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Increasing Purchasing Compliance

Samu Seppänen

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Jyväskylän ammattikorkeakoulu
JAMK University of Applied Sciences

Abstract

The thesis was conducted by studying three Finnish business units of a global logistics company. All these business units use the same purchasing tool in their daily operations.

The aim of the study was to investigate how compliant the purchases are in the business units. Purchasing compliance is widely seen as an important feature of procurement in modern companies, as it enables better control of purchases and utilization of better negotiation power. After the analysis of the present compliance level, the reasons for gaps of compliance were identified and potential solutions provided.

The study was using a mixed methods approach: Quantitative data was extracted from case company's databases and qualitative data was collected via semi-structured interviews. Altogether six interviews were conducted with purchasing process stakeholders within different business units in Finland.

The results show that the overall level of compliance is relatively low and varies a lot between business units. The biggest problems of compliance identified in the study were the low level of the purchasing tool usage and lack of involving the procurement department in the supplier selection.

Proposals for procurement process improvement include stricter control of the purchasing tool usage by the business unit management, better knowledge sharing regarding the purchasing process and more proactive approach from the procurement department.

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1 Introduction

1.1 Compliance pays back

Business process compliance, i.e. acting in daily operations according to set rules and regulations defined by a company and other stakeholders, such as authorities, is seen as a demand for efficient processes and thus beneficial for the company. However, there are many challenges on the road to compliance. Compliance requires a high amount of resources from management and reporting departments. (Ghose & Koliadis 2007) When having rules in any operations, relevant and accurate Key Performance Indicators (KPI) have to be developed in order to monitor that these rules are being complied. Compliance in businesses is usually based on legislation, international standards, such as ISO9000 and also the company's internal values and principles. (Sadiq & Governatori 2015)

Purchasing compliance has a great potential of reducing transactional costs and bringing cost savings (Brandon-Jones 2009). By developing detailed purchase-to-pay e-purchasing tools, guidelines for using the tools etc., the company can increase transparency in the bidding process and in supplier selection. Therefore, the company is less likely to have issues, such as corruption and violation of legal frameworks and fair principles of trade.

 As the guidelines are usually really detailed and strict, it is difficult for a company to be 100% compliant. The biggest challenges are usually when ordering services. (Hawkins &Muir 2014)

1.2 Case company

This thesis focused on the purchases in a global transportation company's three Finnish business units that used the same purchasing tool. The business models of the units are irrelevant to the usage of the tool. However, all the units have separate management.

The author has been working as a part of the centralized purchasing organization which provides support to business units across Europe including, naturally, all of the business units in Finland, that were in the focus of this study.

1.3   Research motivation, objective and research questions

The author of this study became interested in the topic based on his observations on the daily procurement operations in the case company: Despite the agreed guide-lines in the company, gaps have been identified in compliance, such as low usage of the purchasing tool and a fair share of purchases without the involvement of the procurement department.

The aim of the study was to investigate the level of compliance in different units and determine the reasons for the gaps in compliance. In the end of the thesis, after the analysis of the results, potential development ideas for increased compliance are presented.

Naturally, business units are not alone when it comes to compliance. Instead, rules, agreements, procedures and actions by other process stakeholders have an effect on their compliance. This study focused on the performance of the case company's business units and their views on the process.

The research questions for this thesis were defined as follows:

- How compliant are the purchases in the case company's business units A, B and C?
- What are the reasons for non-compliant purchases?
- How could the purchasing compliance be increased?

2 Theory and knowledge base

2.1 Purchasing management

By definition, purchasing is the usage of a company's external resources to acquire raw material, goods and services in order to maintain the company's activities. As the competition in the market is getting more intense, it is necessary for companies to pay attention to their purchases to be able to compete. By focusing on the development of purchasing strategies a company can make savings, improve the quality of their core business and reduce working capital by reducing inventories and reducing lead times from the supplier. Moreover, improving the relationship with the suppliers will be beneficial for both parties. (Weele 2010, 3)

There are many views when planning purchasing strategies. Two ways to define the strategies are by categorizing the products and services in product portfolio, and defining the organizational structure of how the purchases are managed.

2.1.1 Product category portfolio

Kraljic (1983) describes how purchasing impact on financial and supply risk act as factors that define different product categories (Figure 1). Inside a company's product portfolio, the products are placed into four categories; strategic, leverage, routine and critical (112).
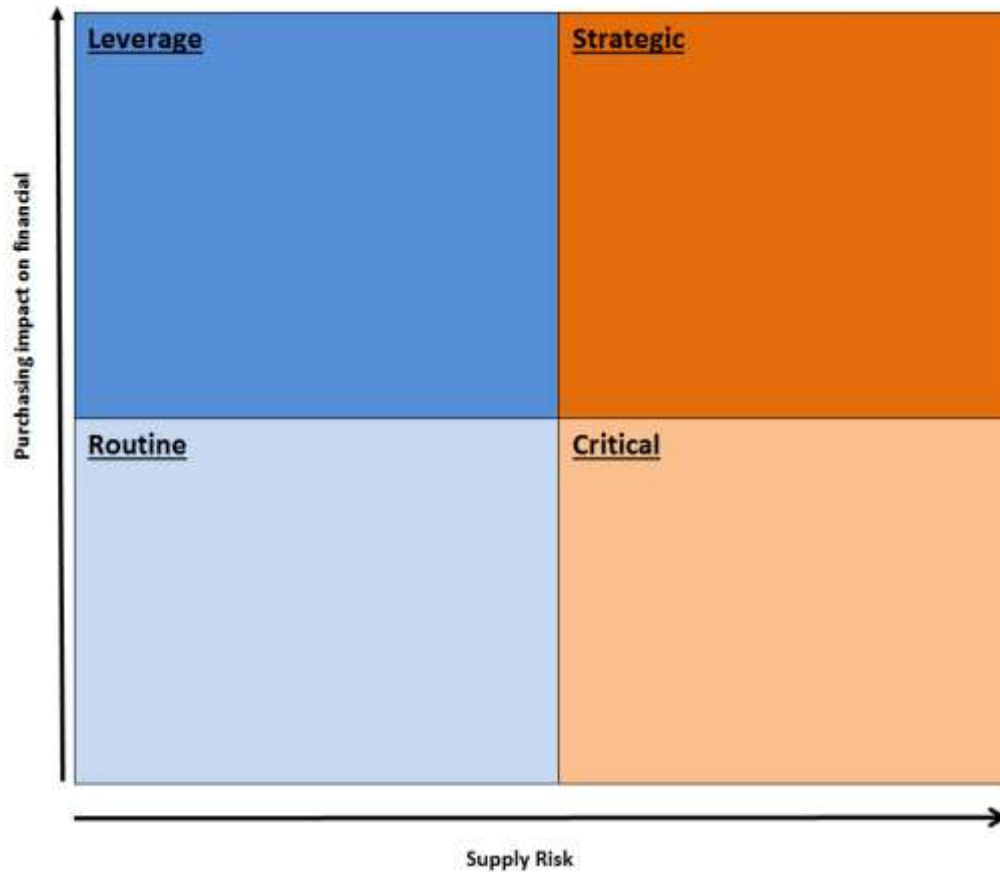
Figure 1. Product categories (adapted from Kraljic, 1983)

According to Caniels and Gelderman (2005) there are different strategies which can be implemented in each category.

Strategic products have a big impact on the business' finances and also the supply risk is high. Usually, these products are supplied by the market leaders. Because both supplier and the customer are playing a significant role in each other's businesses, a strong partnership relationship is needed. In this way the supply risk can be reduced, the supply chain improved and, therefore, costs reduced. The negotiation power is usually balanced in case of strategic items.

Leverage products also have a high impact on the business, but in this case there are many suppliers available in the market. This leads to a situation in which the customers have a higher negotiation power, and they can perform the competitive bidding.

Critical or bottleneck products do not have as big an impact on the finance as strategic products, but there are not many suppliers available in the market, which makes the supply risk high. In this scenario, the supplier has the bigger negotiation power because the customer is most likely not so important. To deal with this situation, the

buyers can agree to have bigger stocks for these products in order to lower the supply risk. Alternatively, product specifications can be broadened to be able to identify other potential suppliers.

Routine or non-critical products have both a low impact on the finance and low supply risk. In this case, the best idea is to reduce transactional costs by standardizing the processes and bundling the purchasing requirements. Sometimes, it is required also to place only one time orders (Caniels & Gelderman 2005, 144-146).

2.1.2   Organizing purchasing

In theory, purchases can be organized in three ways: by having decentralized organizations, centralized organizations or something in between that could be called 'hybrid' organizations. The difference between these organizations is in the extent to which the business units are conducting purchases independently or managed on a consolidated basis. In the hybrid model some of the activities can be centralized and others decentralized. (Weele 2010, 283)

In a **decentralized purchasing organization,** each business unit takes care of purchases individually. The advantage of decentralization is that the units can communicate directly with the supplier, and there is no need for extra internal processes and coordination caused by an external purchasing department. The biggest disadvantage of decentralization is that the negotiation power will be reduced because the purchases are scattered. (Weele 2010, 290)

In Figure 2 it can be seen that the business units are using partly the same suppliers but without sharing the negotiation power together and therefore, possibly, having differences in prices and contract conditions.
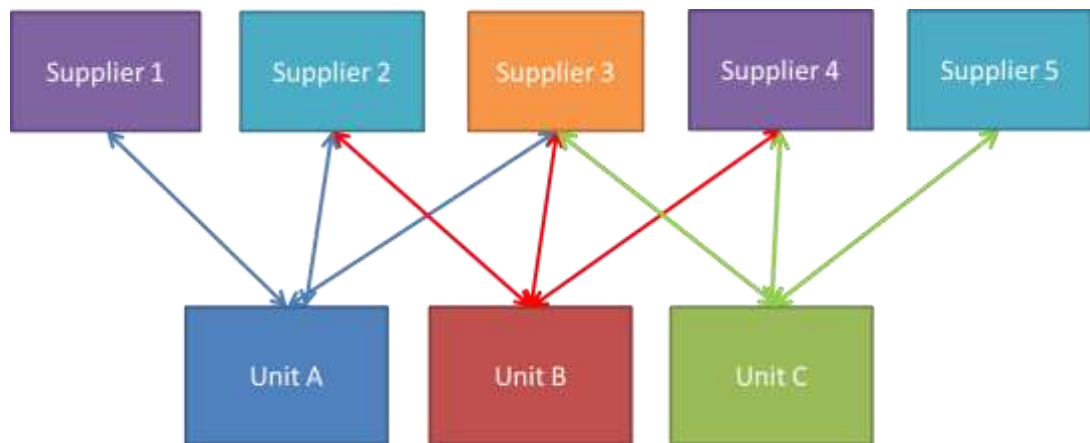
Figure 2 Example of a decentralized purchasing process

In a **centralized purchasing organization,** local sites are bonded together into a common purchasing department which works as a link between the business units and the suppliers as can be seen in Figure 3.

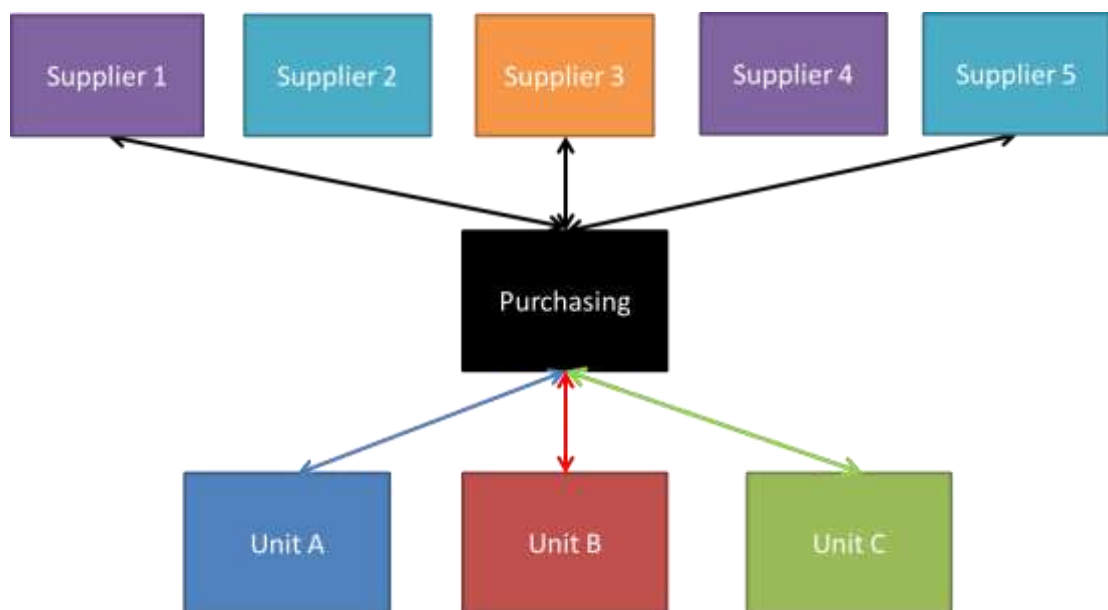Figure 3 Example of a centralized purchasing process

When having the purchasing organization centralized, the negotiation power of the business increases as the ordering quantities will be bigger and the purchasing effort can be reduced. Moreover, partnerships can be easier to establish and maintain, transportation costs can be lowered and the total number of suppliers can be reduced. (Munson 2007, 120)

One possible variation of the centralized purchasing model is to arrange deliveries directly to the local site (Munson & Hu 2010, 583). In that case, the information flow goes via the central purchasing department, but the extra step of the product flow can be eliminated by delivering directly to the local sites.

The **Hybrid purchasing model** combines some characteristics of the centralized and decentralized models. The co-ordination can be responsibility, for example, of item, supplier, business-unit, division, or regional levels. In addition, participation in the coordination can differ in terms of being voluntary or not. Figure 4 illustrates three examples of the characteristics of the hybrid model: Lead design concept, Lead buy-ership and voluntary coordination. (Weele 2010, 286.)
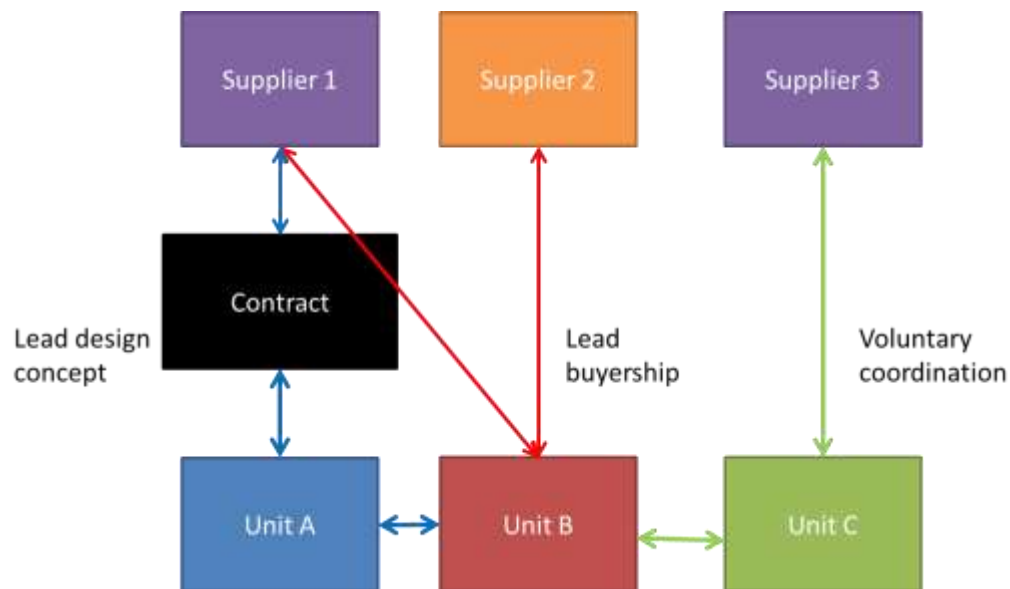
Figure 4 Example of a hybrid purchasing process

In this example Unit A is contracting Supplier 1 and is fully responsible and engaged in the development of the supplier relationship. The other units (in this example Unit B) can freely use the same contract but it is not required. Therefore, in this example Unit C is not taking part in the coordination and operates individually with Supplier 3. All of the units require purchases from Supplier 2. Unit B collects the relevant data from the other units and undertakes negotiations with supplier 2.

There are several factors which define which model would be the most suitable to be used. Centralization can be considered, for example, if all the business units need the same products, if there are no cultural barriers in the demands of the products due to geographical locations, if the economy of scale is changing the prices significantly,

if specific expertise is required or if the product prices can fluctuate easily. Some-times it is not possible to centralize the purchasing if the business units are ordering completely different types of products, for example, due to cultural differences or customers' demands. (Weele 2010, 289.)

2.2 Information systems in purchasing

When the number of purchasing transactions increases within a company, it is vital for the business to be able to process these transactions effectively in order to increase the competitive advantage. One possible solution to achieve this is to use internet-based tools or 'e-procurement'.

Kamarulzaman (2015) has listed the following benefits of using e-procurement:

- simplified procurement processes
- supplier selection enhancement
- improvement in buyer-supplier relationships
- increased market transparency
- lowered purchasing prices and transaction costs
- reduced administration costs
- shorter cycle time of ordering
- lowered inventory levels
- effective two-way communication of real-time purchasing information
- establishment of close collaboration between companies and business partners
- paperless process

According to Weele (2005), the e-procurement solutions can be divided in three types: Electronic marketplaces, electronic auctions and electronic catalogues and ordering systems. (44)

Electronic marketplaces are internet-based websites where buyers and sellers can be connected. By using ICT, the transactions can be done between businesses. Electronic marketplaces can broaden the market area, and the buyer can find suppliers that could be impossible to find by using traditional methods. (ibid. 44)

Electronic auctions are used between businesses to enable online competition between the buyers and suppliers. The supplier can add a product or service to be auctioned and buyers can place their bids. Naturally, the highest bid wins, and that company receives the product or service. Another variation of an electronic auction is the reverse auction in which the buyer sets up a requirement and suppliers make bids. In

this auction, the lowest bid wins, meaning the price at which the supplier is willing to sell the product or service to the buyer's organization. (Kamarulzaman 2015, 256) Before electronic auctions, electronic requests for information can be made in order to be able to identify whether the suppliers' products and services meet the requirements (Weele 2005, 44).

The third type of the solution is to develop an electronic purchasing tool and catalogues. In this way the business can easily make purchases from contracted vendors, which reduces maverick buying. By using available technology, the order processing, automation and lead times can be reduced significantly potentially causing big savings. (ibid., 46)

2.3   Compliance

Compliance means that the rules, norms and laws are being followed in all of the operations of a company, including purchasing. In order to achieve compliance, business process management is needed.

2.3.1   Compliance in purchasing

In order to have purchasing compliant, the company should follow the existing contracts when ordering certain products or services and use the procedures which are defined in the company's procurement policy. When this rule is neglected, the action is called maverick buying (MB). MB has mainly disadvantages because it scatters the spending and lowers the negotiation power. (Cox, Chicksand & Ireland 2005, 8.)

According to Karjalainen et al. (2009), there are five types of MB: unintentional, forced, casual, well-intentioned and ill-intentioned. In Table 1 the reasons for different types are explained.

Type of MB	Reasons
Unintentional MB	• Lack of awareness of process or contract
Forced MB	• Items without existing contracts • Contracted supplier is not capable to deliver • Problems with process or systems
Casual MB	• Serving own best • Choosing the easiest way • Toleration of non-compliance
Well-intentioned MB	• Receiving better offer • Superiority of own buying skills
Ill-intentioned MB	• Lack of trust • Opportunism (Getting benefits) • Feeling of injustice towards suppliers • Resistance to change

Table 1 Types of MB (adapted from Karjalainen et al.)

In case of the unintentional MB the person does not know that there is a contracted vendor for a certain item or the purchasing process is not clear. This can happen, for example, in case of new employees doing purchasing.

In case of the forced MB the process and preferred supplier are known, but for some reason they cannot be used. For example, if the preferred hotel does not take book-ings when needed, the company might be forced to get the service from another hotel. Moreover, if there is a need for a new item which does not have a preferred supplier, non-preferred supplier might be needed to be used.

The casual MB can happen if there is tolerance for the MB in the organization. In this case a person might find easier way to buy from non-preferred vendor or by using other ways to make non-preferred purchase. If the standard purchasing process is really complex or time consuming, people might find another ways to go around the-se painful processes.

Well-intentioned MB can happen when person intentionally wants to break compli-ance. Better offer can already be received than what the contract covers or the per-son thinks to have better buying skills than the buyer.

Ill-intentioned MB means that the person intentionally breaks the compliance but for other reasons than in well-intentioned MB. The reason can be the lack of trust, per-

sonal interests, feeling of injustice towards the non-preferred supplier which was used previously, or simply not willing to adapt to new processes.

2.3.2   Business process management

Business process management (BPM) means that business operations, processes and practices of an organization are aligned with rules and norms. These rules can be both external and internal. The external standards are for example legislation and international standards such as ISO9000. (Sadiq & Governatori 2015, 265.)Organizations can also have their internal standards based on for example to code of conduct or company values.

Lu et al. (2007) mention that compliance rules and processes are often seen as a burden, but also mention that there is a trend where businesses have started to see compliance as a business opportunity. According to Hagerty (2007) some Industry reports indicated up to 80% of companies saying business benefits from improving their compliance regimens are expected.

The companies are putting more resources to develop compliance tools and methods to meet the requirements of setup regulations, standards and policies. To be able to measure the level of compliance, there needs to be implemented proper controls to monitor how the regulations, standards and policies are implemented in the every-day process. One of the biggest challenges is to design adequate controls which balance the control and the business objective effectively. (Sadiq & Governatori 2015, 283).

The compliance process involves many stakeholders in- and outside of the company, like the ones that Namiri and Stojanovic (2007) listed: Auditing consultants and compliance experts, external regulation bodies, business process experts (including system developers and technical consultants). Governatori and Sadiq (2008) demonstrate well (see Figure 5) how compliance is the space that build the bridge between external demands and company´s own business process development.
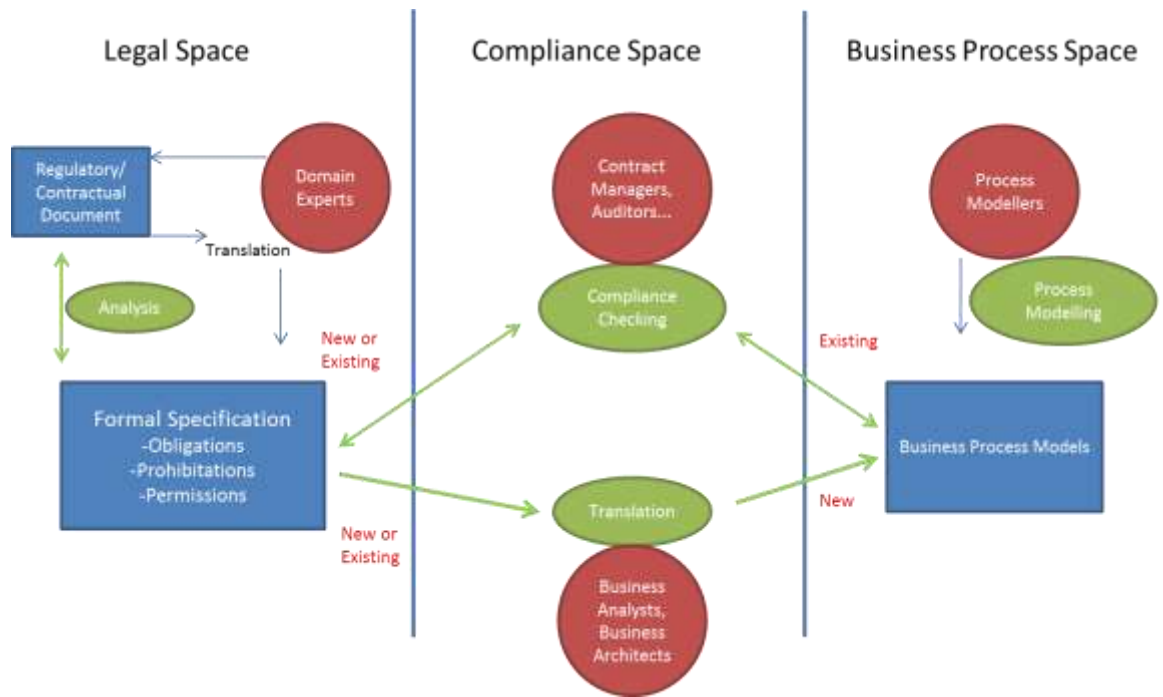
Figure 5 Different spaces of compliance (adapted from Governatori & Sadiq, 2008)

The concept of BPM seems relatively simple from the surface, it is a set of defined and agreed procedures following each other so that the business objectives are achieved. In reality, a thorough BPM includes many separate factors, like Rosemann and vom Brocke very well demonstrate. (see figure 6)

FACTORS	CAPABILITY AREAS				
Strategic Alignment	Process improvement planning	Strategy & process capability linkage	Enterprise process architecture	Process measures	Process customers & stakeholders
Governance	Process management decision making	Process roles and responsibilities	Process metrics & performance linkage	Process related standards	Process management compliance
Methods	Process design & modelling	Process implementation & execution	Process monitoring & control	Process improvement & innovation	Process program & project management
Information Technology	Process design & Modelling	Process implementation & execution	Process monitoring & control	Process improvement & innovation	Process program & project management
People	Process skills & expertise	Process management knowledge	Process education	Process collaboration	Process management leaders
Culture	Responsitiveness to process change	Process values & benefits	Process attitudes & behaviors	Leadership attention to process	Process management social networks

Figure 6 Elements of BPM (adapted from Rosemann & vom Brocke)

It is worth noticing that planning and publishing processes, rules and regulations do not guarantee compliance, but only a set a base for it. Human factors such as skills

and working culture can be supportive or destructive in what comes to outcome of processes when looked from the compliance angle. To avoid later problems of fitting the compliance issues into the daily operations that run business processes, Lu et al (2007) propose that compliance should be high on the agenda already at the planning or design phase of business processes.

3 Research methods

In this chapter the methodological choices of this research project and their justifications are presented. This study was implemented by using a mixed methods-approach, in which both numerical data extracted from the case company´s databases and reports as well as qualitative data obtained from interviews were utilized.

3.1 Research approach and data collection methods

According to Wilson (2010), three widely accepted definitions for research need to be fulfilled. To start with, a research process is a process of enquiry and investigation. It consists of a set of questions posed at the start, to which answers are sought by analyzing the collected data. Secondly, research can be stated to be a systematic and methodical process. It has to be a planned and organized enquiry proceeding step-by-step. Finally, research is aiming at an increase of the knowledge on the subject, both the knowledge of the author him/herself and also of the audience, the readers of the research report.

This research process meets Wilson´s criteria in all three dimensions. The starting point was the interest of the author to better understand the phenomenon of process compliance and factors affecting it in the case company. Moreover, the case company itself expressed the need to improve their business process compliance. Based on these interests and needs, the research questions (that were introduced in Chapter 1.3) were decided. The second requirement set by Wilson was met by choosing and using a set of methods introduced in this chapter. Thirdly, in the Results and Conclusions –chapters, the author presents the findings and the new information collected in the process.

The main alternatives for a research approach are: quantitative vs. qualitative. Quinlan (2011) says that the difference between them shows in the goal of the enquiry: Quantitatively oriented research has a quest for facts, whereas qualitatively oriented research is searching for people's experiences, perceptions and understanding. Quantitative data is often large and consisting of a big number of "cases" (Kananen, 2011). The ways of obtaining quantitative data are, for example, surveys in which a large enough sample is sought to represent the population well. In this study the author, to a certain extent, utilized numerical and factual data readily available in the database of the case company. As all purchases done in the company are recorded at some stage in the database, and as there is availability of the reports that reveal the way in which they are done and how they comply with the set procedures, separately created quantitative surveys were unnecessary. The data from the database represents secondary data, since it existed independently of the author's efforts and purpose (Smith, 2008). The available data was relevant and needed in answering the research questions. An important role of secondary data is that is allows the author to look at the phenomenon: In this study the phenomenon is the practice of purchasing in a process-compliant manner, and factual secondary data supported well the interview-based data. The secondary data was extracted from the following reports and guidelines:

- Case company's source to pay – guidelines
- E-spend rate report
- PO dashboard report
- Catalogue compliance report
- Contract compliance report
- Order coding

However, only the statistical data of transactions cannot answer the question: Why? Why are the business units performing the purchasing in a compliant or non-compliant manner? In order to find out obstacles and challenges of compliance and propose improvements to the organization, the study wanted to dig deeper by means of a qualitative enquiry. According to Ghauri and Gronhaug (2005), a qualitative approach relies on a limited number of observations and tries to explain and understand different aspects of the phenomenon.

This study used semi-structured interviews as the method of collecting qualitative primary data. Primary data – as opposed to secondary data – is collected for a definite research problem, and thus the researcher can choose to apply methods that serve the research purpose the best (Hox & Boije 2005). Semi-structured interviews use pre-planned questions, but do not follow them strictly in case new issues and viewpoints emerge in the interviews. Tejlingen (2014) says that one of the strengths of semi-structured interview approach is that it can increase the rate of responses to the author´s questions thanks to its flexibility and individual consideration concerning the interviewees and their experiences.

As Kananen (2011) mentions, one key constituent of a good qualitative research process is that the respondents, i.e. interviewees in this study, are well chosen. According to Kananen (ibid.), they must be "selected in view of the phenomenon, i.e. they are involved in or affected by it". No exact figure can be given to the number of interviews needed that would apply to all qualitative research processes. Instead of looking at just the number of respondents, the author should focus more on observing whether a data saturation point is achieved. Data saturation means that additional interviews do not anymore offer new insights into the phenomenon for the author. Quantitative research places a high importance in the building of a representative sample and carefully observes the sample size vs. the total population studied. On the other hand, a qualitative author is often looking more carefully at the identification and sampling of key informants, experts and insiders of the issues studied (O´Leary & Hunt 2016).

3.2   Research implementation and considerations for research quality

The author decided to use a mixed-methods approach in this enquiry, which can also be described as triangulation. Based on Kananen (2011), triangulation is a process where multiple methods are used inside one study. This is done to increase the reliability and validity of the research. Both numerical secondary data and qualitative data was collected and analyzed to answer the research questions. The author decided to source the key informants from one country's business units of a big international company. This choice was based on the need to avoid bias caused by the different contexts in which the business was done. The author pre-planned both the interview

structure with the key issues (see Appendix 1) and the respondent pool. Altogether six interviews were conducted, and the author was prepared to widen the pool if the saturation point was not yet in sight. The selected interviewees were relevant to the target, since they all participated in the purchasing processes in the case company. Still, they came from different business units and played different roles in the purchasing process, so that a wider perspective to the phenomenon could be created.

The interviews were performed as one-to-one interviews over the company´s online communication tool (Lync) during October-November 2016. As the tool does not allow recording of the discussions, the author took notes during the discussion and loosely transcribed the interview contents afterwards. The data was then analyzed with the target of finding common patterns between different respondents´ accounts as well as differing opinions and reasoning.

The role of the author himself is always a variable in qualitative research. Sometimes (Kananen, 2011) investigator triangulation is used to improve or ensure the quality of the research. The term means that more than one author is responsible for conducting the data collection, analysis and interpretation, as only one author can be biased. In this study, the author came from within the organization, and it was known that the results would be shared with the management of the company, so the respondents may have not expressed all their feelings and reasons. On the other hand, improving the process studied was a common benefit to all parties involved. In addition, there was no direct organizational relationship between the author and the respondents, so that there should not exist any hidden agendas and power-relationships in the research setting.

4   Results

In this chapter the results from the research are presented. 4.1, 4.2 and 4.3 are based on the company's internal guidelines and reports available. Due to confidentiality reasons no figures are available in this report. However, the comparison between the business units is done descriptively. 4.4 covers the qualitative results based on the interviews.

4.1 Organization and responsibilities

All business units of the case company work as independent units, but some of the operations are conducted in co-operation. Procurement is a completely separate department, and it serves all of these units based on their needs. The procurement department consists of local sourcing activities, a centralized purchasing center which is outsourced outside of Finland, and the regional and global sourcing, which takes care of regionally and globally used suppliers and contracts.

In order to be able to identify the responsible party for purchases, there are two main factors which define whether the responsibility is for sourcing, purchasing or business unit. The first factor is the product/service category. All products and services are specified in one of the three groups:

- Category 1: Off scope of the procurement department
- Category 2: In scope of the procurement dept., out of scope of the purchasing tool
- Category 3: In scope of the procurement dept., in scope of the purchasing tool

If the product belongs to the category: out of scope of procurement department (Category 1), the responsible is always the business unit. For example, rents belong to this category.

The second factor is the estimated annual spending, which splits the responsibility inside two other categories. Both categories 2 and 3 are responsibility of the procurement dept. If the estimated spending is below the agreed threshold, purchasing dept. is responsible for the process, otherwise the sourcing department is responsible. Category 2 consists of products and services, such as temporary labor, which are not required to be ordered via the purchasing tool. Category 3 items should always be ordered by using the purchasing tool. For example, network supplies, IT hardware and production equipment belong to this category.

4.2   Procurement reports

Based on the company's purchasing guidelines KPI reports, which can be used to define the compliance of purchases, have been developed. These reports are:

- E-spend rate report
- PO dashboard report
- Catalogue compliance report
- Contract compliance report
- Order coding

The E-spend rate report defines which parts of the spending belonging to category 3 (in scope of the procurement, in scope of the purchasing tool) are routed via the purchasing tool. It measures both the spend value and total transactions meaning the invoices booked with a purchase order as a reference. The vendors which should be routed via the tool can also be seen in the report, but for some reason the orders were never created. This is the main report to be used when showing the business units the level of the purchasing tool usage.

The PO dashboard report shows all the orders that were raised via the purchasing tool. It shows the ratios and values of orders raised from the e-catalogues and as free text- orders, meaning orders without contract negotiated by the procurement department. This report helps the procurement department to see if some non-contracted vendors have high volumes and if follow-up actions are needed. The report is used internally by the procurement department and it is effective if the purchasing tool usage is high.

The catalogue compliance report shows if the contracts behind the catalogues are valid. This means that only suppliers with a valid contract can be in the catalogues. Since orders raised via catalogues bypass the procurement department, it is necessary that the catalogues are compliant. This report is also used internally by the procurement.

The procurement adds codes in the orders which are raised without contracts. These codes measure if the procurement department was involved in the bidding process and if the vendor was, therefore, chosen according to the company policies, in other words, if the purchase was maverick buying or not.

The contract compliance report is mostly used by the sourcing department. This report defines if the purchases are based on a procurement contract or not. This report includes product categories which are "in scope of procurement".
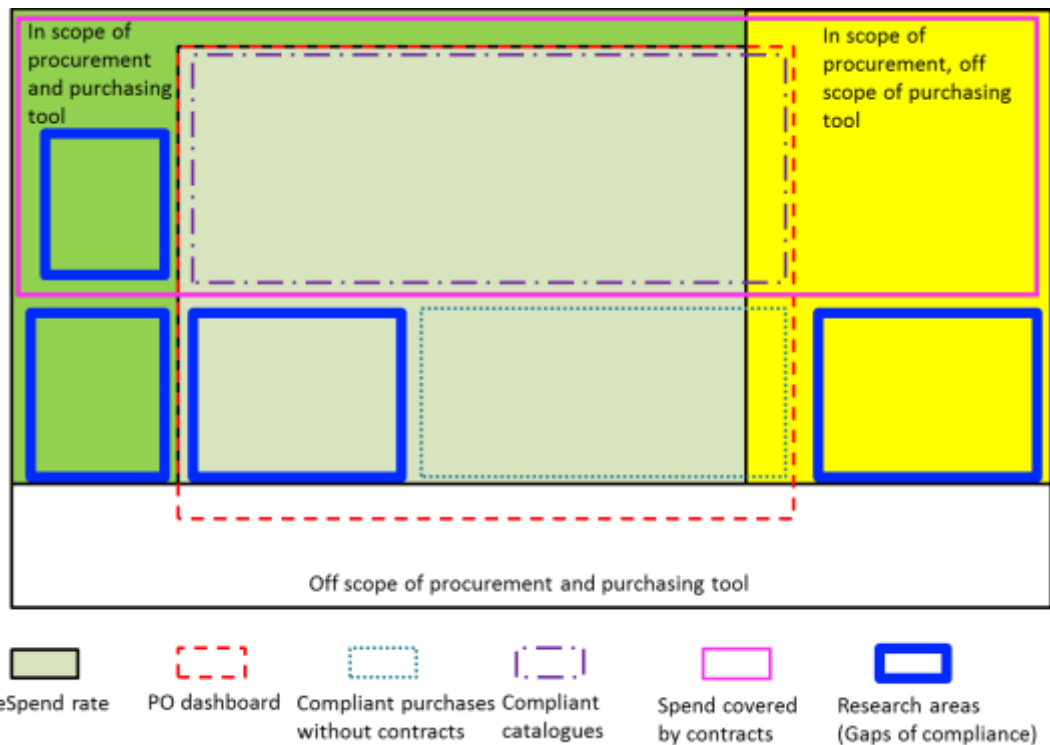

Figure 7 Connections between procurement reports

Figure 7 is a sketch for presenting how the data of the different reports are connected. This can help to sort out and understand the order and spend data, and this is how the gaps of compliance can be identified. The picture is first divided in three parts which represent the categories described in 4.1. In the middle can be seen the eSpend rate and PO dashboard reports which present the usage of the purchasing tool. When orders raised from the catalogue (assuming that the catalogues are compliant) and orders raised in the proper way according to order coding are excluded, the first research area can be identified: Orders raised via the purchasing tool but without the procurement department involvement.

When adding the procurement contracts in the picture, the next research gap is visible in the top left corner of the picture. These are the orders in which the contracts negotiated by the procurement are in place but in which the purchase orders are not raised via the purchasing tool.

The last research areas can be found on the bottom corners of the picture. On the left side is the area where negotiations should be done by the procurement, and the purchase orders should be done via the purchasing tool. This area is the least compliant from the view of procurement. In the right corner is the final research area present orders which should be negotiated by the procurement but which are not necessary to be raised via the purchasing tool.

4.3   Results from the company data

From the procurement reports mentioned in chapter 4.2 can be found that there are remarkable differences between the business units. For confidentiality reasons, the exact figures cannot be revealed but the performance of different units is described below.

The biggest difference is that in the business unit A the usage of purchasing tool is remarkably higher than in the other two units. In the business unit B the usage is low and in the business unit C it is exceptionally low. However, most of the purchases that are in scope of the procurement department are done from contracted suppliers in each business unit. Majority of the orders raised via the purchasing tool are done via the catalogue, therefore, they are based on existing contracts as well.

Only business units A and B raise orders from the suppliers which do not have contracts negotiated by the procurement department by using the purchasing tool. Approximately half of these orders the procurement department is involved in the purchasing process. The rest are done by the business units independently. The business unit C does not raise these orders via the purchasing tool.

All the business units use the same catalogue inside the purchasing tool. According to the catalogue compliance report, catalogues are almost fully compliant.

4.4   Results from the interviews

Six interviews were conducted for this study; two of the interviewees were from the business unit A, three from the business unit B and one from the business unit C. All interviewees personally raise many orders via the purchasing tool, except one who

belongs in his position in the general management of the business unit B. The business unit C has only one user who is responsible for all orders raised via the purchasing tool. In the Table 2 the answers of interviews are consolidated. The statements in the table are not direct quotes from the interviews but author´s edits, where the key content of the statements have been kept intact.

	Business unit A	Business unit B	Business unit C
What to do if there is a need for product which has no contract?	-Often budget holders already have chosen supplier -Search with Google first for possible suppliers, then contact procurement	-Asking offer from possible vendors by using own market knowledge -Asking from procurement -depends how urgent the order is	-Contacting procurement and asking if other business units are using existing vendor. - one time orders are not done via purchasing tool
How to know if order should be done via purchasing tool?	-Everything except if the vendor is in exception list provided by controlling. Otherwise the invoices cannot be paid.	-Officially all in-scope categories -No control in place if invoice has order reference or not -Physical products	-Repetitive orders such as monthly orders -There is no control if order has been done via purchasing tool or not.
When should procurement be involved in purchasing process?	-If there are centralized contract -If the value of purchasing is over 5000€? -It is quite unclear when procurement should be involved -Not always possible because vendor might be subcontractor	-When remarkable savings can be achieved -if business unit do not have market knowledge -if product or service is ordered repetitively -if couple hundreds can be saved but it takes 2 weeks it is not worth waiting	-If there are many possible suppliers available -if other business units need same product/service

| Are there any difficulties in the purchasing process or in the usage of purchasing tool? | -Catalogues should be updated more often, prices might be expired and pictures missing.
-Purchasing process is slow and not flexible | -Purchasing tool is not flexible for used ordering methods
-Purchasing tool causes double approval -> double work
-Procurement seems distant and is not flexible in urgent orders | -Purchasing system is not connected into invoicing system Orders and invoices need separate approvals |

Table 2 Consolidated answers of the interviews

When business units require a product or service which has no contracted vendor, there is not a standard way to act available. Occasionally, the business units start to look the possible supplier on their own, and only sometimes contact the procurement department. This is dependent of which type of product or service is needed and how urgent the order is. If the business unit has good market knowledge, they might conduct purchasing without the involvement of the procurement department. Moreover, sometimes the procurement department is contacted first after the business unit has received an offer. This happens typically when it is expected that other possible vendors with better offers can be found. This behavior can be seen in each of the business units.

The biggest differences can be found from the business units' internal guidance when the purchasing tool should be used. In the business unit A, all of the orders need to be raised via the purchasing tool unless the supplier is in the list of exceptions provided by the controlling department. If the invoice arrives without a purchase order reference, it cannot be paid without an approval of the CFO. Inside the business unit B the official communication procedure is that all orders which are in scope of the purchasing tool should be raised using the tool. However, there is no control whether the tool was used or not. Due to this, the managers of different sectors can choose themselves if they use the purchasing tool or not. As a consequence, most of the orders for services are done without using the purchasing tool but physical products are placed by using it. In the business unit C only repetitive orders, such as monthly delivered products and services, might be ordered via the purchasing tool. There is no internal control whether the purchasing tool is used or not.

All business units shared the same opinion about when to use procurement department in the purchasing process: If the vendor is used together with other business units, the procurement department should be involved in the process to be able to utilize better negotiation power. In addition, if the negotiations from procurement department would provide remarkable savings or advantages, meaning that the order is highly valuable or in the case of repetitive orders, using the procurement department is preferred. There was a wide variation in opinions on the monetary limit (of the purchase value) after which the procurement department should be involved. Sums between 1000€ to 5000€ were suggested. Procurement department was seen to be needed also in case the supply source is unidentified.

Common answers of business units A and B regarding difficulties of the purchasing process and tool were that they are slow and inflexible. Both business units B and C claimed that the approvals of orders and invoices need to be done separately which causes double work when ordering via the purchasing tool. The business unit A pointed out that catalogues should be more often reviewed by procurement department. Therefore, relevant items with correct prices and pictures would be in place. In the business unit C, the purchasing tool is not connected in the invoicing tool causing more manual work, therefore, using the purchasing tool does not provide extra value.

5   Conclusions

In this chapter the conclusions of the study are presented. The original research questions get answered one by one.

Res. Q 1: How compliant are the purchases in case company's business units A, B and C? There are many factors which affect the purchasing compliance. When all requirements of the procurement department are considered, it can be claimed that the level of the compliance - especially in business units B and C - is really low. This is why the compliance should be monitored indicator by indicator. In the Table 3 below are listed the biggest gaps of the purchasing compliance together with the business units they are relevant with.

Gap of compliance	Business unit
Low usage of purchasing tool	B,C
Procurement dept. not involved in supplier selection in the case of non-contracted suppliers	A, B, C

Table 3 Gaps of compliance

However, as majority of the orders in each business unit are done from contracted suppliers, the business units are not completely non-compliant but the purchasing transactions are.

Res. Q 2: What are the reasons for non-compliant purchases?
As answered in the previous question, the biggest gap in the compliance is the low usage of the purchasing tool in business units B and C. The reason for that is the difference between the procurement department's guidelines and business units' internal guidelines for the purchasing transactions. In Figure 8, the development of these guidelines is visualized. The base of all is the company's common mission, vision and values which affect all the operations performed by the business units. Based on those, each business unit has their internal global guidelines, which are then applied in the guidelines of the regional level and finally in the local level in Finland. Based on the same values the procurement department has developed guidelines regarding purchasing which impact the business units' guidelines in all levels.
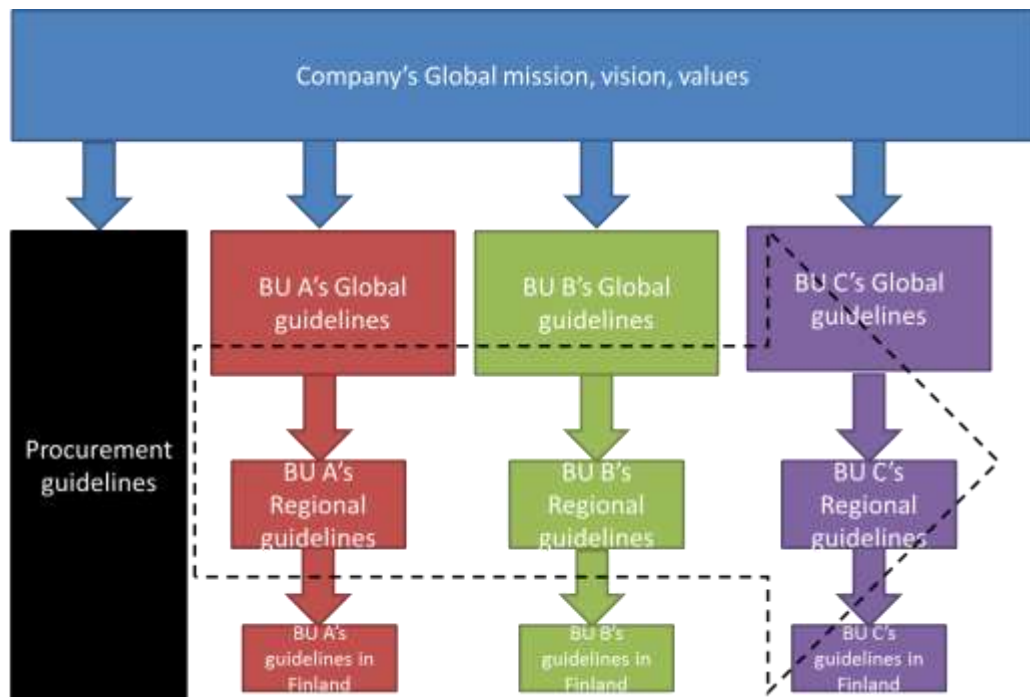
Figure 8 From Global guidelines to local guidelines

The strict control in Business Unit A imposing the purchase orders to be raised via purchasing tool has raised the usage of the tool to a high level. Business units B and C however do not have any internal control if the incoming invoices have the purchase order as a reference or not. Due to this, the number of purchasing transactions has remained low. The biggest reason for differences between business units was that the purchasing tool is not linked in the same and strict way in to the invoicing system in business units B and C compared to business unit A. This has caused extra approvals for the business units and therefore the usage of purchasing tool has been neglected. Also the tool's lack of flexibility is a problem which is reducing the usage of purchasing tool especially in business unit B.

Each business unit also is performing maverick buying in the supplier selection. Table 4 shows the exiting types of MB and reasons for that based on the results.

Type of Maverick Buying	Reasons
Unintentional MB	-Unawareness when procurement dept. should be involved. (A,B,C)
Forced MB	-Purchasing tool does not comply with ordering method. (B,C)
Casual MB	-Purchasing order reference not required for invoices to be paid. (B,C)
Well-intentioned MB	-Better knowledge and negotiation skills in certain product categories (A,B,C)

Table 4 Types of MB in the case company

Most commonly, it is not clear when the procurement department should be included in the supplier selection. Based on the interviews, the business units could not give the same value (or not a value at all) for the limit when procurement department should be included. Also, due to the distant procurement department and non-flexible purchasing process, the business units consider it more convenient to contact suppliers directly. This happens especially when the purchasing cost is not significantly high and the suppliers are known. In some cases business units also consider having better negotiation skills for certain product categories.

Res. Q 3: How could the purchasing compliance be increased?
As described in question one, there are two main gaps of compliance: Low usage of purchasing tool in business units B and C, and purchases done without the procurement department involvement in all business units.

Having guidelines of operations does not assure that the guidelines are complied. In this study, the business unit B is a great example of that behavior as it has in place a rule that orders should be done via the purchasing tool but there is no control if this rule is complied. One potential solution is that business units B and C would start using similar policy as business unit A; they would be required to raise the purchase orders only for the vendors identified by procurement and account payable departments. If the invoices from these vendors lack the purchasing order number, they would be returned to the vendor. This way the business units would need to pay more attention to create the orders with the purchasing tool. However, as business

unit A owns tailor-made process of invoice handling, other business units would have to invest to their invoicing process to be able to maintain the process effectively.

The users of the purchasing tool should feel that using the purchasing tool brings value for the business. This could be achieved by the procurement department paying more attention to the catalogue quality. Ensuring that the prices are up to date and having pictures of the products available would be improvements to the catalogue quality. This way the automation can be increased and the usage of purchasing tool will be more satisfactory. Having a positive image of the purchasing tool will have a positive impact for users to use it more.

As mentioned earlier, there are two factors defining if the purchasing tool should be used and if the procurement department should be included in the process: product category and value of purchase. Therefore, the business units are confused and cannot always tell how to proceed. To increase the involvement of the procurement also in the smaller purchases, a simplified version of the source to pay – guidelines could be created and distributed for the relevant shareholders. This way at least unintentional maverick buying could be reduced.

In order to be able to implement solutions mentioned above, it is crucial to have improvements in the information sharing between business units and procurement department, as it was mentioned that procurement department feels distant. For example, when contract prices are updated or there is a new contract for one business unit, the information could be shared to other business units, since they might have similar requirements in the future. This will also give a better impression that the procurement department is available to be used by business units.

In short the actions to be taken could be summarized as:

- Internal control for purchasing order requirements in units B and C
- Better handling of the catalogue content by procurement department
- Providing clear guidance when the procurement department should be involved
- Improving information sharing between business units and procurement department

6 Discussion

In this chapter the author reflects the quality of the research process and the results achieved. Assessment focuses on the reliability and validity of the research. Also ideas for future studies to further improve the understanding of the phenomenon - (purchasing) process compliance are presented.

6.1 Assessment of research quality

In research literature there are various criteria for assessing the achieved quality of research and credibility of the answers. The most commonly used criteria link to assessment of reliability and validity.

The concept of reliability refers to the consistency of the results over-time. Simply it means that if the research was repeated, the results would be the same assuming the condition under which the research was stay the same (O´Leary & Hunt, 2016). In this study, the primary data from interviews was collected during a short period of time, so the contextual and situational factors of company´s process management and development were the same for all people involved. Thus, the results can be seen to well present the real-life context, and it is fair to assume that a repeated study would bring up same matters that the author was able to find and present in the Results- and Conclusions –chapters.

O`Leary and Hunt (ibid.) give a very clear definition for research validity: "When we have validity we are measuring what we intended to measure…in other words, we have hit the target". Looking at the thesis process from the building of the knowledge base and further to the collection and analysis of the primary and secondary data, it can be said that the focus has been kept in the target. All parts and stages of the enquiry have been in that sense compatible and consistent. For example, the interview themes and questions were all clearly linked to the phenomenon of this research: Compliance of purchasing processes in the case organization and factors that have an effect on it. However, the nature of qualitative interviews leaning on people´s opinions and interpretations always has a risk that people answer to the author purposefully. In this case true cause-effect relations remain hidden. How-

ever, interviewing multiple people with different positions and role in purchasing process lowered the risk of biased answering. Therefore, research validity was most likely not harmed by the choice and usage of the qualitative method. Also the concept of data saturation needs to be discussed when assessing the results achieved. Despite the relatively small sample, the viewpoints from the informants started to repeat themselves when proceeding with interviews. Based on this, it can be stated that data saturation that is one of the key tools for research quality analysis (Kananen, 2011) was reached. Also a certain level of triangulation, using both numerical as well qualitative data, supported the validity of the work. One additional criteria set for qualitative research is its catalytic validity (Lather, 1986) i.e. does the research accomplish its intention to make a change. This can only be fully known once we know whether the case company decided to use the results in their purchasing process development. At the minimum the study has potential to catalyze change, since the findings can be used to better understand and develop business operations. It can be naturally asked, whether the results can be used outside the case company and other business processes within the company. In other words, how generalizable are the results? As Saunders et al. (2009) ask when defining generalizability: Could the findings be applicable to other situations or circumstances? Generalization can naturally be made into many directions. One can try to understand same category of processes (in this study: purchasing) in other organizations, or other tightly-defined and IT-supported ones within the case company (such as financial and quality management). Despite the fact that the primary data was collected by interviewing people from one country's business units (Finland), the processes, rules and systems with the company are common for the whole organization. So the context should not have biased the findings, and ideas for process development for the whole organization can be derived.

The case company in itself is a good example of a large and global corporation. Also, the business in which the company operates most likely doesn't make it that specific in purchasing and procurement processes, excluding the purchasing of raw materials. Thus, the results can to a certain extent serve also for those aiming at developing the compliance of processes in other large corporations. The findings may not resonate that well in the context of SMEs (Small and Medium-sized Enterprises). SMEs can be

more flexible in the way processes are run, and exceptions and errors in compliance do not accumulate to that much trouble for performance and management. People in SMEs also are doing purchasing processes often alongside other duties. This study done from the angle of centralized purchasing function and support is in that sense quite different to the life in SMEs.

6.2   Ideas for further research

Clearly and strictly defined and controlled processes have gained a lot of foothold in modern companies. Advances in ICT-systems and globalization are trends that have led to development of process systems and tools as well as to specialized business units keeping up the processes. Business process outsourcing may also mean that the practices of large companies start to spread to smaller and smaller companies. But also for large multinationals, like the company studied here, new issues such as Big Data-analytics, digitalization and process automation will change the way how purchasing processes are defined and what compliance will mean.

To further increase the understanding of compliance, the case company could engage into action research –type of study, where modifications to today´s process are done based on the findings of this study. Then comparative studies between the units using the new process model and old one would be done. Based on these results, company-wide changes could occur or new proposals for modifications found, following the traditional Deming cycle of continuous development (e.g.): Plan, Do, Check, Act, Analyse. (Goetsch & Davis, 2010)

The case company is at heart a European company, and the business units studied were their European country organizations. Wider studies including samples from other continents could show effect of cultural factors in purchasing process planning and execution.

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Appendices

Appendice 1.   Research questions

1. How do you act if you need a product which has no contracted vendor? / Jos tarvitset tuotteen, jolle ei ole sopimustoimittajaa, miten toimit?

2. How do you know if the order should be done by using the purchasing tool? / Mistä tiedät, tarvitseeko tilauksen mennä hankintajärjestelmän kautta?

3. When should procurement department be involved in the supplier selection?

/ Milloin hankintaosaston (procurementin) on osallistuttava toimittajan valitsemiseen?

4. Is there anything unclear in the purchasing process? What? /

Onko hankintaprosessissa mielestäsi epäselvyyksiä? Mitä?

5. Other comments / remarks? / Muita kommentteja / Huomioita?