system covering all external and internal reasons.

Now, remember the scandals discussed in the background of this study, where non-compliance behaviour damaged brand's reputation, especially for companies furthest up in the value chain. Thus, the importance of ensuring compliance could not be made clearer. Compliance is however a difficult task for multinational corporations. On one hand, they want to minimise the risk of non-compliance behaviour, and on the other hand, they want to be flexible in adapting their products to local needs and wants. One way of being flexible is letting local subsidiaries manage local products. This study claims that local products are necessary and that the existence of local products supports the sales of central assortment. Hence, the study has focused on the combination; how to ensure compliance for local products.

By using the suggested framework, is it possible for companies to avoid such scandals? Well, the risk for non-compliance problems which are caused by a lack of management of local products will decrease. Consequently, so will the risk of accidents and scandals. However, the risk will not disappear, and it is difficult to predict how much the framework would decrease the risk. What limit the possible effect of this study are of course the subjects that are excluded in the study. There

are for example other possible reasons than non-compliance that could help explaining the scandals; for instance, lack of business trust and moral along the value chain. This is however extremely difficult to measure and control. The longer the value chain is, the harder it is. Hence, this study has not been able to research all the perspectives of the scandals and can therefore only state that the suggested framework will minimize the risk but not eliminate it.

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10. Appendix

There are three appendixes in this study, which cover the interview template, the process notations and the processes drawn by the interviewees.

Appendix 1 – Interview template

Appendix 2 – Process notations

Appendix 3 – Processes

Appendix 1 – Interview template

This appendix contains the interview template used for the interviews with the LSOs. The template was developed to cover all parts of the theoretical framework.

Questions regarding external reasons for local products

Value questions

Tell us about your customers? Who are they? What is important for them when they buy products?

- Are they family- & traditional oriented or do they have an individual and global mindset?
- Would you say that your customers support the national/domestic industry?
- Are the customers nostalgic, do they buy things they always have bought?
- Are there any technical preferences from your customer in your region?
 - Do those affect your assortment?
- Does the consumers' buying behaviour affect each other?

Laws & Regulations

- Are there any products that have been modified from central products, due to local laws or regulations? If yes, please elaborate.
- Before introducing a new local product, which laws or regulations will you have to take into consideration?
 - Does this affect your assortment?

Questions regarding internal reasons for local products

- What do you think is the reasons that local products exist?
- Which are the core values that guide your daily working behaviour? (Are they in line with the DeLaval centrally stated core values: Passion? People? Professionals? Partnerships?)
- How do you identify the needs from the market in your region?
 - Does it happen that you get approached by suppliers which want to sell certain products?

Exercise: Draw process used for local products

- Do you develop your own products? Or do you purchase?
- The process:
 - Who is responsible for the process? (process owner)

- How do you ensure that new products do not exist in central or other LSO assortment?
 - What is your action when you see a need from the market? What triggers the process?
 - How/on which bases do you select suppliers?
 - How do you evaluate your suppliers?
 - How/where do you ensure compliance to laws and legislation?
 - Do you receive documentation from your suppliers? Where is it stored?
 - Do you use Memo+ or any other methods for documentation purpose?
 - Are all the purchasers aware of this process? Do they use it as a template?
 - Did you and your colleagues get education/training for this purchasing process?
 - Did you get any support from DLI when you developing this process?
 - Do you need clearance from DLI any were in this process?
 - Do you update DLI with the purchasing process?
- Before introducing a new product, will you contact DLI for suggestions? What kind of suggestions?
 - What do you think could be a threat to compliance regarding local products?
 - How much time do you put into the local products?

Questions regarding relationships and knowledge sharing with DLI

- Are you aware of the global processes like DCS015, 3M? Do you use them as a template?
- Would you prefer to be more involved in the global purchasing or development process?
- Do you lack any support from DLI regarding the purchasing process?
- What issues do you communicate with DLI?
- How/how often do you communicate with DLI? (Any process for this? Weekly meeting for example?)
 - What is your impression of the current communication? Too much? Not enough? Wrong method?
- Has it happened that DLI have removed any of your previous suppliers?
- In any issue, are there any restrains from DLI that affect your decision making?
- Are there any tensions between you and DLI?
- Are there any KPI that you use to report to DLI?

- How does your reward system look like?

Information systems

- Which central information can you see/access?
 - Recommended price? Purchasing price?
 - List of suggested suppliers?
 - Which information would you like to have access to?
 - Do you regard lack of information as reason for why local products exist?

Horizontal communication

- How do you communicate with other LSO?
 - Via DLI?
 - Do you see a need of communicating with other LSO?
 - Any obstacles?
 - How to remove them?

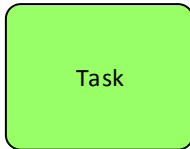
Secondary questions, if there is time

Assortment

- Are you aware of the different definitions of different assortment?
 - How many articles in your assortment are local products?
 - How many articles in your assortment are local unique products?
 - How many articles in your assortment are central products?
 - How many per cent of your total sold volume (quantity) in the years of 2007-2012 where local products?
 - How many per cent of your total sales revenue in the years of 2007-2012 where from local products?
 - When it comes to local assortment, which categories do they belong to?
- Which is the top-10 sold products in your region? Are any of them local products?
- To your knowledge, are there any local products that are suitable to be included in the central assortments?
- Compare central products to local products, which one has the lower price?
- Do you prefer local or local unique assortment?
- What channels do you use to communicate with the customers?
- How often do you communicate with the customers?
- Is it important for you to receive feedback from the customers?

Appendix 2 – Process notations

The process notations used in this study are the following:

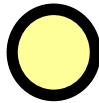


The task symbol indicates what action the process participant should take in the particular step.



Start event

A process is triggered by the Start event symbol, which is the initial input of the process. In this study, the trigger is always in the form of information.



End event

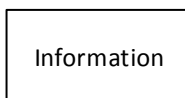
The end of the process is symbolised by this notation. How the process ends is indicated in text beneath.



The symbol indicates that a choice have to be made before moving on to the next step. What the next step will be is dependent on which decision that is taken.



The symbol above indicates the direction of the process.



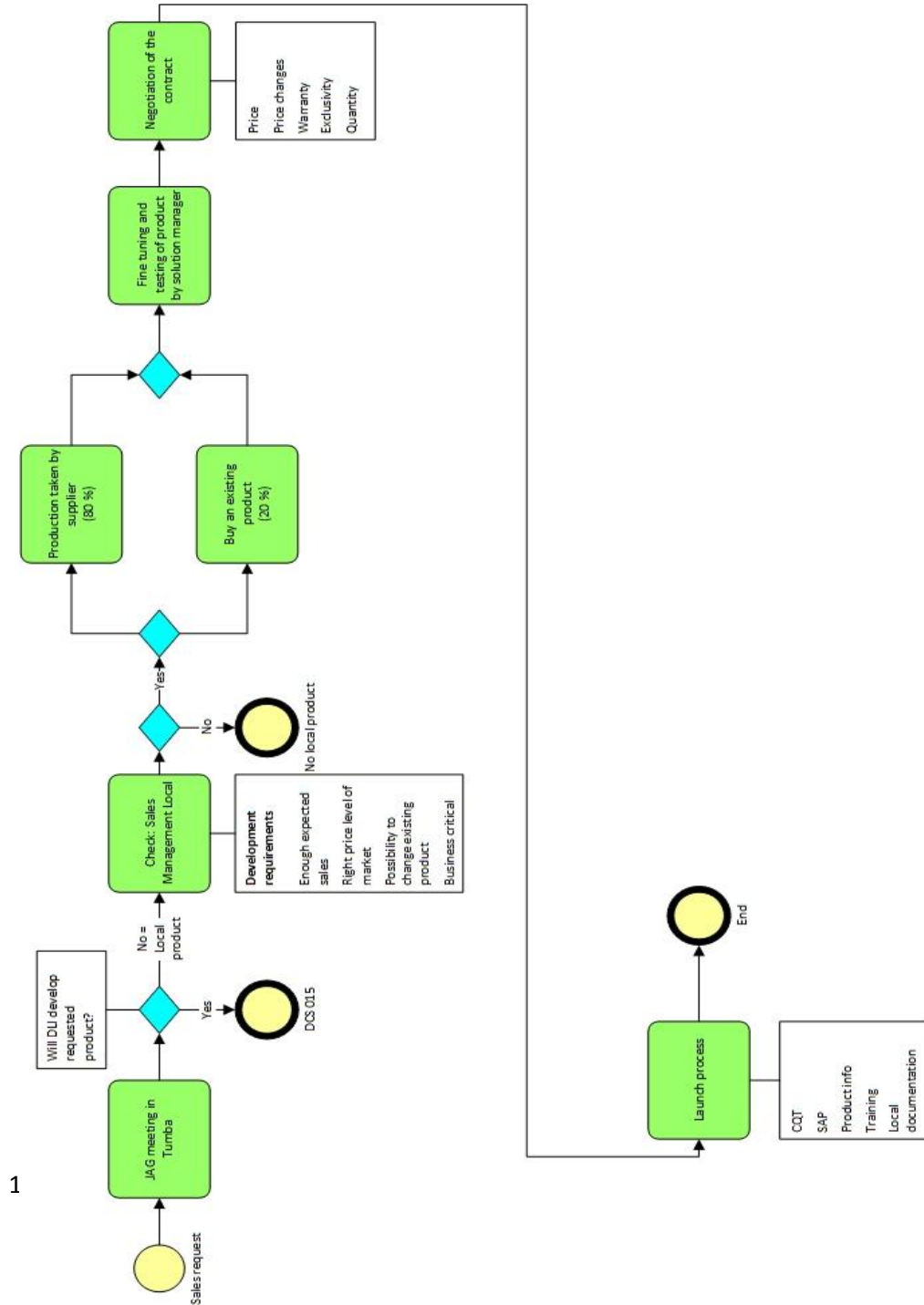
The Existence and Management of Local Assortment in Multinational Corporations

The information box states the question connected to the choice symbol or provides additional information to a task.

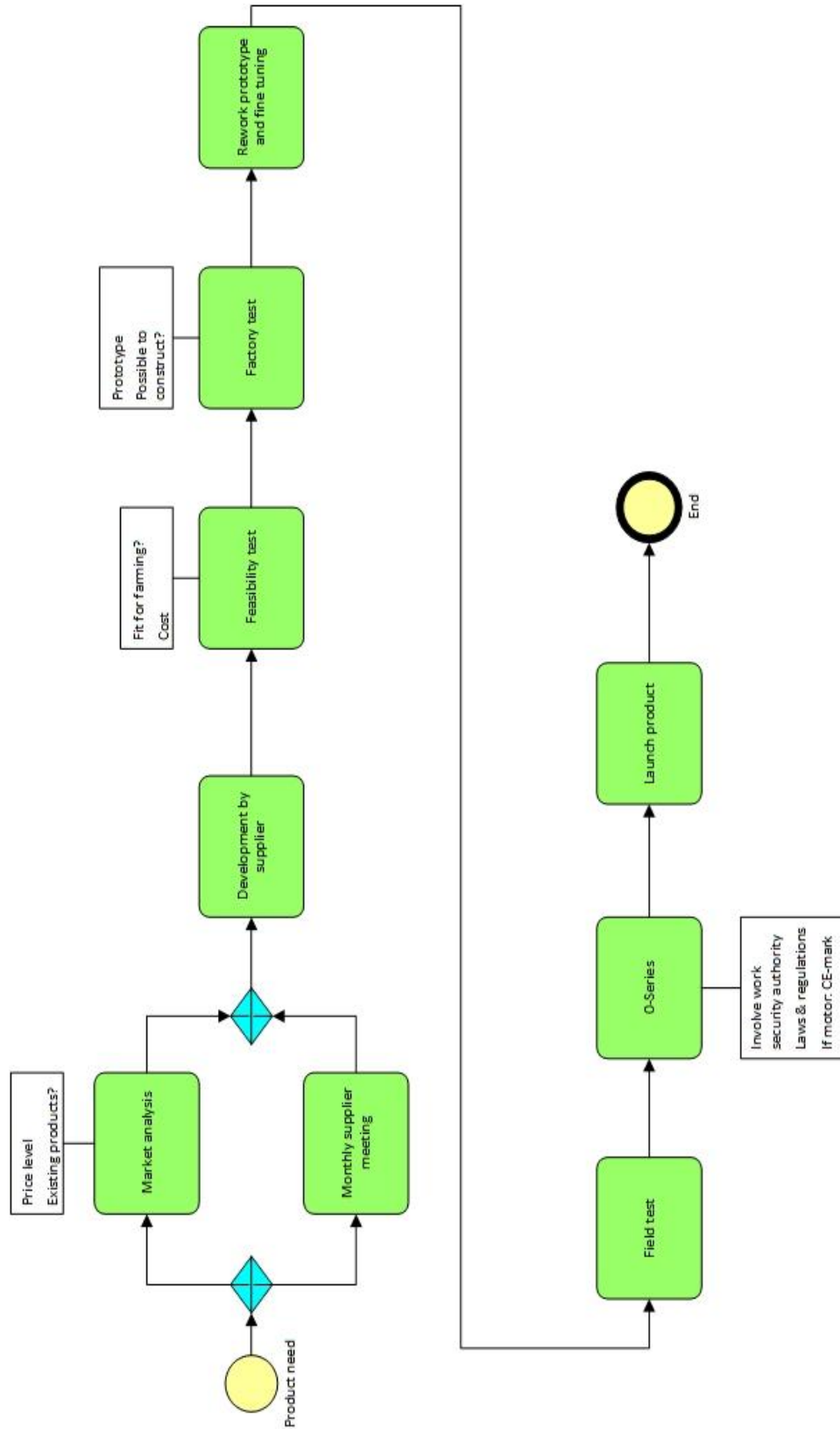
Appendix 3 – Processes

Appendix 3 will present the processes that the interviewees at the LSOs and regions were asked to draw.

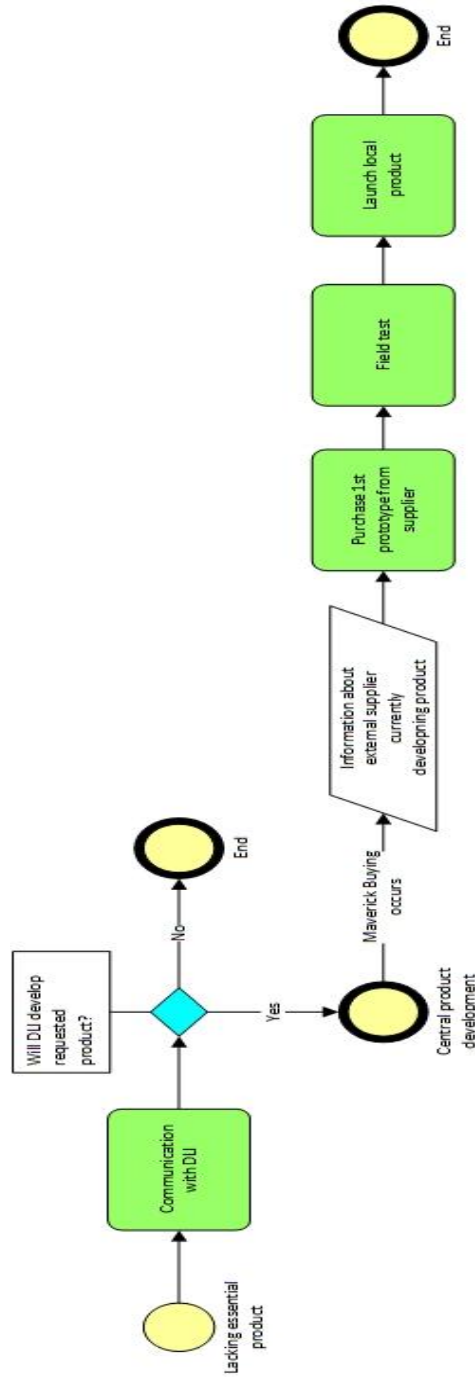
LSO Benelux – Purchasing and development process for local product



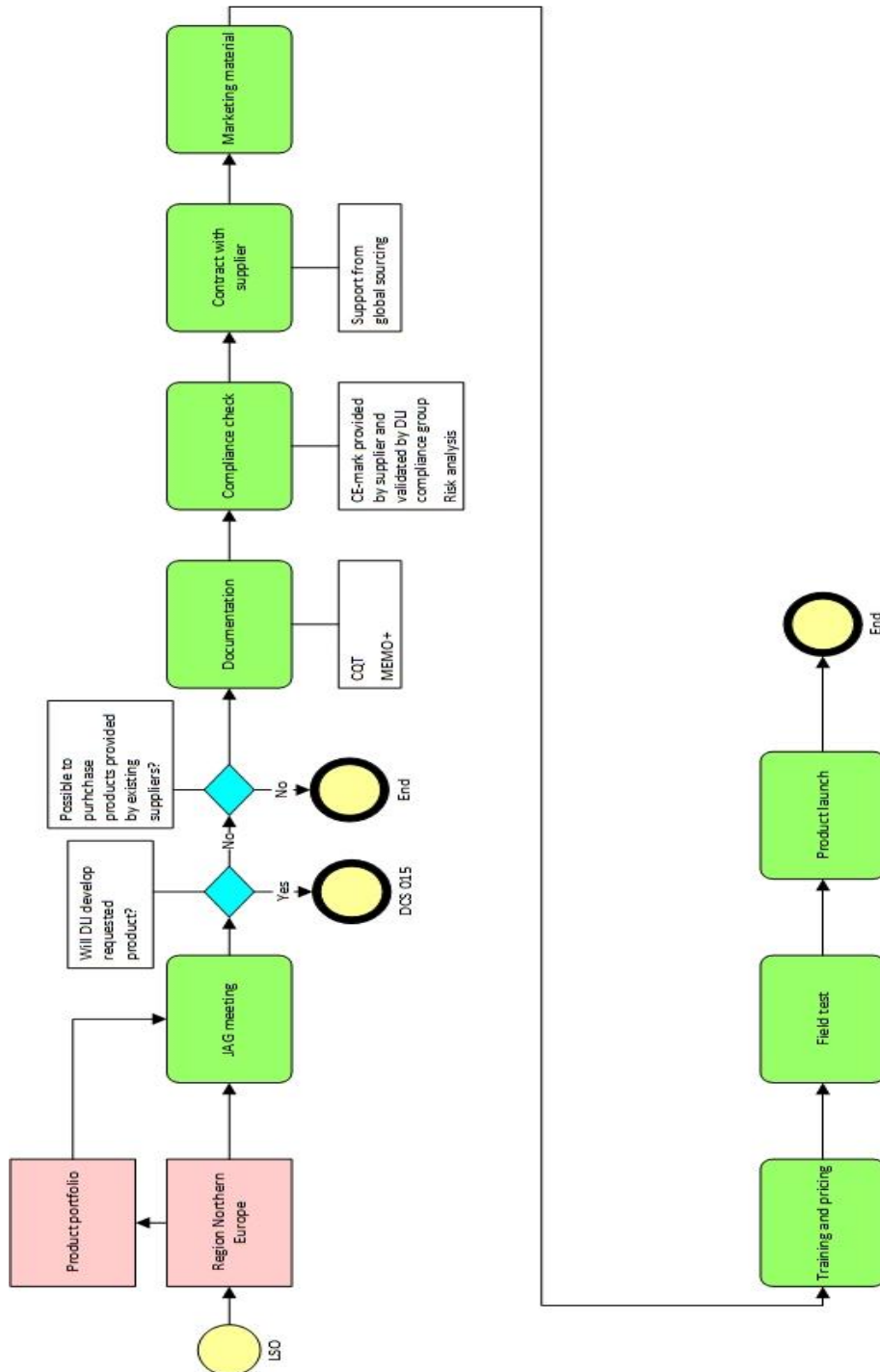
Region Central Europe – Development process for local products SDFJKFH SDFH



Region Central Europe – Purchasing process for local products (Maverick buying)



Region Northern Europe – Purchasing process for local products



LSO Denmark – Purchasing process for local products

