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**INDIRECT SPEND OPTIMIZATION: A CASE STUDY  
FROM THE FINANCIAL INDUSTRY**

Examiners: Professor Veli Matti Virolainen

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## Abstract

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**Keywords:** indirect spend, spend management, eProcurement, Category management, service purchasing

Indirect spend management is a vital tool in every organization's toolkit. It aims to produce competitive advantage through reducing costs. The theoretical part of this study focuses on what purchasing and supply management are, how indirect spend fits within this framework and how it can be best leveraged to procure competitive advantage. The main object of this study is to identify issues with indirect spend procurement and management at the case company, and offer a possible solution.

Research methodology is a qualitative research. Empirical data was gathered from a case company in the form of semi-structured interviews.

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Epäsuorien hankintojen johtaminen on tärkeä työkalu jokaiselle yrityksille. Se pyrkii tuottamaan kilpailuetua kulujen vähentämisen kautta. Tämän työn teoriaosa keskittyy selvittämään, mitä ostaminen ja hankintojen johtaminen on, miten epäsuorien hankintojen johtaminen liittyy näihin sekä miten epäsuoria hankintoja voi hyödyntää kilpailuedun saavuttamisessa. Työn tärkein päämäärä on tunnistaa kohdeyrityksen ongelmia sen epäsuorien hankintojen johtamisessa, ja tarjota ratkaisuja näihin. Lisä näkökulmaa tarjoavat palveluhankinnat sekä internet-pohjainen hankinta.

Työ on laadullinen tutkimus, jonka tiedot kerättiin puolistrukturoiduilla haastatteluilla.

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## 1. Introduction

### 1.1 Background of the study

Peter Kraljic famously said in 1983: “Purchasing must become supply management.” This marked the beginning of purchasing being recognized as a strategic function instead of a necessary evil to be just trudged through. As technology improves and market competition becomes increasingly globalized, companies need all the available competitive advantage they can get. Porter (1985, 3) defines two types of competitive advantage: cost leadership and differentiation. Firms that can leverage the former by applying spend analysis in their activities gain the competitive edge.

Spend analysis is essentially the act of organizing procurement information in order to visualize actual spend per category, identify sourcing opportunities through the rationalization of the supplier base and demand aggregation as well as identify cost reductions through increased compliance along the value chain. By conducting spend analysis firms can actualize savings ranging from 2% to 25%. (Pandit & Marmanis, 2008, 5) Despite the possibility of savings, only about one fifth of companies actually employ spend analysis software and strategies, as it can often be hard to gather data through fragmented systems, and the data that is gathered can be extremely large and difficult to analyze. (Pandit & Marmanis, 2008, 8)

The issue with spend analysis can often be that it is focused on products that directly impact their profits like manufactured goods and raw materials. These goods and services are called direct spend, and while they are important to manage properly, they are not the only source of cost reduction and competitive advantage. Indirect spend analysis is gaining traction among firm management. Understanding indirect spend and its cost structure is important especially because on average it forms around 50 percent of a company’s total spend, so it cannot be ignored if cost reduction becomes crucial. (Carter et al, 2003.) This can of course vary from industry to industry, with service providing industries probably having even higher percentages. By simply employing price-based procurement on indirect purchasing, companies can miss out on a lot of optimization.

Compared to direct procurement, indirect purchasing has received much less focus and attention, leading to less standardization and automation and more case-by case purchasing. This is most likely because it does not directly affect competitive advantage, but rather through cost reduction. Direct purchasing is often streamlined via established buying procedures, demand forecasts and various resource and material requirement planning systems. Indirect spend cannot really take advantage of these tools, as its demand is a lot more volatile and needs lot more irregular. (Kim & Shunk, 2004.) Additionally, tools for indirect spend can be hard to created universal, as indirect purchasing for one company can be direct purchasing for another.

A study by Cox, Chicksand, Ireland & Davies (2005, 40) argued that significant improvements can be made within the indirect spend portfolio through standardization, consolidation of procurement, and proper outsourcing management. With increased outsourcing of indirect purchasing, growth of the service sector and cost pressure stemming from globalization, the importance of indirect spend management is more important than ever. (Carter et al, 2003.) Additionally, organizational management has historically focused on the supply chains of purchased goods, and not that of services. With the exponential growth of the service sector (for example, in 2001 global service trade was 1.6 trillion USD compared to 6.3 trillion USD for manufactured goods), organizations should put more emphasis on service spend. This has however not been the case, as internal functions are being outsourced and service outsourcing (or BPO, business process outsourcing) is growing. This has led to service sector being relatively immature when compared to the spend focus on manufactured goods. (Ellram, Tate, Billington 2004, 17) The aim of this study is to identify issues with indirect spend, how it is managed and perhaps more importantly, how it is not managed.

## 1.2 Research objective & questions

The main research question of this study is:

- “How indirect spend management can be improved at the case company?”

In addition to the main research question there are two additional sub questions:

- “How to leverage e-Procurement and to help with services spending and indirect spending”?
- “How can category management help to control indirect spending?”

## 1.3 Methodology and limitations

This study is conducted as a qualitative study. It uses mostly theoretical data from peer reviewed literature and publications, as well as qualitative data gained through semi structured company interviews. For this study, I have interviewed various category managers (or product owners, as they are referred in the case company) that each handle their specific markets niche procurement and problems.

A case study was chosen as the preferred method of study due to the abstract nature of the research problems. There is not a specific problem to solve, but rather information to gather and problems to identify. By employing a qualitative case study, the researcher is given more flexibility in their work, since they are not restricted by the data.

This paper is limited to a procurement and purchasing perspective with a slight focus on service purchasing and e-procurement, as the case company is a financial institution instead of a manufacturing company. E-Procurement will be a significant part of this study, as a lot of the indirect procurement in the company is done via electronic procurement systems such as Ariba.

As the case company is already a well-established procurer of goods and services and the largest financial institute in Finland with an actually streamlined procurement processes and

systems, the empirical aim of this study is **not** to re-invent a procurement strategy for them, but rather draw support for the presented theory from real-world examples.

As traditional research focuses more on direct spend and manufacturing industry, the case company is ideal to provide a more interesting case subject. The case company still is a large procurer of services and facilities.

#### 1.4 Research Framework

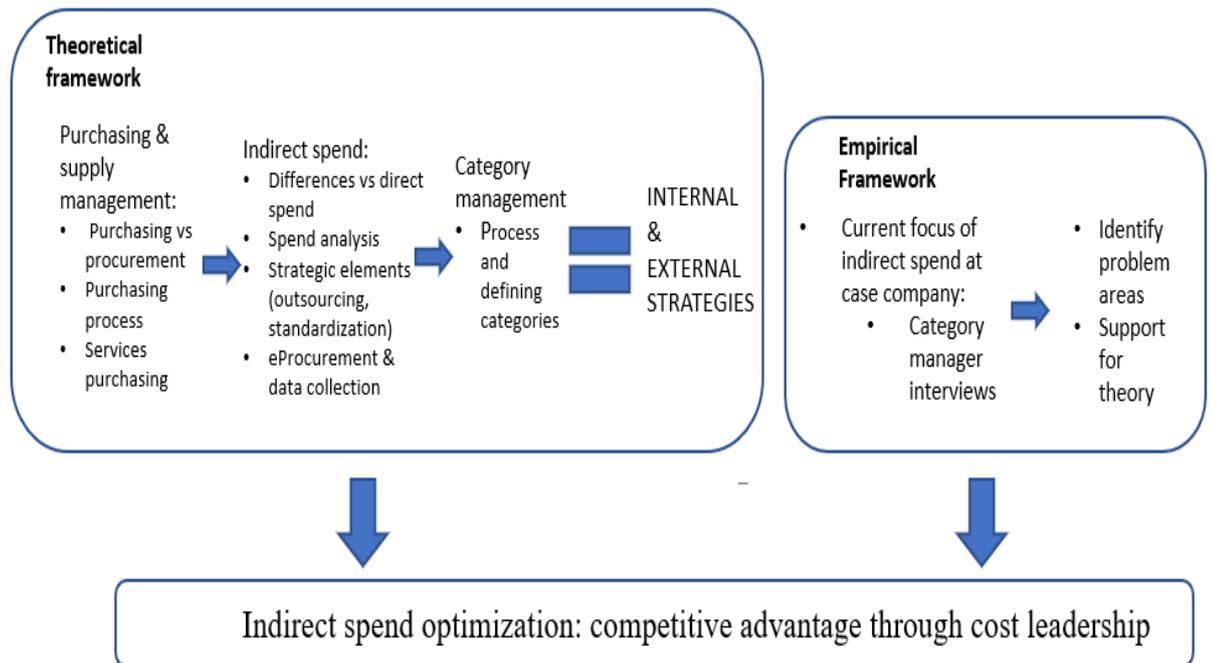


Figure 1 Research Framework

As shown on figure one, this study consists of two parts: theory from literature and peer-reviewed studies, and empirical data from case company. With these together, the aim is to form a solid base for a strategy to maximize the performance of indirect spend management in the case company. Theory part will mostly be focused on indirect spend analysis, service purchasing and category management. Theory aims to produce a set of strategies, both

internal and external, that could then be attempted to apply within the case company, if similar use-cases are found.

As the case company is not a manufacturer of goods, a large part of its procured products are actually services such as consultants, HR and IT support. The aim is to receive input from experts in each category (such as facilities, insurance, service consultants and rental workforce) and see how indirect spend could be better managed and to an extent how purchasing of physical goods differs from procurement of services.

### 1.5 Literature review

While spend and spend analysis has been a target of academic research extensively, research for indirect spend has gained traction only in the last decade or so. Modern SCM can be said to be started in 1980s, which means that lot of the early and defining knowledge can be focused on traditional manufacturing industry. This means that classical research for procurement has traditionally been focused on the procurement of manufactured goods instead of services. With the shift in focus of modern procurement changing towards service purchasing (as service purchasing is perpetually growing) firms need to take full advantage from their streamlining if they want to stay competitive. This study aims to fill in some of the gaps in research of indirect spend and services purchasing. One observable gap is the lack of research pertaining to maverick buying. This was also noted by Karjalainen et al. (2008, 246) on their study of non-compliant work behavior in purchasing and will thus be a focal point of this study as it creates opportunities to explore uncharted waters in an otherwise saturated field of study.

The basis for this study is formed by the classic literature from Kraljic's (1983) paper *Purchasing Must Become Supply Management*, which forms the basis for modern supply management study, and Van Weele's (2005) *Purchasing & supply chain management: Analysis, strategy and planning*. These two sources provide an excellent base for which to expand upon. The key to understanding indirect spend analysis is first to understand the structure of a supply chain from bottom to the end user and how it is best managed, something these two sources explain in detail.

The most essential papers for this study are the CAPS study (2003) by Carter et al. and Spend Analysis Lessons by Limberakis (2012). CAPS study is one of the most comprehensive studies focusing on indirect spend in the early 2000s. They were one of the first to realize the scope of which indirect spend holds of the total spend and recognize its importance. A lot of the strategy theory on this study is based on their findings and recommendations. They categorized methods of identifying and managing indirect spend into external and internal measures which will be expanded upon later in this study. Spend analysis lessons creates an excellent overview on what spend analysis is and how it is best conducted.

In general, though, spend analysis and supply chain management is a topic that has been widely studied over the past couple of decades, so finding credible sources and studies is not too hard. This is why the scope and topic of new studies need to try hard to differentiate from already existing literature.

## 1.6 Key Concepts

### **Spend**

Direct spend are the purchasing of goods and services that directly generate revenue and eventually are included in the end product or service, such as raw materials. They have usually been the focus of strategic research, especially among manufacturing industries.

Indirect spend, often referred to as MRO (Maintenance, repair and operational expenditure) is often defined as purchased goods or services that don't generate revenue and are not included in the end-product or service that then delivered to the customer. Good examples of indirect spend are facilities, machinery, and human resources such as IT consultants or expert services (Carter et al, 2003, 3).

### **Spend analysis.**

Spend analysis is a tool for organizations to control and visualize their spend. It helps optimization by identifying strategic sourcing opportunities & sources of waste, and by

increasing supplier compliance through for example vendor rebates and eliminating maverick buying. (Pandit, K & Marmanis, H, 2008, 6)

Spend analysis requires organizations not only to extract, segment & categorize and analyze data from multiple sources, but also to leverage it in order to reduce supplier risk and improve spend compliance. Handling data coming in from different sources such as various sourcing systems, enterprise resource planning (ERP) -systems and procurement requires the cooperation of multiple different functions -IT, finance, management and procurement, but done right can lead to advantages in cost leadership and waste reduction. (Limberakis, 2012, 10)

### **E-procurement**

Davila, Gupta & Palmer (2003, 12) defined E-Procurement as any technology designed to facilitate the acquisition of goods and services by a governmental or commercial organization over the internet. These technologies include B2B -auctions, e-Procurement software (such as ARIBA), B2B market exchanges and purchasing consortia. The focus of e-Procurement is to leverage the power of the Internet to consolidate an organizations' spending power, automate workflows and identify new sourcing opportunities.

### **Maverick buying**

An important part of this study, maverick buying is the process of buying goods and services outside of officially approved channels. Defined as "non-compliance" buying, maverick buying can be an expensive problem for organizations. (Karjalainen, Kemppainen & Raaj, 2008, 246). Especially in indirect sourcing, where channels are often synergized and automated between suppliers (through for example framework agreements, automated supplier catalogues) this type of buying can eat into the synergy profits from the established relationship.

As Harris & OGbonna, (2002, 163) state, this type of organizational misbehaviour and noncompliance has not been effectively studied in the field of supply management and purchasing. This opens up possibilities to see if maverick buying is actually harmful (lost

synergy gains, risks in supplier quality) or beneficial (for example gains through purchaser experience and knowledge and less rigid and inflexible purchasing system).

### **Category Management**

O'Brien (2015) defines category management as segmenting main areas of spend in goods and services into concrete groups according to their functions and individual marketplace alignment. This allows organizations to focus on individual categories and develop multiple strategies aimed at specific goods and services instead of one-size fit all -type of singular procurement strategy. By inspecting a spend of a single category and how goods are sourced within that category, an organization can create a specific sourcing strategy to reduce waste and thus create value across the whole organization. The most clear-cut example of category management is the division of spend into direct and indirect spend, of which the latter is the focus of this study. Category management is often associated with retail or manufacturing industry as their categories are more well-defined within products, but it can also be beneficial to employ within service and facilities purchasing.

#### 1.7 Thesis outline

This study is divided into four chapters: introduction, theory, empirical findings and conclusion & discussion. The first chapter outlines the general practices of this study as well as background, limitations and research problems. The second chapter acts as a literature review and a basis for actual case study to take place. Third chapter, empirical findings, breaks down the conducted interviews into manageable information. Research methodology is also looked at more closely Discussion is also included in this chapter, which provides answers for research questions and strategy recommendations. Lastly, chapter four concludes the study and provides options for future research.

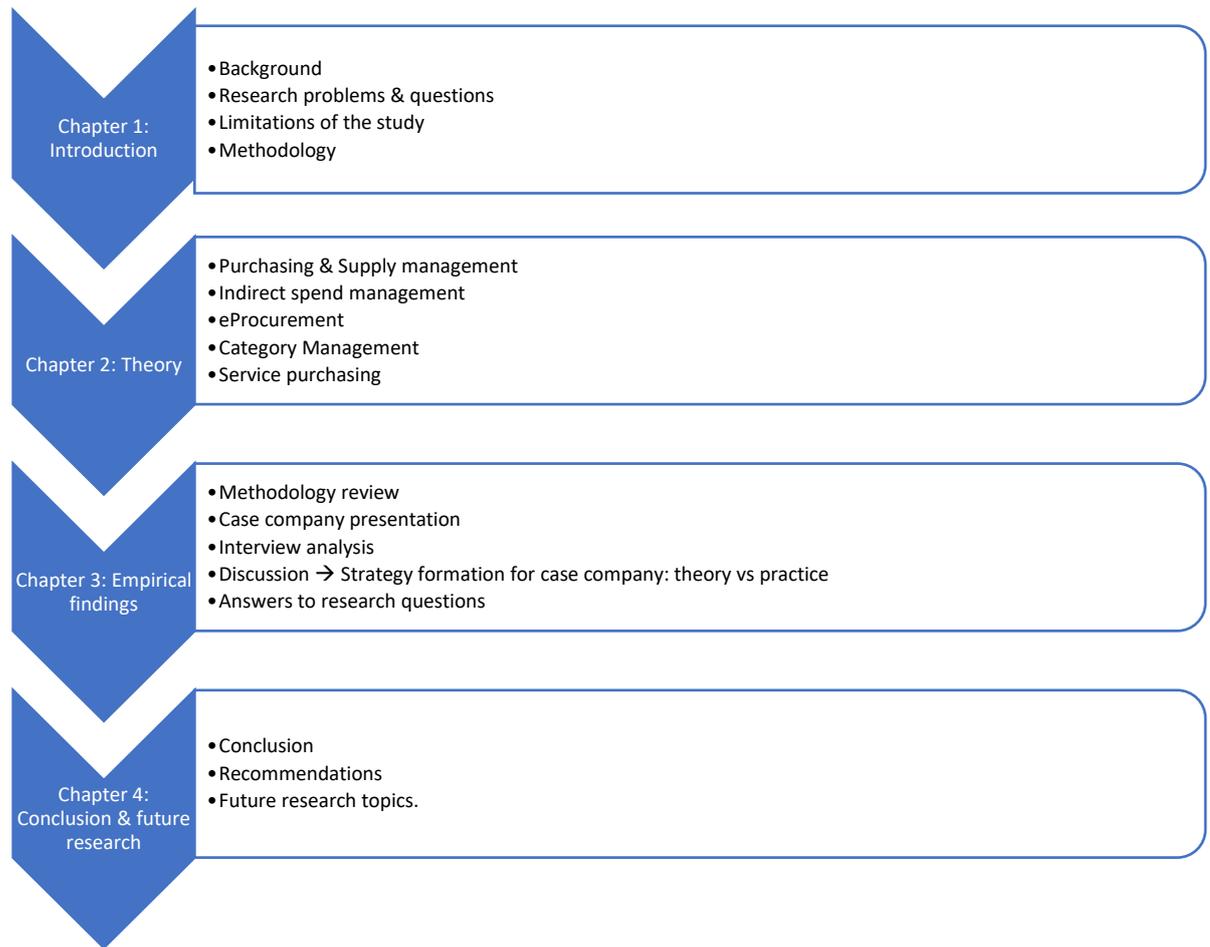


Figure 2 Thesis Outline

## 2. Theory

### 2.1 Purchasing and supply management.

In the next chapter we investigate purchasing as a corporate function, and how it differs from procurement. It is important to acknowledge how purchasing (and its proper management) plays a part in an institution's cost structure and competitive advantage generator. Furthermore, the paper looks into the special characteristics of service buying as the case company is a financial institution instead of a traditional manufacturing or retailing one. First, we need to define what supply chain and supply chain management are, and then the roles of purchasing and procurement within these functions.

A supply chain is essentially all the functions, resources, and organizations involved in delivering a product or a customer to an end customer. (Blanchard, 2010,3) Supply chain management is (SCM) is also a concept worth defining in the scope of this study. Mentzer et al 2001, 18 defined it as: "the systematic coordination of the traditional business functions and the tactics of said functions within one company and across businesses within the supply chain. The purpose of which is the long-term improvement of performance of the company and the supply chain as a whole. Essentially, its goals are:

- Visualize a supply chain from start to finish.
  - Identify bottlenecks in production that are slowing down movement of resources.
  - Enhance processes so the right products are delivered at the correct place at the correct time.
  - Place personnel along the supply chain so that the above targets are reached.
- (Blanchard, 2010, 8).

In essence, supply chain management handles big picture elements when it comes to supply chain organization. It is the founding element on what other research and functions can be built upon (such as indirect spend management.)

Within supply chain management, there exists a concept called PSM, or Purchasing and supply management. It is the organization of a firms purchasing department integration into

the supply market ensuring the timely delivery and sufficient quality of purchased goods. As more and more of a company's turnover is attributed to supplies, purchasing has become an essential factor in a firm's strategic functions. Purchasing and supply management can be separated into two factions; strategic sourcing which entails planning and supplier selection, and operative sourcing which entails actual ordering, expedition of orders and handling of various payment processes. (Schiele, 2019, 45) Supply management should not be considered only as an operational function with the only goal of ensuring availability of supplies, but rather as a strategic function with the goal of improving the company's position in the market.

### 2.1.1 Purchasing versus procurement.

Traditionally, purchasing is classified as the process of buying materials at the right quality, in the right quantity, from the right source, delivered to the right place at the right time. (Lysons & Farrington, 2006, 5). This definition is tricky since it refers to purchasing as reactive and transactional. Even though traditional purchasing tasks are operational in nature, strategic purchasing has gained foothold as a source for cost-savings instead of a necessary evil.

For the purposes of this study, it is necessary to distinguish between purchasing and procurement. Purchasing definition in the scope of this study is expanded as obtaining goods and services through external sources which are necessary for running, managing and maintaining the company's primary and support functions. (Van Weele, 2010) Procurement on the other hand is the strategic process of sourcing. Procurement handles other means of acquisition than simply purchasing, such as renting or leasing. It is important to note however, that purchasing is a part of procurement, and procurement is largely a more strategic function within an organization.

<b>Procurement (strategic)</b>	<b>Purchasing (operational)</b>
Make or buy -decisions	Ordering
Strategic items	Routine and non-critical items
Sourcing and supplier audits	Expediting
Supplier selection	Inventory management
Constant supplier monitoring	Receipts and payment handling
Developing Suppliers Negotiations	General SRM (relationship management)
Often indirect spend	Often direct spend.

*Table 1 Differences between procurement and purchasing (adapted from Lysons & Farrington, 2006, 8)*

Direct spend is often handled by a purchasing department, as they are more standardized routine and non-critical items. Since they are so universal, these products can be sourced by a centralized purchasing department, with procurement team involvement often being limited to initial supplier selection and audits. These products also don't require end-user involvement in the process as the end-user is often a customer. These are the kind of products leverage buying power and automate contracts, since each individual order & purchase requires little to no special attention.

Indirect spend more involves the procurement department as well. Since the purchase orders often come from along the value -chain (end user, eg. a warehouse worker or a store manager), the requisitions can be unique and not always readily available. This is where the procurement department comes in and handles early potential supplier mapping, supplier selection, negotiation and contracting. Once the supplier and routes are established, the request can be moved to purchasing and handled by them in the future.

### 2.1.2 Kraljic's portfolio matrix

A good way of practicing supply management is using what's called a "Kraljic's portfolio matrix." It is also a part of category management, but for the purposes of this study it is viewed as a part of PSM: Essentially, it is a four-way model to categorize products by their procurement difficulty (y-axis) and strategic importance (x-axis)., Kraljic's portfolio is

designed for physical goods. In it, products are put into four general categories. Kraljic (1983) established four main strategic categories:

Bulk: high importance/ low difficulty (abundant supply: exploit purchasing power.)	Strategic: high difficulty/high importance (low supply due to natural scarcity: focus on collaborative relationship development.)
Routine: low difficulty/low importance. (Abundant supply: standardize.)	Bottleneck: high difficulty/low importance. (Artificial scarcity of supply: establish procurement channel, invest in innovation)

*Table 2 Kraljic's portfolio matrix (adapted from Kraljic, 1983, 3)*

Bottleneck products (high difficulty, low importance) are products where strategy should mostly be focused on ensuring availability to remove possible problems. As they are of low strategic importance, a good strategy could be to “establish and forget”: establish one good procurement channel and not commit any more resources into its procurement. As there is low availability, firms should evaluate whether it is worth it to commit resources into ensuring multiple sources of supply just in case. Another strategy is to invest in innovation and product substitution and replacement. Possible way is to look at the make- or buy process; can we make this ourselves? A good example is a technical component that is essential to a machinery and has low availability but is also not exactly expensive.

Strategic products (high importance, high difficulty) are crucial for a company's core business and should be treated with extreme care. A good strategy to employ would be to form long-lasting, collaborative relationships where both parties benefit. It could also be a good idea to spend resources on building relationships with a few different suppliers, in a way to ensure availability in the future as well. While indirect spend is often decentralized and end-user centric, these products should be procured in collaboration with a central purchasing department as well as the downstream end-user to ensure both technical and commercial experience are available.

Routine products (small importance, small difficulty). With these products, supply is high and procurement risk is low, and the procurement process should largely be automated and

outsourced. All resources spent into these purchases should be minimized. With indirect procurement, these should be handled by the end-user down the value chain, for example a warehouse worker ordering new cleaning materials or office supplies with little impact to the cost structure.

Lastly, bulk products (high importance, low difficulty) are products that while important, are easy to procure. With these purchases, a company should leverage their buying power and try to secure discounts by buying large quantities at once. As they are important to the core business, this strategy ensures availability in the long term and lowers costs. These products should be handled by a central purchasing department, with initial insight to the technical specifications by the end-user.

### 2.1.3 Purchasing process

According to Baily et al. (2005) The purchasing process can generally be divided into following phases.



Figure 3 Purchasing process. (Adapted from Baily et al. 2005)

The whole process starts with the **recognition of need**. This often comes in the form of a requisition that gets sent to a procurement or purchasing department, depending on the type of requisition and product needed. Indirect spend requisitions often come from along the value chain, for example a new battery for a warehouse truck, submitted by a warehouse

manager. A direct spend requisition can come for example from a store that has an automatic inventory management system which alerts when certain goods are low in quantity. These typically get handled by the purchasing department. After this the procurement or purchasing department can ask for **specifications** from the request submitter. Specifications may entail things such as current solution for the problem or suggested suppliers if the end user is more experienced with the subject, which sometimes is the case with more technologically complex products and indirect spend in general.

**Make – or – buy decision** is the most critical step of the purchasing process, and one that mostly shapes what the rest of the process is going to look like. It is the decision whether to buy a product from suppliers or make it in-house. There can be many reasons why a company would want to keep the manufacturing of goods in-house: deterioration of supplier quality, constant delivery errors, rise in prices or the need to keep the manufacturing process an in-house secret. (Baily & Farmer, 1977, 264). By keeping the process in-house, a company has more control over the manufacturing process. Reasons for buying outside would be to allocate resources to core competencies, leveraging supplier expertise on their respective categories and total costs of ownership associated with manufacturing equipment and assets. (Moses, A. 2011, 1042-1060.) With indirect spend however, the question more often is *where* to buy instead of *if* they should buy. As indirect spend is often not mission critical, they are mostly sourced to outside organizations. As indirect spend categories are many, a company often lacks expertise to make their own products. For example, it simply is not feasible for a retailing company to make their own shelving, as they have neither the experience nor the time to make them.

After deciding to buy a product or a service, it is time to start **identifying potential suppliers**. With digitalization, this process is more streamlined than ever before. In addition to searching for potential suppliers through internet & their own websites, suppliers can be found on various e-Catalogues, industry magazines, trade registries and industry conventions. (Burt et al. 2003, 328-329). Especially with indirect spend, a prominent way to find suppliers is through e-Catalogues upheld by the suppliers themselves and so-called reverse auctions, where a company posts a requisition and suppliers bid on who gets to sell

it for them. This frees up resources in the procurement process from mechanical, operational tasks into more strategically focused tasks.

Once potential suppliers have been identified, it is time for **source selection**. This often starts with RFQ's (request for quotations) being sent to multiple suppliers for tendering. Once quotations are received, the next step is commercial and technical evaluation of the offers. According to Burt et al. 2003 preliminary auditing of a supplier is necessary only if the product or service being bought is of strategic value. Routine or non-critical items can often be bought with very few criteria associated with them, mainly price. Strategic products are items that are critical for a company's success, now or in the future.

Common procedure is to ask for quotations from three to five suppliers and perform a risk analysis based on received quotations. This risk analysis looks at:

- Suppliers' technical risks, such as expertise of top management and the state of machinery and facilities.
  - Quality risks: what kind of quality assurance systems are in place at the company.
  - Economical risks: for example, supplier solvency levels and debt-to-equity ratios.
- (van Weele, 2002, 58)

After assessing risks, it is crucial for a company to look at the spend associated with the supplier across the lifespan of the item being bought. This type of spend management is called total cost of ownership (TCO), where the price of the good or service is just the tip of the iceberg. The lifespan of an acquired item includes acquisition, maintenance & possession and eventual disposition. The main idea is that in addition to purchasing price the spend related to a purchase includes ordering, supplier inspection, receiving of goods, warehousing, maintenance & repair, personnel training, inspection and many more, often depending on the nature of the product. (Ellram, 1994.) As both advocate understanding total cost of a supplier, TCO often works in tandem with zero-based budgeting (or pricing) a strategy of indirect spend management presented as relevant in this study.

Table 3. shows different cost drivers related to TCO. A study by Ferrin & Blank (2002) interviewed 73 procurement managers and a total of 273 cost drivers were identified relating

to a single purchase. It is clear from the results that price, while one of the biggest factors, is not enough to data to make a purchase decision on itself.

<b>Operations cost</b>		<b>Quality</b>
Manufacturing		Cost to repair
Operating supplies		Durability
Assembly		Quality inspection
Production output		Rejection & replacement costs
Labor savings		Disposal
<b>Logistics</b>		<b>Technological advantage</b>
Freight		Technological changes
Packaging		Planned obsolescence
Availability		Supplier flexibility
Just-in-time deliveries		New Innovations
Warehouse costs		
<b>Supplier reliability and capability</b>		<b>Maintenance</b>
Relationship benefits		Personnel training
Brand risks/benefits		Downtime
Payment terms		Parts
Volume benefits		Preventive maintenance
Supplier support		
Supplier development opportunities		
<b>Inventory Cost</b>		<b>Life Cycle</b>
Safety stock		Life Cycle obsolescence cost
Turnover		Long-term usage
Warehousing		Reduced transaction costs

Perishability and subsequent disposals		Learning curve	
<b>Initial Price</b>		<b>Miscellaneous</b>	
Unit cost		Taxes	
Initial purchasing price		Value Chain philosophy	
Stability in long-term Price		Warranties	
		Make -or -buy	

Table 3 Cost drivers (adapted from Plank & Ferrin, 2002, 21)

These cost drivers are especially important to consider when it comes to indirect spend management. Direct purchases are often short-lived, as they are raw materials to be made into end-product or other products directly to be sold. In essence, their life cycle in a company is short and their turnover & warehouse cycle times high. Indirect spend on the other hand deals with long-lasting purchases with a life cycle of possibly decades.

After the supplier is selected, Next step in the purchasing process is **contracting** and **contract management**. For orders with low volume and one-time nature, contracts might not even be needed. In the end, contracts and their management require resources to draft, complete and supervise their implementation. However, when an order reaches significant monetary value, a contract should always be drafted. For this study the threshold for such an order will be defined as over 10,000.00 EUR.

For indirect spend, a good way to streamline the contracting process is to employ pre-drafted framework contracts, which are often negotiated in a centralized purchasing department. As indirect procurement is often decentralized along the value chain, this helps to reign in the buyers and reduce so-called “maverick buying (MB)”. Maverick buying means buying from a supplier without an existing contract or previous purchase history, essentially “offcontract.” (Iloranta & Pajunen-Muhonen, 2008, 371) Maverick buying can enable flexible purchasing strategies in some cases, but more often than not it reduces leverage benefits, increases purchasing costs and increases the supplier base, thus increasing transactional costs. Cox et al. 2005 suggested various negative effects associated with maverick buying, going as far to say that maverick buying might increase procurement costs of a company up to 20%. Reasons are:

- Unlikely to have access to market competence formed with previous purchases made with a supplier
- Increased prices through an increase in both the actual purchasing price (no previous history with the buyer) and purchase process costs. (finding suppliers, negotiations. etc)
- Lower leverage benefits as each transaction is limited in volume.
- Increased transaction costs through establishing relations with multiple different suppliers, and also monitoring & auditing costs relating from a higher supplier base.

In order to weed out maverick buying, a purchaser needs to understand how it is formed. Karjalainen & et al. (2009, 246-248) recognized four different types of MB. **Unintentional MB** occurs especially in large organizations, where purchasing can be fragmented. (also, often the case with indirect procurement.) This is caused by a lack of awareness regarding correct purchasing processes or existing contracts. In a large organization, it can be difficult to get information regarding existing contracts or getting information through to buyers. **Forced MB** happens when purchasers need to venture beyond existing contracts, for example when buying something that has not been contracted yet, or a current supplier lacks the necessary capabilities to execute the order. It can also happen when a requisition for purchase is poorly designed, so it is unclear what is actually wanted to be purchased.

**Casual MB** happens when a purchaser is aware of the current process or an existing contract but chooses to buy outside official channels anyway. This might be due to convenience or because this particular way of purchasing has been employed for a long time. Change resistance is a large problem in older organizations, because purchaser might have no urge to change an existing way of purchasing because it has been done for a decade. Next type of MB is **well intentioned MB**. This can happen when an employer thinks their own expertise is greater than in the central procurement unit, or when an alternative offer seems superior to an existing framework agreement. This can be dangerous as all TCO spend might not be visible to an average purchaser. Especially with indirect procurement, which is often fragmented, purchasers might only think to look at costs within their own function.

Lastly, **Ill-intentioned MB** is often caused by opportunism, resistance to change and lack of trust in the central organization. A buyer might have existing relations to a supplier and

might choose to contract with them despite of directions from central organization. Purchasers might also not trust in a central organization, as indirect procurement is especially end-user involved. This might lead to purchasers not believing in the directions of the central organization, as they feel to be more experienced being more involved in the end use of the product. In conclusion, extensive framework contracts, effective flow of information (e.g consolidated contract database), clearly signaled & explained purchase requisitions and purchaser training sessions for new processes all work towards reducing maverick buying and moving a company towards a more unified and streamlined procurement. (Karjalainen et al. 2009, 246-248)

Last phase of the purchasing process is **fulfillment of needs**. This can be considered fulfilled once an item has switched hand & responsibility switched from supplier to buyer. This can vary from contract to contract with so-called incoterms. They determine when a sellers responsibility ends and buyers begins, and who pays for example duties and offloading. Examples are DDP (delivered duty paid) where supplier brings goods to an agreed upon place and is responsible for duties and tariffs that may occur during delivery. On the other end of the spectrum is EXW (Ex-works) where supplier simply makes the goods available at a suitable place, and places most of the responsibility on the buyer. (Incoterms, 2000)

Once the need has been fulfilled, the purchasing process can be viewed as complete. This does not end the procurement process however, as the purchased goods still require constant maintaining, warehousing, operating, eventual disposal costs and many more. This is the basis for TCO -philosophy, and an important aspect when it comes to managing indirect spend.

#### 2.1.4 Service purchasing

Service purchasing is an important part of this study, as two of the three category leads interviewed deal with various service procurement, such as human resources and IT-services. Service procurement differs from goods procurement not only in the inherent elements of the services versus goods, but also in the perceived difficulty of the procurement process in contrast to goods procurement. In the CAPS -study by Carter et al. (2003) that interviewed procurement professionals found that 69% of interviewees considered service

purchasing to be more difficult than purchasing of goods. This most likely stems from the lack of attention within supply management that service purchasing has received in the past, as services tend to be more difficult to visualize and service-level agreements (SLAs) more difficult to define. Contrary to goods procurement, service quality and performance is hard to measure. Services can be challenging to create to match an organization's needs precisely, which can lead to more compromises between the purchasing and supplying parties. (Ellram et al. 2015, 49) All this often stems from the four inherent elements of services: intangibility, heterogeneity, inseparability, and perishability, often called IHIP-elements (Grönroos, 2015, 64)

**Intangibility** means that physical objects are not exchanged between a supplier and a buyer. This incurs different challenges: buyers might be hard pressed to specify service requirements upfront in the contracting phase (ex-ante) and supplier compliance after the fact (ex post). This also makes it hard to identify possible underlying costs and so the accurate negotiation of an appropriate price. (Wynstra, Rooks & Snijders, 2018, 85).

**Heterogeneity** means variability within a particular type of service or service category. Services often need to be tailored to individual organizational needs. For example, a service provided by an IT-firm to two different organizations are most likely very different in their contents. This calls for a longer procurement process, as the individual needs have to be negotiated. Pressure to conduct better market research can also be present. Heterogeneity also leads to issues with consistency, as the outputs are less standardized than with goods manufacturing. (Jackson, Neidell & Lunsford, 1995, 100)

**Inseparability** means that both the service provider and the purchaser are present during the delivery of the goods. This means that the purchaser is present in the delivery process as a "co-producer". Performance of a service is therefore not only reliant on the provider, but in a way also on the actions of the purchaser. Contrast to goods where a delivery is efficiently done upon receiving the goods with less input required of the purchaser, with services often require active participation on the purchaser's behalf. **Perishability** means that services cannot be stored, and the demand is thus harder to forecast. This requires more adaptive collaboration between the two parties. (Wynstra et al, 2018, 85)

Essentially, the procurement of services involves greater supply risk and buyer uncertainty. Organizations thus need to spend more time and resources on the procurement process for services. Below, in table 4 the differences and problems with service procurement versus goods procurement are gathered.

IHIP-Attribute	Key Performance Indicator	Goods	Services
Intangibility	<b>Specifications</b>	Precise	SLAs hard to specify ex ante.
	<b>Cost</b>	pre-negotiated per unit.	Underlying costs often hard to measure.
	<b>Contract completion</b>	Shipment received	In-house verification needed (internal)
	<b>Payment</b>	Intuitive, goods received -> Invoice payment.	Payment often without concrete showing
Heterogeneity	<b>Quality</b>	Measurable & Specifiable	Subjective to the purchaser and difficult to measure
	<b>Consistency</b>	Products can be standardized, allows for greater consistency	Provided services often vary interorganizationally, which leads to less consistency overall.
Perishability	<b>Demand forecasting</b>	Less Restrictive (warehousing, buffer	Consumed on the spot, more imprecise.
Inseparability.	<b>Collaboration</b>	Low	More collaboration needed due to purchaser being a "co-producer"
	<b>Separation</b>	High physical separation	Low separation due to to services being created and consumed at a single point.

*Table 4 Differences in goods & service procurement (Adapted from Ellram et al. 007, 48; Wynstra et al. 2018, 85)*

Services seem to require different approach to handle than traditional, physical based manufacturing goods. The main point garnered from literature is, that services spending can be more complex and requires greater understanding of what it is that is being procured. In order to best manage service spend & purchasing, the below model is proposed:



Figure 4. Steps to manage service procurement (adapted from Ellram et al. 2007, 58-62; Gordon, Calantone & Benedetto 1993)

## 2.2 Indirect spend

Next part of the paper aims to deliver a look into what indirect procurement is, how it differs from direct procurement and what are some established strategies for managing it & its spend.

Non-revenue generating spend has a few different names. Indirect spend, MRO (Maintenance, repair and operational expenditure), NPR (non-product related goods & services.) to name a few. Essentially it includes all the goods & services of a company outside its primary functions, such as maintenance of machines, office supplies, capital equipment such as vehicles and printers and also intellectual capital & services such as IT, human resources and legal assistance. (de Boer, Holmen & Sitar, 2003, 911; Porter, 1999, 3)

Indirect spend can be considered “invisible” spend or sunken spend, as it is rarely visible to the end-customer. A good example is in retail, the end customer most likely notices the product on the shelf but not the shelf itself, which was procured by the indirect purchaser. In fact, most of the clients that indirect procurement services are inter-organizational, such as a distribution center or an actual store instead of a private consumer.

A few characteristics (and issues) of indirect purchasing are:

- A large variety of goods and services from many suppliers
- Time-consuming, as the products & services being procured are not standardized and often in small quantities.
- High amount of end-user involvement in operational purchasing phases. This means that instead of indirect procurement being centralized, it often is happening across the

organization. For example, when buying a complex recycling machine for a warehouse, it is advised to largely involve the warehouse overseer or mechanic into the purchasing process.

- A lack of comprehensive spend data. If data even exists in the first place, it is often fragmented as procurement is often fragmented.

- They involve a lot of money, but are often not being focused by top managers (De Boer & Telgen, 1995, 3)

With the use of internet and information systems, direct procurement can often be automated very closely. Thanks to modern ERP (Enterprise Resource Planning) - & EDI (electronic data interchange) -systems, demand forecasts and standardized products, direct purchasing has developed automated replenishment systems that use JIT (just in time) philosophy to reduce warehouse downtime and streamline the flow of goods. (Kim & Shunk, 2004). Indirect spend on the other hand, could not use these due to lack of standardizing and mostly manually done paper/e-mail-based procurement.

A study of by Monzcka & Petersen (2012) asked 119 supply organizations to rank 22 different supply strategies and their performance results. Most important strategy areas were engagement of corporate executives & Business Unit -leaders at the top level, and Vision, Mission & Strategic plans. In contrast, among the lowest rated (by importance) strategies were E-Sourcing & Standardization of Products & Services specifications. This further portrays the focus on direct procurement, as E-sourcing & standardization are great tools to help streamline the indirect procurement process, whereas involvement from the top level is not necessarily needed in indirect purchases.

When developing indirect procurement, the institution needs to have clear objectives in mind. Gebauer & Segev (2000, 110) recognized that when institutions re-organize their indirect purchasing processes, the same objectives & goals are often implemented:

- de-centralization of day-to-day, transactional purchasing. This helps to cut off the middleman of a centralized purchasing department, and rather encourage the end-

user to follow through the entire request for quotation -process. This in turn helps to reduce administrative and warehousing costs.

- Increase in contracted buying. With institutionalized end-user involved purchasing, the goal is to increase contracted buying. Vendor catalogues can be stored in a centralized purchasing department, which helps to reduce maverick buying and hopefully increase cost savings through pre-negotiated agreements.
- Increase in purchasing power. Contracted buying also helps to increase the leveraged buying power a company has. De-centralizing purchasing processes run the risk of fractured buying and the loss of purchasing power, and contract buying aims to help with this.
- Increase in procurement documentation. As indirect procurement is not standardized buying, it can be poorly documented. This makes analyzing spend patterns and supplier performance difficult. Simply by improving documentation companies can identify areas for cost savings and become proactive instead of reactive.
- Reduction in supplier base. Especially with indirect procurement, the supplier base can often be large, leading to higher resource intensity through administration and negotiation processes. Furthermore, a smaller supplier base allows the company to focus on individual relationships and gain price reductions & improved service. A fine line needs to be established however, as too small a supplier base leads to suppliers being not so easy to switch.

The below figure compiles the differences in direct & indirect procurement as compiled in the chapter above. In conclusion, the most glaring differences are revenue generation, location of purchasing department, profit impact and the level of standardization.

<b>Attribute</b>	<b>Direct</b>	<b>Indirect</b>
Level of Standardation	High	Low
Revenue-generating	Yes	No
Profit Impact	Through sales	Through cost-reduction

Demand	Visible	Hard to forecast
Purchasing Department	Centralized	Often decentralized (across value chain)
Contracts	Framework	Case-by-case
Suppliers	Few	Many
Purchasing	Very automated	Very manual
End-user involvement	Not involved	Very involved
Documentation	Good coverage	Often poor

*Table 5 Differences between direct & Indirect sourcing. (Adapted from: Gebauer & Segev 200, 110; Porter, 1999, 3; de Boer et al., 2003, 911)*



*Figure 5 Elements & strategies.*

Figure 4 shows how the strategic decisions in this paper are divided. It is not based on existing literature, but rather adapted from observations from both the theory so far and the interviews made from the case company. At the bottom are the big-picture decisions such

as organizational structure or key element outsourcing. These are decisions made on the very top organizational level, and don't necessarily relate **directly** into procurement.

At the second level we have sourcing strategies, that are made in for example a procurement division level. Decisions at this level relate to more general strategies on spend management and are more closely followed in chapter 2.4. At the top we have operational purchasing decisions, made by the personnel directly making the orders and inventory management.

### 2.2.1 Indirect spend analysis.

It is important to establish, why spend analysis should be researched. Limberakis (2012, 12) identifies the below problems as the top drivers for why spend analysis initiatives are important:

1. Spend data has often poor quality. Spend data is often vaguely collected and can be hard to gather without the use of an ERP or E-procurement platform.
2. Organizations often have inability to properly identify and forecast savings opportunities. This is especially true for indirect procurement, as their demand and thus their cost can be hard to forecast.
3. Increased pressure from a more competitive market to place more spend under management. This is especially difficult as indirect procurement can often be decentralized across the value chain.
4. Managing and collecting data is often labor intensive. Data collection being separate from the purchasing process leads to excess waste in different parts of the value chain.
5. Spend categories are difficult to identify and prioritize. Therefore, category management is stepping up as an important tool in spend analysis.

Success is not always measurable. Sometimes cost reduction effects are not instantaneously visible, as the sunk costs can (currently) outweigh the potential savings that are incurring in the future.

One of the issues in spend analysis can be to visualize and track savings achieved by purchasing and supply management. One way to simplify this is to employ Zero-based budgeting. Instead of a traditional budget where incremental increases are made to existing budgets, all expenses must be justified to a new period. This means that all budget plans need to start from zero and justified from the ground up. Additionally, business units are forced to start with the same budget as a previous business cycle instead of a standard 2% increase to overall spend budget. (Pyhrr, P: 2012)

While traditional budgeting methods can be useful for managers in production and sales units where results are easily quantifiable through volume, zero-based budgeting should be used for managers in more service-oriented fields where quantitative output is not always readily available. This makes it great for indirect spend analysis, where services like IT & HR are a major focus of spending. (Wetherbe & Montanari, 1981).

To visualize zero-based budgeting and its usefulness, Wetherbe & Montanari (1981) identified comparisons between a traditional incremental budget and zero-based budgeting:

Traditional budgeting:

- Justifies only the cyclical increases in budget spending.
- References being made to a previous level of appropriation.
- All spending programs are continued unless clear evidence pertaining otherwise is presented.

Zero-based budgeting:

- Justifies and reviews total spenditure (instead of cyclical increases). Every spend program and their incremental changes need to be justified from zero for the next cycle
- Defense of entire budget required, instead of differences to a previous level of appropriation.
- Questions existing basic spend and requires justification for its existence. Continuation of spend programmes depend on their justification and level of spend documentation.

Zero-based budgeting makes sure that budgets don't remain stagnant and are not continued simply because "It is what is always been done". It is especially useful in indirect spend analysis where budget spending can be harder to visualize than in the more volume-oriented direct spend.

## 2.3 Strategic indirect spend.

In this chapter the study gathers various strategic elements from different literature, that can be considered to form the basic framework of how indirect spend is best managed in companies, more big-picture decisions. These are the strategic elements & methods that form the basis for procurement tactics in the future. More operational strategies will be examined in chapter 2.4

### 2.3.1 Organizational structure

The most important decision a company can make regarding its indirect spend management is the choice between a centralized purchasing department, a de-centralized one or a hybrid organization. (Carter et al. 2003) The different purchasing structures are defined below:

- Fully centralized purchasing: All purchasing decisions on how and what to buy are focused on a centrally led purchasing department. Most, if not all, contracts are standardized throughout different local branches.
- Full decentralization: local branches and business units have autonomy regarding their purchasing decisions on a grassroot level.
- Hybrid model: Hybrid models are becoming more and more common as purchasing becomes more complex. They cover a wide array of arrangements where a central purchasing unit and a local business unit share responsibility in procurement decisions. A common example of a modern hybrid model is when strategic decisions are made centrally but operational & transactional activities are performed on a local level. (Dimitri et al. 2006, 47)

While a centralized department offers increased leverage through larger volumes of purchasing, and de-centralized model offers more benefits and value on a local level, they do not fit to every situation. De-centralizing runs the risk of non-regulated buying and increased costs due to lower volumes, and centralizing offers standardized contracts that might not be suited for organizations with hundreds of locations, each requiring their own specific needs. With hybrid organizations, de-centralized units can make their own purchasing decisions using the contracts provided to them on a centralized level.

A common trend is to use internet-based procurement via company employees. In these cases, a desktop-based application is given to (local) employees, where a customized range of suppliers, products are made available within established approval limits. Responsibility is then given to the local branches for their own operational purchasing, however within the limits and restrictions set by a central procurement department.

### 2.3.2 Level of standardization

Standardization is a difficult subject to manage. On one hand, purchasing managers are pressured to coordinate their purchasing strategies to not lose their purchasing power leverage, and on the other hand they are realizing the value of having local sourcing strategies to accommodate the local customer. In this context, standardization can be divided into three different dimensions: standardization of product & service characteristics, standardization of purchasing staff organization and the standardization of purchasing processes. (Quintens, Pauwels & Matthyssens, 2005, 881).

Standardization of **products and services** work with routine products as defined in Kraljic's (1983) portfolio matrix, and in low-spend- low important services in Ellrams (1995) grid matrix. The basic characteristics are the same in both; product and services that are low in complexity and abundant in supply. The best course of action with these is to automate their sourcing through framework agreements that are renewed every couple of years. Standardization of purchasing processes mean that the same sourcing strategies are employed in every business unit. By standardizing **processes**, firms can be sure that the same guidelines are followed no matter where the sourcing is being made. For example this

allows top management the peace of mind, that guidelines and restrictions by authorities are being followed everywhere. Also, they allow for:

- The recognition and employment of the best and safest way of working.
- Knowledge management through expertise preservation. Less “hidden knowledge” among smaller locations.
- They serve as a basis for performance evaluation.
- They make training new staff easier.

Lastly, the standardization of purchasing **staff** organization allows for employee migration from department to another, as the unit employs a similar structure in every location. This allows for example knowledge transfer through job rotation: more experienced staff can relocate to a struggling location to improve the capabilities of that location. (Sánchez-Rodríguez, Hemsworth, & Martínez-Lorente, & Clavel, 2006, 57).

As Monzcka & Petersen (2012) had in their study discovered, standardization was a relatively young and considered to be less important strategy by top managers. Maybe the problem with this is, that standardization of purchasing activities has gathered less empirical evidence of its effectiveness in classic literature. (Sánchez-Rodríguez et al. 57). This is a small part of this thesis but would serve as a good standalone subject for a future research.

### 2.3.3 Outsourcing non-critical indirect spend.

Strategic outsourcing can produce significant benefits: it allows for the production of value for customers via allowing the company to focus on their core competencies. It can also help to reduce capital intensity by freeing up activities that a firm has no critical strategic need. This significantly improves the flexibility of a firm. (Quinn & Hilmer. 1994) Indirect spend can be ideal for outsourcing, as it includes operational equipment and services that are rarely critical for mission success.

However, the hidden costs are the ones that bring risks into the process. Often different costs of outsourcing are not so easy to determine, and many managers underestimate them. Barthelemy (2001) has identified the four most important contributors to hidden costs:

- Vendor search and contracting. Even though it is often known that vendor search and contracting is expensive, their impact is often underestimated. If this process is not done thoroughly, it can cause problems along the way in the form of poor suppliers.
- Transitioning to the supplier can often take more time than anticipated. This time that the original employees are using to help the supplier instead of performing their original task is considered as a transition cost.
- Outsourcing also requires more close monitoring than if the task was simply done inhouse. These tasks include monitoring contractual obligations, bargaining with them in case contractual changes are needed. In order to evaluate monitoring costs, a firm must figure out their management cost for said function and compare it to the price asked by a third-party supplier.
- Sometimes a transition is required after outsourcing. This can happen if a supplier decides to terminate their contract or if a switch in vendors is needed. These costs are often underestimated as the outsourcing process is usually designed to be permanent and has not been analyzed as well.

These hidden costs are not only monetary; they also include different psychological effects such as employee motivation. Hidden costs often relate to transitioning formerly in-house processes to external control. When a company outsources, the existing employees of the process often become employees of the external vendor. This can create fear over the loss of employment among the employees, as the vendor often makes changes among the workers or even lays some of them off. This fear of uncertainty drastically lowers employee motivation, which leads to a loss in productivity or can even cause some employees to resign and look for other job opportunities. (Duening & Click, 2005, 91) When an employee quits a company, it means the loss of human capital and company-specific skills to the market, which is especially harmful if they are picked up by a competitor.

#### 2.3.4 E-procurement & data-collection.

These technologies include B2B -auctions, e-Procurement software (such as ARIBA), B2B market exchanges and purchasing consortia. The focus of e-Procurement is to leverage the power of the Internet to consolidate an organizations' s spending power, automate workflows and identify new sourcing opportunities. These activities together can improve business performance by applying electronic solutions in value chains. In essence, e-Procurement aims to simplify business transactions within and between organizations by employing information technology solutions consisting of various ordering, handling, logistics and payment systems. Examples of these could be electronic ordering and cataloguing systems. (van Weele, 2005)

eProcurement is a vital tool to solve the inherent problems with indirect spend management: spend data collection, and the consolidation of purchasing processes. As stated earlier, with indirect spend often being fragmented along the company value chain, spend monitoring becomes more and more difficult. Not to mention the times and resources spent on paper / e-mail-based procurement. With every purchase going through an internet – based system, organizations can make sure that 1) All purchases are made according to company guidelines 2) All purchases are approved according to previously determined limits (less defects and problems when monetarily larger purchases go through multiple sets of eyes) 3) Every purchase leaves a trace for spend management and purchase history inspection. Resources can be freed for other activities when purchasers can simply look up an adequate supplier from a list of previously approved suppliers from a catalogue. A good example of an eProcurement system would be a centrally defined “shopping” -website, where contracts and products are determined centrally, and local purchasers along the supply chain can simply make purchases with a few clicks without needing any prior sourcing expertise. This is especially useful for indirect spend activities, as the end-user is often involved in the sourcing process. And as we know, the end-user is rarely a sourcing specialist.

Within eProcurement is two sub-categories: eSourcing and eCoordination. eSourcing refers to the electronic request for quotations (or proposals) -process, or eRFx. This is sourcing made easy through electronic auctions and online tendering & bidding -processes.

eCoordination refer to technologies with various linkages to suppliers, such as online catalogues and other information sharing systems. (Johnson & Klassen, 2005, 7)

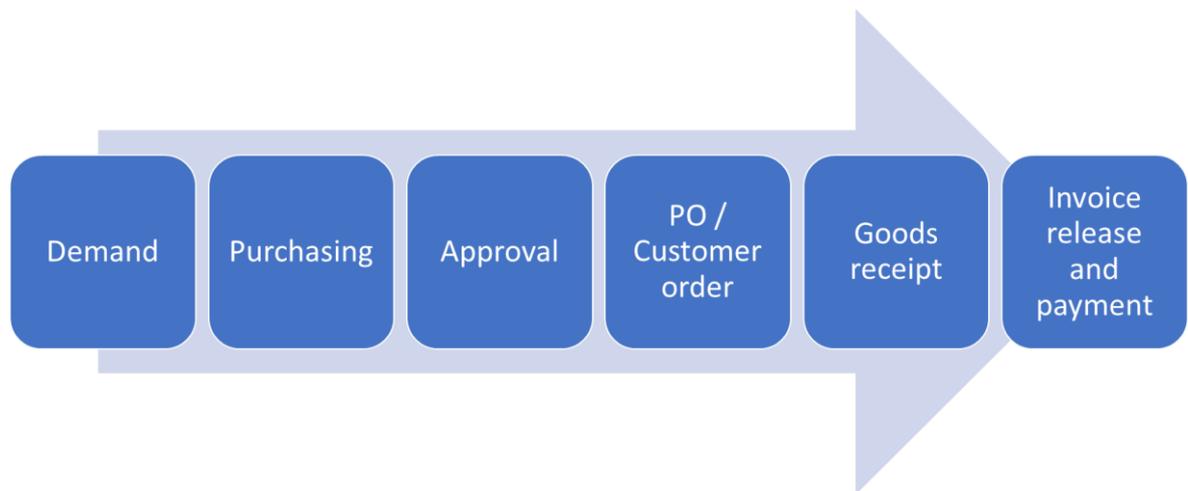


Figure 6 eProcurement process. (Adapted from Knolmeyer, 2002, 151)

Figure 5 shows the typical eProcurement process cycle. It should be noted that this is only the process once contracts and systems are established and set up. This is only valid when there exists for example a online catalogue, where end-users can make purchases online. As seen from the figure, eProcurement makes the process of buying goods and services more efficient. It starts, like all purchasing processes, from demand. This is typically from an end-user who can simply order goods online from a previously determined set of suppliers and products. Once they make the purchase, it goes through approval limits (if determined). If all purchases are required to go through an eProcurement system, this essentially reduces maverick buying to zero. The system then sends an automated order to the supplier, who upon delivery and inspection of the goods gets an automatically sent invoice from the system, depending on the payment conditions set (for example, 30 days net payment.) (Knolmeyer, 2002, 149-159). This autonomous procurement provides the end-user with the possibility of performing procurement activities without any actual sourcing experience.

The main functionalities of eProcurement systems are presented below. These concretely show, how eProcurement systems can improve a purchasing process and what they have to bring to the table.

<b>Catalogues</b>	Various electronic catalogues that internal users to browse products and services determined in previously negotiated contract agreements
<b>RFx</b>	If something is not found within a pre-existing contract, it can often be directly requested from a supplier.
<b>Order tracking</b>	In some systems orders can be tracked and in almost all, purchase history reviewed.
<b>System integration</b>	eProcurement systems can often be integrated into customer ERP or back-office systems for better information processing
<b>Contract management</b>	Contracts need to be uploaded previously to the eProcurement system: This makes their management more easy. Users can directly see, if some contracts are not being used and act accordingly.
<b>Reporting</b>	Systems can provide various spend data reports.
<b>Automatic invoicing</b>	Systems can often automatically pay invoices, dramatically reducing manual labor required in the approval process. Often called "eReconciliation"

*Table 6 Functionalities of an eProcurement system regarding online purchasing. (Angeles & Nath (2007, 105))*

There are various problems with eProcurement as well. Angeles & Nath (2007, 105) gathered various perceived risks and barriers of eProcurement adaptation. These were:

1. Transactional risks from lack of experience on the purchaser's part. Was often the result of incomplete information in a supply catalogue.
2. Security risks caused by unauthorized access to eProcurement platforms. With all web-based applications, data security often rises to be the top concern.
3. Information transparency causes privacy risks. Organizations might feel that they don't have the necessary expertise to make decisions regarding to the amount of information provided to suppliers or other stakeholders.
4. Setting eProcurement systems up and training workforce to use them were considered to be a massive undertaking, without guaranteed and visible results.
5. Workers often have predispositions or prejudices of losing their jobs to automation. This can create change resistance in an organization.

With these restrictions in mind, eProcurement systems should be carefully examined to fit the needs of an organization and implemented with a high level of collaboration from the supplier.

## 2.4 Category Management

In order to better manage spend (both direct and indirect) it can be helpful to divide the procured goods and services into categories, and tailor strategies for each category individually. These categories should then be considered as individual business units. Since indirect spending is not typically linked to a BSU -mindset, companies can face the loss of up to 15% of indirect spend (Porter, 1995)

Originally a concept for aimed for retail-use, Nielsen (1992) defines category management as “a process of managing product categories as business units and customizing them on a store-by-store basis to satisfy customer needs”. This works for retail or manufacturing industry where procurement is mostly direct, demand is easily forecasted, and the end-user is a customer. When accounting for indirect procurement, a more apt description would be “the practice of segmenting areas of organizational spend on goods & services into concrete groups according to their functions (O’Brien, 2009. S 6).

The most obvious way to practice category management is the distinction of products into direct and indirect spend. There are other, more in-depth ways as well. Good examples are the earlier presented Kraljic’s Portfolio Matrix, and for services the grid-matrix presented by Ellram et al. (2007, 59)

For optimal service purchasing management, this study refers to a grid-matrix compiled by Ellram et al. (2007,59). In it, services are divided into four categories depending on their risk of poor specification on the y-axis and annual spending on the X-axis. Due to the homogenic nature of services and the variability it incurs, it can be difficult to find one-size fits all -strategy for different services.

High-risk-low-spend products can be anything with high brand impact or legal requirements. This can involve for example patents for research and development and legal compliance

issues when buying from approved retailers. With these services a good way to manage their proper procurement is through multi-tiered approval process and increased collaboration with other divisions, such as legal. With approval limits being higher than normal, a single purchase goes through a multiple set of eyes, thus reducing the risk of legal complications. With low-spend-low risk services a good way is to automate them via framework contracts according to whatever contract templates the organization happens to use. These services can be for example basic office supply services (printing, facility management). They are services best suited for “procure and forget” -type of procurement with a framework contract being renewed biannually and little to no supply management involved.

High-risk-high spend items (information technology, complex services related to the core competencies of the business) are the most crucial for an organization’s success. They require a high level of involvement from supply management in user training, supplier selection and final service management. Most important step is to simply recognize these services, so resources and time can be diverted to them accordingly. Periodic performance reviews are recommended. Finally, low-risk high spend services require supply management intervention in selection and user management, but periodic performance reviews are not necessary as they are often not as complex in nature. (Ellram et al. 2007, 59)

It is not always easy to identify opportunities for cost savings or recognize problem areas within a firm’s procurement portfolio. If all spend is managed equally, cost-reduction initiatives might be missed. For example, a firm total indirect spend might seem to be positive, but net losses in one area might be offset by net gains in another area of spend. This leads to a situation where a company’s spend is fine in short-term but offers no competitive advantage on the long term. Category management aims to help with this.

To help understand the process of category management better, Timonen (2001) established a process of category implementation on a retail environment from formulation to implementation:

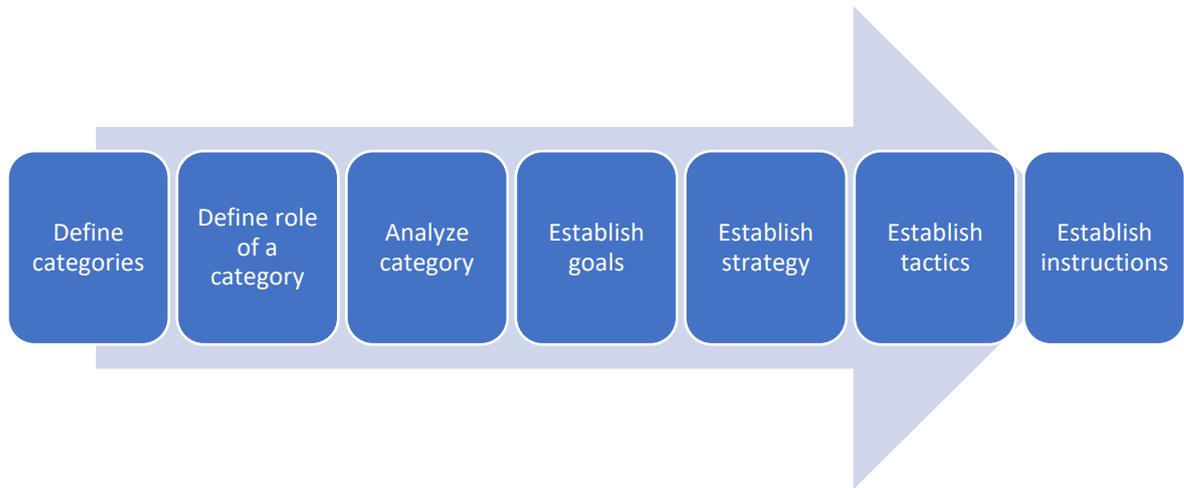


Figure 7 category management process (Timonen, 2001, 48)

#### 2.4.1 Identifying categories.

The first step of the category management process can be crucial, as they define the rest of the process. O'brien (2009, 25) has five considerations on how this can be best achieved:

1. Identify spend: at a grassroots level, give each invoice a cost-account so it can be dedicated to a category.
2. Distinguishing between addressable and non-addressable spend: not all spend can be managed.
3. Directing resources to savings possibilities: prioritize some categories over another
4. Identify market boundaries: do specific market restrictions exist that might prevent spend optimization? (for example, low amount of suppliers)
5. Identify appropriate level to work at: balance between dedicating resources to cost savings versus increasing sales.

As established, companies can increase their margins through increased sales, or by lowering their costs. Figure 9 shows a typical way of dividing the money that is being generated in an organization. While it does give a broad overview on the outflow of resources, by lumping all external spend into one category one segment, the category becomes stiff and inflexible. Individual strategies cannot be formed, and all products and services are considered equal.

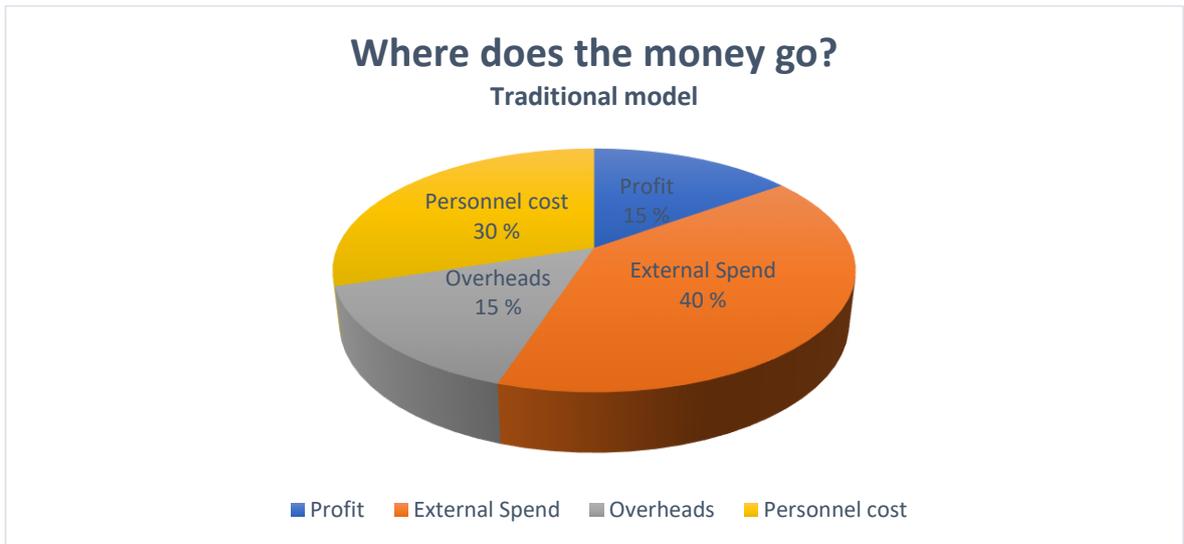


Figure 8 Where does the money from go? (adapted from O'brien, 2009, 23)

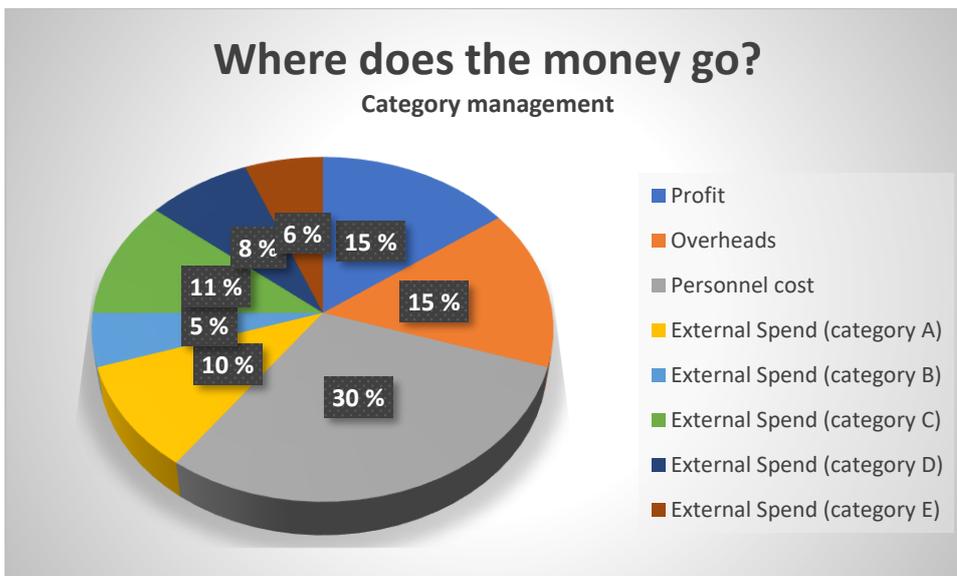


Figure 9 How spend should be viewed (adapted from O'brien, 2009, 28)

Figure 10. shows a better way to manage external spend through category management. By dividing the total spend into categories, firms can distinguish between non-addressable spend and addressable spend. Non-addressable spend can be for example: rent, government tariffs, taxes and other fixed costs. (O'brien, 2009, 27). Let's say categories A-C are so called addressable spend and D-E are non-addressable spend. By recognizing this, the amount of external spend requiring attention and resources goes down from 40% → 26%.

The remaining addressable spend can then be focused more clearly. This does not mean that the 14% of fixed costs should be completely ignored, as taxation changes and rents can be negotiated.

Category management is also employed in spend analysis and is essentially the concept on what it is based upon. The spend analysis process proposed by Monczka et al. (2011, 199) goes as follows:

1. Divide the data into categories.
2. Sort the data by spend.
3. Sort the data by suppliers (within categories)
4. Sort the data by average spend.
5. Identify cost saving opportunities.

Issue with indirect spend as stated earlier is and always has been, poor data visibility. Now, with the data gathered from e-Procurement systems, category management can be used to mold it into a more accessible form. This is also one way of identifying categories and assigning responsibility within them.

## 2.5 Internal and External strategies.

After broad, organizational elements such as organizational structure or process & product standardization and outsourcing decisions, companies should consider their approach and strategy to developing their indirect sourcing strategies. A study by Cox, Chicksand, Ireland & Davies (2005, 42-44) suggest that these strategies be divided into two categories: internal and external. Internal strategies focus on developing the competencies of the procurement function and external functions for leveraging improvements from suppliers. Their study of 142 procurement employees identifies five internal strategies, and four external strategies.



Figure 10 Internal Strategies (adapted from Cox et al. 2005, 42)

When talking about sourcing strategies, it is important to know how a sourcing process starts. A sourcing process begins with the RFx (request for) -process. It consists of RFI (request for information), RFP (request for proposal) and RFQ (request for quotation). (Payne & Dorn, 2012, 81) RFI is a non-binding solicitation document for general information on a product that the organization is looking to source. It is essential for gathering market intelligence and potential vendors. RFP is required when the product or service that is being sourced requires technical expertise from the suppliers (not necessary with routine products) and RFQ is the request for a supplier to send a quotation on the product.

Internal competencies in procurement is vital for successfully seeing the sourcing (and RFx) process through. **That is why Internal Strategy 5** of improving internal competencies was the most important among the responders, with 50% mentioning it when asked about what type of strategies they have internally. Other strategies ranked: Strategy 4 (36.8%), Strategy 3 (35.65), Strategy 2 (19.5%) and Strategy 1 (17.1%). (Cox et al. 2005, 45)

From these results can be seen that most of the focus on internal strategies lies on developing the internal competencies of the procurement function itself. On the other end of the spectrum, the heavily end-user oriented indirect procurement shows resistance against the procurement function taking part in the design and specification process. This may lead to

increase in maverick buying and loss of advantages of scale, as end -and internal users may want to handle the sourcing process and negotiations independently, as they have “always done it before”.

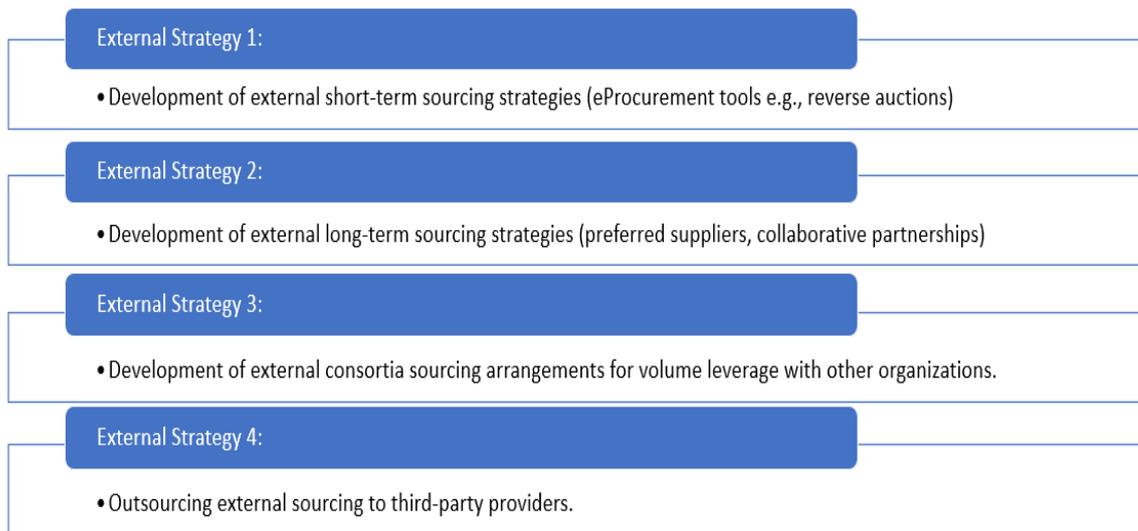


Figure 11 External Strategies (adapted from Cox et al. 2005,43)

By far the most popular strategy reported here was **External strategy two** with roughly 66% of respondents reporting of using this strategy. This is not surprising, as outsourcing non-crucial activities to third party providers is more and more popular and shifting responsibility to the supplier / service provider is often easier than developing own internal capabilities. As it should be, as especially with indirect procurement internal capabilities are more often than not enough, and the answer to the age old “make – or – buy” question should often be “buy”, especially because the products and services being procured are not mission critical.

<b>IMPACT OF EXTERNAL AND INTERNAL STRATEGIES</b>					
<b>Cost</b>		<b>Quality and delivery</b>		<b>OTHER FACTORS</b>	
	<b>%</b>		<b>%</b>		<b>%</b>
Product/service cost	<b>59</b>	Reduction of service innovation	<b>50</b>	Increased supplier base	58
Transactional costs	<b>53</b>	Reduction of product innovation	<b>48</b>	Loss of product control	55
Contract deterioration	<b>46</b>	Reduced speed of delivery	<b>47</b>	Loss of quality control	53
		Decreased quality	<b>47</b>	Suppliers leveraging power	50
		Supply security	<b>35</b>	Demand information deteriorating	48
				Reduction in innovation	38

*Table 7 Impact of having no strategies (adapted from Cox et al. 2005, 45)*

The table above shows what organizations run the risk of happening, when they fail to produce both internal and external strategies. By far the most dangerous risk lies within increased costs; by employing strategic sourcing strategies firms can cut both their product & service cost and transactional costs by more than half. Companies willing to stay competitive absolutely must adapt a strategy best suited for them.

### 3. EMPIRICAL FINDINGS

#### 3.1 Methodology and data collection

This study is conducted as a qualitative study. Qualitative data essentially means written text created for a purpose. The purpose of a qualitative study is to inspect real life and describe it as accurately as possible. This means that the aim of this study is not to test hypotheses, but rather gather information about the subject. (Hirsijärvi, Remes & Sajavaara, 2007,157)

The data in this study is collected from three email-interviews with category leads (semi-structured) and one phone interview with a procurement manager. The phone interview acted as a basic structure for the written interviews. The interviews focused on the perceived success factors of category managers, their biggest challenges within their own categories, how they see eProcurement and centralization, and how they view off-contract buying. The whole interview form can be seen in Appendix 1.

The largest factor of why qualitative method was chosen was the lack of an actual problem to solve. A quantitative method works when there is a clear problem that needs to be solved. In this case, the purpose of this data is to gather information and possibly recognize problem areas. Benefits of this type of data collection is flexibility and ability to describe abstract concepts. The interviewee has more freedom to choose their answers. (Hirsijärvi et al. 2009, 162)

Based on the interviews, the following key points were focused:

- Size of supplier base within a category
- Biggest challenges within a category
- key cost drivers that guide procurement
- amount of supplier involvement with framework activities

### 3.2 Case company

OP-Financial Group is one of the largest financial institutions in Finland. It is a conglomeration of cooperative banks, meaning that it is member-owned with over 2 million customer-owners and 137 cooperative banks all over Finland. In 2020, they posted a profit of 785 Million € (before taxes). This is down from 838 Million € in the previous year. The focus of their strategy currently is to improve customer experience while increasing their digital capabilities. (OP,2020)

Using a cooperative banking model means, that individual branches (or business units) retain a lot of their autonomy. While some more front-end aspects of the business are controlled organization wide, the group defers a lot on the judgement of individual banks on local matters.



Figure 12 What is OP-financial group about? (OP, 2020)

OP-Financial Group employs a centralized procurement department, that handles spend management, contract negotiations and other SRM -activities. Due to the cooperative nature of OP-finance group however, each individual bank can make their own decisions and act independently.

The centralized procurement team is divided into five distinct areas, each with their own category managers. These different category managers all answer to the head of the procurement division:

- Human resources
- Information logistics
- Market data
- Insurance claims
- Facilities.

Within these categories are also various sub-categories and smaller responsibility areas such as Information Technologies → Personnel laptops & Phones, printing, archiving, external cash service. For this study, four managers were interviewed: Human resources & IT, Facility Services, Information logistics and the procurement manager himself. The three category managers answered a pre-structured interview form over email, and procurement manager was interviewed over phone on 21.8.2020. This phone interview is referred to as Interview A.

The interviews asked the category managers questions related to various elements of their chosen category. These were for example total spend under management, biggest challenges of the category, important procurement cost drivers, opinions on centralized vs decentralized purchasing organization, opinions on maverick buying and so on. The complete interview form can be seen in appendix 1.

Categorizing spend at OP is not exactly clear cut. While insurance claims fall under the procurement team's jurisdiction, the definition is unclear whether they are calculated into total **spend** or not. Relative weight of indirect spend will thus shift depending on are they included or not. For the purpose of this study, they are left out of inspection. Figures will also be presented as percentage of total spend and not as absolute figures at the request of the case company.

Indirect spend is a large part of the total spend of OP Financial group. Depending on how it is viewed, it is between 30-45% of all spend of the organization. (Interview A) It is exactly because of this large share of total spend why it is vital, that indirect spend is efficiently

managed. Porter (1999, 3) presented that organizations who fail to leverage the commercial aspects of their indirect spend (total cost, contract terms supplier performance etc.) risk the danger of 8-15% increase in their indirect spend without gaining any meaningful results. When talking about the largest financial institution in Finland, we are talking cost savings up in the millions.



Figure 13 Figure 12. Indirect spend with insurance. (Interview with Procurement Manager)



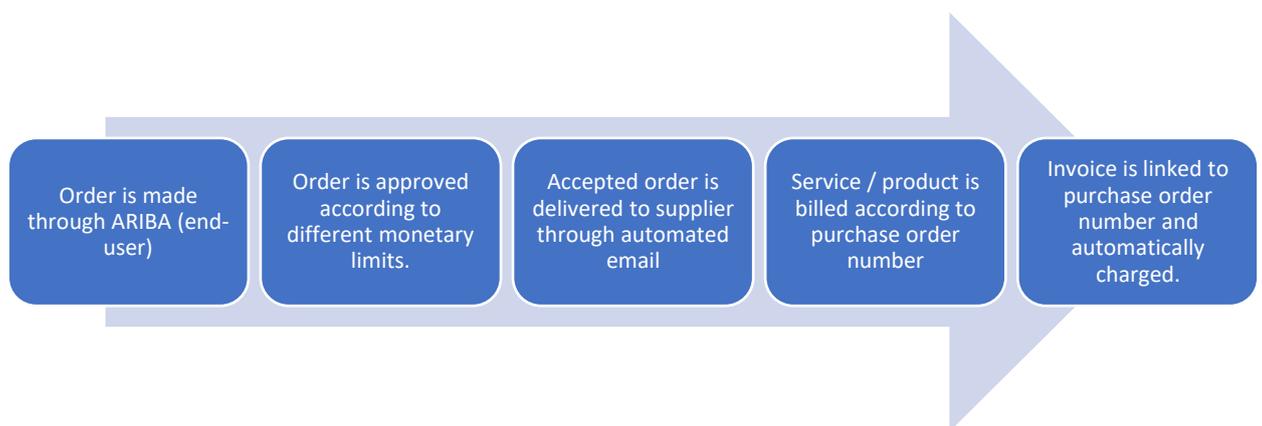
Figure 14 Indirect spend without insurance. Used for the study.

### 3.3 General Procurement at OP

The cooperative banking system has an interesting procurement dynamic between the central purchasing department and individual branches. The centralized procurement

department handles SRM -activities and contract negotiations. They provide options and suggestions, that the individual branches can choose to employ. This is a good example of a **hybrid purchasing organization** as defined by Dimitri et al. (2006, 47). In these types of organizations, strategic decisions are made centrally, and transactional activities are performed locally and de-centralized. OP Finance Group has branches in several different municipalities. Local branches can and sometimes encouraged to procure local solutions to problems (according to centralized guidelines however), as it is extremely difficult to procure a nation-wide blanket solution, that applies to all locations. Service providers based in Helsinki for example might not be able to offer the same solution in northern Finland, and the procurement department doesn't have the time or resources to source for every location individually.

OP – Uses SAP -ARIBA as an eProcurement tool. It is used as a system to fill purchase orders and manage spend visibility and contracts. It provides reports for various purposes, such as: spend for individual contracts, contract coverage (how much are single contracts & suppliers used/not used), and historical purchases. Most importantly, every single purchase is documented and leaves a trace. These reports can be used to rationalize the supplier base by weeding out less used (or not at all) suppliers.



*Figure 15 purchase order process at OP. (Adapted from Interviews)*

Figure 12 shows the purchase order process from start to finish for product and services that are already contracted with framework agreements. It is extremely similar to the process presented by Knolmeyer, (2002, 151) Typical for indirect spend, it is heavily end-user oriented. The ARIBA purchase order model is a typical example of an eProcurement tool.

It streamlines the whole purchasing process by reducing time and resources spent on actual procurement, invoicing and payment activities. And since all invoices are automatically linked to a purchase order, spend is easily documented and visible. Every cost incurred by an invoice is also linked to a **cost account**. These cost accounts are then linked to various procurement categories and sub-categories, for simplified cost reporting. When ordering coaching services for example, a procurist can quickly prepare a report that shows:

- How much money is already spent on coaching?
- Which suppliers have in the past provided these services?
- Which organization / branch has made the purchase?
- Have the orders generally gone through the centralized purchasing system?

Not all orders go through the centralized purchasing system, however. Procurement processes are being standardized and gathered under the same umbrella of the centralized systems, but many purchases are still being handled manually via e-mail orders. The procurement manager estimates that approximately 80% of all procured goods and services are being made through the centralized purchasing systems. This is one of the issues with a cooperative banking model; since all branches can act independently, **maverick buying** can occur. This hinders the leveraging of organization-wide purchasing power in negotiations and prevents economies of scale from occurring. Naturally, suppliers are inclined to offer discounts when buying in bulk.

Current development trends according to the procurement manager are a shift of focus towards long term cost advantage from short term tendering. Previously, direct cost savings were the most widely used measure of success, and now it is shifting more towards customer satisfaction and long-term supplier collaboration.

OP-group is also going through a organization-wide change towards a more agile, lean culture. This essentially means less middle-management involvement, more process visibility through for example *Kanban*- boards, and overall a more flexible way of working. The aim is to reduce excess operational waste according to lean philosophies. All the category leads and the procurement manager reported however that this has not changed their way of working in essence at all, as their department and organization was already efficiently organized and had adapted a lean way of working. This included daily meetings

where a Kanban -board was used to give visibility to what each team member was doing, and what on the backlog still needed doing.

### 3.3.1 Facility Services

Category lead for facility services is responsible for the contracts pertaining to facility upkeep and management. These include cleaning services and janitorial duties.

	<b>General statistics</b>
<b>Spend under management (as % of total indirect spend)</b>	16
<b>Suppliers (total)</b>	3000
<b>Suppliers (active)</b>	20-30 (active framework agreements)
<b>Top cost drivers</b>	Quality of Services, total cost of Service, New innovations (digitilization of reporting was mentioned), and Corporate Responsibility

*Table 8 Category statistics (Facility Services)*

Issues within facility services related to fragmented purchasing model. The category lead reported being frustrated with the collaborative model of sourcing, as she can mostly only make suggestions on what service providers to use. This leads to individual branches practicing maverick buying. When a large portion of the total 137 branches employ a cleaning or upkeep service of their own, these individual service providers don't offer reduced rates, as the amount of service being purchased is low.

She also reported a high amount of standardization among cleaning and maintenance categories especially. This is in line with the services purchasing matrix by Ellram et al. (2007,59). These services are what is referred to as low-spend low-risk services, or routine products in Kraljic's portfolio matrix. The suggested strategy here would be to use framework agreements to automate their sourcing and essentially "forget" their existence, and only renew & check contract prices every few years. The issue is that framework contracts that cover all branches are hard to make in OP, where all branches have a

significant amount of autonomy. It can be also hard to find a service provider that not only matches the demand for SLAs at OP's side but can also provide services to every location on a national level.

### 3.3.2 Human resources and Information Technology

The second category lead who was interviewed was responsible for services in the areas of coaching, work health and recruiting. He also managed IT -services.

	<b>General statistics</b>
<b>Spend under management (as % of total indirect spend)</b>	15
<b>Suppliers (total)</b>	varies within categories
<b>Suppliers (active)</b>	20-30 (active framework agreements)
<b>Top cost drivers</b>	Quality of Services, Supplier support, supplier flexibility, responsibility and total cost of Service

*Table 9 Category statistics (Human resources & IT)*

In the category of human resources procurement, the number of suppliers used varied greatly within subcategories. For example, in recruiting services, payroll and health services all contracts are all focused on a single provider, but with others such as IT-services a greater number of suppliers can be employed. The supply base overall is extremely large, with various branches employing their own service providers. Only a handful of suppliers fall within supplier management (20-30) in the form of framework agreements.

Biggest problems reported were the comparability of suppliers in the tendering phase. As most of the costs incur from personnel costs, qualitative comparison can be difficult and service level agreements are not in common use or are difficult to prepare. This is in line with Grönroos' (2000) service elements; **homogeneity** within services makes tendering difficult. Another related problem was that suppliers, especially human resource service providers, had little to no know-how in making contracts according to the demands and

process models of a large organization. Framework contracts offered rarely had well defined descriptions of service, an accurate price catalogue and sufficient SLA-definitions were not something the service providers were accustomed to. In these areas, greater supplier management and collaboration (in essence, supplier guidance) is needed. A low amount of standardization within service categories was also reported. There is a ongoing project where standardization is being increased within areas with large amount of suppliers.

Maverick buying is practiced with single-purchases or purchases, where volume is hard to forecast in the future. It is also used with purchases with small monetary value, where time and resources spent to make a framework contract is simply not feasible. The most important thing is, that all these outside-contract purchases are made through a single eProcurement channel (in this case, SAP Ariba) within pre-established approval limits. This ensures that all purchases are made with organizational guidelines and the same contract terms are given to each supplier. It also monitors spend efficiently.

The category leads opinion towards a centralized purchasing department was favorable. The opinion was based on increased leverage in pricing & contracting, a clearer big picture view of procurement, streamlined processes and easier conformity to the demand of various authoritative bodies.

### 3.3.3 Information logistics

Information technologies have many different subcategories. For this study, a category lead was interviewed, who was responsible for printing services, archiving services and external cash services, which include various external payment processes.

	<b>General statistics</b>
<b>Spend under management (as % of total indirect spend)</b>	7
<b>Suppliers (total)</b>	1000
<b>Suppliers (active)</b>	10
<b>Top cost drivers</b>	Customer requirements, technology, availability, value chain, relationship benefits

*Table 10 General statistics on Information logistics category.*

Biggest challenge for this category was the discrepancy between supplier service portfolio versus OP-service demand. Information logistics can be seen as quite a standardized service area, and OPs customer service requirements can be quite specific. This is a typical issue with service purchasing, as services are harder to tailor to customer needs than products. Especially when the same service is required in hundreds of different locations, and in locations for example in small municipalities. From table 11. we can also see that while this category has approximately 1000 suppliers, only 10 are considered active and within SRM -activities. These 10% form approximately 90% of the spend within this category.

Centralized purchasing department was seen as a beneficial approach. It was noted, however that by de-centralizing purchasing sometimes can bring value to local customers, as a nationwide solution that fits every small-town bank is simply not possible in every case.

### 3.4 Discussion

The next chapter aims to identify the main issues with indirect spend management at OP and provide answers to the proposed research questions. A majority of issues characteristic for indirect spend according to theory was also discovered to be in place with the case company. De Boer & Telgen (1995,3) proposed the following issues with indirect spend management:

- A large number of goods & services from many suppliers
- Time-consuming due to low amount of standardization
- High amount of end user involvement → Lower sourcing expertise.
- Lack of spend data
- Lack of focus by top managers

Points of improvement gathered from interviews at OP:

- Increasing the coverage of eProcurement systems.
- Reduce the number of suppliers.
- Increase standardization within categories.
- Increase supplier collaboration through mutually developed SLA's.

A considerable overlap between traditional problems in theory and real life was discovered. The most considerable were too large a supplier base, end-user involvement due to individual branches making individual decisions and low amount of standardization (especially within categories containing services). To a lesser extent, lack of spend data was a problem as not all the purchases were under the same system. Focus by top managers did not appear to be a issue based on the interviews given.

The coverage of OP's eProcurement system (SAP Ariba) is roughly 80% of all purchases. This means that 20% of all purchases are still being made through outside channels, via e-mail or paper-based systems. There might be so called "hidden knowledge" among some of the branches. This means these branches make decisions and purchases based on information only available to them. This discourages knowledge transfer within the organization. By bringing all purchases under the same system, better spend visibility and volume leveraging could be achieved. Every purchase would also need to be accounted for

and approved accordingly, which would increase the manageability of all purchases according to centrally defined guidelines.

As seen from the interviews, only a small percentage of suppliers are under SRM – activities. This is due to individual branches being allowed to make their own sourcing, and central procurement department can often make only suggestions on what supplier to use. Naturally, some more front-end based sourcing (for example logos, anything with brand visibility) are more strictly managed centrally. Every purchase made through a non-contract vendor requires time and resources to set up: general procurement restrictions need to be validated and approval limits managed. A large supplier-base also reduces cost advantages gained through leveraging purchasing power as an organization.

*Main research question: „How can the case company improve on their indirect spend management”?*

The largest of OP’s issues stem from a fragmented procurement chain. For this study I propose the use of Cox et al. (2005,43) external & internal strategies:

For an external strategy: **Development of external long-term sourcing strategies through preferred suppliers and collaborative partnerships.** This would help with reducing the number of suppliers, increasing standardization and help with SLA-related problems. The bloated supplier-base incurs transactional costs through contract negotiation & management,

For an internal strategy: **collaboration with other functions to increase procurement expertise.** Since other branches have individual purchasing power, the expertise of the central procurement department should be shared with local sourcing specialists. Training seminars could be arranged. This collaboration could also work in two-ways: Small banks might often challenge the contracts that are centrally made since they might not be appropriate everywhere. Through collaboration with internal functions these discrepancies could brought to light and discussed.

OP is faced with a dilemma: many of their problems stem from a fractured procurement chain, a solution to which is to reduce autonomy and force individual units into line by

creating common guidelines. This however risks losing customer value, since the best knowledge of local markets is at the hands of individual branches. This is why the proposed strategies should first focus on enhancing existing capabilities and nurturing existing relationships.

**If** these strategies fail, a restriction on autonomy should be considered. As with all organization-wide strategy implementations, these would require management (or coercion) from the very top, or persuasion from the bottom up (demonstrating value of sourcing activities through focusing on value added by recent procurement activities) As the procurement chain is fragmented, OP would need to make sure that every branch and bank is committed to the same goals and objectives. They also need to make sure, not to overdo things. Unifying procurement processes is undoubtedly necessary in this case, but it needs to be implemented within reason. A totally centrally led purchasing model on the other end of the spectrum is also not ideal, as this runs the risk of turning sourcing frigid and inflexible, something that is dangerous for an organization with hundreds of small business units in different socioeconomic environments.

*“Sub-question one: “How can e-Procurement help with indirect spend management?”*

The adoption of e-Procurement systems provide the following benefits:

- Consolidation of purchasing activities through a singular channel. This increases spend visibility, conforms all purchases to same guidelines, reduces maverick buying and transactional costs incurred by paper/email based purchasing and procurement.
- Consolidation of information. e-Procurement systems gather data in an otherwise fragmented supply chain and makes it more accessible. By knowing when contracts expire, how large is their coverage, quickly accessing reports of unused suppliers/products/contracts, organizations can easily identify problem areas to focus on. (Angeles & Nath, 2007,105; van Weele; 2005)

A concrete example would be at OP, where a large part of all purchases go through an e-Procurement system (Ariba). Currently there exists an initiative to gather all purchases

within the same system. This is expected to help with the largest issue of OP's supply chain model: the fragmented supply chain to individual branches. If all purchases would go through a singular channel, branches can be forced to only use accepted suppliers. This would increase control over spend and help with increasing purchasing power leverage by focusing on key suppliers. All this mirrors Angeles' & Nath (2007,105) described success factors and functionalities of a well-established eProcurement system: consolidation of processes, information and spend visibility.

*“Sub-question two: “How can category management help to control indirect spending?”*

Category management helps to make spend more visible. At OP especially, the spend under management is large, and some spend management strategies cannot be implemented with every product. By segmenting and delegating responsibility to category leads and procurement experts, spend management initiatives can be focused to problem areas, where opportunities for cost reductions are largest. It was discovered, category management was at an efficient level at the case company; spend was identified on a grassroots level (invoice nr to every purchase) and spend categories were clearly divided between the procurement specialists.

## 4. Conclusion & future research

The aim of this study was to identify problem areas within indirect spend management at the procurement department of the case company. This was achieved via qualitative interviews of various category leads and the department head. The underlying source of problems was always the same: fragmentation of purchasing activities to multiple different locations. This made cost reduction efforts inflexible and difficult to implement, as individual branches have a significant amount of autonomy, making implementation of large, organization-wide strategies difficult. Through theory it was discovered that the main issues with indirect spend management is also fragmentation, poor spend visibility and end-user involvement.

Local branches often know their customers best and forcing these individual business units to conform to a strategy created by a central procurement department could create friction, change resistance and animosity. Decreasing this autonomy could also lead to a loss of customer value. Since autonomy is needed to a certain point, the offered strategies of this thesis focus instead of removing said autonomy by sharing procurement expertise to purchasers at a local level and consolidating purchasing activities to an e-Procurement system and through this, focusing on fewer preferred suppliers and developing longer, collaborative supplier relationships. Restriction on autonomies of individual branches should be considered a last resort.

It must be acknowledged, that this thesis is limited to a study within one single organization. In order to generalize the findings, future research should compare issues and solutions within multiple organizations, within both a similar industry and various different industries. A similar study could also be conducted in a few years, when OP's initiatives of increasing e-procurement coverage have been fulfilled and compare results then. Additional interesting research subjects for the future would be a more quantitative look on the implementation of an e-Procurement system to concretely show the value that they can possibly provide. Effects on standardization on purchasing processes is also a subject, that has garnered less attention in classic literature, and could thus serve as a subject for future research.

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Appendix 1. Interview for Master's thesis.



**Open your mind. LUT.**  
Lappeenranta **University of Technology**.

Interview for master's degree; Indirect spend optimization.

Please answer each question below the line, with as much space as necessary.

#### GENERAL QUESTIONS

*1.1 Name*

*1.2 Occupation*

Category Lead, OP Finance Group (correct if necessary)

*1.3 Responsibility areas.*

*1.4 approx. Total spend under management (optional)*

PURCHASING

1.5 What would you consider to be the biggest problems/challenges within your category?

1.6 Do you (intentionally or unintentionally) practice maverick buying? Maverick buying is buying outside established contracts. If so, can you estimate the amount of uncontracted purchasing compared to contracted purchasing?

1.7 E-procurement is an essential part of any purchasing organization. Do you use any electronic procurement systems? If so can you briefly summarize how they have benefited in daily purchasing processes?

1.8 Can you (shortly) describe a basic purchase order? (from request for quotation to order fulfillment)

2.5 How large is your current supplier base?

## GENERAL PROCUREMENT & BUDGETING

3.1. Can you name top five cost drivers when it comes to a single purchase? Below are some examples, but they do not necessarily have to be from the list.

<b>Operations cost</b>		<b>Quality</b>
Manufacturing		Cost to repair
Operating supplies		Durability
Assembly		Quality inspection
Production output		Rejection & replacement costs
Labor savings		Disposal
<b>Logistics</b>		<b>Technological advantage</b>
Freight		Technological changes
Packaging		Planned obsolescence
Availability		Supplier flexibility
Just-in-time deliveries		New Innovations
Warehouse costs		
<b>Supplier reliability and capability</b>		<b>Maintenance</b>
Relationship benefits		Personnel training
Brand risks/benefits		Downtime
Payment terms		Parts
Volume benefits		Preventive maintenance
Supplier support		
Supplier development opportunities		
<b>Inventory Cost</b>		<b>Life Cycle</b>
Safety stock		Life Cycle obsolescence cost
Turnover		Long-term usage
Warehousing		Reduced transaction costs
Perishability and subsequent disposals		Learning curve
<b>Initial Price</b>		<b>Miscellaneous</b>
Unit cost		Taxes
Initial purchasing price		Value Chain philosophy
Stability in long-term price		Warranties
		Make -or -buy

3.2 Is spend well documented within your responsibility areas? Can you shortly summarize how spend is currently monitored?

3.3 Do you have an opinion on a centralized purchasing department vs a decentralized one, where local branches make their own purchasing decisions?

3.4 How has OP's recent approach to lean management changed how you work?

3.5 Have there been some other process developments regarding indirect procurement recently?

3.6 Is there high/low level of standardization when it comes to purchasing within your own category?