UNIVERSITY OF TWENTE.

The support organisation:

A shared services approach

An explorative best practice study

of shared services

Master Thesis by Koen Detert Oude Weme

THALES

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MSc in Business Administration

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University of Twente
Thales Hengelo
Version 2.0

10-08-2015
Tubbergen

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Colophon

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Project Reference:	Master Thesis
Date:	10th of August
Version:	2.0
Status:	Final Version

Internal Supervisors

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Acknowledgements

This paper is the concluding piece of the master Business Administration. The paper is conducted between the 16th of February and the 10th of August and is written for Thales Netherlands B.V. Hengelo. Thales gave me the opportunity to investigate the facets and successful criteria of a shared service entity. During this period I focused on the theory around shared services and the platform theory. The final part of the master was very educative and informative. I have developed myself socially and professionally. It was a very interesting study due the topic and the interesting company Thales.

I would like to appoint my gratitude to several people who helped me finish this master thesis. Special thanks goes out to Hans Koop. Hans was my business coach, he steered and helped me using his critical view on the process and my work. Second I would like to thank the employees of Thales Hengelo for the very pleasant time, and especially the employees who where directly involved by accomplishing my research for their guidance and willingness to collaborate.

Finally I want to thank both supervisors from the University of Twente. First of all Erwin Hofman for his support, feedback and good directions during the process. Furthermore I want to thank Jeroen Meijerink for his support and feedback.

Kind Regards,

Koen Detert Oude Weme

15 July 2015

Management Summary

Organisations should innovate their organisation setting on a continuant basis. Shared service designs are become more popular. Literature and big consultancy firms acknowledge the benefits of such shared service entities. Thales, as a big established firm is interested in the shared services concept and asked for a research. This explorative research focusses on the methods, motivations, actual benefits, best practices of shared services. Second, criteria that can determine which services can be shared are determined. A design needs to be carefully chosen, Hofman et al. (2011) states that a poorly designed shared service may result in lower service quality and even higher costs. The main research goal is "offer the group members who organise the support organisation recommendations design criteria to implement an efficient support organisation." During this research an answer to the research question *"What are the design criteria that exist in theory and companies that are comparable to Thales that will help make a shared services entity successful"* will be answered. During this research results from theory and comparable companies are derived. In both the theoretical and practical research side interesting aspects came forward.

Many models show the effects and best practices of shared service organisations. During this research a profound theoretical framework is established to give insights in how shared services works and their effects. These effects are tested in several cases and practical knowledge from those cases are derived and formed as recommendations for Thales to consider while considering the implementation of a shared service entity. Mainly high-tech and comparable companies are researched during the intensive case study. The choice for those companies is because of the support this research will get because of the comparability with other companies. This research will show that the theoretical framework is also applicable on the high tech companies.

The cases studied agreed mostly on the benefits, challenges, criteria and best practises derived from the theory. Some new interesting best practices came forward during this research. During this research a combination of theory with practice. Several interesting new best practices arose, the click-call-face principle, actively promote your shared service to get awareness, service brochure and IT innovations, the importance of training, the methods to maintain in depth knowledge of business units and the importance of correct placing of shared service entity in the organisation. Criteria to share or not to share a service are the differentiation in needs, loose coupling, generic activities, non core business activities, repetitive and predictable. The results agreed with most of the theory, and therefore the

theoretical framework of this research can be considered as sound. Practical innovations and best practices derived from the cases can be held as guideline during the implementation and the maintaining of the shared service organisation.

The advise for Thales is to learn from this paper by considering the recommendations that are listed in chapter 6. All recommendations are elaborated and extended with examples from the researched companies. The researcher chose for that approach to combine theory with practice. Every theoretical recommended aspect is listed, in depth knowledge of all these aspects are listed below.

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1. Introduction

Thales Hengelo is investigating to set up a support organisation. Thales Hengelo believes that several support activities (services) can be standardized over the domains to increase the *efficiency, uniformity and continuity* of the company and therefore be better prepared for growth. That can be done, for example in the form of a shared service center (SSC) or a Project Management Office (PMO) setting. Thales Hengelo gave me the opportunity to contribute to that investigation by doing research on several shared service entities at external companies. It is interesting for Thales to know criteria are influential in designing a shared service entity and what concepts and ideas are used in comparable companies that are effective. This project will add value to Thales because there will be more insights in the planned support organisation. Thales will have information about practical issues like pros and cons, recommendations on the design of the support organisation, providing insights in comparable companies. This is important, because the design needs to be carefully chosen, Hofman et al. (2011) states that a poorly designed shared service may result in lower service quality and even higher costs. According to Halman et al. 2003, this research can contribute to the literature because platform studies investigated only a narrow range of platform types. This research contributes by investigating different types of platform types, and especially service types (project support & finance) (Halman, et al., 2003). Second, according to Hofman & Meijerink (2015) it remains open to question which conditions determine the appropriate delivery mode. This research in service platforms (not only HRM) can contribute to a wider view on the platform theory with other than HRM services. According to Voss & Hsuan (2009), further research to service architectures is necessary and emergent.

Shared services is combining or consolidating services within a corporation (Schulz, et al., 2009). At this moment Thales Netherlands has four business units[1] (BU's), all those business units currently have their own support staff (primarily non-shared delivery mode). The support staff contract management, finance, resource planning, quality and configurations management are not shared through the BU's. The objectives according to the theory of setting up a shared service entity are economies of scale, improved quality, continuity, improved learning, focus on core competences of the company, efficient use of IT, increase flexibility, increase automation and reduce the amount of new personnel and uniformity. (Bergeron, 2003; Janssen & Joha, 2006; Schulz, et al., 2009; Strikwerda, 2010)

[1] Service Radar (SR), Above Water Systems (AWS), Customer Service and Support (CSS) and Corporate .

A shared service center is a separate organisation within the firm and the SSC is focused on the internal customers (business units) of the company. Project management offices operate as specialized consulting firms inside a company (Ulrich, et al., 2008). Employees that first would have worked in just one business unit will be assigned to do activities in more business units in the SSC or PMO. The implementation of a PMO is often based on the call to improve project management effectiveness. Several studies notion that there is value in utilizing PMOs (Toney & Powers, 1997; Block & Frame, 1998). Ad hoc approach to project management can foster inefficiencies, while PMOs can lead to more continuity (Block & Frame, 1998).

Thales is interested in a theoretical part of what is important in a support organisation (shared service entity) and second, Thales wants to see a best practice study (several case studies) of how other companies use shared service centers or project management offices and what Thales can learn from it. *Thales is particularly interested in the motivations, experienced advantages and disadvantages, success factors and pitfalls, use of performance indicators to control the shared service, lessons learned by implementation, location in the organisation, criteria that influence what activities can be standardized, choice of method and experiences and how to handle shadow staff (Ulrich, 1995).* To summarise, Thales wants information about proven concepts (best practices), ideas and criteria. The research objective in this research can be defined as: "Offer the group members who organise the support organisation criteria to design and implement an efficient and effective support organisation. This can be done through making an inventory of the concepts and learning points from theory and the benchmark companies". Therefore the research question is formulated as:

"What are the design criteria that exist in theory and companies that are comparable to Thales that will help make a shared services entity successful"

Sub-questions

- Why do companies implement shared services?
- What are best practices, criteria or aspects about the design of shared services that will contribute to an effective shared service entity?
- What best practices, criteria or aspects can be derived from shared service entities of comparable companies that makes their shared service entity (un)successful?

2. Methodology

In this chapter the methodology of this research is described. This chapter describes *how* the research is conducted.

- Paragraph 2.1: Clarification research question
- Paragraph 2.2: Research Method
- Paragraph 2.3: Research Design
- Paragraph 2.4: Units of analysis and cases
- Paragraph 2.5: Data collection methods
- Paragraph 2.6: Data analysis

2.1. Clarification research question

Two questions arise by analysing the research question and sub questions. 'Criteria' is very broad and can mean a lot of things, so what specific criteria will this research be measuring? Second, the success of a shared service center can be widely interpreted. A question arises when you interpreted the research question, when is a shared service successful?

The term 'criteria' is formulated as: "a standard of judgment or criticism; a rule or principle for evaluating or testing something." (Dictionary, 2015) During this research the primary criteria that will be researched are the criteria deciding to share or not to share a service. Second, every shared service organisation will be judged according to the models of Hill (2004) and Schulz et al., (2009). These rules or principles in the shared service entities will contribute to the evaluation and comparability of the shared service entities

To address the second question, what are the indicators of success in shared service entities. During this research two shared service entities will be discussed, the shared service center (3.2.) and the project management office (3.3.). According to Ulrich (1995) a SSC is successful if it *reduces costs and increases the overall quality*. A PMO is considered successful if it helps to accomplish business goals. The operationalization of 'accomplish business goals' is a bit broad. Therefore the article of Daii & Wells elaborates by stating: improving all elements of project management (increased learning and reducing number of 'troubled projects'), achieving *more efficient use of human and other resou*rces (less personnel or more work per employee) and *achieve uniformity*(usage of uniform processes).

A final view is the view of Thales on the desired outcomes. Thales sees the shared service entity as a success as the main drivers cost reduction, continuity and uniformity are reached. These success factors are in line with the success factors described for the SSC and the PMO. Therefore the measure of a successful shared service entity in this research will be efficiency, continuity and uniformity. These facets are operationalized as: *Efficiency*: Reduce workforce by combining departments over the domains, or increase value creation by increased learning. *Uniformity*: Working with uniform workflows and with the best practices of the domains will increase clarity towards employees. Second, uniformity will make use of the best practices and will increase learning and effectiveness. *Continuity*: Working within a support organisation will reduce constraints associated within a decentralised organisation. Constraints can operationalized as less dependencies, employees can cover for each other, improved sharing of knowledge, more job opportunities. *Maintain or improve service quality:* a logical fourth success factor is the mainlining or improving of service quality. This can be measured by customer satisfaction after implementation. ((Table 2.1.)

Criteria's that measure success of a shared service for Thales	**Source**
Efficiency (cost reduction)	(Schulz, et al., 2009; Chandler, 1977; Eggers, et al., 2005; Pwc, 2008)
Continuity / Flexibility	(Quinn, et al., 2000; Strikwerda, 2010; Pwc, 2008)
Uniformity	(Strikwerda, 2010; Janssen & Joha, 2006)
Maintain / improve service quality	(Ulrich, 1995)

Table 2.1: Objectives Thales for implementing a shared service entity (derived from focus group)

Conclusive, during this research the criteria to design a shared service entity are very important. Second, what criteria makes the shared service center successful. These criteria are mostly measured by the antecedents of the success factors (best practices).

2.2. Research method: Qualitative interview studies (best practice research)

This research is an exploratory research. Robson, (2002, p. 59) describes the exploratory research as: "what is happening; to seek new insights; to ask questions and to assess phenomena in a new light." According to Yin (2009) there are several methods of doing research. Often recommended studies are: the field experiment, panel study, case study, focus group, interviews and a survey. When choosing a method, there are 3 factors to deal with according to Yin (2009): 1) type of question, 2) the control an investigator has over actual behavioural events and, 3) the focus on contemporary as opposed to

historical phenomena (Yin, 2009, p.11). This research looks like a multiple case study approach. However, to call it a case study it should observe the phenomena in his natural setting over a period of time (Yin, 2009). This implies interviews and observations over a span of time. This research does not have enough time to perform a case study in that particular context, but useful aspects and insights of the case study research are considered. During this research the choice is a semi-structured interview approach. The benefit of a semi-structured interview is that a researcher can collect a directed large amount of data from professionals.

Because of the small link with the case study approach, a case study is a research method that investigates contemporary phenomena, like the recently in popularity increasing PMOs or SSCs in their actual setting. This method is useful when the boundaries between the phenomena and the context are not the same or evident (Yin, 2009). A second argument for using multiple case studies is that this kind of research is very common in in organisational settings or phenomena (PMO & SSC) and is used in many similar situations to contribute to the knowledge of organisational phenomena. (Yin, 2009) It gives the researcher a more holistic and meaningful understanding of the real life events inside the PMO and SSC. In other words, the case study gives the opportunity to collect data and obtain real-life information about the setting and their contextual conditions (Yin, 2009). During these semi structured interviews in the eight cases these principles are handled.

Single and multiple case studies (semi-structured interviews) are distinguished in literature by Yin (2003) and Saunders et al, (2009). Saunders et al, (2009, p.146) describes a single case study as: “a single case is often used where it represents a critical case or, alternatively, an extreme or unique case”. On the other hand, multiple cases are most of all used to conform the findings of the first case and have the need to generalise the findings (Yin, 2003; Saunders, et al., 2009). For this research there is chosen to do multiple case studies and not one, Yin (2009) states that the examining of multiple cases is more compelling and therefore the study will be seen as more robust. Second, In order to derive the needed information several case studies are conducted in order to derive best practices. Therefore this thesis selected eight cases around shared services, both project management offices and shared service center organisations and.

The primary research method are the semi-structured interviews, second method is the best practice research. “The most precise definition of best practice research is the selective observation of a set of exemplars across different contexts in order to derive more generalizable principles and theories” (Overman & Boyd, 1994, p.69). Third, the applicable aspects of a case study are considered.

This research focuses primarily on the topic of shared services and thereby entities such as the shared service center and the project management office because of the interest of Thales in those areas. Thereby it considers the platform theory and service modularity as a basis for how to assess what service can be shared and what service cannot be shared. This study researches motivations, accomplishments, disadvantages, best practices and designs around shared services.

2.3. Research design

“A research design is the logic that links the data to be collected and the conclusions to be drawn to the initial question of the research” (Yin, 2009 p.40). As mentioned, the research inquiry is a multiple semi structured interview approach to elaborate on criteria and best practices. The advantage of semi structured interviews is that it benefits from the theoretical framework that is elaborated to guide the analysis. So, for this kind of research the theory should provide a strong guidance in determining the data that should be collected in the case studies (Yin, 2009). The first step is to study the theory intensively and make a theoretical or conceptual framework. This framework should be used in making the semi-structured interviews. Next to the theory, because this research is for Thales, specific questions that Thales is interested in are added to the analysis next to the interesting parts from the theory.

Yin (2009, p.39) states: “By having more than one case study (interviews) to show support to the same theory a replication may be claimed but the empirical results may be considered more potent.” Therefore eight studies are chosen, more or less the same study will be performed at several organisations. This will increase the chance that the results will improve compared to doing a single case study. A downside of this research is that it takes a lot of time, generates a large amount of information and could require more resources. The overall benefit is that a multiple case study will be more compelling. The research design is elaborated in figure 1.

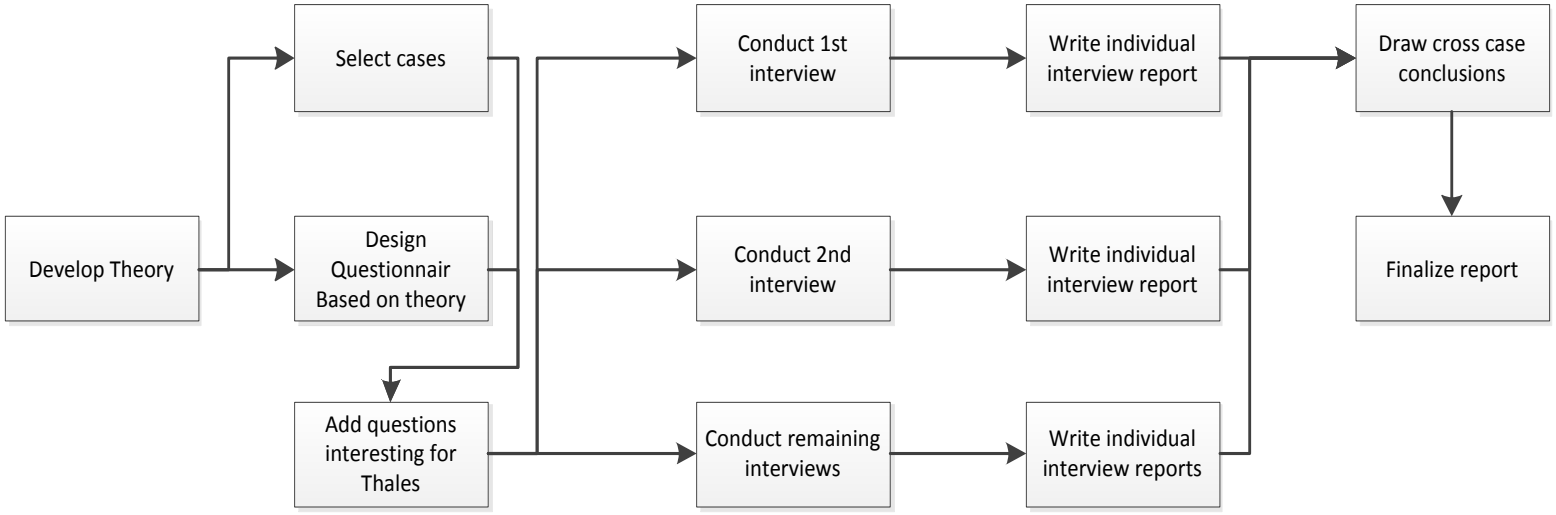


Figure 1: Research design based on the book of Yin (2009, p.57)

2.4. Units of analysis and cases

Babbie (2010) describes the unit of analysis as: 'the what or whom being studied (Babbie, 2010, p. 98).' This study will use several interviews to derive information about common settings in shared service entities, where shared service centers and project management offices are the unit of analysis. Those two are chosen because of the specific interest of Thales in those organisational settings. The cases to be interviewed that will be selected to investigate should have the following characteristics*: high tech, working with government), same (Dutch) working culture, is a customer of Thales, is also service orientated, project based organisations are preferable and preferably multinationals.* The reasons the cases should comply to these criteria is the support the research will gain with the employees and managers in Thales. If results show that the best practices, motivations and criteria are a reason for the managers of Thales to implement a shared service entity they have a study that is done with comparing companies and therefore the support will go up. No other reason for choosing cases accordingly are there.

During this research multiple organisations are studied. Cases are selected through purposive (according to aforementioned criteria) sampling (Babbie, 2010). Probability sampling is not included in this research, because not all of the organisations are suitable for this research. This can have two reasons, some companies simply do not have a SSC or PMO and second, Thales was looking for comparable companies (High tech) so the results will be more appealing to the employees. In explorative research you might expect that the research studies a wide variety of cases in different settings. This research is purposely narrowed down to companies that have similarities with Thales, that is, high tech, working with governments, project based, international and focuses next to products also on the services. The cases selected are elaborated in table 2.1

Sector	Name	FTE	Description
High-tech	Philips Healthcare	37.000	Philips Healthcare (former Philips Medical Systems) is active in the diagnostic equipment market. The main focus of Philips Healthcare is to deliver the most technological advanced products to diagnose diseases. It is an international company, large amount of employees, delivers to governments and offers lots of services (Philips, 2015). .
High-Tech	ASML	13.225	ASML is a Dutch company that was founded in 1984 and is currently the market leader in the photolithography systems for the semiconductor industry, (ASML, 2015)
High- Tech	Fokker Technologies	4.950	Fokker Technologies is a global aerospace specialist that develops, designs and manufactures complexly engineered aircraft systems to aircraft manufacturers over the world Fokker has a Dutch culture, is comparable in size (4 Business units) and works with governments. (Fokker, 2015)
High-Tech	VDL Enrichment Technology	7.320	The VDL Group is an international industrial and manufacturing company. VDL produces semi-manufactured goods in the semiconductor industry, busses and other products. (VDL, 2015)
High-Tech, knowledge based.	DHV Royal Haskoning	7.000	DHV is an international engineering and project management consultancy. The company delivers services in the field of aviation, buildings, energy, industry, infrastructure, maritime, mining, transport, urban and rural planning and water. (DHVRoyalHaskoning, 2015)
Government, client	Defence	68.000	Defence is under the supervision of the ministry of Defence in the Netherlands. It is formed by the military force and its supporting organisations. Defence is absolutely a non-profit organisation but is currently under constant reorganisations because of the budget cuts by the Dutch government. (Defensie, 2015)

High-Tech	OCE	20.000	OCÉ currently develops, manufactures and sells printing and copying hardware. Recently they fused with Canon to become the leader in the global printing industry. OCÉ itself consists of three large sites and some smaller sites. (OCÉ, 2015)
High-Tech	STORK	3100	Stork is a Dutch company founded in 1827. It is an overall brand name of several technology companies. (EQIN, Industrial Services, Power, Fokker). Stork is a global provider of knowledge-based asset integrity focusing on the Oil & Gas, Chemical and Power sectors. Stork works with major asset operators, from gas turbines to offshore installations, and from petrochemicals to wind turbines. (Stork, 2015)

Table 2.1. : Field research cases shared services

2.5. Data collection

One of the crucial parts of the research is the data collection. In this phase the empirical material / evidence will be collected. Yin (2009) determined several ways to accumulate information. Those ways are: archival records, interviews, direct observation, documentation, physical artefacts and participant observation. (Yin 2009, p.39). The main sources of information for the theoretical part of this research are the archival records and documentation for the theoretical part. Used techniques used for finding data are (Sonderen, 2002):

- Global orientation
- Snowbal method
- Systematic search

Theory

The book of Saunders et al. (2009) refers to Bell (2005), who identified the following genuine parameters that can be elaborated for this research.

- The language of this research will be English. However the semi-structured interviews will be done in Dutch for more understanding of both parties. Results will be converted into English.
- The subject area are primarily shared services in the organisational forms of the PMO / SSC, platform theory, modularity or any synonym of those terms. Other areas are discussed in the designated paragraphs. The choice for PMO and SSC and not the other delivery modes is because

of the view of Thales. Thales thinks the PMO entity and SSC entity are the most important for this research. The view of Thales about the entities: "*A project management office is an entity that bundles support activities (services) for the projects, but can also be a bundling of support work for different business units, in fact a sort of shared service center for project support*." Thales is interested in these kinds of entities. Therefore the selection for only SSC and PMO is made.

- The business sector will be most of all High-Tech businesses with shared services. The choice for most of all high-tech businesses is to create more support from employees for the plan.
- This study aims to use recent literature. Exceptions will be made to relevant literature of authors that have many citing's.
- Primary and secondary literature will be used during this research. Most used primary sources will be reports, theses of other students and white papers (Saunders, et al., 2009). Primary literature can best be found through Google, suggestions from supervisor and websites of businesses. The main secondary literature, the more scientific form of literature, that will be used are scientific journals and books (Saunders, et al., 2009). This literature can best be found through Web of science, Google Scholar, Scopus and the library of the University of Twente.
- According to Saunders et al, (2009) most researches use secondary literature. The strategy of this theoretical framework is to first locate secondary literature. If there is not enough depth in a concept, primary literature will be added. Primary literature, like white papers from well-known global firms (for example Pricewaterhousecoopers and Deloitte) will be used.

Keywords

Key words are the basic terms that describe your research question and objectives (Saunders, et al., 2009). This paragraph will identify some keywords. However, these keywords might not all be discussed in the literature review. This can be because of interrelations between the concepts or keywords. Also synonyms of words exist and those will be searched for too. Main keyword(s) is: shared services. Searching will primarily done in combination with one of the following terms: platform theory, service modularity, best practices, delivery modes, differentiation in needs, strength of coupling, benchmarks, high-tech, pitfalls, conditions, shared service centers and project management offices.

Semi-structured interviews

The research will be done with a semi-structured interview approach. This choice is made based on the limited time the research will have for executing the research. The semi-structured interviews will be

held with PMO directors, SSC directors, HRM directors and financial directors. To use their time as effectively as possible the questions will be made before the visit to the company. The benefit of semi structured interviews is that it will fulfil the need in case studies. The researcher gets the opportunity to get answers to the research and sub questions, but also the possibility to explore to new and interesting subjects that comes along during the interview. With a structured interview all questions are made before the interview, so it gives no opportunity to investigate special subjects that will arise. Open interviews on the other hand are too broad and the research could stray off subject to much (Yin, 2009; Saunders, et al., 2009). Based on this information the choice for semi-structured interviews is made. To capture as much information as possible, the interviews will be recorded by the research. Afterwards all the relevant information can be reheard, captured and transcribed as a written (word processed) account using the actual words (Saunders, et al., 2009). This gives more time to the researcher to collect as much information as possible and sometimes the way respondents are giving their answers may be useful, that will be captured as well. To save time, only the parts that are pertinent to the research are transcribed (Saunders, et al., 2009). Writing down information during the interview costs time, could be distracting and if the written information will be read afterwards, crucial information might be lost (Saunders, et al., 2009; Yin, 2009). To validate the given information, the collected data will be sent back to the interviewee for feedback and validation. The questionnaire is listed in *appendix II.*

2.6. Data Analysis

The final part that will be included in the methodology is the data analysis. Data analysis is the final task of the research and probably one of the difficult ones. It consists of tabulating, categorising, testing, examining or on some way combining or recombining the gathered data. This should be done in such a way that conclusions can be drawn from the results. (Yin, 2009; Saunders, et al., 2009)

First of all, the cases / interviews will be individually elaborated upon. Because of the fact that all shared service entities are very unique, as shown by the definitions of a SSC and a PMO the entities can hold a very broad arsenal of activities or organisational settings (Aubry, et al., 2007; Schulz, et al., 2009). Because of that reason every shared service entity will first be specifically discussed. The gathered data, the results from the multiple cases (interviews), will be interpreted according to the type of SSC, PMO and their relation to the term shared services. By labelling the PMOs and SSCs to their specific models a better perception of togetherness or distinctiveness can be established. That way any differences in perception can be diminished. After the general model and information about the shared service entity, sections to answer the sub questions (deductive) are added, and after that, an inductive part will be

added because of new theory emerging from the processed data. Finally, after discussing every case on their own, a general table will be made with the specifics of all the cases.

The main processes of data structuring in this research will be summarising (condensation) and categorisation (grouping). Because of the research question and sub questions the summarising and categorising will be the most useful. The data is collected to a beforehand prepared structure and can be divided in several categories. The technique, structuring (ordering) is not necessary in this research, because there is no narrative or sequences way of explaining these organisational entities.

Finally, a **cross case analysis** is conducted on the gathered data. A common problem with case analysis is that people are notoriously poor processors of information. Conclusions are easily misguided. Common problems are:

- Conclusions are often based on just limited data. (Kahneman & Tversky, 1973)
- Overly influenced by vividness (Nisbett & Ross, 1980)
- Only responses from elite respondents (Miles & Huberman , 1984)
- Researchers drop disconfirming evidence (Nisbett & Ross, 1980)

Because of there reason a sound cross case analysis is needed. The idea behind a cross case analysis is to go beyond the initial impressions by using diverse lenses on the data. During this research the cross case analysis will investigate the similarities, differences and complementarities between cases and between Project Management Office and Shared Service Center. The tactic of cross case analysis will improve the likelihood of a reliable and accurate theory and therefore conclusions. (Eisenhardt, 1989)

Figure 2: Inductive vs. Deductive (Saunders, et al.,2009, p.491)

3. Theoretical Framework

This chapter gives background information on relevant topics that will be used in this research. The purpose of this chapter is to reflect the current literature available on this research topic. Several concepts will be elaborated and a theoretical framework will be formed.

3.1. Methodology theoretical framework

In this chapter the literature will be reviewed. According to Saunders (2009) the theoretical framework is normally written for two major reasons. The first, preliminary research helps to generate and refine the research ideas. These ideas can be used in order to investigate during the best practise study at several companies. Second, the critical review is part of a research project. A good literature review demonstrates awareness of the current state of knowledge in the field of research, its limitations and it's wider context (Saunders, et al., 2009). This information will be useful to Thales, because it will update their awareness of the best practices, criteria, methods in shared services. The literature search is usually an early activity, but this search will continue during the project's life. The process of gathering information can be seen as a upward spiral, from research question to final version of the framework. The following design aspects are elaborated during the theoretical framework: define parameters, keywords, conduct research, obtain literature, evaluate and record. (Saunders, et al., 2009) This framework uses the design aspects from Saunders et al (2009). First of all with the parameters, keywords and the further design of the framework. The conducted research, obtained literature, evaluation and recording is integrated in the designated paragraphs.

3.1.1. Design of theoretical framework

This paragraph shows the logical order of the theory. First of all the main topics the shared service center and project management office will be elaborated (units of analysis) (3.2, 3.3 & 3.4). Second, the topic shared services will be elaborated with the motivations or goals for implementing a shared services. (3.5) Finally, the criteria that influence the choice of delivery mode will be elaborated.

3.2. Defining the concept of Shared Service Centers

- A definition of a shared service center
- The role and responsibility of a shared service center

3.2.1. A definition of a shared service center

There is a difference between shared services and shared service centers. The difference is that shared services can consist of many forms or theories. These forms are described in table 3.1. Shared service centers are a part of the general term shared services. During this research focus mostly will go out to the facets shared service center and project management offices (3.3.). These delivery modes of services are best fit to the research question of this paper (see also parameters in paragraph 2.5).

The best definition of a shared service center is written by the article of Schultz et al. (2009). This article focused on 185 papers, then excluded papers with non relevant content and remained with 9 clear results. Thereafter the article added relevant books with the most citations which leaves a total of 13 relevant sources. The aspects that are given in more then 50% of the sources where included in his definition. The overall definition: *"A SSC is an organisational concept with the following attributes: (1) consolidation of processes within the group in order to reduce redundancies. (2) Delivers support processes as its core competency. (3) Is a separate organisational unit within the group. (4) Is aligned with external customers. (5) Cost cutting is a major driver for implementation. (6) Has a clear focus on internal customers. (7) Is operated like a business."* (Schultz, et al., 2009, p.6) These factors are important to delineate SSCs from other delivery forms like outsourcing (Schulz, et al., 2009).

3.2.2. The role and responsibility of a shared service center

The role of a shared service center is to be a policy and administrative expert. (Ulrich, 1995) Their main focus is on administrative, transactional support (Ulrich, 1995). A shared service center is successful if costs are reduced and quality of services are increased. Current research reveals that there is a fragmented understanding of the basic characteristics of SSCs and their different variations of a SSC (Schulz, et al., 2009). Schultz et al. (2009) investigated how SSCs(4) differ from each other in reality. Based on a focus group and extensive case studies they defined seven criteria in which SSCs differ from each other: legal form, form of co-ordination, service charges, external market, contract forms, center concepts and product portfolio. These findings were found by doing research to an information technology SSC and are not yet validated. However the fact that this article is cited over 200 times, and also in articles with different forms of SSCs, it can be considered that these 7 criteria are representative.

Legal form

SSC comes in different forms. Most of these forms are added in table 3.2. Main difference is that a SSC can be legally independent (outsourcing or joint ventures) or they can be incorporated independent of their parent firm. In that case they are more of an intra-organisational form.

Form of co-ordination

There are two methods of coordinating service transaction between supply (SSC) and demand (BU). That is (1) through markets and (2) through hierarchies in which high-level management decisions regulate service transactions (Schulz, et al., 2009). In practice, there are a multitude of forms in between.

Service charges

There are different forms of charging for the services. (1) through budgets, (2) allocation, services are allocated through amount of use or other variables, (3) transfer pricing, costs per service plus profit. However with transfer pricing, provides no incentives to lower the costs of a SSC. Practically seen these SSCs are just as expensive as market driven SSCs.

External market

If a SSC has access to external markets, it may also serve third parties for profit. (Schulz, et al., 2009) Access can apply to particular services only or to an entire portfolio of a company. This may add to additional sales and has the opportunity to become more efficient in using employees. Other way, limiting or no access to external markets will increase focus on their own business units.

Contract forms

According to Schultz et al, (2009) there are three varieties of contract forms. (1) Intra-organisational 'buyers' may only obtain services from the internal SSC. (2) Contractual exchange, the internal SSC makes a ''first offer'', if not acceptable the buyer may consider external sources. (3) Competition, 'buyers' can make its own offer based on knowledge of externals. With competition the 'buyer' decides if the internal provider wins the contract. (Schulz, et al., 2009)

Center concepts

Schultz et al, (2009) identified four different organisational concepts. (1) Cost center, this aims at supplying services at the lowest cost level. (2) Service center, support business units by delivering client

satisfaction and adherence to agreed service levels. (3) Investment center, this form has a more strategic focus. This by creating pro-actively capabilities for new improved services. (4) profit centers, the SSC seeks to obtain knowledge from external markets and gain credibility for its internal clients and attain additional revenue.

Product portfolio

A SSC can cover a variety of processes (multi-functional SSC), or a single process (functional SSC).

Criterion	**Typical Features of the shared service center**			
Legal form	Intra company business unit		Independent subsidiary	
Main Form of Co-ordination	Mainly hierarchical	Mixed co-ordination	Primarily market orientated	
Service Charges	Overhead	Allocation	Transfer prices	Market prices
External Market	No access	Limited access	Free access	
Contractual Form	Contractual obligation	Contractual exchange	Competition	
Centre Concept	Cost center	Service center	Investment center	Profit center
Product Portfolio	Functional SSC		Multi Functional SSC	

Table 3.1: Criteria and characteristics of SSCs (Schultz et al, 2009, p.7)

The most common activities that are shared in a shared service center are: Finance, Human Resource Management, IT, Sales order processing, Customer Service and Technical Support. (Pwc, 2008; Schulz, et al., 2009; Strikwerda, 2010)

The *white paper* of the institute of management accountants (Anderson, 2000) gave more insights in the activities mostly shared in a shared service center. (Figure 3)

FINANCE	• General ledger • Accounts payable • Internal audit	• Accounts receivable • Purchasing • Insurance	• Tax compliance • Cash management • Foreign exchange
HUMAN RESOURCES	• Payroll processing • Compensation administration	• Benefits administration • Training & education	• Relocation services
INFORMATION SERVICES	• Standards • Technology/development	• Applications development • Applications maintenance	• Telecommunications • Hardware & software acquisition
LEGAL	• Litigation support and coordination	• Environment, health, and safety consulting/ auditing	• Regulatory compliance
CORPORATE AFFAIRS	• Communication services	• Media relations	

Figure 3: Common shared activities. (Anderson, 2000 p.9)

3.3. Defining the concept of Project Management Office

This paragraph describes the project management office (PMO). The PMO entity is also a shared service. A project management office is also described as a *center of excellence, center of expertise* or *competence center* (Dai & Wells, 2004; Ward, 2000). The link between shared services and project management office (centers of excellence) is made by Ulrich (1995, p.16.) by stating: "shared services is both service center (SSC) and Centers of Excellence (PMO)." Which are both described in this research. Centers of Excellence often have multiple clients (business units) using their services (Ulrich, et al., 2008).This paragraph discusses the PMO in the following ways:

- A definition of project management offices.
- Project management offices discussed in secondary literature.
- The role and responsibilities of a project management office

3.3.1. A definition of a project management office

Defining a PMO is a difficult task, every company or organisation is organised differently and there is no PMO design that is 'one size fits all'. (Aubry, et al., 2007). A recent study off Hobbs & Aubry (2010, p.12) describes the PMO as: "*An organisational body or entity assigned various responsibilities related to the centralized and coordinated management of projects under its domain. The responsibilities of the PMO can range from providing project management support functions to actually being responsible for the direct management of a project*". This very broad definition comes from the study of Aubrey et al, (2007) which studied functions of the PMO. The author tried to find systematic patterns, but failed. Aubrey et al, (2007) found nearly 75 unique functions of PMOs. Some articles describes the PMO as a *center of excellence, center of expertise* or *competence center* (Dai & Wells, 2004; Ward, 2000). Given the definitions of Hobbs & Aubry (2010) and Aubry et al, (2007) this is understandable because of the wide variety of unique functions. During this paragraph this assumption, that PMOs can be the same as centers of excellence, competence centers or centers of expertise is maintained because Dai & Wells (2004) was the most cited article about project management offices which compares them to other terms like competence center and center of expertise. Second, the definitions of a project management office: "an organisational entity that is established in order to assist project managers, teams and various management levels on strategic matters and functional entities throughout the organisation." (Dai & Wells, 2004, p.524) and the definition of centers of excellence: "an organisational unit that has been explicitly recognized by the firm as an important source of value creation, with the intention that these capabilities be leveraged by and/or disseminated to other parts of the firm." (Frost et al, 2002, p.997). can be interpreted as the same.

3.3.2. The project management office discussed in secondary literature

Project management offices operate as specialized consulting firms inside a company (Ulrich, et al., 2008). Employees that first would have worked in just one business unit will be assigned to do activities to more business units in the PMO. The implementation of a PMO is often based on the call to improve project management effectiveness. Several studies notions that there is value in utilizing PMOs (Toney & Powers, 1997; Block & Frame, 1998). Ad hoc approach to project management can foster inefficiencies, while PMOs can lead to more continuity (Block & Frame, 1998). PMOs are organisational units that doing next to its own work, as a secondary objective, are trying to improve its knowledge and experience. The organisational unit have parts of several business units (sharing).

According to a recent survey based research by Hobbs & Audry (2007) on the organisational context and synchronic description has shown a wide variety in form and function of project management offices. Attempts to reduce this wide variety of models have failed. Further, research shows that in the majority of cases the PMOs have unstable structures and are continuingly reconfigured (Hobbs, et al., 2008). This continuingly reconfiguration can be seen as an on-going organisational process and as experimentation for organisations to search for an adequate structural arrangement. (Hobbs, et al., 2008) Half of the respondents in the survey based research by Hobbs & Audry (2007) states that they currently are not satisfied with the current organisational structure. Hobbs, et al. (2008) describes the motivations for implementing a PMO as a result of organisational tensions. The organisational tensions are: economic, political, customer relationship, standardization versus flexibility and controlling the project machine. If there is friction in one of these areas, a need for a PMO might arise. (Hobbs, et al., 2008)

The article of Dai & Wells (2004) adds to the benefits by elaborating on the possibilities to increase the effectiveness of the organisation by implementing a PMO. This can be done by: unburden project managers from administrative activities to increase their (more costly) effective time. Development of standards and methods to leverage best practices in order to ‘speak the same language’ through all departments. The main drivers to implement a PMO are described by Stanleigh (2006), he asked 750 organisations why they implemented a PMO, the primary drivers according to his research are:

- More successful projects (82%)
- Predictable, reusable PM tools, techniques and processes (74%)
- Organisational improvements (66%)
- Helps to build a project management oriented culture (64%)

3.3.3. Project management office role and responsibility

As stated before, a PMO can have a very diverse arsenal of activities (Aubry, et al., 2007).Singh et al, (2009) describes the roles as an improvement of project work within the organisation. A PMO uses established project knowledge management tools to prepare project planning. A PMO can provide *operational support* to different projects or business units (sharing) in the organisation. Dai & Wells (2004) describes six roles a PMO can fulfil.

- Developing and maintaining PM standards and methods
- Developing and maintaining project historical archives
- Providing project administrative support
- Providing human resource/staffing assistance
- Providing PM consulting and mentoring
- Providing or arranging PM training (Dai & Wells, 2004)

Despite the main roles of a PMO it is absolutely not necessary true that all of the aforementioned roles are suitable for any organisation. This statement is backed up by the research of Aubry et al., (2007) by finding that all PMO differ a lot. Especially the providing administrative support and providing resource and staffing assistance gives away the shared service thought. The article of Dai & Wells (2004) states that these activities are non-core business and are shared in a lot of cases. In this study the working of those activities will be studied in three PMO's (Fokker, Philips Healthcare and ASML)

A much sited article of Hill (2004) describes several stages of PMO maturity. The PMO can be identified in a certain role. The five stages established by Hill (2004) are (Figure 4):

- Project office
- Basic PMO
- Standard PMO
- Advanced PMO
- Centre of Excellence

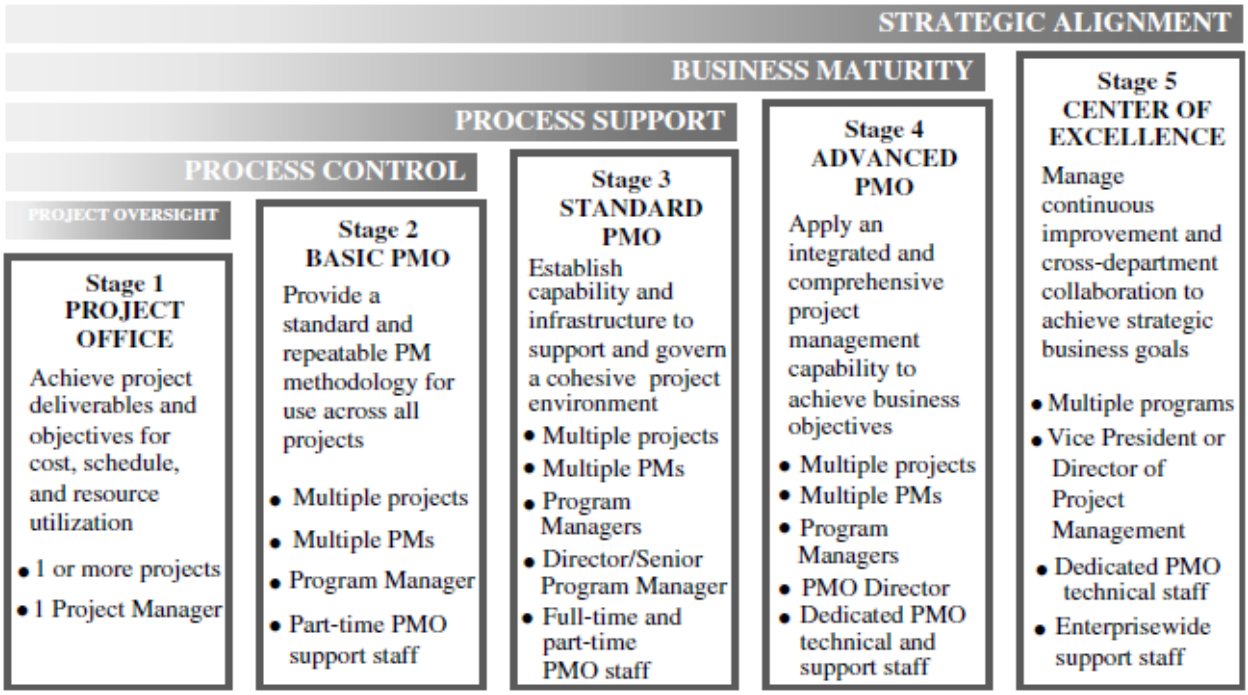


Figure 4: Overview of PMO Capabilities (Hill, 2004, p.46)

With this model this research can make comparisons between the PMOs that are investigated. If comparisons can be made, conclusions can be easier formed. Second, there was an extensive study of Pwc (2006) that localized organisational location, role and responsibilities on a different level as Hill (2004). The survey of Pwc (2006) was conducted with participation of 213 respondents and the participants were mostly senior managers and project managers. The results of the study according to the project management offices are given in figure 5.

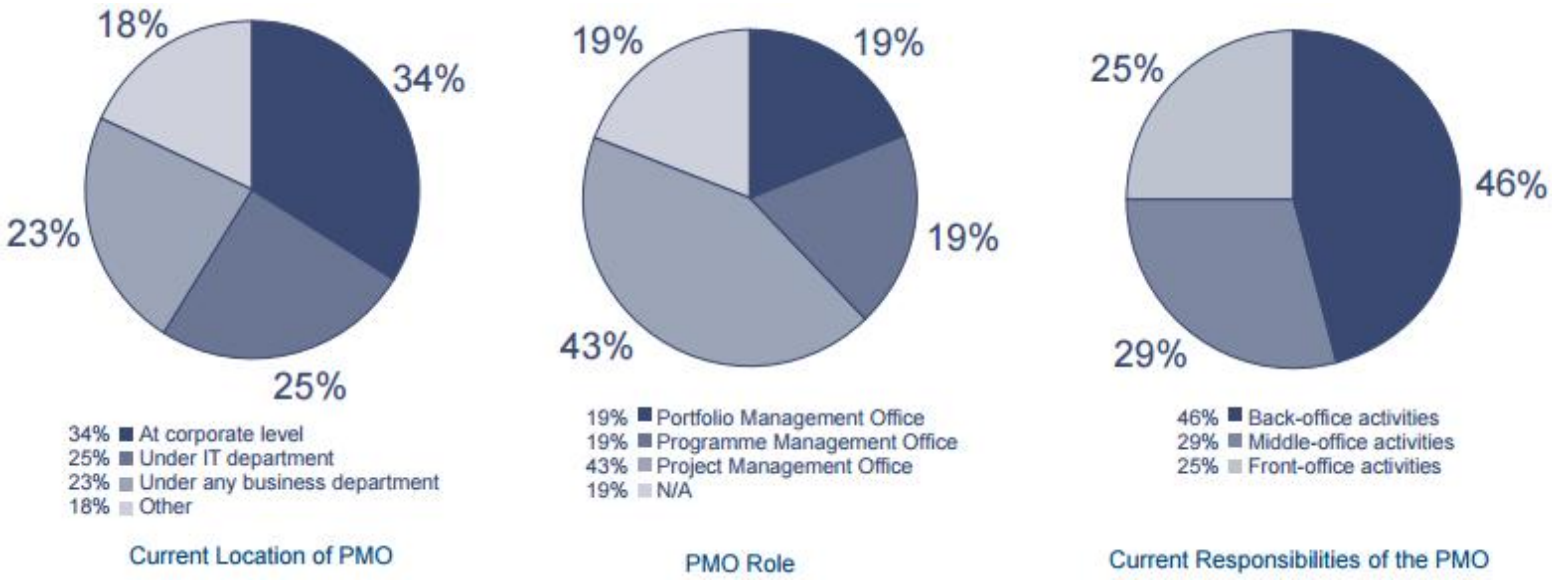


Figure 5: Results survey Project management offices white paper Pwc (2006)

Results from white papers show that the PMOs mostly are located at corporate level, the role is most of all just a single PMO (43%) and in fewer cases a portfolio management office (more than one process) and are performing mostly back-office activities (46%). The theory does not have any consensus about what particular activities fit in a PMO, in order to contribute to the literature questions will be asked about what activities are shared through the departments.

Engelberts (2009) gives some more insights in the practical activities that a PMO can do. According to Engelberts (2009) the following working areas can be covered by a PMO.

- Project planning
- Project finance
- Reporting
- Change Control
- Benefit management
- Risk- and Issue management
- Communication and stakeholder management
- Resource management
- Quality
- Knowledge management
- Document and configurations management.

The PMO forms the basis for structuring and uniformity within projects, programs and project portfolio's. A PMO entity will be created within the organisation which is involved in every project or program (sharing of resources). By documenting the project activities and histories centrally, and use that information to compare and evaluate projects and programmes efficient processes can be formed. There can be definite advantages of centralizing or sharing the support activities to become more efficient and uniform. (Engelberts, 2009)

3.4. Differences between Shared Service Centers and Project Management Offices.

The choice for PMO and SSC and not the other delivery modes is because of the view of Thales. Thales thinks the PMO entity and SSC entity are the most important for this shared services research. The view of Thales about the entities: "*A project management office is an entity that bundles support activities (services) for the projects, but can also be a bundling of support work for different business units, in fact a sort of shared service center for project support*." Thales is interested in these kinds of entities. Therefore the selection for only SSC and PMO is made. There are also differences between SSCs and PMOs. Ulrich (1995) states that project management offices centralise functional expertise so it can be allocated to businesses, have practices that transform the company (transformational services) and is considered successful if the practices help accomplish business goals in innovative and targeted ways. Shared service centers are often based on making transactional services more efficient and try to form economies of scale and reduce cost (Ulrich, 1995; Meijerink, 2015). Figure 6. Shows the differences between SSCs and PMOs.

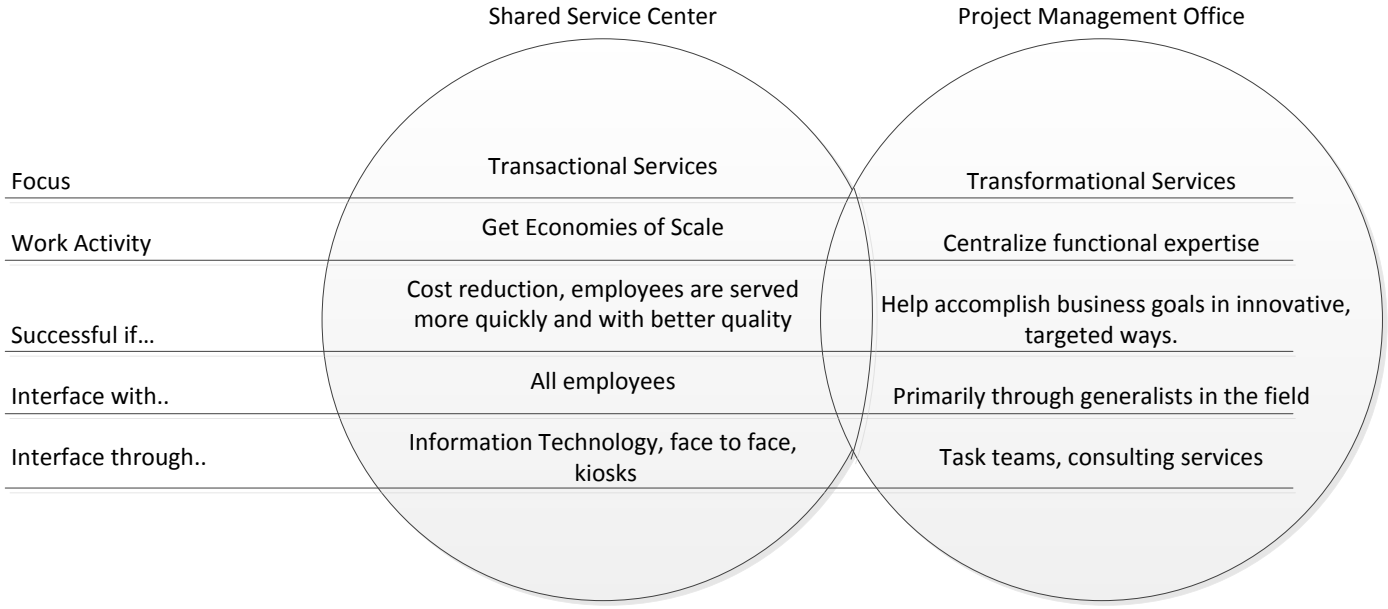


Figure 6: Differences SSC and PMO (Ulrich, 1995, p.16)

3.5. Defining the concept of Shared services

This paragraph is aimed to elaborate on the main topic of shared service. Services can be delivered in several modes, inter organisational, intra organisational and decentralised. This paragraph elaborates on the concepts of shared services and their benefits and downsides. This is done by elaborating:

- Shared services, a definition
- The different modes/forms of shared services
- The motivations and benefits of the shared delivery mode
- Disadvantages and pitfalls of shared delivery mode
- What makes a shared delivery mode successful?

3.5.1. The definition of Shared services

Literature provides clear insights in the term shared services. One of the most cited articles about the general term of shared services is the article of Ulrich (1995) and the book of Bergeron (2002). Ulrich describes shared services as: "*the combining or consolidating of services within a corporation*" (Ulrich, 1995, p.14). The definition of Bergeron is: "*Shared services is a collaborative strategy in which a subset of existing business functions are concentrated into a new, semi-autonomous business unit that has a management structure designed to promote efficiency, value generation, cost savings, and improved service for the internal customers of the parent corporation, like a business competing in the open market*." (Bergeron, 2002, p.3.)

3.5.2. The different modes/forms of shared services

Shared services are often confused with of centralisation. Centralisation however controls resources and dictates the policies, programs and procedures. In a SSC the resources from the field are shared among the business units, which may look like centralisation, but the control resides with the business units (Ulrich, 1993) (Strikwerda, 2010) (Figure 7 & 8). However, services can be delivered on different ways. Hofman & Meijerink (2015) notices that there is a wide variety of (HRM) delivery channels. Delivery channels are the organisational way of delivering services to the customers (internal or external). Ulrich (1997) identified three channels, corporate departments, SSCs and business partners. These channels where extended with centers of expertise and operational executors. (Ulrich, et al., 2008) Valverde, et al. (2006) distinguished departments, top management and line management. Hofman & Meijerink (2015) says that this variety of delivery channels can cause problems to develop a comprehensive model that tackles all possible internal sourcing arrangement for (HRM) service deliveries. Because of that, a distinction is made. The distinction is made between delivery channels that delivers services which are

shared and reused between business units (*shared delivery mode*), and delivery channels that delivers solely to specific business units (*non-shared delivery mode*). Hofman & Meijerink (2015) organised delivery channels under the shared delivery mode and non-shared delivery mode. This model was extended by Rosink (2014), he divided shared delivery mode into inter-organisational (shared between different organisations) and intra-organisational (shared only within the holding) modes. Table 3.2. is based on the table by Rosink (2014) and further elaborated.

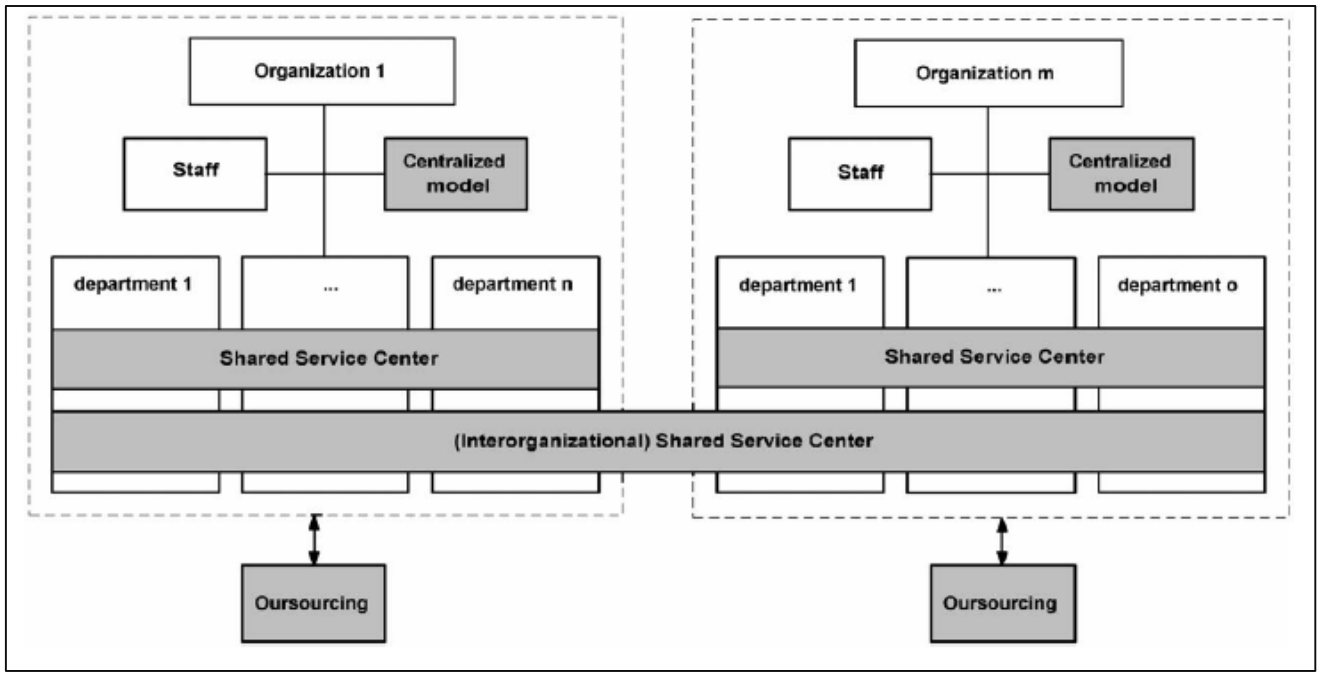


Figure 7: Most common location shared service center

Figure 8: shared services, centralised versus decentralised (Lodestone, n.d.)

Table 3.2. (Rosink, 2014) shows ten organisational designs (delivery modes), and this literature review adds two factors: (1) Joint ventures: separate entities with two or more active firms as partners (Harrigan, 1986). (2) Outsourcing: Ulrich (1995) defines it as delegating activities to an external organisation. (3) Buyer-Supplier relationships: the transfer of activities from one partner to another, whereby coordination is ensured by the appropriate fit between the two partners' contact points (Dekker, 2004; Rosink, 2014). (4/5) Shared Service Centers: Shared service centers can be intra-organisational and inter-organisational, SSCs bundle activities into a semi autonomous business unit (Janssen & Joha, 2006; Deloitte, 2013; Ulrich, 1995). (6) Project Management Offices/Center of Excellence: combining distributed talent throughout a corporation into a shared service, then businesses use these resources to solve problems (Ulrich, 1995; Dai & Wells, 2004). (7) Corporate departments: Ulrich et al. (2008) describes it as embedding a single (like HR or finance) into a single department within the company. (8) Business partners: According to Ulrich (1995;2008), generalists that work with both line managers and leaders of several business units to align the practices with the business objectives. (9) The regional cluster approach, this model is based on a region-by-region basis. One SSC, for example might provide for the US, while another delivers for the UK (Pwc, 2008). (10) Embedded in business units: Activities that operate for a single business unit (activities are only for the business unit in which it is embedded) (Hofman & Meijerink, 2015)

Shared delivery mode (inter-organisational)	**Shared delivery mode (intra organisational)**	**Non-shared delivery mode (decentralised)**
(1) Joint ventures	**(5) Shared Service Center**	(10) Embedded in business units
(2) Outsourcing	**(6) Project Management Office / Center of Excellence**	
(3) Integrative buyer-supplier arrangements	(7) Corporate department	
(4) Shared Service Center	(8) Business partners	
	(9) The regional cluster approach	

Table 3.2.: examples of delivery modes and organisational designs, basis used from Hofman & Meijerink (2015) and Rosink (2014, p.8.)

Quote: Shared-services is a form of "internal outsourcing" that allows enterprises to achieve considerable cost benefits by utilizing a single group within the organisation to create and manage specific services.

Keith Swanson, CEO Fujitsu

Above mentioned are the organisational desired designs and the different modes of service delivery modes. The in figure 7 given situation is the desired situation at Thales. The theory gives lots of designs. It will be interesting to see how companies organised their shared service entities (delivery mode).

3.5.3. The choice of delivery mode

The choice of delivery mode (shared or non-shared) can be based on several criteria. Common criteria are the differentiation in needs, degree of coupling, modularity and the types of services. These criteria can indicate if a service can be shared (the effect of sharing will indicate a total higher service value) or not be shared (the effect of sharing will result in a lower total service value). To go short, low differentiation in needs, low degree of coupling and transactional services are indicated to be good indicators to share services (indicates shared delivery mode). High differentiation in needs, high degree of coupling and transformational services are indicated to be less fit to share (indicates a non-shared deliver mode). These criteria are elaborated in section 3.6. and concluded in figure 17 (3.6.6.).

3.5.4. The motivations and benefits of the shared delivery mode

There are some compelling studies that describes the motivations and accomplished benefits. First of all the paper of Rosink (2014) gave an overview for the *advantages of the shared delivery mode* (which includes SSCs) in his critical literature review. He divided the benefits in terms of service costs and service quality, which was derived from the ideas of Robertson & Ulrich (1998). These authors described the benefits in terms of reduced costs and improved quality. These terms could indicate the service value. Zeithaml (1988, p.15) describes service value as the overall assessment of a service based on what is given (amount paid by the user to the seller) and what is received (quality of a service perceived by users). In other words, service value can be defined in monetary (fees and prices paid for services) and non-monetary costs (time & effort) (Hofman & Meijerink, 2015).

According to Strikwerda (2010), the most mentioned argument for implementing shared services is cost reduction and the improvement of service quality. This is backed by the article of Gould and Magdieli (2007), they stated that more than 30% of U.S. Fortune 500 companies have implemented a shared service framework and are reporting cost savings up to 45%. However, the study of Janssen & Joha (2006) determined this benefit is not always realized. This literature review reflects the current state of literature that provides insights in the benefits of shared services. The most cited literature about advantages of shared services are used. This gives a large overview of *realized* benefits from shared services (all shared delivery designs included). The table (3.3.) distinguishes the benefits in a monetary (economic motives) variable and a non-monetary variable (strategic and organisational motives).

Source:	Advantage:
	Economic Motives
(Schulz, et al., 2009; Janssen & Joha, 2006; Eggers, et al., 2005; Strikwerda, 2010; Schulman, et al., 1999; Pwc, 2008; Deloitte, 2013)	Reduce Redundancies / Cost reduction
(Dai & Wells, 2004) (Janssen & Joha, 2004) (Schulman, et al., 1999) (Strikwerda, 2010; Deloitte, 2013; Pwc, 2008)	More effective use of personnel
(Janssen & Joha, 2006; Pwc, 2008; Deloitte, 2013)	Improved cost visibility / predictability
	Strategic and Organisational motives
(Quinn, et al., 2000; Janssen & Joha, 2006; Schulman, et al., 1999; Lodestone, n.d.; EY, 2011)	Increase in service levels
(Quinn, et al., 2000; Strikwerda, 2010; Deloitte, 2013; EY, 2011; Lodestone, n.d.)	Flexibility, Continuity
(Janssen & Joha, 2006; March, 1991)	Expertise, mutual learning
(Janssen & Joha, 2006)	Focus on core business
(Schulman, et al., 1999)	Focus on continuous improvement
(Strikwerda, 2010; Pwc, 2008)	Improved sharing of knowledge
(Janssen & Joha, 2006; Deloitte, 2013; Pwc, 2008; Lodestone, n.d.; Strikwerda, 2010)	Consolidation of best practices (Uniformity)
(Strikwerda, 2010; De Bruijn, 2015)	More interesting jobs
(Strikwerda, 2010; De Bruijn, 2015)	More job opportunities

Table 3.3.: Benefits of shared services

There are some limitations of this list, the motives and accomplished motives are based on centralised and decentralised models, which often are conflicting (Janssen & Joha, 2006). So firms can not achieve all the motives. The article of Janssen & Joha (2006) divided the motives by four denominators: *strategic and organisational motives, political motives, technical motives and economic motives*. This list was established by conducting 24 interviews at different locations and different staff personnel. (Janssen & Joha, 2006) Interesting to see is that not all motives were accomplished in the end. Also interesting to see is that there were accomplished motives that were not mentioned before establishing a SSC (Janssen & Joha, 2006). The table shows eight not accomplished motives, but also some accomplishments without that being intended to accomplish. Notable is the economic motive “lower control and maintenance

costs" and the technical motive "higher service levels", many studies suggest that lower costs and higher service levels can be achieved, but this study could not find that.

3.5.5. Disadvantages and pitfalls in the shared delivery mode

Next to the advantages, the disadvantages are very important. A few articles elaborated on the disadvantages of shared services. Many authors describe benefits of shared service (centers), less authors describes the pitfalls, disadvantages of the shared delivery z. This paragraph shows the disadvantages and pitfalls mentioned in several articles which were found by searching on shared services, shared service centers and project management offices in combination with disadvantages, pitfalls, downsides and negative effects. Because of the lack of articles discussing this particular subject, a white paper, which discusses this subject, is added. Several disadvantages and pitfalls are shared across most articles. The most mentioned disadvantages are consolidated in table 3.4.

Need to create performance indicators**:** To determine if your shared services are working, it is necessary to establish performance indicators in terms of customer service, efficiencies and costs. This should be done in terms of what is currently done and what the goal is. Politically unpopular, the loss of co-workers through downsizing, new working habits and different structures will have effect on the culture. This might lead to a drop of efficiency. Loss of control, managers of the business units have to give up parts of their control, which is negatively experienced by the employees. Higher costs, because there can be an increase in the communication overhead (Bergeron, 2003), shared service centers might create bureaucracy (Eggers, et al., 2005), functions might be graded higher (higher pay) or new functions are created (shadow staff (Ulrich, 1995)). During this research the disadvantages and pitfalls of implementing and using SSCs will be questioned during the semi-structured interviews. These findings will contribute to the research field by further elaborating and investigating the downsides of a SSC, which currently is not significantly discussed.

Source:	Disadvantage:
(Bergeron, 2003)	Culture shock / politically unpopular
(Bergeron, 2003; Farndale, et al., 2009; Pwc, 2008)	Unavailability of in-house expertise to run a shared service
(Bergeron, 2003; Korsten, et al., 2004; Eggers, et al., 2005; Ulrich, 1993)	Loss of control over activities
(Bergeron, 2003)	Legal implications
(Bergeron, 2003; Korsten, et al., 2004; Farndale, et al., 2009)	Need for new methods / formats / practices
(Bergeron, 2003; Pwc, 2008;	Increased overhead communication costs

Farndale, et al., 2009)	
(Korsten, et al., 2004; Eggers, et al., 2005)	Inevitable consequences for personnel (lay-offs)
(Korsten, et al., 2004; Ulrich, 1995; Eggers, et al., 2005)	Higher costs than before through bureaucracy, shadow staff
(Farndale, et al., 2009)	Inadequate average quality
(Ulrich, 1995)	Accountability, who is responsible for the performance of the shared service entity?

Table 3.4.: Disadvantages of Shared Service Centers

3.5.6. Consolidating the advantages and disadvantages of shared delivery mode

Figure 9b. gives an overview of all the advantages and downsides of sharing services according to the literature that is mentioned in tables 3.3 and 3.4. During this research the benefits and downsides of shared services will be investigated by several companies to find criteria what cause these benefits and / or downsides. Second, *Thales is very interested in the effects of losing in depth knowledge or quality and is afraid that this will generate shadow staff.* During this research that phenomenon will be addressed. Ulrich (1995) and Korsten et al., (2004) describes the shadow staff. The hypothesis of Thales is when the shared service entity delivers average quality to their clients. By logical thinking an increase in uniformity could mean that procedures and standards are more generalised and therefore be less applicable to specific business units, and therefore become 'to average'. In such cases, the client (business unit) will re-hire the staff which went to the shared service entity. They will do that because the quality that the shared service entity delivers is not sufficient for the client and then they will rehire staff. That staff is called shadow staff (Ulrich, 1995). Shadow staff has a negative influence on costs (increase in personnel). This has a negative effect on the purposed reduction of redundancies and the effective use of personnel, while the sharing of services should have a positive influence on reduction of redundancies and effective use of personnel. (Ulrich, 1995) This might jeopardize the intended efficiency gain of Thales. (figure 9a.)

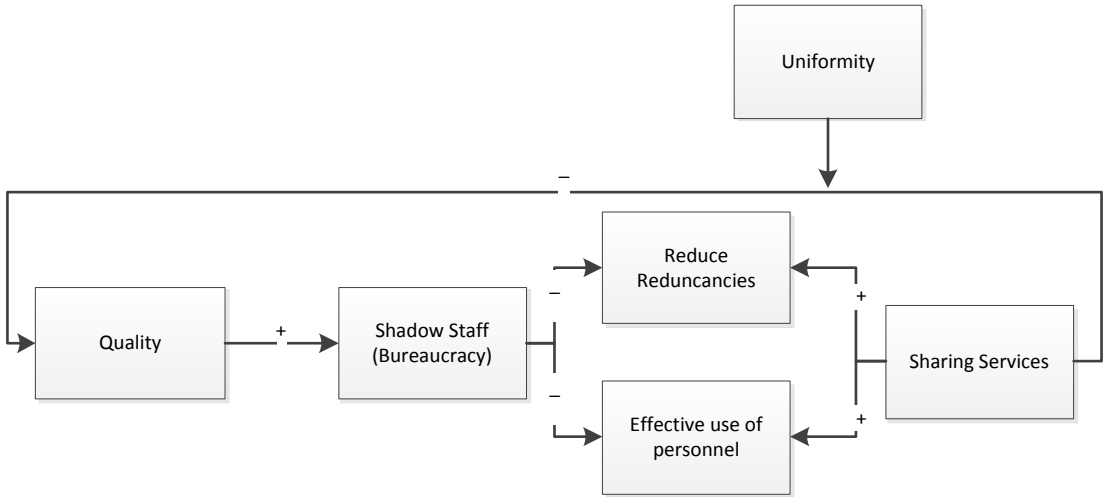


Figure 9a: Possible effect of sharing services that creates shadow staff

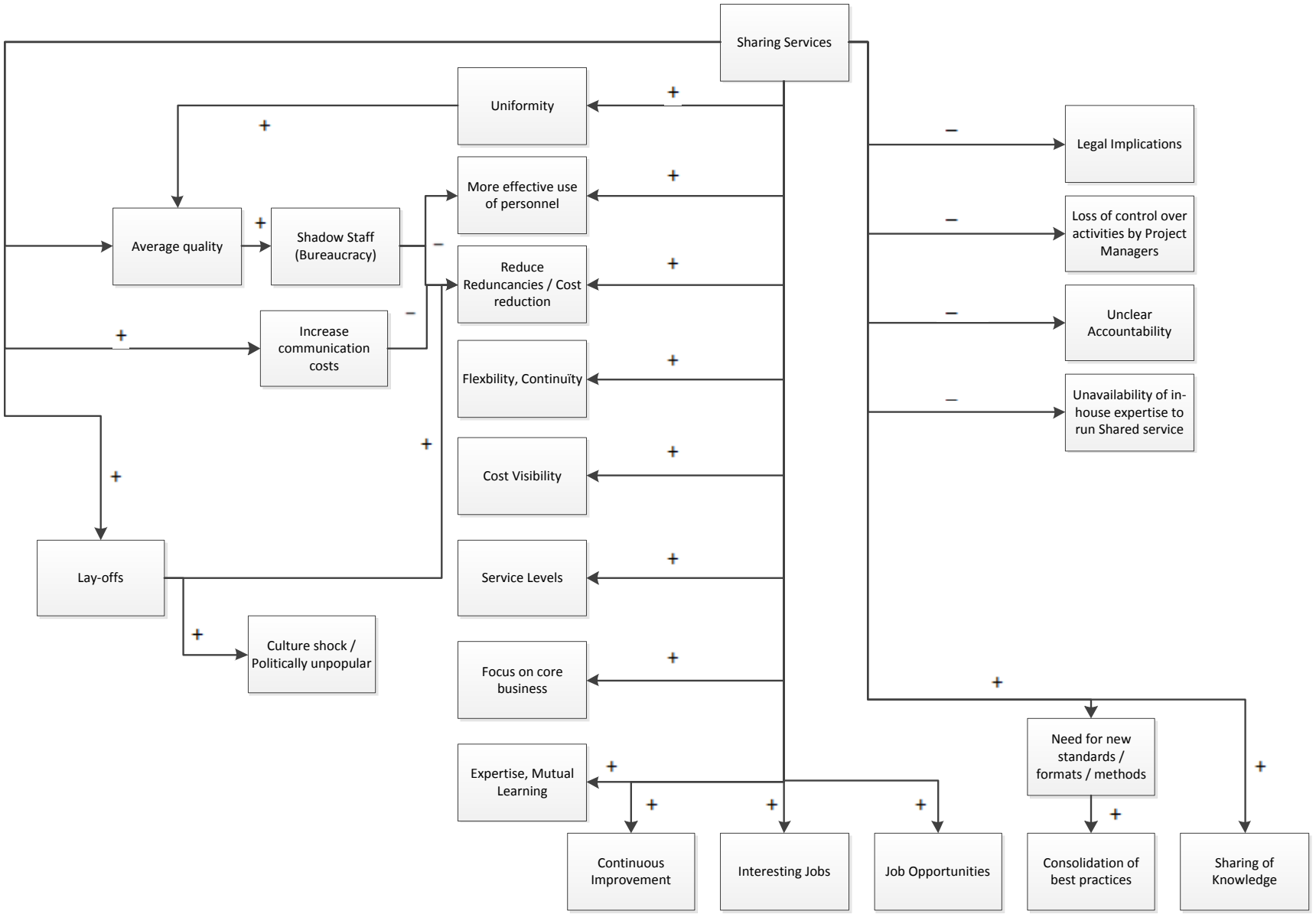


Figure 9b: Theoretical Framework of the effects of sharing services (based on advantages / disadvantage, tables 2.3 & 2.4s)

3.5.7. What makes a shared delivery mode successful?

Interesting to see is that there are a very limited amount of (recent) scientific articles about best practices or key success factors in shared service centers. The article of Gould and Magdieli (2007) stated that more than 30% of U.S. Fortune 500 companies have implemented a shared service framework and are reporting cost savings up to 45%. To achieve the aforementioned benefits, key success factors are necessary, because a poorly designed shared service may result in lower quality and even higher costs (decrease in service value) Hofman et al. (2011). Because of the lack of recent articles to address this topic, the key success factors, an older article (Ulrich, 1995) and a research to key success factors of shared service centers in non-profit organisations are used (Burns & Yeaton, 2008). Success factors from white papers written by well known global firms are added because of the lack of information. *As stated in paragraph 2.1. the operationalization of success in a shared service entity is cost efficiency, continuity, uniformity and service quality.* It is hard to determine which antecedent contributes to what success factor. With logical sense the researcher tried to link the antecedents with the success indicators.

1) Involve customer in defining deliverables, when a shared service will be established, clearly involve the customer while defining the deliverables it becomes clear who the customer is, and what they want and most important, how you can the shared service deliver them value. (Ulrich, 1995; Pwc, 2008)

2) Select the right business professional / Strong project management skills. One of the most challenging jobs in a shared service entity is the business professional. This member should have competence in business issues. Capabilities this professional must have are: exceptional knowledge about brokering knowledge between the shared service and the business. The professional needs credibility with the business team so that their ideas will be valued. (Ulrich, 1995; Burns & Yeaton, 2008)

3) Define and use multiple channels of delivery. Channels of delivery in this section is operationalized in how the shared service gets his work done. Unlearn the traditional channels of delivery as fast as possible. Second, define the multiple channels of delivery, in a shared service organisation, multiple channels of delivery must be used to maintain a high level of excellence and quality for the business (Ulrich, 1995). Examples of channels of delivery are:

- Through experts
- Through line managers
- Through IT

- Through outsourcing

4) Share information from customer to shared service and shared service to customer / effective communication. Multiple research participants of the study of Burns & Yeaton (2008) commented that it was extremely important to "communicate, communicate and communicate." Poor communication creates negative conflict, causes needless rework (shadow staff). Sharing of information across the entire organisation builds a shared mindset. A shared mindset can decrease negative conflict. (Ulrich, 1995; Pwc, 2008)

5) Clarify multiple roles within the shared service organisation. The experience is that participants of shared services wants to find the comfort of the past rather than engage in something new. A success factor is to recognize several roles that will indicate the new course. Clarify that members of shared service organisations are professionals that do not create an enforce policy, but are actively combining and sharing knowledge. (Ulrich, 1995)

6) Co-locate members of the shared service organisation. Experiences from shared service organisations that not leaved their existing (not co-located) location and networked through telecommunications are that the physical proximity to their original business unit constrained their ability to serve the rest of the business units, users of other business units found them unresponsive. Co-locating their services in one entity brought a stronger message that these employees served all the business units. (Ulrich, 1995)

7) Get the consolidation over as quickly as possible / A phased approach to implementation / Strong change management. Authors differ on the opinion about the speed of implementation of the shared service organisation. Ulrich (1995) pleads for a quick and fast implementation. Their argument is that employees can quickly see what their new status within the organisation is and behave like that. Burns & Yeaton (2008) argues that a quick implementation (direct cutover approach) can be risky. The system is not fully tested and that might jeopardise the effectiveness. He argues to use a parallel approach, where the old and new function both works for a while to adjust to the new setting, difficulties can be handled by the old one. Finally a phased approach is suggested, this approach introduces the organisational setting incrementally. Several authors suggest ''get the pain over as quick as possible'', but Burns & Yeaton (2008) suggests that the phased approach seems to be the best manageable and the most mentioned approach by respondents.

8) Define measures of shared services success (SLA's / KPI's). Ulrich (1995) suggests that three measures may be useful to define the effectiveness of the shared service entity and embed continuous improvement.. Customer value, costs and cycle time. Where customer value is associated with customer (business unit) satisfaction. This can be done by collecting data from employees and managers about the quality that is offered. Second, costs, the organisational setting can be measured in terms of productivity measures (headcount, budget, costs). Last, cycle time, the cycle time of services should decrease, service centers must find ways to deliver the services as quickly as possible and maintain quality. (Ulrich, 1995; Burns & Yeaton, 2008; Pwc, 2008)

9) Senior – level support. Many respondents in the study of Burns & Yeaton (2008) identified senior level support as a crucial factor in the success of the shared service organisation. The research identified several obstacles that can be dealt with if there is a senior level support employee involved. According to Kerzner (2004) it deals with:

- Employees who do not support the project.
- Employees who think that the project is only a trend or fad. Therefore, make clear that a shared service center is a long-term, strategic decision and not a short term cost cutting tactic. Success depends on long term benefits, make clear to employees that not only cost cutting was a strong incentive, but also their role in support globalization, improved customer service and better decision making are equally important (Pwc, 2008).
- Employees who do not understand that the entire chain or business in total will benefit.
- Employees who do not understand the expectations of customers
- Employees who do not agree with the executives decisions. (Kerzhner, 2004; Burns & Yeaton, 2008)

10) Global organisational structure According to the white paper of Pwc (2008) a shared service entity can not thrive in a fragmented corporate structure. If business units, sites or companies are very decentralized it is not recommended to implement a shared service entity. There must be a common denominator or generic goal and activities. This part complies with the theory of Hofman & Meijerink (2015) (par. 3.6.3.). This article states that if there are a lot of common activities (services), services are more applicable to be shared (more service value in comparison to a non-shared mode).

11) Invest in IT. Decentralized and/or not adequate IT resources and infrastructure can threat a shared service organisation. A fit-for-purpose IT infrastructure is necessary in launching a (global) shared service organisation. Examples of IT solutions:

- Clarity
- SAP
- Oracle
- BaaN
- Intranet solutions
- Business Intelligence solutions

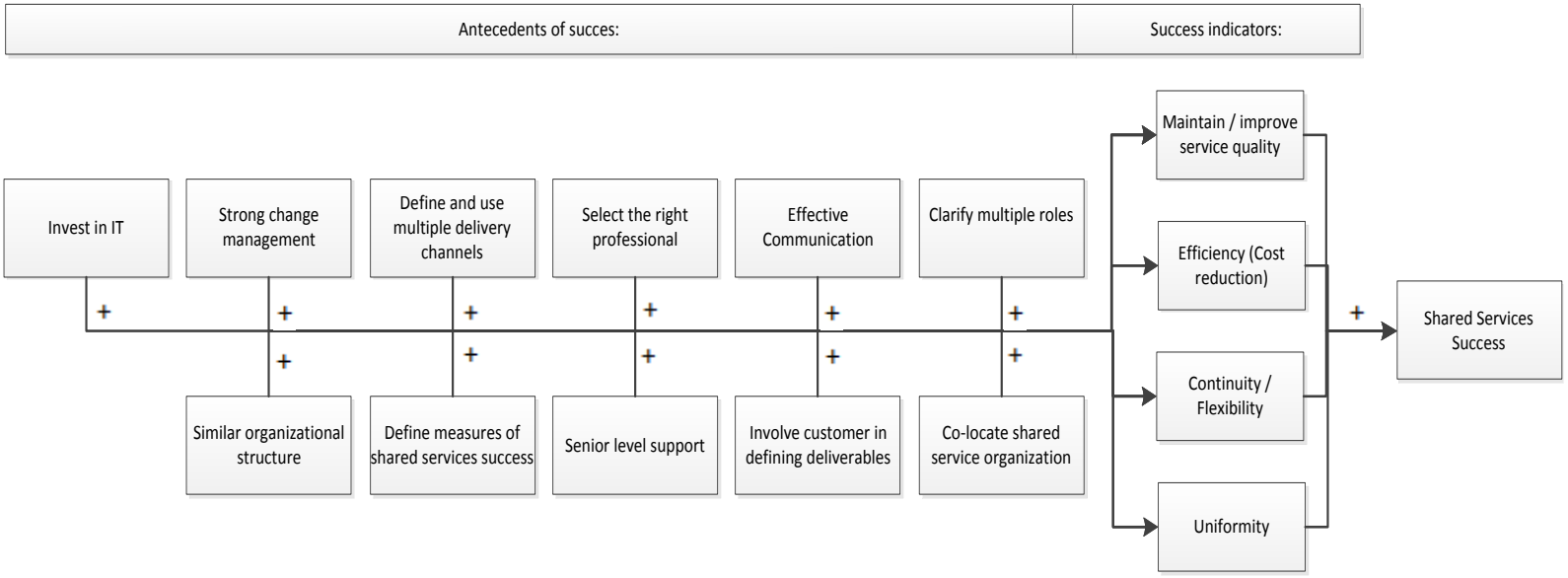


Figure 10: Antecedents of success (key factors of success) and success indicators for a successful shared service organisation.

Figure 10 represents the success indicators for a shared service entity and their antecedents of success. It is hard or impossible to conclude, based on the current theory, which antecedent of success contributes to which success factor of the shared service entity. Organisational settings differ through every company and their specific setting. However, these are the indications from professionals (academics as well as well known consultancy firms) for a successful shared service entity. Future research should indicate which of these factors are the contributing to certain parts of a successful shared service entity.

3.6. Service Modularity and Service Platform Theory

This paragraph describes an underlying theory of the shared services, the service modularity theory and the platform theory. Literature of these subjects are important because there are indications that shared services have similarities with modularity and platform theory (figure 11). (Hofman & Meijerink, 2015) These theories could indicate which services are most applicable to be shared and therefore be of the most value. This paragraph will conclude on the factors which determine to share (shared delivery mode) or not to share (non-shared delivery mode) a certain activity. This paragraph gives insights in how to measure a service.

- Modularity in service design
- The platform theory and the service platform
- Criteria to share or not to share, commonality potential/differentiation in needs
- Criteria to share or not to share, degree of coupling
- Criteria to share or not to share, transactional or transformational services

3.6.1. Modularity in service design

The article of Voss & Hsuan (2009) proposes that authors can bring different views on service design together through the theories of modularity and platforms. According to Voss & Hsuan (2009, p.543) refers modularity to: “Modularity refers to the scheme by which interfaces shared among components in a given product architecture are standardized and specified to allow for greater reusability and commonality (or sharing) of components among product families." In other words, “the degree to which a system can be separated and recombined” (Schilling, 2000, p.315). Modularity concepts are not only applicable for products, but also for processes (Voss & Hsuan, 2009). The designs of shared service centers (3.2) and project management offices (3.3) are based on this assumption, by extracting practices from business units and putting those activities in a combined, shared entity. Tu et al. (2004) describes a general principle that standardized processes should be ordered first (transactional services) and the customization sub processes (transformational services) should occur later to be most effective.

Modularity has some potential benefits, modular design benefits has most of all been recognized in product, production and software design. These benefits are customization (Meyer & De Tore, 2001; De Blok, et al., 2013), product postponement and outsourcing (Voss & Hsuan, 2009). In order to examine modularity concepts in services it is important to consider the distinctions between services and products. The first key difference is that services are produced and consumed at the same time (Voss & Hsuan, 2009), in that case, the service product can also be the service process. Based on that

assumption, the concept of modular processes are applicable to products and services (Voss & Hsuan, 2009; Star, 1965). However, Voss & Hsuan (2009) states that not all findings about modularity can be generalised. Some reasons are given why not all of the can be generalised. Indications are about the heterogeneity in services, the role of people in service personalisation and customization, nature of services, different disciplines take different approaches in service development. Other aspects of the design that distinguishes products from services are the role of people in service delivery. During the production of many services, the employees play an extensive part in the customization and personalisation of that particular service (Gwinner, et al., 2005). Indications of loose coupling (elaborated in 3.2.4) are also found. Finally, services distinct themselves by that they can be consumed over an extended period of time with different elements being consumed at the time.

There are five dimensions associated with the study of modularity (Voss & Hsuan, 2009): interfaces, degree of coupling, components and systems, commonality sharing and the platform. Degree of coupling, commonality sharing (differentiation in needs) and the platform theory are elaborated in the following paragraphs.

3.6.2. The platform theory and the service platform

An underlying theory of the shared services is the platform theory. Halman et al. (2003, p.150) describes platform thinking as: "*the process of identifying and exploiting commonalities among a firm's offerings, target markets, and the processes for creating and delivering offerings, appears to be a successful strategy to create variety with an efficient use of resources (e.g., costs or time).* This definition is based on five frequently cited relevant articles. Key in the platform thinking approach is the sharing of components, modules and other assets across a family of products (Halman, et al., 2003), or in the case of organisational design shared across several business units. "A product family is the collection of products that share the same assets." (Halman, et al., 2003, p.150.) These 'assets' can consist of four categories according to Robertson & Ulrich (1998). These four categories are components, processes, knowledge and people & relationships. These key points in platform thinking have commonalities with the main concepts of shared services, which focusses on reuse, consolidation of services (Schulz, et al., 2009). More similarities between shared services and the platform are the reasons to adopt platform thinking. Halman et al., (2003) and Robertson & Ulrich (1998) concludes that platform thinking can contribute to more efficiency (costs, time, variety), flexibility (time to market), lower risk, improvement of service and effectiveness (training, learning curve). Most of these benefits can also be found at the shared services concept. According to this assumption, and the statement of Rosink (2014, p.13) "that

activities can be shared in the service platform are delegated to the shared service center", it can be concluded that the service platform theory can be used as a basis for shared services. And that factors that influence share or not to share derived from this theory are applicable to shared services and shared service centers.

The platform theory originates from the product environment. Authors like Voss & Hsuan (2009) and Meyer & DeTore (2001) linked platform theory to the reuse of services. Hofman & Meijerink (2015) describes the service platform as follows: "a service platform consists of a bundle of reusable functions that allow service provides to more efficiently configure new services that match with individual customer demands" (Halman, et al., 2003; Robertson & Ulrich, 1998). "*A shared service platform is common for all the services offered to the employees of the different business units in the company and represents the maximum standardization possible considering the performance requirements that must be satisfied due to varying customer needs*" (Hofman & Meijerink, 2015, p. 118.) In the case of services this can be seen as the collection of business units that use the same service providers (can be related to shared service centers). An example of this is shown in figure 11 (Hofman & Meijerink 2015). There is evidence found that particular criteria influence the choice of using a shared delivery mode (service platform) or a non-shared delivery mode (embedded in business units). Criteria that influence such decisions are elaborated in the following paragraphs.

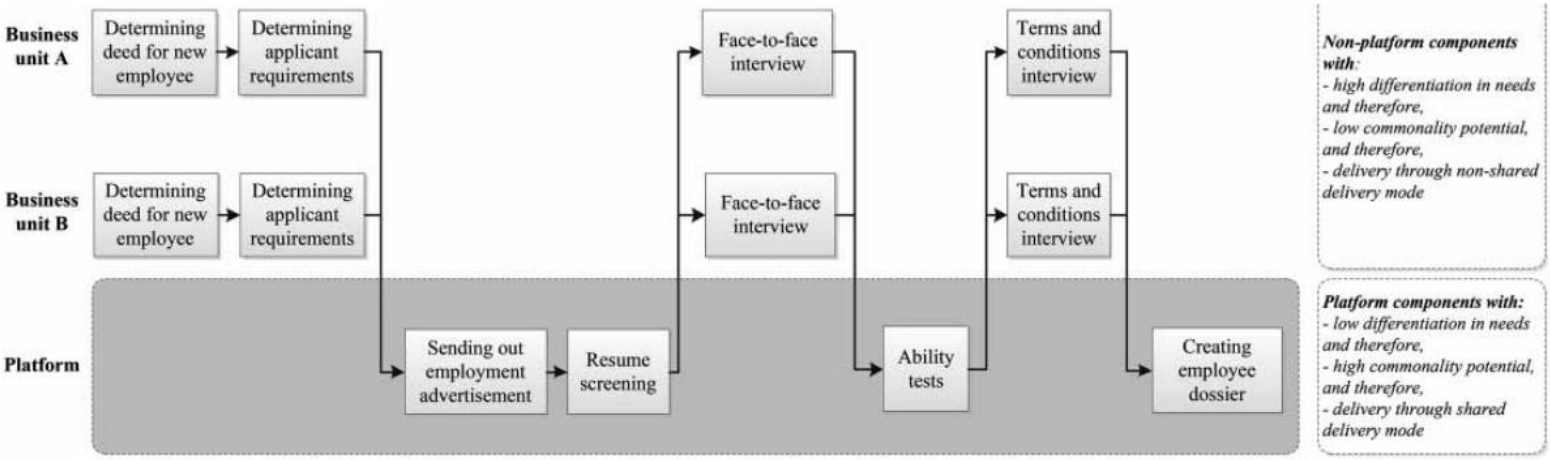


Figure 11: Example platform thinking according to Hofman & Meijerink (2015, p.119)

The study of Meyer & Lehnerd (1997) uses costs and time consumption for product design and production as criteria of the evaluation of the platform concept. The thesis of Rosink (2014) and the article of Hofman & Meijerink (2015) differentiated between service costs and service quality to give

operationalize total service value (SERVQUAL, (Parasuraman, et al., 1988)). Both researches measured criteria that could influence the service value.

3.6.3. Criteria to share or not to share, commonality potential/differentiation in needs

The study of Hofman & Meijerink (2015) studied the utility of platform thinking in service settings, for improving the value of services (costs and quality). Services specially made to users are valuable, but differentiating services while they actually are homogenous may increase costs while service quality is not necessarily higher and maybe lower (Hofman & Meijerink, 2015). The variables described in this paragraph are the underlying principle of platform thinking, platform thinking tries to balance the commonality potential (the degree to which services can be standardized and reused) and heterogeneity (differentiation) in needs (Halman, et al., 2003). The assumption is that if there is a lot of differentiation in needs, companies benefit with customized services. Otherwise, if the differentiation in needs is low, companies could benefit from the commonality potential and derive economies of scale by standardizing services (Hofman & Meijerink, 2015).

There is a relationship between the level of differentiation in needs and the sharing of services. Several authors identified two conditions which determine if it is valuable to put a service into a service platform. These conditions are the **commonality potential** and the **differentiation in needs**. (Halman, et al., 2003; Hofer & Halman, 2004; Robertson & Ulrich, 1998; Voss & Hsuan, 2009; Hofman & Meijerink, 2015). Hofman & Meijerink (2015) measured the service value (Parasuraman, et al., 1988) by questioning about the differentiation in needs in different delivery modes (shared vs. non shared). The questioning for differentiation in needs was about two parts, because two parts influence the differentiation in needs, the extent to which user needs for a service differ across end-users and across time (Joshi & Sharma, 2004; Martin & Ishii, 2002). Hofman & Meijerink (2015) found evidence that validate that a shared delivery mode improves the service value positively when the differentiation in needs is low and it is negative when differentiation in needs is high. (Rosink, 2014). This implies that when there is low

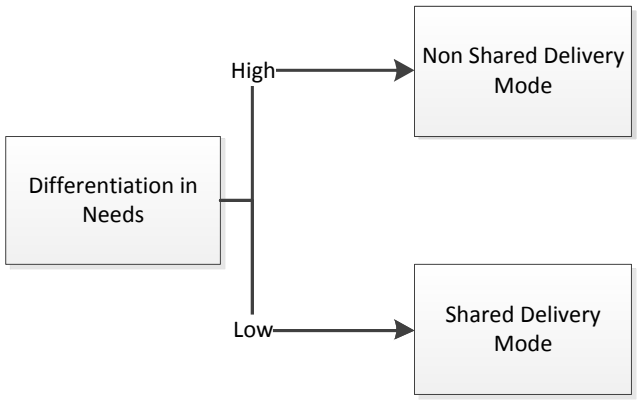


Figure 12: Relationship between differentiation in needs and the choice of delivery mode.

differentiation in needs that companies should choose for a shared delivery mode and if the differentiation in needs is high companies should choose for a non-shared delivery mode. Figure 12 shows the relationship between high and low differentiation in needs and the appropriate choice according to empirical evidence from Hofman & Meijerink (2015)

3.6.4. Criteria to share or not to share, degree of coupling

A second criteria that might influence the choice of delivery mode is the strength of coupling. “Two components are coupled if a change made to one component requires a change to the other component in order for the overall product to work correctly” (Ulrich, 1993, p.423) Martin and Ishii (2002) describes it as the interaction between information supplying activities and information requiring activities. That interaction can be done on three ways according to Daft (2007): parallel, (activity X and Y do not interact on each other) sequential (X is input for Y) and coupled (X is input for Y and Y can be input for X). Figure 13 elaborates on this phenomena.

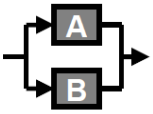
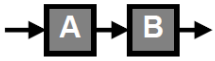
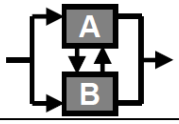
Three Configurations that Characterize a System			
Relationship	**Parallel**	**Sequential**	**Coupled**
Graph Representation			

Figure 13: three sorts of information exchange (Yassine, 2004, p.1.)

Vanderfeesten et al, (2008) measures the strength of coupling by the number of interconnections among activities, in our case the support activities. Interconnections are the up-and/or downstream flow of the information. To operationalize the configurations of Yassine (2004), parallel configurations are loosely coupled, sequential are coupled (upstream information flows) and the coupled or reciprocal (Yassine, 2004) form have the most interconnections and therefore the most strength of coupling. The theory of Yassine (2004) suggests that the more complicated interdependencies there are, the more difficulties in interactions there will be. Eventually, these difficult interactions must come to a consensus that satisfies the stakeholders the most (Rosink, 2014). These difficult interaction can lead to conflicts. Conflict is described as: “an interpersonal relationship involving divergent preferences regarding at least one of the decision outcomes and the awareness of inconsistent inferences drawn from identical information” (Rose, 1977, p.378). The hypothesis is that more coupling is positively related to conflict. Second, if there is already conflict between the stakeholders, it can be assumed that if organisations will share their services the conflicts will even go higher because of the extra stakeholders that will be involved (extra business units)

The next step is to determine the effect of conflict on the service value. Several authors determined some negative effects of conflict. (Weingart & de Drue, 2003; Quinn, et al., 2000; Rindfleisch & Heide, 1997). Weingart & de Drue (2003) states that conflict interferes with performance and influences the productively negatively. Productivity is negatively influenced because it takes time to solve the conflicts and reach consensus between stakeholders (Rosink, 2014). Quinn, et al, (2000) states that flexibility can decrease through more conflict. Adjustments can only be made by negotiating between the conflicting stakeholders. Finally, Rindfleish & Heide states that costs may rise because of the time and resources spent to solve the conflict. Because of these disadvantages the conflict have a negative effect on the (perceived) service value which is operationalized by service costs and service quality (Hofman & Meijerink, 2015; Rosink, 2014). Figure 14 shows the effects of the strength of coupling. High strength of coupling and many interconnections are assumed to be positively related to conflict. Conflict can be assumed negatively related to productivity, service costs and flexibility and therefore have a negative effect on service value. How much impact it has on the total service value is not clear, so based on the literature review it can not be said if a decrease in service value would propose not to share the services.

A second concern about the coupling comes from Thales. They suggest that after implementing shared services that the connection and feeling with the business unit will or can be lost. The SSC or PMO can loose the in depth knowledge after standardizing their activities. A question from Thales arises:

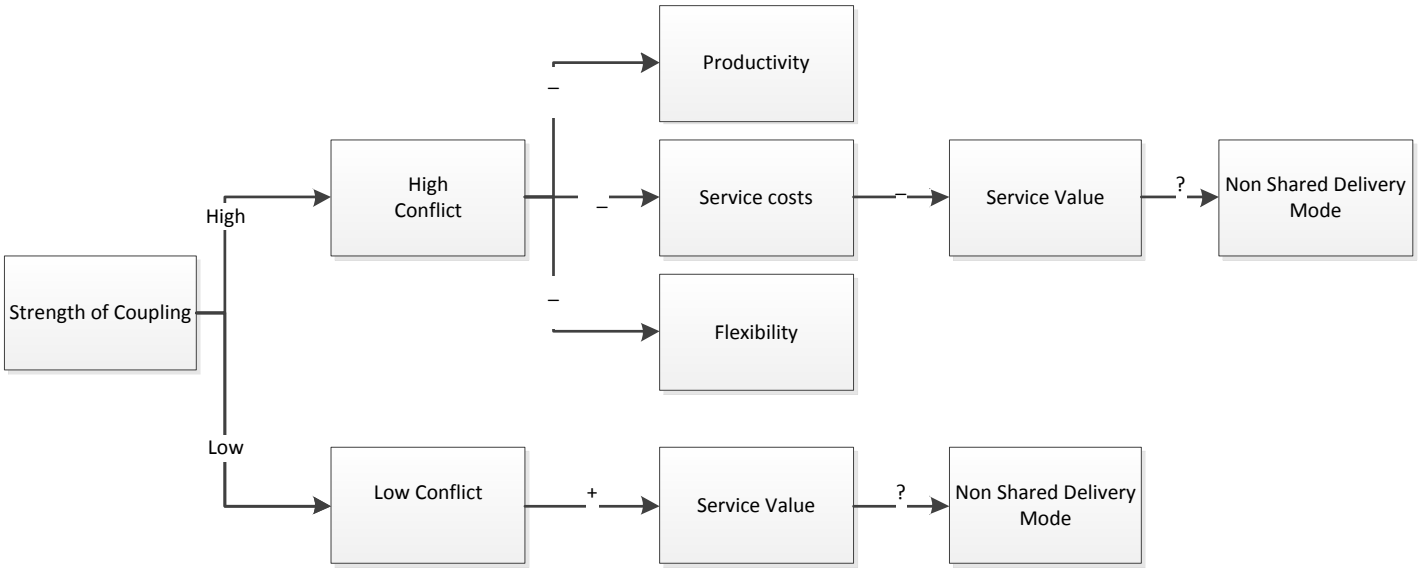


Figure 14: Connection between strength of coupling, conflict, service value and delivery mode

3.6.5. Criteria to share or not to share, transactional or transformational services

A misconception in creating shared services is assuming that all of the services are alike or the same. Services differ and that differentiation may affect how they are shared (Ulrich, 1995). Ulrich (1995) and Meijerink et al, (2011) differentiates between *transactional* and *transformational* based services. Transactional services can be seen as activities that are related to the administrative requirements of employees (Ulrich, 1995). Transactional services are critical to a firm, but the transactional services are most of all administrative and routine in their nature (Ulrich, 1995). Transformational based services are described by Ulrich (1995) as non-routine and non-administrative and are primarily designed to transform a company like staffing, selection and development.

The literature is suggesting that organisations or companies should offer *transactional* services through the shared delivery mode and transformational services should be shared through the non-shared delivery channel (Figure 16) (Meijerink, et al., 2011; Ulrich, et al., 2008; Cooke, 2006; Redman, et al., 2007). These suggestions are based on suggestions made by Farndale et al. (2009) and Redman et al. (2007) by saying that transactional services often come in large volumes (Lepak et al. 2005), and that because of that large volume organisations may miss out potential economies of scale benefits. Transformational services are suggested best served by non-shared delivery modes. These services are non-routine and may need interactions (coupling) on a daily basis (Bos-Nehles, 2010).

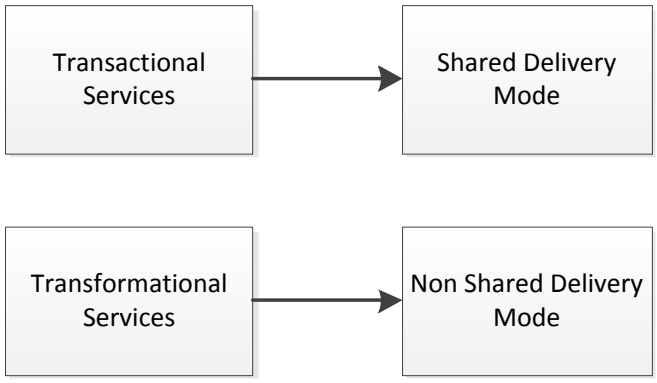


Figure 16: Choice of delivery mode based on differences services

Despite these sound ideas of several authors, existing empirical evidence about these assumptions does not validate that the service value (service costs and service quality) depends upon whether services are transactional or transformational. Existing evidence says that transformational services delivered by a shared delivery channel are unsatisfied (Bos-Nehles, 2010). Otherwise, in the case of transactional shared services, many companies or organisations experience inefficiencies like shadow staff and sub-

optimal resource allocation (Cooke, 2006; Ulrich, 1995; Meijerink, et al., 2011). These empirical findings suggest that the choice of a delivery channel can not be empirically based on if a service is transactional or transformational (Meijerink, et al., 2011). However, the suggestions made by the authors make a good point of differentiating the services and suggestions for the choice of delivery mode.

3.6.6. Overview criteria that (might) influence choice of delivery mode

Figure 17 shows the above discussed criteria. These criteria, differentiation in needs, degree of coupling and the type of services have little evidence that they influence the choice for using that service in a shared service entity (shared delivery mode) or remain it embedded in the business unit (non-shared delivery mode). Transactional services, loose coupling and low differentiation are suggested as criteria that supports the implementation of a shared delivery mode design. Transformational services, tight coupling and high differentiation in needs are suggested as criteria that supports the non shared delivery mode design. All the designs of shared and non-shared delivery mode entities are shown in table 3.2.

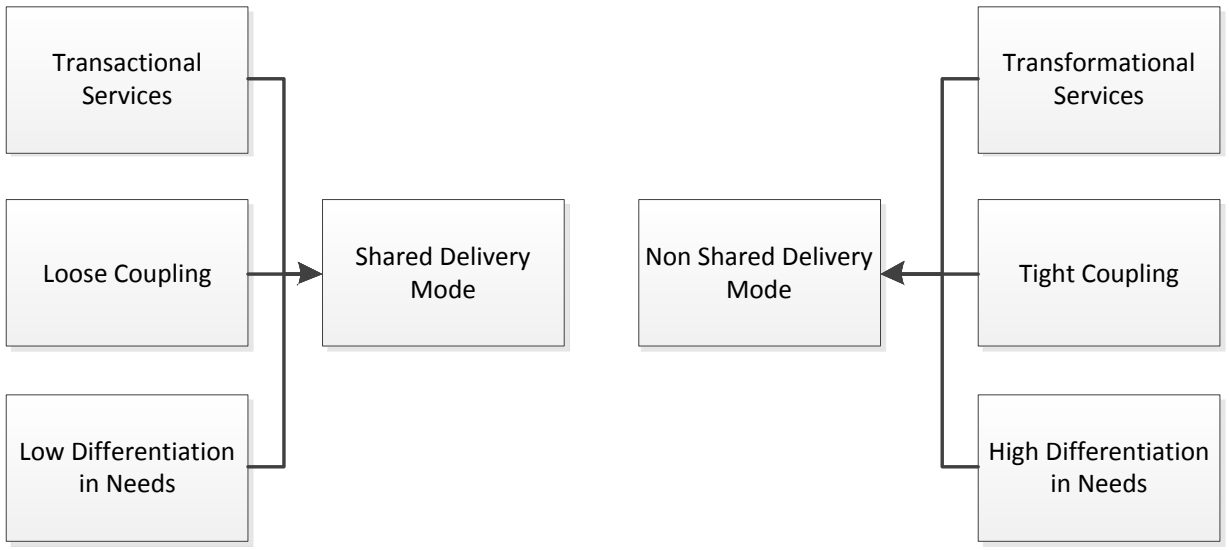


Figure 17: overview criteria that influences the choice of delivery mode

4. Results of Multiple Cases

This chapter gives information about the results from the investigated companies. The purpose of the chapter is to reflect the gathered data. The data will be structured and elaborated in order to come to general learning points. The results chapter will be the most straightforward to write. This chapter will report the facts that the research discovered (validated by the respondents). The purposes of this chapter are to present facts and second to present the facts in a table. This will be done in single case reports and combining tables that will be thematically (grouping) ordered (Saunders, et al., 2009).

4.1. Methodology Results & Analysis

The results will be organised as follows:

- Company description. To give a general overview of what the company does the case studies start with a brief explanation of their core business, size and mission and vision
- Shared service entity in the company. In these paragraphs the shared service entity of the company will be elaborated. Size, span of control, organisational setting, interface and their meaning of the term shared services will be elaborated. Because of the fact that all shared service entities are very unique, as shown by the definitions of a SSC and a PMO the entities can hold a very broad arsenal of activities or organisational settings (Aubry, et al., 2007; Schulz, et al., 2009). Because of that reason every shared service entity will be specifically discussed and not with a general model.
- In the third the answers to the sub questions will be elaborated. The semi-structured questions were split into several questions to get the answers to the sub questions.
- Finally, an elaborate table is conducted to give a brief overview of all the results. There are tables for the PMO and SSC.

4.2. Fokker Technologies

These case study results are based on a single interview with the director of the PMO organisation of Fokker Technologies. The respondent worked eleven years at Fokker Technologies before he was assigned to implement a PMO organisation. Since implementation (3,5 years back) he is the manager of the PMO. This key informant provided his information through an interview, feedback, additional questions and sent some documents that were useful for this research.

4.2.1. Company description

Fokker Technologies is a global aerospace specialist that develops, designs and manufactures complexly engineered aircraft systems to aircraft manufacturers over the world. They also provide 'through life' aircraft fleet support services. Fokker was established in February 1912, till the 1930s it dominated the civil aviation market. In 1996 it went into bankruptcy and its operations were sold to competitors. Several parts of the company were profitable and continued as separate companies with a holding structure above it, the Fokker Technologies. (Fokker, 2015)

Currently they have 4 business units, Fokker Aerostructures (2500 FTE), Fokker Elmo (1000 FTE), Fokker Services (1000 FTE) and Fokker Lansing gear (250 FTE). With an overall size of around 5000 employees. The headquarters are in Papendrecht and it facilitates sites in the Netherlands, Turkey, USA, India, Singapore, Canada and Mexico. (Fokker, 2015)

Figure 18: Fokker V.II

Fokker creates value by finding distinctive integrator solutions, featuring sophisticated technologies, support the customers world-wide in excellent designing. Fokker adds value by designing and building safe, sustainable and affordable solutions to distinctive aircraft solutions. Its core business is to develop sophisticated aircraft parts. (Fokker, 2015)

4.2.2. PMO in Fokker

The first question in every case is: what does shared services mean to you? This PMO is supportive to all the projects of Fokker Technologies. If business unit's need help on project management information the PMO will be there for all the business units to help with standards, procedures and hands-on support.

Fokker has a Project Management Office (PMO) in their entire organisation. The PMO was initiated in 2011 and has developed since. The PMO will determine the project management standard processes and tools that can be applied across the Fokker BU's and work with the BU project teams to set up projects and train the people, whereby the responsibility for the set up and execution of the project will remain with the project teams itself. The PMO of Fokker Technologies can be put in phase 2 (Hill, 2004). This because of the main activities of the PMO:

- Determine process standards
- Risk management
- Determine the tools that will be used
- Define and capture best practices
- Participate in the gated reviews
- Evaluate health of the project
- Give training to project managers
- Updating website which provides the standards

Mainly transformational services.

Within the PMO there are 2 employees working fulltime doing the above mentioned activities. The PMO is a supporting organisation which supports *all* the projects (sharing their knowledge). As seen in figure 19 the PMO is located at corporate level. More difficult to see is that the PMO is seen as a staff-function in Fokker Technologies. However, it is not theoretically a staff-function. The business is the most important and they decide if the PMO can execute certain procedures. Staff should suggest that they dictate the policies. The choice for putting the PMO at corporate level is because they want all the business units to work with the same tooling, same procedures and learn from each others best practices.

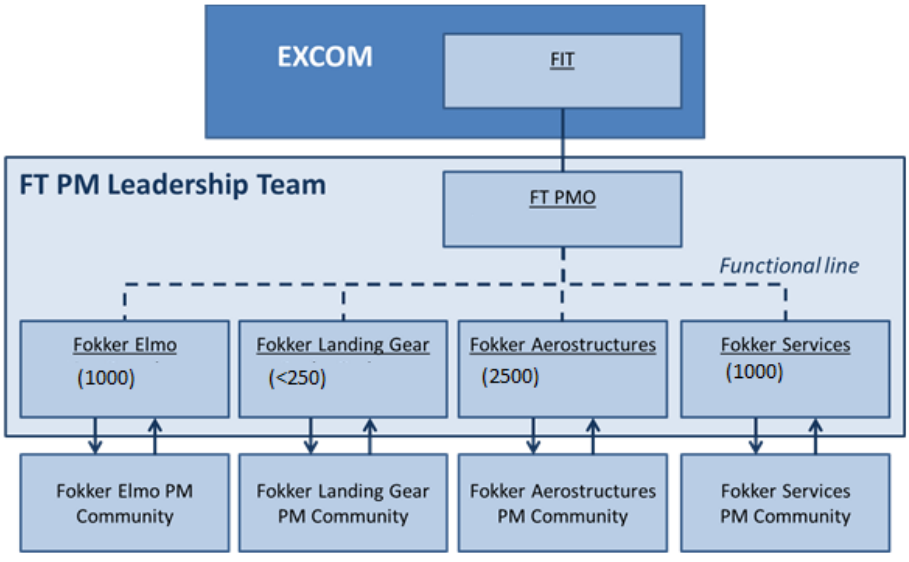


Figure 19: PMO structure at Fokker Technologies (organisational overview)

The positioning of the PMO is at corporate level. Thereby every business unit has their own (except landing gear, because it was too small) project support officer. They try to carry out the objectives of the PMO in their specific business unit. The choice for putting the PMO at corporate level is because they want all the business units to work with the same tooling, same procedures and learn from each others best practices.

4.2.3. Why do companies implement shared services?

The implementation of the PMO three and a half year ago had the following vision: “The Fokker Technologies PM Leadership Team recognizes that the business value of Fokker will strongly increase when mature project management ways of working are applied that are based on the combination of customer-focused adaptability and effective standardization.” The following objectives for the PMO came forward:

- Fokker will have successful standard key project- and project management processes based on best practices and lessons learned throughout the company;
- Fokker will have a robust learning system to train PM-professionals to perform their projects with result.
- Fokker will have a selection of PM tools that support management control and decision making.
- Fokker will have an active network of PM-professionals that exchange their best practices and are proud on their project results.
- A continuous improvement culture should be established, building on best practices that are identified across the business
- For 2015 a new plan is established, the lessons learned of the establishment and deployment of the FT PMO will be identified with the PM Leadership Team and applied in the PMO standards / procedures.

The vision of the respondent was that the main motivations were efficiency and growth.

- Efficiency, Fokker Technologies approached all the projects on their own way with different models. Internal and external customers were often confused about the differentiation in approaches and standards. Therefore a PMO can be a solution to become more uniform and therefore be more efficient.
- Growth, according to the respondent the continuity and uniformity will contribute to the opportunities to grow. If there is a standardized approach to dealing with projects, it is easier to

complete the project on time. They know the pitfalls and success factors because of the PMO. Therefore the value of employees will grow and the company will be better prepared for growth.

4.2.4. What are the actual benefits, best practices, and criteria about the design of shared services that will contribute to an (un)successful shared service entity?

Actual benefits

During the interview it came forward that more efficiency came forward. However, this was the experience of the PMO manager. He also is in frequent contact with project managers and they stated the same. The main benefit was a common structure, standards and tooling. It is hard to measure efficiency, you can measure it in cost cuts or in overall business value increase. Definite cost cuts were not visible or measurable. But the business value increased according to the PMO manager and project managers.

A second advantage is the *increase in knowledge of personnel*. All employees in the PMO are (IPMA) trained. Therefore their knowledge increases, are all speaking 'the same language', which is important if you want to share your knowledge.

Being a data base for lessons learned is not accomplished yet. Currently they are understaffed for setting up this kind of databases. Currently employees search in literature or ask trusted employees to assist them about this matter. The goal is to implement such a data base in 2015 to improve efficiency.

A noticeable benefit of the PMO is the *knowledge sharing*. According to the respondent it is now necessary to communicate about the standards and procedures. In the old situation the biggest party decided what procedures were necessary, with the PMO the connection between segments of the company are made. For instance, engineering and operations *increased their communication*. This effect was seen through the company. Units and departments collaborated with each other to improve the effectiveness of the total chain.

Best practices / challenges

The main practices that contribute to the success of the PMO are:

- Implement with the 'low hanging fruit' principle. Implement one step at the time and let the company know that you are making results. Pick some easy gains to show the company that the PMO is capable.

- Place the PMO not above the organisation. Stay within the business. The core business of the PMO is to support the business, not the way around.
- Pragmatic approach, think with the customer. The PMO has a very strong role to communicate. Every stakeholder in the process must be consulted. Many benefits come from getting multiple business units in contact with each other.
- Train the employees in the PMO (IPMO certificate). Every member of the PMO organisation is trained to perform their activities on the same way.
- The PMO has a mandate of the management team. Because of this mandate, the PMO is recognized as a supportive and actual organisational feature.
- Stay open for new ideas, be receptive for best practices (continuous improvement). One of the best practices is the receptiveness of best practices. If a PMO wants to improve, receptiveness to their clients is very important.
- To maintain the in-depth knowledge for every business unit, a project support officer is deployed in every business unit. The PMO directly communicates with the PSO to maintain informed about specific needs of business units.

A major challenge in the company is to convince the business unit that the PMO adds direct value. It is hard to see in the financials that a PMO gives benefits. A second downside of the PMO could be the extra bureaucracy that is delivers. Every process must be documented. This will contribute to a higher quality product, but takes away valuable time of employees. It is a challenge that this extra bureaucracy is necessary for the bigger picture. After repetitive meetings, this understanding is coming, but stays a challenge. Finally, a challenge for the PMO is that they primarily support the business. So if the business is not support the PMO, the PMO must do it their way (within certain boundaries).

Criteria to share or not to share

After the question, if you look at a service, how do you determine if this service is ‘shareable’ the following answers came:

- At first, first look at administrative non core business activities.
- It should be generalizable or could be standardized.
- The location of the shared service entity is very important.
- Size of the company, with small companies

4.2.5. Further Thales specific interests

- Loss of in-depth knowledge was not mentioned in this interview, or tackled with the deployment of the PSOs. Loss of in-depth knowledge was not a criteria to share or not to share.
- The PMO is mostly supportive in tooling, procedures etcetera. This particular PMO did not support with operational tasks such as administrative support. This administrative support (finance, quality, configurations management, planning and contract management) is done in the specific businesses. The tooling for that support is supported by the PMO.

In the past Fokker Technologies had a shared service center for the project support (administrative). This did not work properly because:

- Geographically centralized. Employees were centralized geographically. A consequence of that was that they lost the in depth knowledge of the business units because they were not close anymore. Their specific tasks made it impossible to centralize.
- Managers did not know anymore what the shared service center was doing and their benefit. The value of services decreased and finally they decentralized again.

Current situation: the PMO has all the knowledge, in the previous situation were knowledge and operation both centralized. Currently the operation remains in the units and they try to centralize most of the knowledge through a PMO.

4.3. Philips Healthcare

These case study results are based on a single interview with the former director of the PMO organisation of Philips Healthcare. The respondent worked also eleven years at Philips Healthcare before she was assigned to implement a PMO organisation. Since implementation (4 years back in current setting) she was the manager of the PMO for two years. This key informant provided his information through an interview, feedback and additional questions. No documents of the PMO were provided.

4.3.1. Company description

Philips Healthcare (former Philips Medical Systems) is active in the diagnostic equipment market. The main focus of Philips Healthcare is to deliver the most technological advanced products to diagnose diseases. It is an international company, large amount of employees, delivers to governments and offers lots of services (Philips, 2015). Philips Healthcare is a part of the global organisation Philips. (Philips, 2015)

Currently Philips has three primary markets. Home appliances, Lighting and Medical equipment (Healthcare). The total number of employees globally is around 100.000 and Healthcare alone around 37.000. Headquartered in Eindhoven. (Philips, 2015)

Philips Healthcare's mission is to improve people's life by delivering meaningful innovations to the world. (Philips, 2015)

Figure 20: Philips healthcare medical equipment

4.3.2. PMO in Philips Healthcare

The first question in every case is: what does shared services mean to you? Shared services in this context means that all the projects are organised the same way. Facilitating in support tools, but in this case not in the form of more efficient use of personnel.

Philips healthcare placed their PMO in the business unit of EGT (emergency guided therapy). The shared part is that the PMO gives uniform tooling to all of the departments (R&D, Service, Marketing etc.). The PMO was initiated in the end of 2011. The PMO will determine the project management standard processes and tools that can be applied across the departments of EGT.

The PMO is a supporting activity, but definitely a part of the business unit, shared over the business units (not departments) are the milestones (when to deliver, what to deliver, quality). Twelve to thirteen people work in the PMO. Philips Healthcare would place their PMO between phase 3 and 4 in the model of Hill (2004). Their main activities are:

- Programming (who, what, when are resource necessary)
- Project execution (project start to project closure)
- Life cycle management (after the project is finished, they handle complaints, maintenance)
- Determine process standards
- Determine the tools that will be used

Mainly transformational services.

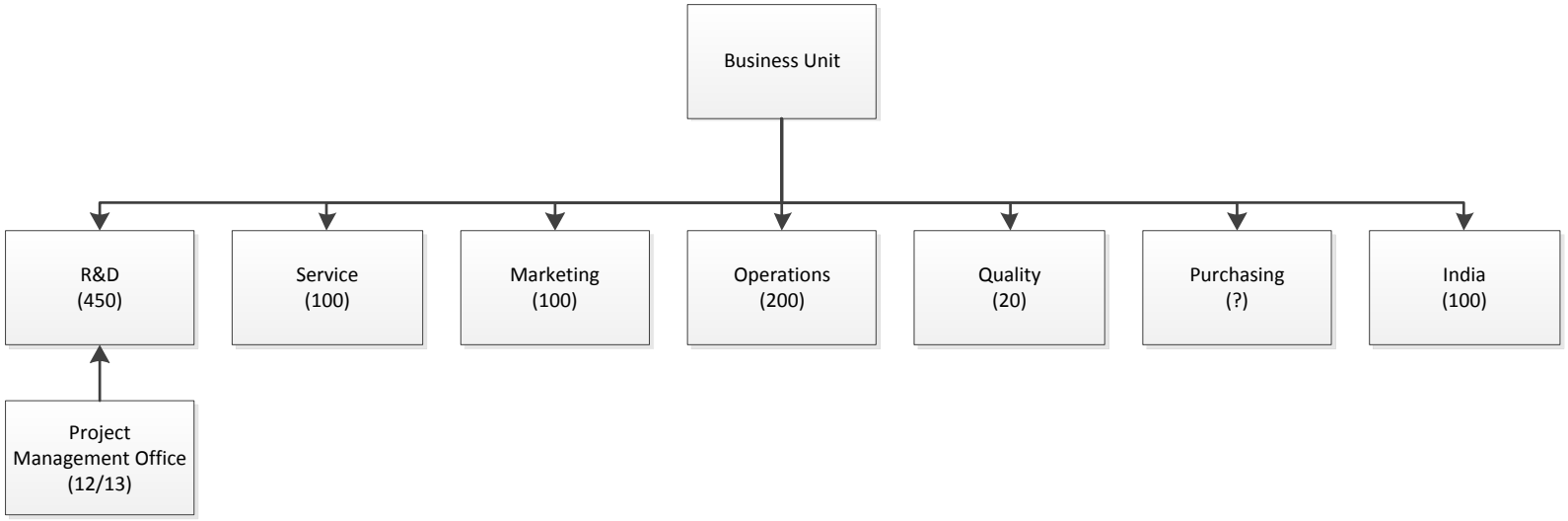


Figure 21: Philips Healthcare PMO in the organisation.

The project management office consists of a PMO manager, six project managers from every department and six assistant project managers. As seen in figure 21, the PMO is located under “any business department” R&D (Pwc, 2006). The reason to place it under R&D in this specific case is most of al budgetary. By far the most budget goes to R&D (technology push). Second, most of the time consumption of the project is R&D. So, because of financial and timing reasons the PMO is located under R&D. Because most of the business is located in R&D, employees are within the core business. An advantage of that is that communication with the key part of the organisation is automatically embedded in the business. The PMO organisation is directly were the core business happens. If Philips chose for placing the PMO higher in the organisation, the communication effectiveness will decrease. In

such a situation there can 'only' be communication with planned reviews. Choice of location: dependent on the department with the most impact and influence on the projects the PMO tries to manage. The interface with the clients is through direct communication and meetings. The project management office employees are not geographically centralized but are located decentred (where they meet at the coffee stand). The PMO monitors and supports about 30-40 projects with a average cycle of three to five years.

4.3.3. Why do companies implement shared services?

The main motivations to implement a PMO were to:

- Become more **transparent**. Through a PMO the transparency should increase because all the departments have to collaborate with each other.
- **Gain efficiency**. Through uniformity and transparency the processes should be more easily to complete. The influences between departments will become visible and therefore the synchronization between departments will increase, therefore more efficiency. Efficiency in redundancies is not the goal of the PMO.
- **Uniformity**. All processes are done on the same way. All milestones are the same, same documents, same tooling, same reports, the recognisability of the protocols should increase. In theory, managers should work faster with such standardized processes.
- **Continuity**. Employees are more easily replaceable because processes will be standardized and clear procedures will be made.
- **Best practices** can be discussed in meetings and therefore improve the efficiency.
- The PMO had become a necessity. Project managers asked for support for their work. Because of that support, they **could focus more on their core business.**

4.3.4. What are the actual benefits, best practices, and criteria about the design of shared services that will contribute to an (un)successful shared service entity?

Actual Benefits

The main benefits of the PMO are all of the aforementioned motivations of implementation. It remains open to question how to measure these actual improvements. Efficiency can be measured on several ways. Direct economical efficiency can not be proven. But PMO manager and project managers who use the PMO are all very satisfied and agree on the aforementioned motivations of implementation. The main benefit was a common structure, standards and tooling which helped project managers focus on their core business.

A noticeable unexpected advantage of the implementation of the PMO in Philips was the increase in communication. Philips is very technology push and focussed on R&D. Before the PMO the R&D division dictated the workflow. After implementing the PMO, which meant every department had to communicate with each other. This increase in communication led to a higher feeling of contribution to the company with the other departments (not R&D).

Best practices

- To maintain the in-depth knowledge for every business unit, a project manager from every department is deployed in the PMO. This project manager is located within the department for in-depth knowledge of their core business.
- All the employees in the PMO are trained (PMBOK certificate). Every member of the PMO organisation is trained to perform their activities in the same way.
- Place the PMO under the business unit. Stay within the business. The core business of the PMO is to support the business, not the way around. Standardization on high level would lead to high level standardization, which means that the tools and practices would be to general and lose their connection with the business. The business units or departments should recognize themselves in the formats, tooling and procedures. By placing the PMO under the business unit this connection is maintained.
- Standardization of the process, way of working, implementing milestones, deliverables, templates, reports and dashboards.
- Philips Healthcare implemented a project dashboard, all key elements of the project will be administrated in the dashboard. This dashboard is a tooling where project managers can get reports very fast. (all standardized)
- Keep employees updated about the practices the PMO does, by keeping their clients informed the support and recognition for the PMO will stay at a higher level.

There are also some disadvantages. The main challenge of Philips Healthcare's PMO is the bureaucracy. By implementing standardized tooling, procedures and processes the bureaucracy increased. Uniformity leads to more standards, because all of the departments must use the same tooling, therefore more variables, procedures and processes are added. A main challenge is to keep the feeling of bureaucracy at a low level.

A second challenge, Philips is thinking about placing the PMO above the departments in stead of under R&D. The challenge is that the PMO will leave the core business. This increases the distance to the core business. But the goal is to also invest in the other departments (equality). It is hard to determine which choice will be the most valuable.

Criteria to share
By examining their challenge to put their PMO organisation higher in the organisation (share more), the focus on the core business might decrease. For that reason a criteria to share or not to share could be:

- Loss of focus on core business

Further indications:

- Processes could be standardized
- Preferably non-core activities if sharing is something a company wants.
- Repetitive tasks

4.3.5. Further Thales specific interests

- Loss of in-depth knowledge was not mentioned in this interview, or tackled with the placement of a project manager of every department in the PMO (while located decentralized).
- This particular PMO did not support with operational tasks such as administrative support. This administrative support (finance, quality, configurations management, planning and contract management) is handled through:
    - Finance → administrative support is located in shared service centers
    - HR → administrative support is located in shared service centers
    - Configuration management / resource planning → definitely in the business unit because of differentiation of tasks over the business units
    - Quality → Shared service, but with dedicated employees in the business units.

4.4. ASML

These case study results are based on a single interview with the director of the PMO organisation of ASML. The respondent worked eight years at ASML before he was assigned to implement a PMO organisation. Since implementation (2 years back) he is the manager of the PMO. This key informant provided his information through an interview, feedback, additional questions and sent some documents that were useful for this research.

4.4.1. Company description

ASML is a Dutch company that was founded in 1984 and is currently the market leader in the photolithography systems for the semiconductor industry. ASML currently has 70 offices in 16 countries, headquartered in Veldhoven the Netherlands. ASML has a total of employees around 14.000. 5.000 of them are R&D employees, which makes it a very technology push company. (ASML, 2015)

The vision of ASML is to make affordable microelectronics that improve the quality of life possible. To achieve the vision, the mission is to invent and develop lithography machines to follow Moore's Law to create products smaller, cheaper, faster, more powerful and energy efficient. ASML is a very technological company, just like Thales the focus is on constant innovation. (ASML, 2015)

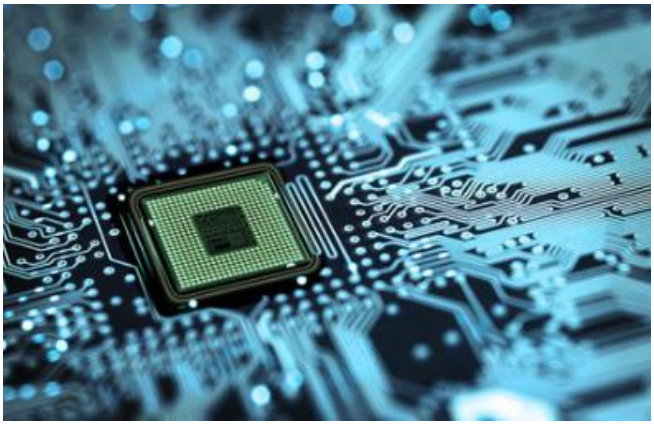


Figure 22: ASML chips/lithography

4.4.2. PMO in ASML

The first question in every case is: what does shared services mean to you? In this case the answer was: an organisational setting who offers services to clients. These services are very generic and can be delivered to several business units, companies or other parties. Not specific for one entity.

Interesting to see is that this PMO is very different from the PMOs of Fokker Technologies and Philips Healthcare. This PMO also has aspects of a phase 4 PMO according to Hill (2004) due to the support staff in the PMO. The PMO that is investigated within ASML is a PMO that is dedicated to only IT projects with around 300 people working in those segments, with a project portfolio of around 70 projects and a turnover value around 32 million euros a year.

The PMO investigated is seen as a sort of shared service center within the organisation. This very different model (tooling based vs. transactional services) is in line with the statement of Aubry et al., (2007) that PMO vary a lot in different cases. As seen in figure 23 the PMO model has organisation wise much in common with a shared service center (see also figure 7). The vision of ASML on their PMO is: PMO is the center of excellence for project management and project support.

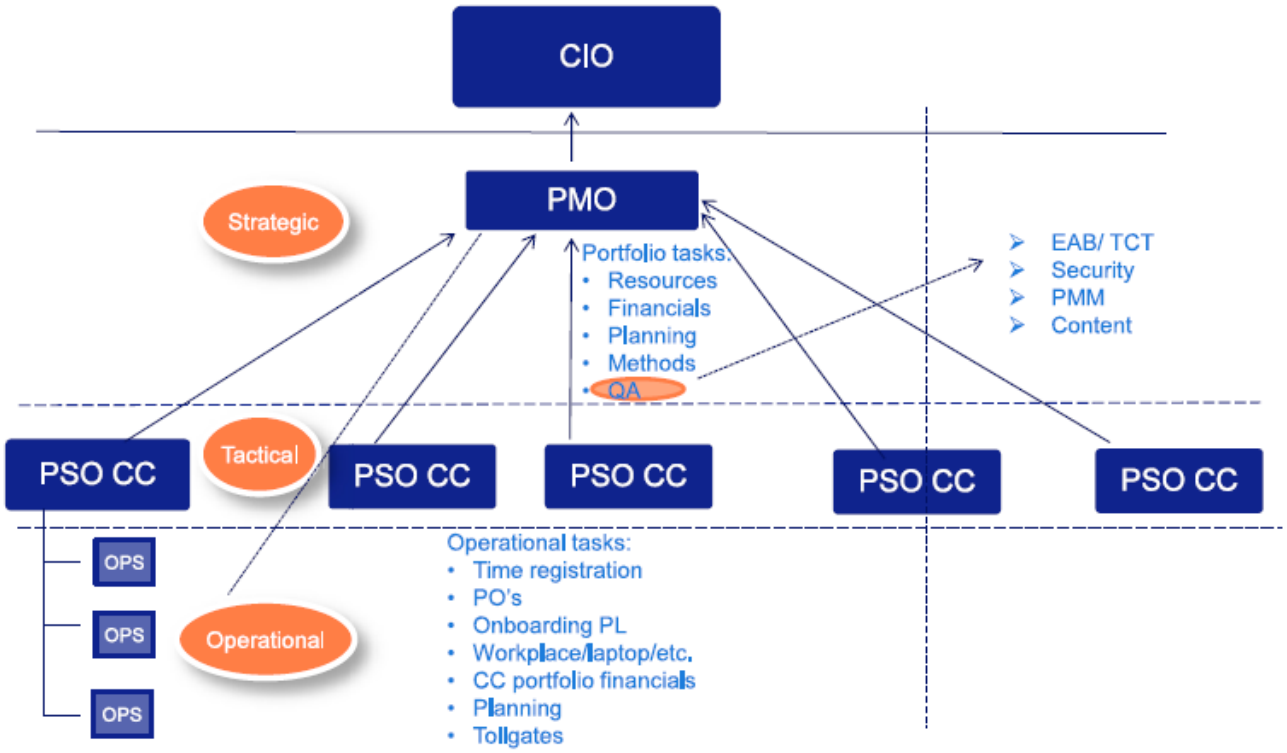


Figure 23: ASML PMO in the organisation.

The location of the PMO is under the business units. This is done because of the priority of the core business. The core business always decides. All new process formats and tools are considered en communicated until consensus of the business units. In a very unique case the PMO decides for them, but only with the approval of the CIO. The PMO does not have a decisive or determining role.

The PMO consists of core team of five employees and five flexible employees. The five core employees (PSO) are divided over the specific competence centers and do the work for that specific competence center (yellow (business unit specific capabilities) + green part of the work (standardised work)) (figure 24). The flexible workers are trained to do all the green parts for every competence center. So the

competence centers always have a basic knowledge. If the dedicated person for some reason is not available anymore, the PMO secures the green part, the yellow part will be considered, but the risk is that the CC should tackle that workload. The principle is simple, if a project need administrative (non-core business) support, they can hire against an hourly rate PMO personnel. Very large projects can not hire PMO staff, because the PMO is not large enough to support labour intensive projects.

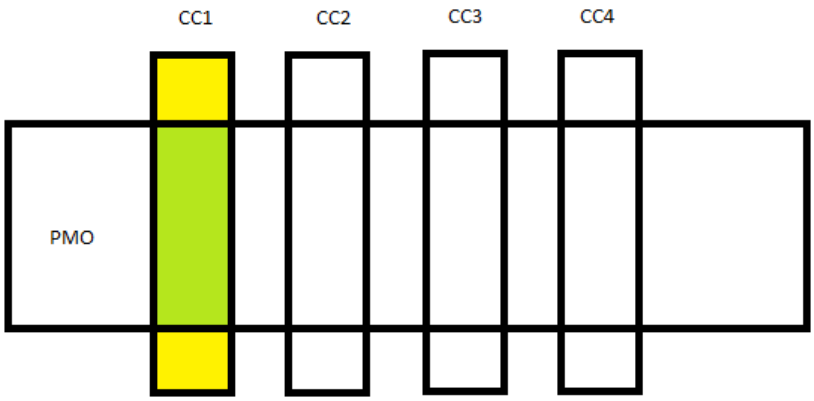


Figure 24: Differentiation in capabilities

As shown in figure 23, the key tasks of the PMO are:

- Hiring of people, preparing new employees, organise working environments
- Key cords
- (Requests) provide laptops
- Project administration support
- Resource management
- Resource planning
- Project planning, monitoring,
- Project Finance, financial reporting, actuals, time registration, actuals, purchase acquisitions, budget analysis, purchase orders, authorizations,
- Other operational repetitive activities
- Budget analysis
- Tollgate reviews
- Continuous improvement in processes, tooling and procedures. (minimal & lean processes)

Mainly transactional services.

4.4.3. Why do companies implement shared services?

The implementation of the PMO two years ago had the following vision: “To improve the project quality and execution within IT by deploy, safeguarding and improving our project management processes and methodology” The following objectives for the PMO came forward:

- Scope: **maintain focus**, knowledge of specific business units are very important. A risk of sharing the services is the loss of knowledge, one objective of our PMO is to maintain the focus on the in depth knowledge.
- Time: **increase effectiveness**. Administrative work can be done cheaper. Before implementation these tasks were for the project manager or other expensive personnel. With a shared service thought the project managers can focus on their core business and therefore be more effective, while cheaper personnel (or less personnel) does the administrative work.
- **Quality**: more value from projects. Due to more knowledge sharing across the business units, best practices will be derived. These best practices will increase the productivity and therefore the value of projects might go up.
- **Uniformity**: A standardized approach to administrative work makes it very easy to execute the process. After standardizing all the processes the PMO could be outsourced.
- **Efficiency**: Resources: reduce waste. Efficient use of personnel, focus on core business, continuously improve processes to improve efficiency.

4.4.4. What are the actual benefits, best practices, and criteria about the design of shared services that will contribute to an (un)successful shared service entity?

Actual benefits

Increase in **uniformity**. Because of the uniform approach to all IT processes the transparency and ease of consolidation improved a lot. All the templates, tooling and ways of working are all the same it is easy to gather the knowledge you need. Before we had around 20 – 30 different ways of administrating Currently this is brought back to one way, which makes it easy to recognize were to look and second easier to consolidate all the information out of projects of business units.

Efficiency: The experience is that the model is working. Not specifically validated by the financials. But the PMO manager and their clients are very satisfied about the improvement of total value. The best improvements are in quality of the projects, better progress reports, better financial reports, more transparent reports. The projects itself did not improve (faster), but the control on the projects increased. If a project is out of line, the PMO helps them to get back on track or takes measures.

Transparency of costs increased. Through the ease of consolidation that was reached through the uniform approach of all the administrative processes. Second, before the PMO the costs of support and administrative activities was done by project managers or other personnel. Now what the support costs are, because the business units can hire the support in the PMO for an hourly rate which is allocated to the specific project or business unit.

Best practices

To maintain a specific level of level of in depth knowledge there is a core team of five employees that are trained to learn also the in depth needs of a specific business unit. Thereafter, a second layer of flexible workers are trained to do around 80% of the common activities. Because of this setting the in-depth knowledge of business units are maintained with the addition of the flexibility of sharing the services.

- The PMO has several SLA or KPI's. They monitor the satisfaction of their clients. The PMOs primary task is to satisfy their internal clients. Regulatory communication with clients about, improvements, current service level, good points, insufficient points, where to improve. A second KPI is: the reports should in 95% or more cases be sufficient and on time.
- Transparency, Reliability and predictability. The PMO established a reporting structure on both the operations and the services offered to create transparency and predictability towards management. Continuous insights are given for both management and customer into the performance the PMO delivered. This is very well appreciated by as well the PMO employees as the clients (business units). Listen to the client.
- All the employees in the PMO are trained (PMBOK certificate). Every member of the PMO organisation is trained to perform their activities in the same way.
- Standardization of the process, way of working, working with milestones, deliverables, templates, annual reports. (standardization is king)
- Services handbook/brochure. The PMO has a handbook or brochure what clearly indicates what the PMO can do. Because of this handbook/brochure every client knows what there can be expected of the PMO. On this way ASML tries to manage the expectations of both parties. If a client want something different, the client pays extra or does the service itself.

There are also some challenges in the PMO. The main challenge is the constant meetings between client and customers. It is very hard to get consensus over the entire group. Then there are two choices, choice one is that the PMO orders to do it their way. A negative side of that choice is that it leads to less quality for the business. Choice two is continue trying to get a consensus about the plan. This can be very time consuming.

Second challenge is the bureaucracy. A PMO comes with additional (more general) formats and tooling. For project managers this quickly feels as bureaucracy and excessive work. The challenge is to keep them informed about the necessity of these procedures and the PMO. Especially when the PMO orders to businesses to do it their way. But those are very rare cases and can only be done with the authorization of the CIO.

A last challenge is the implementation of transformational services. Currently the PMO are focussing on only transactional services. The future view of the PMO is to improve their PMO to a more consulting role. The goals is to implement an experience data center to capture knowledge about experiences about project management specifically for ASML. This could be very useful because of the capabilities of the project managers. ASML hires mostly external project managers, with little experience on the practices in ASML.

Criteria:

- The structure of the PMO needs to be aligned with the maturity of the organisation and to the volatility or stability of the market conditions surrounding the organisation
- Organisations is stable environments, such as governments, have a tendency to develop what we call “federated” PMO structures much earlier in their organisation than organisations in volatile industries, which tend to stay centralized until growth forces them to adopt a federated model.
- A shared view of the PMO becomes increasingly important as an enterprise reaches higher levels of maturity and the PMO operation becomes broader and more expansive.
- A service must be commodity (Record), most of all ERP and CRM applications and activities around those systems are applicable. Those are activities that vary little from one organisation to an another organisation. The higher in the framework (figure 25), the greater the variation of activities. ASML stays mostly by the systems of record.
- Generic, repetitive activities that can be standardized.

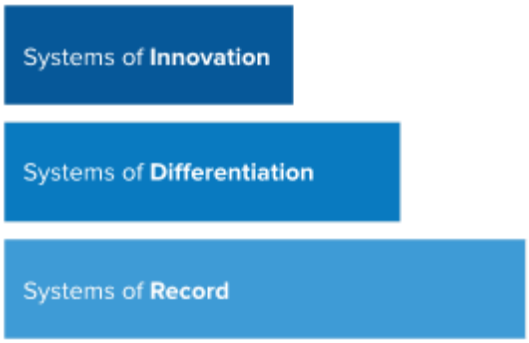


Figure 25: Gartner levels of Commodity, Source: Gartner Research December 2010

4.4.5. Further Thales specific interests

- Loss of in-depth knowledge was not mentioned in this interview, or tackled with the placement of a project support officers of every department in the PMO.
- This particular PMO did support operational tasks such as administrative support. The intended activities finance, quality, configurations management, planning and contract management are partially covered in the PMO of ASML:
    - Project finance is covered by the PMO.
    - Resource planning and project planning → delivery of tooling, not the activities.
    - Quality → done by the business units itself
    - Configurations management → project specific, done in the business units.

The method to prevent shadow staff is done on the following way, the budgets for support are not included in the business units itself anymore. If they want to hire extra support they have to pay for that themselves, therefore their projects will become more expensive. They mostly do not have the capacity to hire excessive support personnel. Second, the PMO communicates very strongly with the business units. If there are complaints about quality or value that can be discussed. The PMO is judged on client satisfaction.

4.5. Defence

These case study results are based on a single interview with the SSC Finance manager of Defence. The respondent worked five years at Defence and implemented several shared service entities. Since implementation (five years back) he is the manager of the SSC. This key informant provided his information through an interview, feedback and additional questions that were useful for this research.

4.5.1. Company Description

Defence is under the supervision of the ministry of Defence in the Netherlands. It is formed by the military force and his supporting organisations. Defence is absolutely a non-profit organisation but is currently under constant reorganisations because of the budget cuts by the Dutch government. (Defensie, 2015)

Defence consists of 7 departments, Board, Direction Material, Mareschausse, Commando Service Center, Navy, Ground Forces and Air Force. Defence is one of the biggest employers of the Netherlands with 68.000 employees. (Defensie, 2015)

Figure 26: Joint Strike Fighter

4.5.2. SSC in Defence

The case of Defence is rather interesting. Defence is a client of Thales and also the biggest employer of the Netherlands. Defence has the most prominent financial shared service center of all the non-profit organisations in the Netherlands. The first question in every case is: what does shared services mean to you? The standardization of services, with standardization the opportunity of sharing arises. Sharing of services means mostly efficiency and uniformity. Services should always have a surplus value for the customer. To have comparability around all the shared service centers, the model of Schulz et al., (2009) will be used to identify and qualify the shared services. If there are similarities or definite distinctions, conclusions can be better formed. After a brief introduction to the model, the respondents filled in the model. The results for the SSC in Defence are shown in table 4.1.

Criterion	**Typical Features of the shared service center**			
Legal form	**Intra company business unit**		Independent subsidiary	
Main Form of Co-ordination	**Mainly hierarchical**	Mixed co-ordination	Primarily market orientated	
Service Charges	**Overhead**	Allocation	Transfer prices	Market prices

External Market	**No access**		Limited access	Free access
Contractual Form	**Contractual obligation**		Contractual exchange	Competition
Centre Concept	Cost center	**Service center**	Investment center	Profit center
Product Portfolio	Functional SSC		**Multi Functional SSC**	

Table 4.1.: Criteria and characteristics of the SSC of Defense

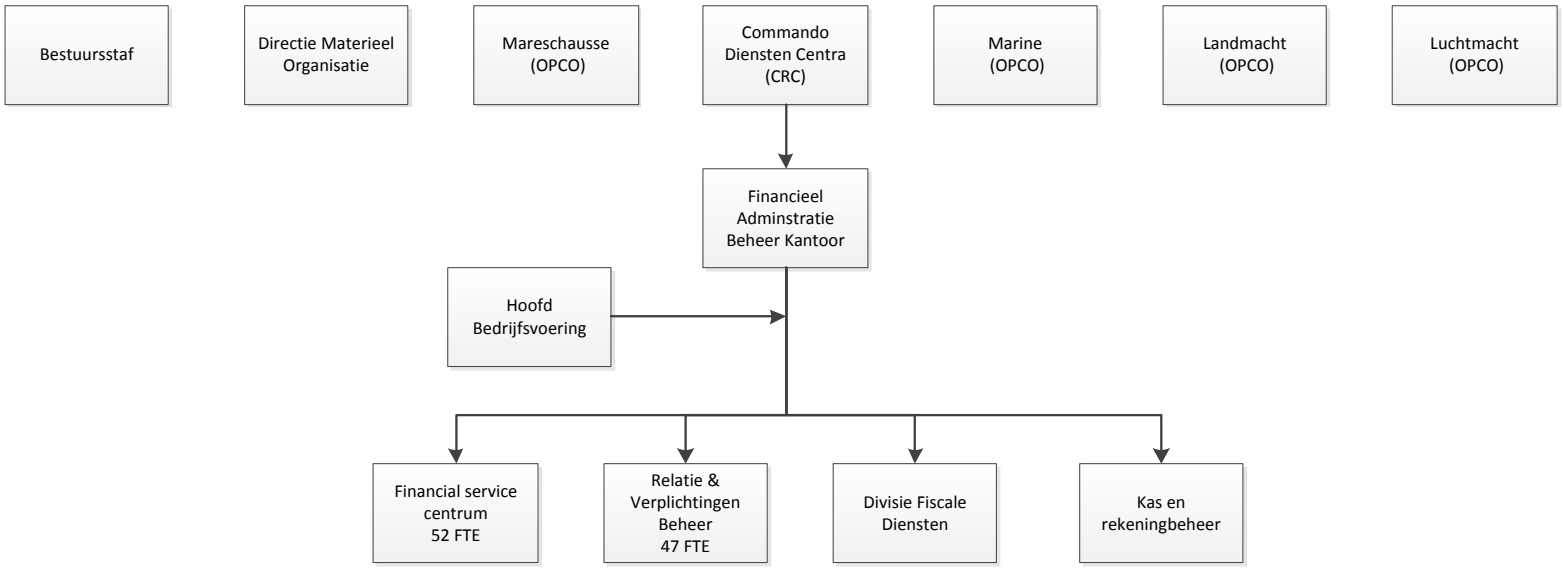


Figure 27: Organisational design Defence Financial SSC

The organisational setting is shown in figure 27. The financial shared service center has a span of control of 68.000 people located in 7 business units in the Netherlands, whit around 85 different sites. The current amount of FTE located in the shared services are 196. The current shared service centers (FABK, Financial service centrum, relatie & verplichtingen beheer, divisie fiscal diensten & kas en rekeningbeheer) are implemented between 2005 and 2015. The activities in this shared service center are only transactional. Current activities in the SSC are:

- Accounts payable, accounts receivable
- Fiscal services
- Treasury
- Purchasing
- Foreign exchange

The location of the SSC is definitive just like figure 7. It is mainly a supportive organisation, listens and serves the core business. It does not set out policies.

4.5.3. Why do companies implement shared services?

The following motivations were mentioned very simple:

- **Reduction in budgets** from government. The most effective way to accomplish the budget cuts are to implement a shared service center.
- The explanation of the primary target, the budget cuts were that the **focus on core business** should increase: The clients should not worry about supportive services

4.5.4. What are the actual benefits, best practices, and criteria about the design of shared services that will contribute to an (un)successful shared service entity?

Benefits.

Major efficiency gains (redundancies). Before the implementation of the shared service centers all administrative work that later is centralized comprised around 450 FTE. Currently they have only 196 for all those administrative tasks. They are even the most prominent users of shared service centers of the category non-profit organisations in the Netherlands.

A major benefit of the SSC was that **Personal favours are controlled.** In the past, were employees are assigned to specific business units. Personal relationships were formed, and therefore, personal favours were granted. With the implementation of shared service center these personal favours and other economic inefficiencies are dealt with. The **control on costs and on employees** increased (not a prematurely intended benefit).

While they were actively busy with standardization and automation, it automatically makes personnel think efficiently about all the processes**. It was like an incentive to standardize more and more**. Activities which were thought never to be standardized are standardized.

Transparency of costs and the cost control increased. Through the ease of consolidation that was reached through the uniform approach of all the administrative processes.

The SSC is also seen as a knowledge center. A client satisfaction research showed that the company sees them as a knowledge center. An effect of centralising and co-locating all the knowledge from every business unit was that the knowledge increased. If there are questions they automatically come to the shared service center because they know the expertise is there. (The SSC proved themselves as an excellent organisation of knowledge)

Best practices / Challenges

- **Always put the customer first**. The customer decides where their value will be. Listen to their needs, a SSC is a definite supportive organisation and should not make the rules. Make lists of direct and indirect stakeholders. All direct stakeholder must be involved in the process of dividing and structuring the work. Listen to their needs and how they want their information be accessible. Always **communicate** about the activities the SSC will take over, and how that affect the business units.
- **Transparency**. Always show your customers (business units) what you are doing and why. There is a monthly meeting of all the clients were they discuss the benefits, downsides, improvement opportunities.
- **Introduce the employee in the process of transition**. Change management is very important in the transition process. The experience with defence was that the people who were involved or affected by the transition must have their say in the process. If they are a part of the process, the support will increase. If you decide for them, they will not collaborate or do not have support for the SSC.
- **Listen to accountants**. Accountants had very valuable advises. Defence experienced that the accountants are a treasure of information.
- In the context of **transparency**. Defence **organised a dashboard**. Clients can see the progress of their required in that dashboard. A client can see at any time what will be done and how they will do it.
- **Keep room for special orders**. There are always express deliveries or priorities. If Defence then maintains of their SLA of helping them within 5 working days, it might be too late. Within the SSC there are specially designed procedures or exceptions made in the system to settle with those needs of the customer.

Challenges

Constant reminding business units of their activities. The awareness the obligations the business units have is not enough. The SSC is constantly reminding them to do their part of the bargain. The total awareness of the expectations of each other is not sufficient. This is understandable, because 68.000 employees have to be addressed. This is a major challenge. Service Level Agreements must be specified.

The experience of the military and commanding officers, who **lost responsibilities** is that they have less influence on what is going to happen, no influence on food, finance, transportation and other support. There personal preferences are disappeared. They struggled with that. They feel like they have less responsibilities. After implementing the SSC they were satisfied with the services they get, better then they expected. But they preferred to doing it close in their own business or themselves.

A specific challenge for this organisation is that they are **tired of reorganisation**. Defence is always subject to reorganisations. They have to keep changing their portfolio, lesser personnel, different jobs to do.

The co-location of the employees had a downside. **Many employees did not want to travel that far for their job**. Some knowledge was lost during the implementation process. After implementation the SSC became a knowledge center with their knowledge data base. With that data base they try to capture their in-depth knowledge so that it can be used for current and future personnel.

Criteria:

- Activities on executing level (administrative)
- Do not touch the core business
- Non core business, tasks that do not involve activities with the core business can be considered to be standardized.
- Repetitive, predictable activities.

4.5.5. Further Thales specific interests

In-depth knowledge. At the start it was hard to keep all the in depth knowledge in the company. People were leaving because of redundancies. An effect of that is that the people affected by the redundancies are not willing to cooperate to store their knowledge. At first some in depth knowledge disappeared. But it is not experienced as a major disadvantage. Currently the knowledge sharing is even higher through the co-location of several expertise's.

There are account managers too **maintain in-depth knowledge**. From every business unit one account manager is dedicated for that specific business unit. Four days a week that employee works in the SSC and one day a week they are at location of the business unit. With constant communication they will keep the connection between shared service center and the business units.

4.6. Stork

These case study results are based on a single interview with the SSC HRM manager of Stork. The respondent worked two years at Stork before she was assigned to implement a shared service center organisation. Since implementation (5 years back) she is the manager of the SSC. This key informant provided his information through an interview, feedback and additional questions that were useful for this research.

4.6.1. Company Description

Stork is a Dutch company founded in 1827. It is an overall brand name of several technology companies. (EQIN, Industrial Services, Power, Fokker). Stork is a global provider of knowledge-based asset integrity focusing on the Oil & Gas, Chemical and Power sectors. Stork works with major asset operators, from gas turbines to offshore installations, and from petrochemicals to wind turbines. Stork tries to deliver asset integration services though innovative, cost-effective and safe solutions. Key service areas are shown in figure 28. (Stork, 2015)

Figure 28: Storks core business

Stork primarily consists of four companies (EQIN, Industrial Services, Power, Fokker) and has 11 locations in the Netherlands with 3200 employees (18.000 worldwide). The vision of Stork is to be the leading global provider of knowledge based asset integrity services focusing on the Oil & Gas, Power and Chemical Sectors. This try to accomplish that vision by enhancing customers profits through innovative services and solution designs during the lifecycle of the asset by reducing risk, assure safety and improve asset performance. (Stork, 2015)

4.6.2. SSC in Stork

The first question in every case is: what does shared services mean to you? Shared services means efficiency. Reduction of costs, more alert, ready for change in the company, better grip on the processes

and better control on costs. To have comparability around all the shared service centers, the model of Schulz et al., (2009) will be used to identify and qualify the shared services. If there are similarities or definite distinctions, conclusions can be better formed. After a brief introduction to the model, the respondents filled in the model. The results for the SSC in DHV Royal Haskoning are shown in table 4.2.

Criterion	**Typical Features of the shared service center**			
Legal form	**Intra company business unit**		Independent subsidiary	
Main Form of Co-ordination	**Mainly hierarchical**	Mixed co-ordination	Primarily market orientated	
Service Charges	Overhead	**Allocation**	Transfer prices	Market prices
External Market	**No access**	Limited access	Free access	
Contractual Form	**Contractual obligation**	Contractual exchange	Competition	
Centre Concept	Cost center	**Service center**	Investment center	Profit center
Product Portfolio	Functional SSC		**Multi Functional SSC**	

Table 4.2.: Criteria and characteristics of the SSC of Stork

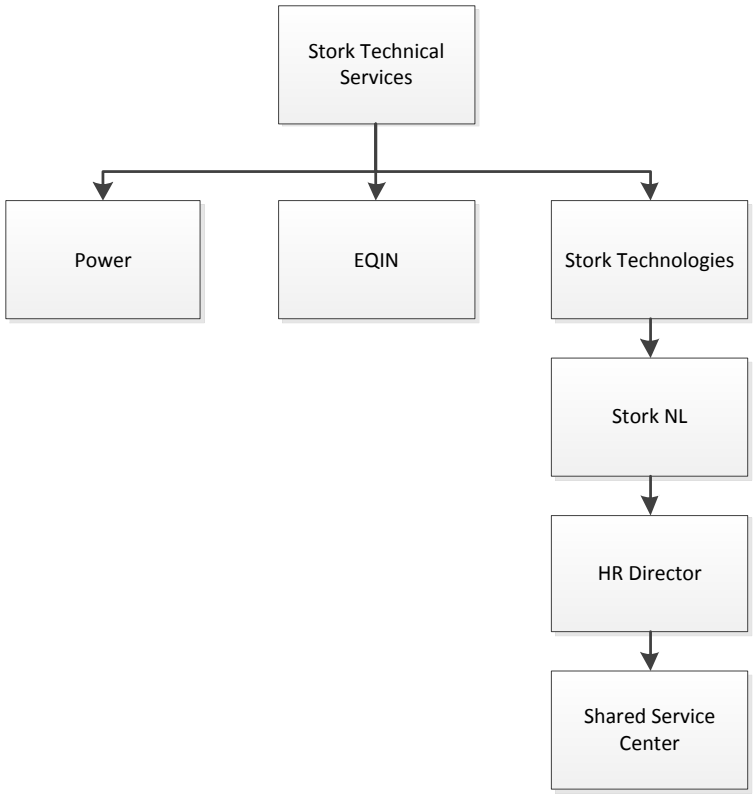


Figure 29: Organisational scheme Stork

The organisational setting is shown in figure 29. The HR shared service center has a span of control of 3300 people located in 11 sites in the Netherlands. This current shared service center is implemented in 2007, more then 30 units were profit and loss responsible had their own HR staff before the SSC. It became so indistinct that Stork companies were competing whit each other. After that, Stork went to a single regulation (with some exceptions)The activities in this shared service center are mainly transactional. The transformational services like trainings, learning and development programs and work close with managers in the organisation are dedicated HR practices. Current activities in the SSC are:

- Salary administration
- Expats
- Subsidiaries
- Vehicle fleet
- Disablement of employees (Poortwachter Settlement)
- Reporting
- Functional supervision of HR systems and portals.

4.6.3. Why do companies implement shared services?

The following motivations were mentioned:

- **Efficiency**: The goal was to do the same work with a decrease in personnel.
- **Uniformity**, one way of working. They wanted to offer their clients the same products. Many sites were specialised and focussed on different aspects. Companies were focussed on maintenance, cheap labour, process improvement, oil and gas. Every company organised their processes on their own way and to external clients there was no ‘one stork’. With implementing a shared service center Stork want so carry out the ‘one stork’ principle.

4.6.4. What are the actual benefits, best practices, and criteria about the design of shared services that will contribute to an (un)successful shared service entity?

Actual benefits

The two main benefits were realised. First of all, **efficiency**. In financials and in FTE it is clearly noticeable that they even do more work with less personnel. HR staff is cut in half in terms of personnel.

More interesting jobs. The experience is that the jobs of the HR employee in the SSC are more interesting. By doing activities for more businesses the job became more diverse.

Personal favours are controlled. In the past, were HR employees are assigned to specific business units. Personal relationships were formed, and therefore, personal favours were granted. With the implementation of shared service center these personal favours and other economic inefficiencies are dealt with.

Increase in **uniformity**. All the templates, tooling and ways of working are all the same it is easy to gather the knowledge you need. Before we had around 11 to 30 different ways of administrating. Currently this is brought back to one way, which makes it easy to recognize were to look and second easier to consolidate all the information out of projects of business units.

Increase in flexibility. There was a definite increase in flexibility. In the old situation every unit had their own specific HR professional, if that employee was absent nobody could replace that person. With a shared thought, the coverage for each other is a lot better. The SSC is 5 days a week, 52 weeks a year available. The personalised style before the SSC did not have this full time availability.

Best practices / challenges

- **Promote your SSC**. A strong point of the implementation of the shared service center was the promotion of the entity. Flyers, folders and announcements on the intranet made clear were the SSC is located.
- '**Low hanging fruit' principle**. Start small, achieve small gains and show the organisation that you are capable of doing the work. With that, the support will rise.
- **Personal approach**. Show them what you are doing, communicate with your stakeholders. Make clear that you are not a call-center but actual co-workers whit a hearth for the organisation.
- **Communication**. Keep contact with all your stakeholders. Twice a month the HR gathers with HR staff and business units. In those meetings topics like, what works well, what does not work well, where do we need to change etcetera.
- **Knowledge data bases**. Currently, Stork has a knowledge data base. People come and people go. The times that employees stay with their employer for 20-30 or more years are gone. It is crucial that the information that an employee has can be transferred to the next one.
- **Service Level Agreements,** the services must be delivered within five days. The SLA manages expectations of both parties. It is clear to all business units what there is to be expected from a SSC.

Challenges

A main challenge occurred at the start of the SSC. **Depersonalisation** was a big problem. Employees were used to do their work on their own specific way. Resistance occurred when the employees noticed that a personal view on the work disappeared. For example, leaving sick must be done at the SSC and not with the trusted employee. Employees started to feel like a number in the organisation. Continue communication and personal approaches how the SSC works helps the understanding. But it still remains a struggle.

Politically unpopular. Sharing, centralization, those terms are always associated with redundancies. People feared for their jobs. The main goal was however to reduce personnel. Stay in communication with stakeholders about this matter. People must be good informed about this matter to prevent too much fear. In the end, people did leave, it is always hard to say goodbye to people who are working with Stork for a very long period of time.

Shadow staff / shadow activities: after implementation a very often seen phenomenon was that receptionists gained extra tasks around HR activities. These activities were now the responsibility of the SSC. A main challenge was to convince the businesses that they do not need those activities anymore. Stork made sure the information services was perfect. They needed to show the businesses that they could to their specific work. After showing that they could do the job, shadow activities disappeared. Sometimes it still pops up, then this will always be taken seriously because the need for this does not come automatically, there is an underlying need. In the monthly meetings this is always discussed.

Criteria:

- The simplicity of standardization.
- Tailored services are harder to share
- Needed local knowledge (specific to business units or departments) are low.

4.6.5. Further Thales specific interests

In-depth knowledge. At the start it was hard to keep all the in depth knowledge in the company. People were leaving because of redundancies. An effect of that is that the people affected by the redundancies are not willing to cooperate to store their knowledge. At first some in depth knowledge disappeared. But the history of the company is not that important and is not experienced as a major disadvantage. Currently the knowledge sharing is even higher through the co-location of several expertise's.

4.7. DHV Royal Haskoning

These case study results are based on a single interview with the HRM director NL organisation of DHV Royal Haskoning. The respondent worked 25 years at DHV Royal Haskoning before she was assigned to implement a shared service center organisation. Since implementation (10 years back, updated 2-3 years back) she is the manager of the SSC. This key informant provided his information through an interview, feedback, additional questions and sent some documents that were useful for this research.

4.7.1. Company Description

DHV Royal Haskoning is an international engineering, independent, and project management consultancy with around 130 years of experience. Their roots lie in the Netherlands, UK and South Africa and expanded to Asia, the Middle East, Africa and America. DHV Royal Haskoning focusses on delivering added value for clients while at the same time addressing the societal challenges of today. These challenges include the growing world population and the consequences of that for towns and cities, demand for water, traffic pressure, transport. (DHVRoyalHaskoning, 2015)

The vision is to be a strong, independent, global oriented organisation and a sustainable market leader in their segments. Together they will create an inspiring environment to be proud of others would follow their inspiring company. The mission of DHV Royal Haskoning is to create solutions for sustainable interaction between rural and environmental environments. DHV has nearly 7000 professionals around the world and they work for public and private clients in more than 130 countries. (DHVRoyalHaskoning, 2015)

Figure 30: Blackburn Pedestrian Bridge, South Africa

4.7.2. SSC in DHV Royal Haskoning

The first question in every case is: what does shared services mean to you? All the processes that can be standardized and shared over business units or companies. In the case of the HR shared service center all administrative processes from commencement of employment until payment of salaries. To have comparability around all the shared service centers, the model of Schulz et al., (2009) will be used to

identify and qualify the shared services. If there are similarities or definite distinctions, conclusions can be better formed. After a brief introduction to the model, the respondents filled in the model. The results for the SSC in DHV Royal Haskoning are shown in table 4.3.

Criterion	Typical Features of the shared service center			
Legal form	**Intra company business unit**		Independent subsidiary	
Main Form of Co-ordination	**Mainly hierarchical**	Mixed co-ordination	Primarily market orientated	
Service Charges	Overhead	**Allocation**	Transfer prices	Market prices
External Market	**No access**	Limited access	Free access	
Contractual Form	**Contractual obligation**	Contractual exchange	Competition	
Centre Concept	Cost center	**Service center**	Investment center	Profit center
Product Portfolio	Functional SSC		**Multi Functional SSC**	

Table 4.3.: Criteria and characteristics of the SSC of DHV Royal Haskoning

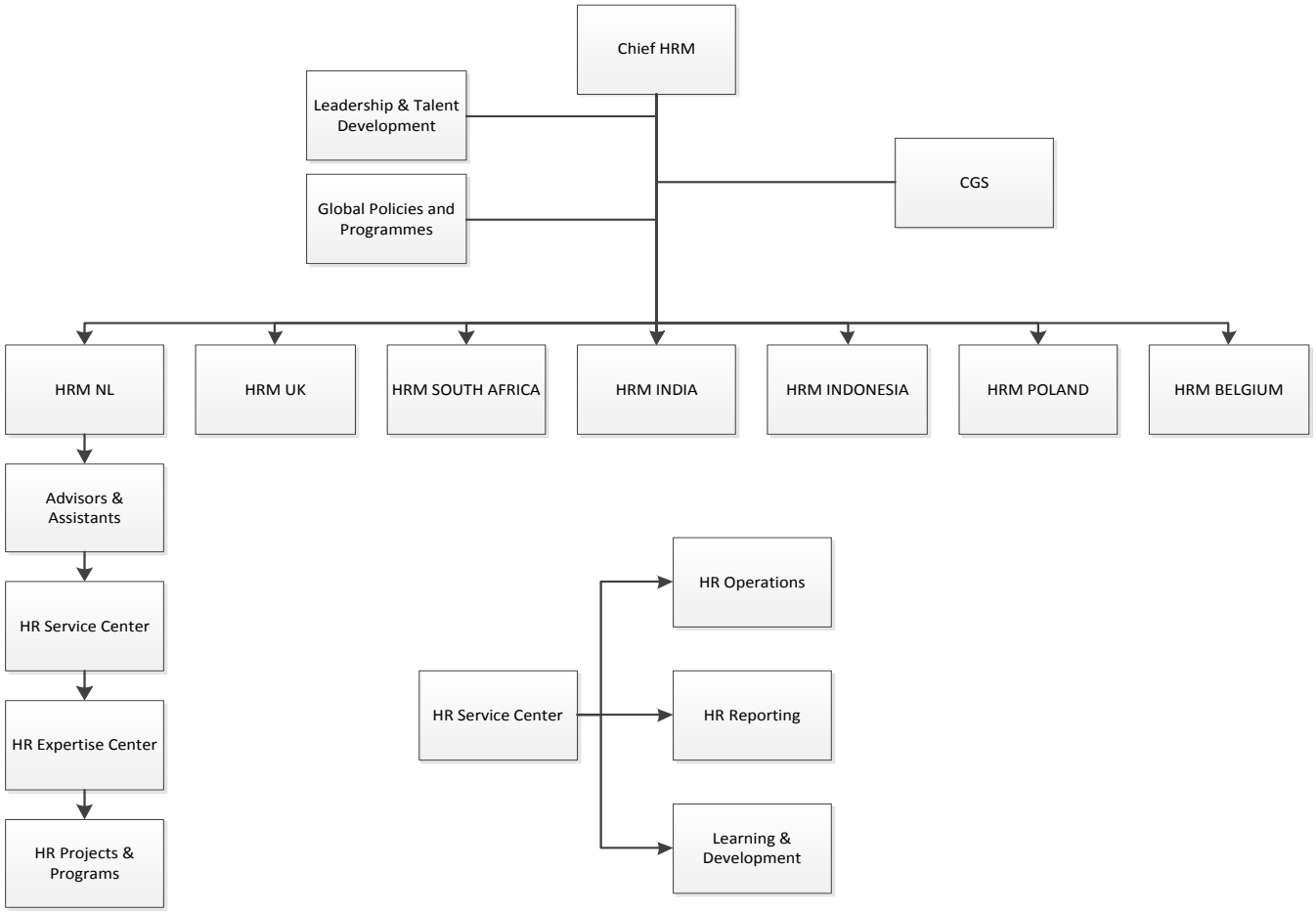


Figure 31: organisational design DHV Royal Haskoning

The organisational setting is shown in figure 31. The HR shared service center has a span of control of 3100 people located in 11 offices in the Netherlands, no more administrative HR personnel is active in other locations of DHV Royal Haskoning, except that one employee of the SSC is located in the HR center of Maastricht because of the distinct activities of the site in Maastricht (employees from Germany, Belgium, Netherlands). There is made a distinct choice for only the Netherlands because the regulations about personnel in the other countries (UK, South Africa, India etc.) are very different from the regulations in the Netherlands. For that reason the SSC delivers only to Dutch sites. The SSC works with eleven or twelve FTE. The SSC can be seen as a functional and as a multifunctional SSC. It only works around HR practices, because of that it can be said that the SSC is a functional SSC. But, the SSC is split up to: HR Operations (commencement of employment until payment), HR Reporting (analyse the data) and they added Learning and Development (take care of training). These separate activities made it a multi functional SSC.

4.7.3. Why do companies implement shared services?

The implementation of the SSC ten years ago had the following vision: “sharing knowledge to increase quality of services and become more efficient” The following motivations or objectives for the SSC came forward during the interview:

- **Efficiency**: The goal was to do the same work with a decrease in personnel.
- **Uniformity**: A standardized approach to administrative work makes it very easy to execute the process. A uniform way of delivering information has the second advantage of uniformity is the recognisability. Information is recognised easier by managers. In stead of several different tools or reports, one single approach will increase efficiency.
- **Cost control** and **cost visibility**. The cost predictability rose enormously. Currently there is one shared service center with their specific costs that will be allocated. In the past every location, department had their own HR employees. This was very unclear. The cost control and cost visibility increased.
- Increase quality by **sharing knowledge** and consolidating best practices.
- Decrease vulnerability. **Flexibility** of personnel should increase.

4.7.4. What are the actual benefits, best practices, and criteria about the design of shared services that will contribute to an (un)successful shared service entity?

Actual benefits

The motivations to implement a shared service are all realised. Currently, the SSC works so well that the first investigation to outsource the HR SSC were done. This is a good indication of a well working shared service center. The business case did not pass in the end, outsourcing would be more expensive then providing their own SSC due to still too complex activities. A new business case will be done to outsource within the year, because of more standardization and uniformity that was gained after the last business case.

Increase in **uniformity**. All the templates, tooling and ways of working are all the same it is easy to gather the knowledge you need. Before we had around 11 different ways of administrating. Currently this is brought back to one way, which makes it easy to recognize were to look and second easier to consolidate all the information out of projects of business units.

Efficiency: The experience is that the model is working (even tried to outsource it). Also validated by the financials. There were many redundancies that decreased the costs of HR. The HR director and their clients both agree on the efficiency gains that is made. Both in financials and in service value (**increase knowledge**) **Increase in quality due to an increase in knowledge**. Due the fact that all knowledge is centralised. Knowledge increased because it became a co-located homogenous group. The knowledge is not divided through the company, but as a 'knowledge center' centralised in the SSC. DHV actively registers their employees knowledge about specific business units in databases.

Transparency of costs and the cost control increased. Through the ease of consolidation that was reached through the uniform approach of all the administrative processes..

Increase in flexibility. There was a definite increase in flexibility. In the old situation every unit had their own specific HR professional, if that employee was absent nobody could replace that person. With a shared thought, the coverage for each other is a lot better.

Best Practices / Challenges

- **Co Locate employees**. DHV Royal Haskoning does not believe that decentralization is working. That will increase the chance that the uniformity will decrease. If you choose for 2 or more locations, the chance for 2 or more approaches will increase. Also, gathering employees on one location increases the knowledge sharing.
- **Continue to automatize.** Sharing is not possible without automation. Through automation processes must be standardised and therefore there must be a lot of thought in those processes before it can be shared or automated. Continue to automate is a trigger to think about the possibilities to share.
- **Continuous improvement**. Every employee is HBO educated. It is very important that the employees understand Lean and Kaizen. With those thoughts the employees are constantly looking for processes that can be standardized. The experience of the merger with a new site in Rotterdam two years ago was that all the old MBO HR from Rotterdam staff did not make it into the SSC because they lacked continuous improvement skills.
- **Strong leader**: there must be somebody with the consciousness of continuous improvement and continuant efficiency improvements and is extravagant enough to carry out those beliefs. Under the strong leader, as mentioned before, skilled personnel is very important. It looks like easy tasks (administrative), but all the repetitive and easy tasks are automated, only the processes were some thinking must be done are left.
- **Communicate.** To maintain a high level of service quality, constant communication with the business is needed to adjust to their interests. A pyramid of communication (Figure 32) is implemented and distributed through the company. This pyramid is divided in four layers. For the standard questions they can address the intranet. If they need additional information they go to the shared service center. If that is not sufficient to the HR Advice, and in extreme circumstances to the HR Experts. This methodology is communicated with the entire company (NL). This approach also makes sure that HR Experts and HR advise (more expensive personnel) are used only if necessary and they can focus on their core business.
- **Include businesses in changes.** It has been a good practice of using the needs and specification of their clients (business units). More support for the organisation will arise.

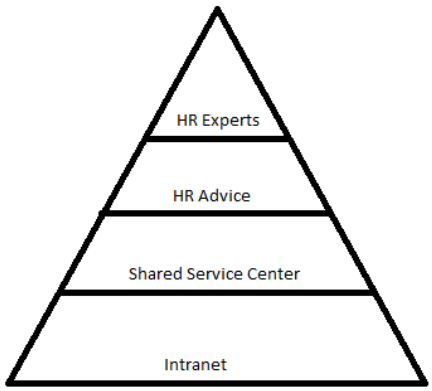


Figure 32: Four step pyramid, click-call-face

- **Adapting new services from the business**. By introducing new services an in depth thought about those processes is granted. If it always stays within the company there will be less thought for proces improvement.
- **Service Level Agreements,** the services must be delivered within five days. The SLA manages expectations of both parties. It is clear to all business units what there is to be expected from a SSC.
- **Trust,** a positive effect was mentioned by implementing the SSC with the 'low hanging fruits' principle. First, show them you are doing good work with easy pickings or easy standardizable processes. After the SSC built trust, more complex processes were standardized.

Challenges

The current challenge and room for improvement is to improve an entire chain. For example, the commencement of new personnel is arranged by HRM, ICT and Facility. Every department does their own part of the commencement. The plan is to centralize such chains. Not three parties arranging one process, but one.

Depersonalisation. The company experience a form of depersonalisation. In the old situation employees had their own HR employee. They knew who that employee was and what he or she could do for them. In the new situation they do not have their personal assistant anymore. The challenge is to keep the employees informed about the opportunities they all have (four step pyramid).

Criteria

- In her experience, if there are thoughts about standardization, a shared service center is the first thing that can be thought off. Most of the times when managers think about standardizing or sharing, it is a signal that processes are not optimally organised or are inefficient. An investigation of the possibility of sharing should commence from that moment.
- Processes should be standardized.
- Non core business

4.7.5. Further Thales specific interests

No information about the support functions mentioned. (no knowledge about)

To keep the in depth knowledge, under HR Advise there is a small group of 'Business Support'. They have activities for specific business units.

4.8. OCÉ

These case study results are based on a single telephonic interview with the director of financial accounting & control. The respondent worked 22 years at OCÉ. This a more special case than the other shared service center cases. OCÉ is in the transition process from a local finance organisation to a global finance organisation. So this case has a different perspective then the cases of Stork, DHV Royal Haskoning and Defence. This key informant provided his information through a telephonic interview, feedback and additional questions that were useful for this research.

4.8.1. Company description

OCÉ is a Dutch founded company. It was founded in 1857 by Lodewijk van der Grinten and started as a pharmacy. Many years later, after innovations in colouring and blueprint material the company switched to the printing industry. OCÉ currently develops, manufactures and sells printing and copying hardware. Recently they fused with Canon to become the leader in the global printing industry. OCÉ itself consists of three large sites and some smaller sites. The big sites are in Venlo (headquarters), München and Vancouver. The smaller sites are in Romania, France and Belgium. (OCÉ, 2015)

OCÉ has a number of employees around the 20.000 dispersed around three large sites en several smaller ones. (OCÉ, 2015)

The mission of OCÉ is to offer great printing products so that their clients can efficiently and effectively manage their documents. (OCÉ, 2015)

Figure 33: OCÉ printing technologies

4.8.2. SSC in OCÉ

The first question in every case is: what does shared services mean to you? One responsible person for an entire process. In this case, one person who is responsible for the entire financial accounting and control activities. On a lower level this sharing of services can be seen as standardization of processes and co locating a generic service to become more efficient.

The first objective to implement a shared service is to standardize and consolidate top down. First of all (figure 34) the objective is to approach the implementation of a shared service top down. The first part of the financial organisation that will be organised on the same way is the financial accounting and control part of the organisation. (figure 34).

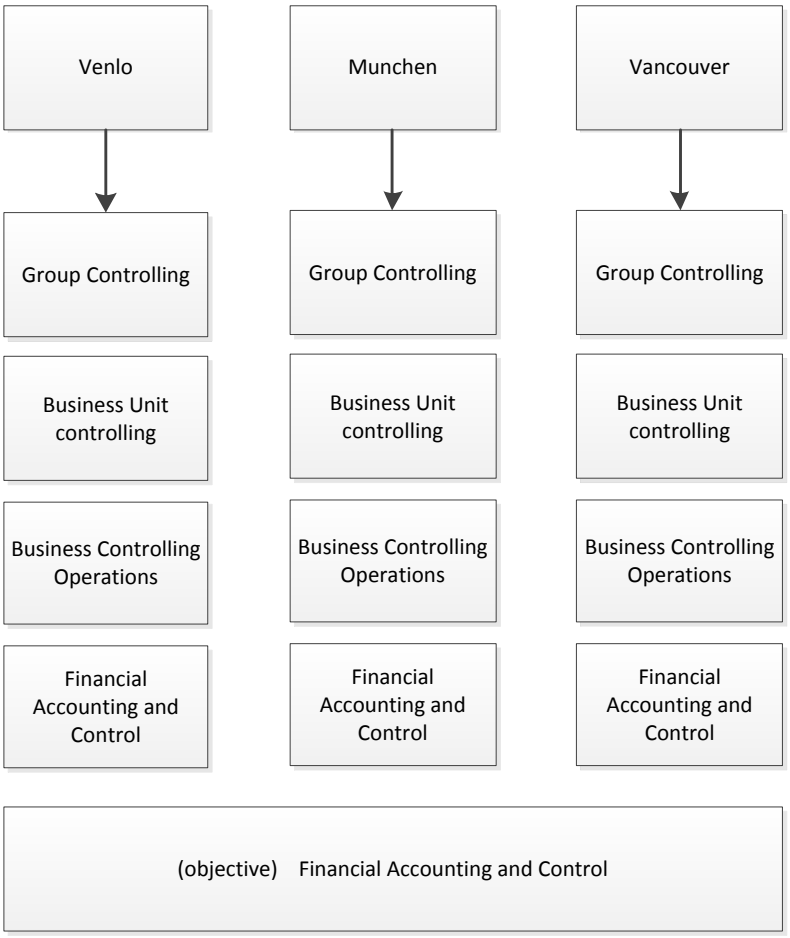


Figure 34: OCÉ printing technologies

The financial accounting and control part is responsible of the entire order to cash activities. The plan is to make these activities the same globally. Their key task is to modify the company as such that it will function as a global organisation with the same principles and standards everywhere.

The essence will be to harmonise all the processes top-down so you will have one specific way of executing the activities. If organisations work on one particular way (not three different ways) an organisation can make efficiency gains. Standardization will result in efficiency gains. Often seen difficulties are that processes are influenced by the past and by the business units. That makes it hard to do all the processes on the same way (standardization). According to OCÉ the first step to implement a shared service center is to make one manager responsible for an entire process. (in this case financial account and control). **That manager will implement a uniform system (SAP or Oracle etc.) If there is a uniform method and IT** the centralization can start. After implementing an uniform system the centralization will start and the scheduled centralization and co location of an actual shared service center will be around 2017.

4.8.3. Why do companies implement shared services?

There are several motivations for OCÉ to implement a shared service:

- **Efficiency**: headcount reduction
- **Uniformity**: same reporting, same tooling, one vision.
- **Cost awareness**: through the uniformity there will be one way of working and one way of reporting. This improves the cost visibility, in stead of several reporting methods, just one method will be used.
- **Improving quality**: through standards the quality should go up.

4.8.4. What are the actual benefits, best practices, and criteria about the design of shared services that will contribute to an (un)successful shared service entity?

Because they did not implemented the shared service entity yet, there is nothing to say about realised benefits and best practices, however some indications can be made.

Criteria:

- Easy to standardize activities
- Business size (small businesses it will not be worth the trouble and implementation costs)
- Availability of IT
- Start top-down

4.9. VDL Enrichment Technologies

These case study results are based on a single interview with the director of financial controller of the site in Almelo. The respondent worked 32 years at VDL Enrichment Technology. This a more special case than the other shared service center cases. VDL Enrichment Technology is deliberately not implementing shared services in their business. So this case has a different perspective then the cases of Stork, DHV Royal Haskoning, Defence and OCÉ. This key informant provided his information through an interview, feedback and additional questions that were useful for this research.

4.9.1. Description of the company

The VDL Group is an international industrial and manufacturing company founded in 1953 by P. van der Leegte. By targeted acquisitions and growth did the company develop to an international, industrial company. VDL produces semi-manufactured goods in the semiconductor industry, busses, assembly of cars and other end products.

Figure 35: VDL Bus

VDL is headquartered in Eindhoven VDL has a total 87 sites over 19 countries with around 11.000 employees. The products they assemble are most of all hidden in other products (semi-manufactured goods). VDL strives to grow steadily where the accent lies on innovation, improvements in production methods and the products. VDL offers continuity, the basis is formed by the unique structure of the group. A bundling of flexible and independent companies with their own specialism in very diverse product market combinations on national and international level.

4.9.2. SSC in VDL Group

The first question in every case is: what does shared services mean to you? The execution of a series of support activities that are executed centrally to be more efficient.

The VDL group is a big holding organisation. Every company is decentralized and has their own core business, from busses to lithography. At the VDL Group, and the unit of analysis VDL Enrichment Technology there deliberately chosen for a decentralized approach. The structure of VDL is that the VDL group is a holding organisation, with 87 private companies which consists of 73 different businesses

under them with high levels of local authorities. A high level of differentiation under the private companies is measured. Every company has its own core business (=one business unit), therefore no shared services are implemented in the VDL group.

Centrally, there is made a large ERP system (SAP) that collects all the data from all the companies. But every company has their own method of working. Most business units work with other ERP systems (for example VDL Enrichment Technologies works with BaaN) and those are all uniquely linked with the central ERP system. If they want to share financial activities, all those specially made (unique and working for that specific business) must be changed in order to work with a shared service thought.

4.9.3. What are the actual benefits, best practices, and criteria about the design of shared services that will contribute to an (un)successful shared service entity?

This special case made clear for a company why the do not share activities. Based on the information in paragraph 4.9.2. the criteria are:

Their criteria NOT to share are:

- High level of differentiation in core businesses of all the private companies
- Big investment in IT
- Less insight in processes

After asking the respondent which aspects they want to take into account if they do want to implement share services are:

Criteria:

- Business Size
- Are they identical processes
- It should be non-core business activities
- Can the activities be standardized?
- How is the corporate structure, beliefs and interests. Do they want to change that?

4.10.Combined case study results of PMOs

	Fokker Technologies (Stage 2)	Philips Healthcare (Stage 3)	ASML (Stage 4)
Main Function	Manages the standards, procedures and hands-on support for all business units. (Phase 2)	Contains project managers who are controlling and supporting projects with tooling and standards (uniform). Lead projects start to finish.	Generic / administrative service delivery to projects. Controlling projects, uniform tooling.
Motivations (Successful if…)	Common structure, continuous improvement, knowledge center, efficiency, ready for growth	Transparency, efficiency, uniformity, continuity, focus on core business, capturing best practices.	Maintain business focus, increase effectiveness, increase in quality, uniformity, efficiency, reduce waste, redundancies
Benefits	Knowledge sharing, increase knowledge, common structure. Common mistakes disappeared, overview & control.	common structure, better feeling of contribution to the company, increase in communication, transparency, efficiency, capturing best practices, core business focus.	Increase in uniformity, Efficiency Transparency of costs. improvements are in quality of the projects
Best Practices	Implement with 'low hanging fruit principle'. Stay under the business, not above. Strong communication with stakeholders, employee training. Strive for continuous improvement. Keep in-depth knowledge by placing a PSO in all the BU's. Mandate of management team.	maintain the in-depth knowledge of every department, training, place the PMO under the business unit. Standardization, implemented project dashboard, Keep employees updated about. (strong communication). Clear vision of the PMO.	maintain a specific level of depth through dedicated PSOs. Implement strong SLA. Transparency, Reliability and predictability. trained (PMBOK certificate). Standardization of the process. Clear vision of the PMO.
Challenges	Understanding of value of the PMO by the employees. Experience of bureaucracy. Client is always leading. No power.	Bureaucracy. constant discussion about location of PMO. Constant indecision about more uniformity vs. close to core business	Hard to get consensus over the entire group. Bureaucracy. Implementation of transformational services.
Criteria to Share or not to Share	Non-core business activities, generalizable, could be standardized, size of company, location of the entity in the company.	Processes could be standardized. Preferably non-core activities if sharing is something a company wants. Repetitive tasks	A service must be commodity (Record), Generic, repetitive activities that can be standardized.
Thales Specific Interests	Loss of in depth knowledge was not a criteria or a problem. PMO is mostly supporting in tooling, not administrative centralized.	Loss of in-depth knowledge was not mentioned in this interview. Not a problem or discussion.	Do not budget the projects to hire shadow staff. Loss of in-depth knowledge no criteria of sharing.
Unique points of interest	Former shared service entity with support staff led to loss of in depth knowledge and service value decrease. Managers were unaware of their supports activities.	Strong focus on their core business the R&D part.	Services handbook/brochure

Table 4.4.: Combined case study results PMO

4.11.Combined case study results of SSCs

	Defence	Stork	DHV Royal Haskoning
Main Function	Centralize administrative functions in to one co-located entity to gain efficiency. Deal with administrative activities.	Shared services means efficiency. Co-locating administrative (transactional) personnel for efficiency.	Shared services means efficiency. Co-locating administrative (transactional) personnel for efficiency.
Motivations (Successful if…)	Focus on core business, Reduction in budgets	Reduction of costs, more alert, ready for change in the company, better grip on the processes, better control on costs. Efficiency, Uniformity	Efficiency, Uniformity, Cost control, cost visibility, Sharing knowledge Flexibility
Benefits	Efficiency (redundancies). Personal favours are controlled. The control on costs. It was like an incentive to standardize more and more. Transparency of costs and the cost control, knowledge center	Efficiency, More interesting jobs, Personal favours are controlled, uniformity, Increase in flexibility.	Efficiency, Uniformity, Cost control cost visibility, sharing knowledge Increase in flexibility, increased learning
Best Practices	Put the customer first, Communicate (Transparency) Involve the employees in the process of transition. Listen to accountants. Dashboard. Keep room for special orders	Promotion of the SSC. Low hanging fruit' principle. Personal approach. Communication. Knowledge data bases. Establish clear Service Level Agreements	Co Locate employees. Continue to automatize. Continuous improvement. Strong leader. Communicate. Include businesses in changes. Adapting new services from the business. Service Level Agreements.Trust
Challenges	Feeling of lost responsibilities, tired of reorganisation, redundancies.	Depersonalisation, Politically unpopular Shadow staff / shadow activities	Depersonalisation, Chain responsibility
Criteria to share or not to share	Administrative activities, non core business, repetitive, level of predictability.	The simplicity of standardization. Tailored services are harder to share. Needed local knowledge (specific to business units or departments) are low	Processes should be standardized. Non core business. After thoroughly thinking about it, it is time to investigate opportunities.
Thales Specific Interests	There are account managers too maintain in-depth knowledge for every business unit. Loss of knowledge was not a criteria to share or not to share.	In-depth knowledge. At the start it was hard to keep all the in depth knowledge in the company	To keep the in depth knowledge, under HR Advise there is a small group of 'Business Support'. They have activities for specific business units.
Unique points of interest	Most prominent shared service center of Dutch non-profit organisations.	Services handbook/brochure, actual promoting of SSC with flyers and announcements.	4 step pyramid. (click-call-face)

Table 4.5.: combined case study results SSC

4.12.Combined case study results special cases

	OCÉ	VDL Enrichment Technology
Main Functions	Start implementing shared services. Top down approach	No shared services
Motivations (Succesfull if..)	Efficiency. Uniformity. Cost awareness. Improving quality. Uniform company that is recognizable for internal and external clients.	-
Benefits	-	-
Best Practices	Start top-down	-
Challenges	Implementation of standardized tooling top-down.	-
Criteria to share or not to share	Easy to standardize activities, Business size (small businesses it will not be worth the trouble and implementation costs), Availability of IT	Choice **not** to share: High level of differentiation in core businesses of all the private companies. Big investment in IT. Less insight in processes. Very decentralized. Considerations to share: Business Size. Are they identical processes. It should be non-core business activities. Can the activities be standardized? How is the corporate structure, beliefs and interests. Do they want to change that?
Thales specific interest	-	-
Unique points of interests	-	-

Table 4.6.: combined case study results special cases

5. Cross Case Analysis

The tables 4.4. until 4.6. combined all the results of the cases into single tables. This chapter will analyse the results from the previous section. As mentioned in chapter 2, the methodology, this will be done according to a cross case analysis. During this cross case analysis of the results of the cases will be compared to each other. The goal of this analysis is give more valid conclusions (2.6.) and to see if the results complement each other, if results can be assumed to be applicable to multiple shared service entities (SSC / PMO) or if there are significant differences between cases and their results. As mentioned in the methodology (2.6) the cross case analysis that will be performed here is to define similarities, differences and complementarities between cases ánd between SSC and PMO.

5.1. Analysing cases of PMO, SSC and special cases

This research investigated eight different cases and got results by using semi structured interviews. To give more sound conclusions, every case is categorized. The PMO entities are categorized by the model of Hill (2004) and the SSC entities are categorized by the model of Schultz et al, 2009 (figure 36).

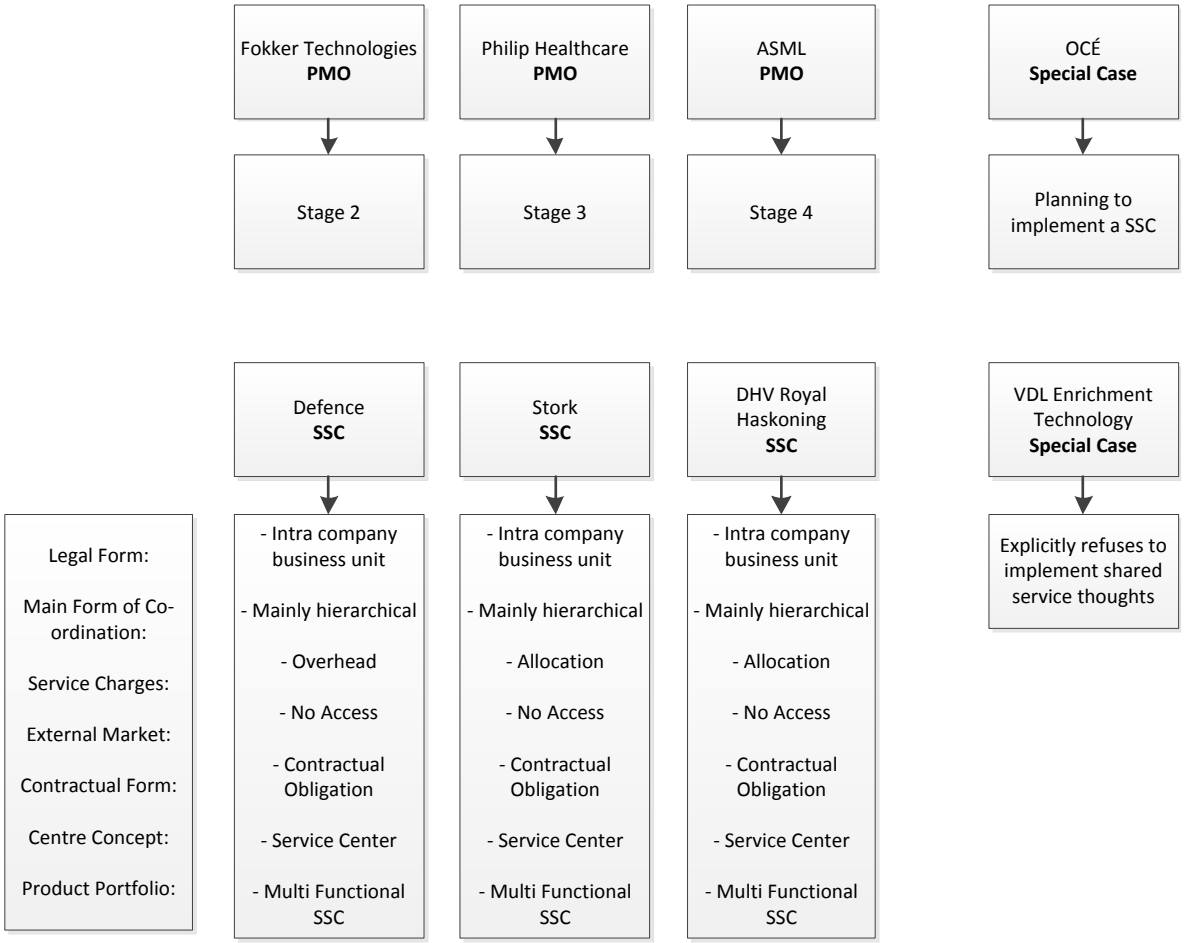


Figure 36: classification of cases

5.2. PMO cases analysis:

Figure 36 shows the eight cases and their classifications. As seen in this figure and their individual case study reports several distinctions and similarities can be identified immediately. The first noticeable aspect is the differentiation within the PMO category. These PMOs are different on several ways (also according to theory that a PMOs are there in many forms (Aubry, et al., 2007)):

- The PMOs are in different stages according to the model of Hill (2004) (Stage 2,3 & 4)
- The researcher experience all three PMOs differently
- Their main functions (table 4.4.) differ

It will be hard to draw empirically based conclusions that will directly contribute to the PMO theory because of all the differences. However, the best practices and motivations do have a lot of commonalities. As a shared service entity the PMO does have similarities that will contribute to an effective design of a shared service entity. Despite of the many difference between the PMO there will be useful information in these entities.

All three cases have their own main function. Fokker focusses primarily on uniformity in the processes and standards for all business units. Philips Healthcare focusses also on tooling, but also holds several project managers to lead the projects in standard optimized ways. ASML acknowledges that it according to the theoretical terms is a shared service center. Despite these PMOs look very differently, there are a lot of similarities found in the results (table 4.4.). Most motivations, benefits, best practices and challenges are more or less the same. No aspect is found that distinguished itself to a particular stage of PMO or setting of PMO. Therefore it can be assumed that the aspects have a high commonality and therefore overlap. Results from a single case could also be applicable for other cases.

The main differences between the cases is that their primary goal is different. Fokker and Philips primarily aim for uniformity of the processes (Fokker) or entire projects (Philips). That uniformity should lead to less errors, more collaboration and increased learning. Those aspects should increase the efficiency in total. The main function of the PMO in ASML is to reduce costs by sharing personnel to do generic administrative tasks for projects (more a shared service thought). The reason that the motivations, benefits, best practices and challenges are similar is that cost reduction and uniformity are also linked to each other. Uniformity can lead to cost reduction and for cost reduction uniformity is a key factor. For this research, the factors of success, uniformity, efficiency, service quality and cooperation, both primary goals(uniformity, efficiency, cost reduction) of their PMOs are applicable. Analysis shows that non of the aspects is dedicated to a primary stage or PMO and therefore useful for this research.

5.3. SSC cases analysis:

The second interesting thing to see is that the shared service center share a lot of similarities. According to the model of Schulz et al, (2009) there are minor differences. The only difference is that the Defence uses a *overhead* method and Stork and DHV Royal Haskoning uses *allocation* method. Similarities are:

- Almost the same organisation unit according to Schultz et al, (2009) (one difference).
- The researcher experienced similarities in their explanations
- Their main functions (table 4.5.) are similar

During this analysis the aspects of these SSC entities can mostly be combined because of the many similarities this research found. Considerations are, First, the non-commercial view of Defence (public company). Second, Stork and DHV Royal Haskoning are also pretty common in size while Defence is substantially larger.

For the reasons above it can be assumed that the aspects mentioned by these three cases are complementary to each other. Shown in the results that these three cases have a lot of overlap, because of this complementarity and overlap it can be assumed that aspects missing in one case could be forgotten to mention by the respondent or could be applicable in that case.

There are some minor differences between the cases. First, Defence is a non-profit organisation which is constantly subject to reorganisations. Their organisation has to deal with tiredness of the company in according to the constant reorganisations and have to take that into account. Second, Defence and Stork experienced some shadow staff and / or activities directly after implementation. DHV royal Haskoning did not experience this. This aspect is not complementary to all cases. To address the size difference and span of control difference between Defence and Stork / DHV Royal Haskoning, the researcher did not found major disturbing issues that might indicate that the cases are not complementary. One small aspect is that Defence did make a major IT investment in a dashboard that supports the entire company and therefore their (internal) clients. Logical thinking says that such major IT investments can only be done in large companies and with a very high span of control.

5.4. Special cases analysis

These cases are not compared to each other because of the special character they have. OCÉ is in the planning stage of implementing a shared service center thought and VDL Enrichment Technology

explicitly refused to implement shared service thoughts. These cases could not be quantified by either Hill (2004) or Schultz et al, (2009) and therefore the insights are elaborated individually. These two cases will be used as a validation for motivations and criteria to share or not to share services.

5.5. Cross case analysis

To start, as mentioned in the theory, both PMO and SSC are shared service entities. This implies that both entities should have their similarities. But are distinguished from each other and therefore have their differences (3.4.). The model that was given by Ulrich (1995) about the differences between the two entities can be considered confirmed. The experiences of the researcher and results of this research indicate that the aspects considered by the model are correct. A question arises for what it means for this research and the results that these differences between the entities are found.

The major overlap between the shared service entities is that they both strive for an in crease in value creation. For a SSC this is translated into more productivity per person (less costs), while a PMO aims for more efficiency through better organised processes (more service value). The best practices that arise for achieving these goals are applicable from both entities, because it is in line with Thales' needs.

The major experience difference between the SSC and PMO is the redundancy effect. SSCs gain value by spending less money, personnel, equipment or requirements. Tools to accomplish that is to work more uniform, co locate and gain more control over processes. While a PMO searches for an increase in value creation by working uniform, smarter and efficient. For a PMO uniformity is a goal, for a SSC it is a tool to accomplish more efficiency. For Thales these both aspects are important. They strive for more uniformity, efficiency, service quality and continuity. Therefore the best practices and challenges are all taken seriously. In the final conclusion the main goal of a PMO and a SSC and the differences listed in paragraph 3.4. figure 6 are always considered to get reliable answers.

A difference is seen at locating the entity. 2 out of 3 PMO states that geographically decentralisation is better, while 3 out of 3 SSCs states that geographical centralisation is better. Second, a consequence of this decentralised approach is that there was a lot of thought where to put the PMO. All three cases had their own ideas and specific needs. This 'problem' was not mentioned in all the cases of the SSCs. This might imply that the more transformational oriented entity (PMO) requires more thought in positioning their entity.

This research does not purposively aim for a theoretical contribution, but for a practical contribution for Thales. Both entities strive for aspects that Thales is interested in. Therefore both entities are very suited for this research. Because of the fact that there are not aspects that are very distinct for a single case the aspects are considered complementary. During the conclusions the main differences (figure 6) will be dealt with using logical thinking and common sense.

6. Conclusions & Recommendations

The final part of this research is the conclusion. During this conclusion the theory and results will be synthesized. This chapter elaborates on the key findings of this research and tries to answer the research question and sub questions. This is done by combining the theory with the results of the interviews. The key research question of this research is:

"What are the design criteria that exist in theory and companies that are comparable to Thales that will help make a shared services entity successful"

6.1. Why do companies implement shared services?

The first sub question was "*Why do companies implement shared services?"*. That question is split in two, first the motivations for implementing (success factors) and the experience benefits. During this paragraph the most mentioned motives and benefits from theory as well as results are given. Next to their notification, a sound elaboration of every aspect is given, mostly extracted from several cases (derivate of respondents quote's).

Motivations.

Shared service organisations aim to deliver more service value to their customers. This can be done by improving quality, reducing price of the product or both. With the implementation of a shared service entity this increase in service value is indented to reach. The main motivations (or in this case, Defence, obligations) of implementing a sharing service entity are: efficiency, uniformity, increased focus on core business, be ready for growth. The companies demand that managers and employees do more with fewer resources.

Benefits.

During this research the benefits in theory are analysed and benefits from the cases are added.

Efficiency: Efficiency gains are measured by the shared service organisations. In the PMO these efficiency gains are not directly measured by the financials. It is not proven in the PMOs that the efficiency in financials really improved. The PMO managers and project managers who use the PMO are all very satisfied and agree on the gain in efficiency of the company. In the shared service centers a definite financial efficiency gain is measured. Defence, Stork and DHV Royal Haskoning all cut their administrative

HR/Finance staff in half. This by co locating the staff and therefore remove overlapping and duplicate work.

Uniformity: Both entities, PMO and SSC focus very much on standardization and becoming more uniform. Implementation of a shared service entity results in more standardized processes. If activities are shared across the business units, they must have a common structure. If a shared service entity wants to be successful the processes must be uniform to remove overlap and duplications.

The control on costs and on employees increased: Personal favours are controlled: (more control) In the past, where employees are assigned to specific business units. Personal relationships were formed, and therefore, personal favours were granted. With the implementation of a shared service center these personal favours and other economic inefficiencies are dealt with. Second, by making all the processes uniform one single format will be used. In old cases, companies delivered 20 to 30 different formats, which was very confusing and inefficient. With the implementation of a shared service entity this will be one single format.

Increase in flexibility. There was a definite increase in flexibility. In the old situation every unit had their own specific professional, if that employee was absent nobody could replace that person. With a shared thought, the coverage for each other is a lot better. The shared service entity is available 5 days a week, 52 weeks a year. The personalized style before the shared service entity did not have this full time availability.

The shared service entity is in some cases seen as a **knowledge center**. A client satisfaction research showed that the employees see them as a knowledge center. An effect of centralising and co-locating all the knowledge from every business unit was that the **knowledge increased**. If there are questions they automatically come to the shared service entity because they know the expertise is there. (The shared service entity proved themselves as an excellent organisation of knowledge)

Common mistakes disappeared. By documenting experiences and knowledge carefully in a database, common mistakes can be prevented. However, cases show that to become such a knowledge center is hard. Two cases pulled it off by really showing that they are capable of doing that. Other companies are struggling to be really recognized as a knowledge center by the rest of the company.

Capturing best practices. By being open for continuous improvement and steer on those aspects (lean & kaizen.) best practices are captured by the shared service organisation. These best practices will help to be more efficient.

Focus on core business. By co-locating and standardizing processes of managerial tasks their more expensive time will be used to do more core business activities.

As mentioned, the motivations for implementing a shared service is increase service value. This can be done by lowering costs, increase quality value or both. The benefits can be ordered in efficiency and effectiveness. Efficiency is described as doing things in an optimal way. Effectiveness is about doing the right task, completing activities and achieving goals. (figure 37)

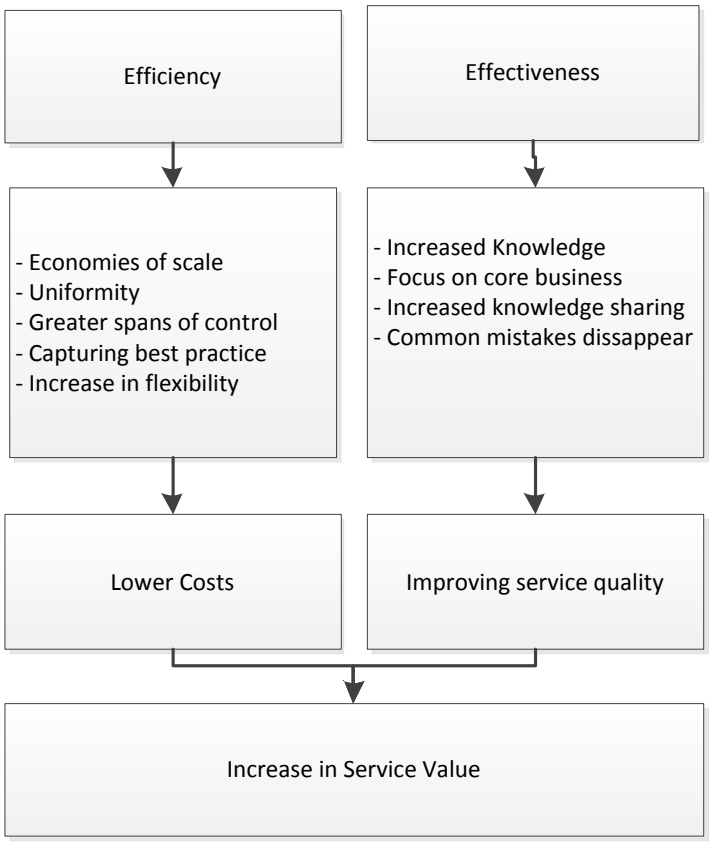


Figure 37: Conclusive motivations and benefits

6.2. Best practices / recommendations

The second sub question is: *What are best practices, criteria and aspects about the design of shared services that will contribute to an effective shared service entity? A*nd the third: *What best practices, criteria or aspects can be derived from shared service entities of comparable companies that make their shared service entity (un)successful?* During the next paragraphs these two questions will be answered at the same time because of their similarity. The second question focussed on theoretical aspects, while the third question focussed on the validation or new insights in several cases. Concepts of the theory will be used and elaborated with findings from the semi structured interviews. Most best practices are recognized in the theory. During this paragraph the practical implementations of the cases are elaborated on. These best practices are also the recommendations for Thales. If they want to implement a shared service entity, Thales should think about the following best practices.

1) Involve customer in defining deliverables

Change management is very important in the transition process. The experience with Defence was that the people who were involved with or affected by the transition must have their say in the process. If they are a part of the process, the support will increase. If you decide for them, they will not collaborate or do not have support for the shared service entity.

2) Select the right business professional / Strong project management skills

There must be somebody with the consciousness of continuous improvement and continuant efficiency improvements and is extravagant enough to carry out those beliefs. Under the strong leader, as mentioned before, skilled personnel is very important. It looks like easy tasks (administrative), but all the repetitive and easy tasks are automated, only the processes where thinking must be done are left.

3) Define and use multiple channels of delivery.

Click, call, face principle of DHV Royal Haskoning. At first they have an intranet (IT) setting where clients can find information (click). If that is not sufficient, the SSC will be addressed (call or physical visit). If their consult is not enough, the client can turn by call or visit (face) HR experts or HR advisers. This principle worked very well and was supported by the employees. Thales might be interested in this application.

4) Share information from customer to shared service and shared service to customer / effective communication.

Communication is key during the process of shared services. Shared services addresses multiple business units in a generic way. In practice, monthly meetings between the director of the shared service entity and the managers of the business units (clients) are planned to discuss what practices are working and what practices are not working.

5) Clarify multiple roles within the shared service organisation.

The experience is that participants of shared services want to find the comfort of the past rather than engage in something new. A success factor is to recognize several roles that will indicate the new course. Clarify that members of shared service organisations are professionals that do not create an enforce policy, but are actively combining and sharing knowledge. (Ulrich, 1995)

6) Co-locate members of the shared service organisation.

Cases (Defence, Stork, DHV Royal Haskoning) do not believe that decentralization is working. That will increase the chance that the uniformity will decrease. If you choose for 2 or more locations, the chance for 2 or more approaches will increase. Also, gathering employees on one location increases the knowledge sharing. The effect of co locating in Defence, Stork and DHV Royal Haskoning is that they are now seen as a knowledge center (center of expertise).

Fokker and Philips Healthcare were the only cases who was against the co location of personnel. In the past Fokker Technologies had a shared service center for the project support (administrative). This did not work properly because:

- Geographically centralized. Employees were centralized geographically. A consequence of that was that they lost the in depth knowledge of the business units because they were not close anymore. Their specific tasks made it impossible to centralize.
- Managers did not know anymore what the shared service center was doing and their benefit. The value of services decreased and finally they decentralized again.

Philips Healthcare also recognized the value of a decentralized environment. According to them decentralization will keep the in depth knowledge in the business units. As mentioned in the cross case analysis the PMOs strive more for decentralisation and SSCs for centralisation. Indications (based on cases) are that transformational services are better shared in a decentralized setting and transactional centralised. For Thales it is advised to consider the geographical centralisation or decentralisation thoroughly. The mentioned cases differ in their opinions, with some indications for SSC and PMOs.

7) Get the consolidation over as quickly as possible / A phased approach to implementation / Strong change management.

The discussion in the theoretical framework about implement directly, or implement piece at the time is mostly answered in the cases with the one piece at the time principle. Multiple companies (Fokker, Stork, DHV Royal Haskoning) concluded that the implementation must be piece by piece. The **low hanging fruit principle** is based on easy gains and show the company that you are capable. If a shared service entity starts with easy tasks and shows the company that they are capable, the trust of the clients will improve. The theory is that showing quick improvements results in more trust and support for the shared service entity.

8) Define measures of shared services success (SLA's / KPI's).

Monitor the satisfaction of their clients. The shared services primary task is to satisfy their internal clients. Regulatory communication with clients about, improvements, current service level, good points, insufficient points, where to improve. A second KPI is: the reports should in 95% or more cases be sufficient and on time. Other SLA is: always respond within five working days (Defence, Stork). Not all companies use specific SLA's or KPI's for their shared service. If they do not have SLA's or KPI's they do have regular meetings between shared service and their stakeholders to review the service value.

9) Senior – level support.

The shared service should have a mandate of the management team. Because of this mandate, the shared service is recognized as a supportive and actual organisational feature. To be recognized as an important organisation has many benefits. According to Fokker Technologies and Kerzner (2004) it deals with:

- Employees who do not support the project.
- Employees who think that the project is only a trend or fad. Therefore, make clear that a shared service center is a long-term, strategic decision and not a short term cost cutting tactic. Success depends on long term benefits, make clear to employees that not only cost cutting was a strong incentive, but also their role in support globalization, improved customer service and better decision making are equally important (Pwc, 2008).
- Employees who do not understand that the entire chain or business in total will benefit.
- Employees who do not understand the expectations of customers
- Employees who do not agree with the executives decisions. (Kerzhner, 2004; Burns & Yeaton, 2008)

10) Global organisational structure

This assumption of the white paper is confirmed by the cases of OCÉ and VDL. OCÉ states a bottom up approach by first centralizing at the highest level (globally). A fragmented organisation can not be shared in. VDL said a similar thing. They are a very decentralized company. Because of their decentralization they do not invest in shared services.

11) Invest in IT.

A form of transparency is made by Defence. They introduced a specific **dashboard**. Clients can see the progress of their required service in that dashboard. A client can see at any time what will be done and how they will do it.

Stork and ASML made their own actual **catalogue** (digital and hard copy). Every service they provide or can help with is implemented in the catalogue. For customers it is very clear what to expect of the shared service entity on that way.

New categories:

12). Trained personnel.

Almost all cases mentioned that training of their shared service employees are very important. Most of them are PMBOK or IPMA trained. Second, employees are at least MBO+ and preferably HBO educated. For the success of the shared service entity it is important to:

- Speak the same language (their goal is to create uniformity)
- Are motivated to continuously improve processes (kaizen & lean)

13). Maintain in depth knowledge

The loss of in depth knowledge was not a criteria that was considered before implementation of the shared service entity. Some cases experience a small decrease in knowledge right after implementation (redundancies). But after that the knowledge increased in stead of decreased. Co-locating of the employees ensured that the knowledge sharing and total knowledge increased. Some cases even showed that the shared service entities are seen as knowledge centers. To become a knowledge center the entity really has to prove themselves capable. Managers should have a very clear vision and carry this vision out to the rest of the company. It is necessary that the company recognizes the value of the shared service entity.

A second aspect of the maintaining of in depth knowledge and prevent shadow staff was that PMOs and SSCs are composed with employees from every business unit (Philips Healthcare, Defence, Stork). An other approach is to put dedicated employees to specific units (ASML). Another approach is the approach of Defence, by assigning account managers for every business unit. Those account managers are the link between business unit and shared service entity. Once a week they are located at the business unit.

14). Well thought positioning of the entity.

Several organisational models are studied with all their own preferences. Shared service centers state that they need to be placed at all time under the business units. They should always be supportive and should listen to the client. For PMO organisations this differs, which is also mentioned in the cross case analysis. PMO organisations thoroughly consider the placing of their unit. Considerations are: place organisation where the core business of the entire company happens (Philips Healthcare) or place were the most activities of the shared service is related to (ASML).

6.3. Challenges / points of attention for Thales

Feeling of lost responsibilities / power shifts

Power shifts from the business to the shared service entity. Managers feel like they are losing responsibilities (less in control and the activities are done further away) and are not happy with that.

Depersonalisation

Depersonalisation could be a problem. Employees were used to do their work on their own specific way. Resistance occurred when the employees noticed that a personal view on the work disappeared. For example, leaving sick must be done at the SSC and not with the trusted employee. Employees started to

feel like a number in the organisation. Continue communication and personal approaches how the SSC works helps the understanding. The challenge is to keep the employees informed about the opportunities they all have and show them that the shared service entity is not a kind of call center, but actual co-workers.

Politically unpopular

Sharing, centralization, those terms are always associated with redundancies. People feared for their jobs. The main goal was (mostly) to reduce personnel and gain efficiency. Stay in communication with stakeholders about this matter. People must be good informed about this matter to prevent too much fear. In the end, people did leave, it is always hard to say goodbye to people who are working with Stork for a very long period of time.

Shadow staff / shadow activities

After implementation a very often seen phenomenon was that receptionists or business controllers gained extra tasks that should be in the shared service. A main challenge was to convince the businesses that they do not need those activities anymore. Stork made sure the information services was perfect. They needed to show the businesses that they could to their specific work. After showing that they could do the job, shadow activities disappeared. Sometimes it still pops up, then this will always be taken seriously because the need for this does not come automatically, there is an underlying need. In the monthly meetings this is always discussed.

Bureaucracy

By implementing standardized tooling, procedures and processes the bureaucracy increased. Uniformity leads to more standards, because all of the departments must use the same tooling, therefore more variables, procedures and processes are added. A main challenge is to keep the feeling of bureaucracy at a low level.

No actual power / hard to get consensus

It is very hard to get consensus over the entire group. Then there are two choices, choice one is that the shared service entity orders to do it their way (which they often do not have the power for). A negative side of that choice is that it leads to less quality for the business. Choice two is continue trying to get a consensus about the plan. This is very time consuming. The client is the party that must be satisfied.

6.4. Criteria to share or not to share

Assuming that all service are the same is a misconception. There are two kinds of services, transactional and transformational. During this research most activities that were shared were transactional services (ASML, Stork, DHV Royal Haskoning, Defence). Transformational services were found in the PMOs of Fokker and Philips Healthcare. According to theory and results the PMO organizations are more focussed on transformational services. The article of Ulrich (1995) and Hofman & Meijerink (2015) acknowledges that there are *indications* that transformational services are mostly shared in PMO organisations.

During this research several criteria to share or not to share a service are found. First of all several theoretical criteria are derived. The most common criteria to share services according to theory are:

- Differentiation in needs must be low
- Loose coupling
- Transactional services

During this research the connection between the theory (platform theory & modularity) and practice became evident. According to the results the following activities should or should not be shared:

- Should be able to be standardized.
- Non core business activities
- Tailored services (services specific specially designed to business units) are harder to share
- Needed local knowledge (specific to business units or departments) are low
- Repetitive, predictable services
- Business size must be large enough to make it profitable
- Very decentralized companies (more differentiation) are harder to implement sharing

Theory states that the commonality must me high, and the differentiation in needs should be low to share activities. That can be measures to asses if services should differ across end users and over time. During this research it became evident that companies thought about these criteria, especially about the differentiation across users. The facet that it changes a lot over time is not particularly mentioned. But it can be assumed that these are forgotten, because that facet is an extension of the differentiation across end-users. The criteria that contributes and further validates this theory are: should be able to be standardized, tailored services are harder to share, needed local knowledge is low, Very decentralized companies are harder to implement sharing and predictable services. Logical thinking says that these

results contributes to the differentiation in needs theory and that commonality potential and differentiation in needs are actual criteria to asses before implementing a shared service entity.

The second theoretical aspect, loose coupling, the number of interconnections among activities (up- and/or downstream flow of the information) is not specifically found in the results the way Vanderfeesten et al, (2008) operationalized this criteria. However, repetitive and predictable services imply that there are less interconnections because of the predictability. Employees already know what to do and do not always have to consult each other. However this thought does not hold for every situation. Therefor this research marginally contributes to this theory, but that criteria should definitely be considered before implementing shared service entities because of their indications of influence.

Finally, the type of services. Not all services are alike. Theory indicates that transactional services are suited for shared service centers and transformational services are applicable for project management offices and/or competence centers. During this research this indication became evident. The three SSC cases clearly indicated that they mostly perform transactional services. Two out of three PMO cases indicated they mostly performed transformational services. Results mostly indicate that transformational services are applicable to be shared (able to be standardized, repetitive and predictable services). The theory and results indicate that transformational service are fit for sharing. Conclusions: transformational services are harder, theory and results do not give any consensus about dealing with transformational services. This is logical, because transformational services enhances a lot more services and are way more differentiated. A new demarcation about transformation services might be useful. Conclusive, transaction services are excellent for sharing and there are indications that there are possibilities to share transformational services as well, but the positive or negative effects of sharing transformational services are not widely validated.

Other criteria derived from the results are that services should be non-core business activities. The sharing of non-core business activities positively influences the focus of managers (more costly personnel) on core business tasks. The final criteria, business size, is a logical criteria. The larger the company, the more companies can benefit from centralizing. In most cases there will be an initial investment (IT) for the shared service entity. Second, considerable size will increase the opportunity to gain efficiencies. Precise figures could not be derived from this research. Indications are mentioned in the results section.

6.5. Thales specific analysis

The interests in contract management, finance, resource planning, quality, configurations management gave the following results.

- Finance, in most cases centralized in a shared service center(Stork, ASML, Defence, DHV Royal Haskoning)
- Resource planning. The tooling is shared by the PMOs, but the actual planning is located in the business units. Most respondents answered with: “too much differentiation of the task and local in depth knowledge of the process is needed”
- Quality. Most respondents answered with: “too much differentiation of the task and local in depth knowledge of the process is needed”
- Configurations management. Most respondents answered with: “too much differentiation of the task and local in depth knowledge of the process is needed”

The other Thales specific interest, the possible loss of in depth knowledge is addressed in section 6.2.

6.6. Answer to the research question

The final section of this chapter is the answer to the research question. The research question of this thesis is:

“What are the design criteria that exist in theory and companies that are comparable to Thales that will help make a shared services entity successful”

During this research several aspects of successful shared service entities are described. In figure 38 all the criteria, best practices, challenges, pitfalls, antecedents of success derived from theory and the comparable companies of Thales are listed. That figure gives an answer to the research question of this research.

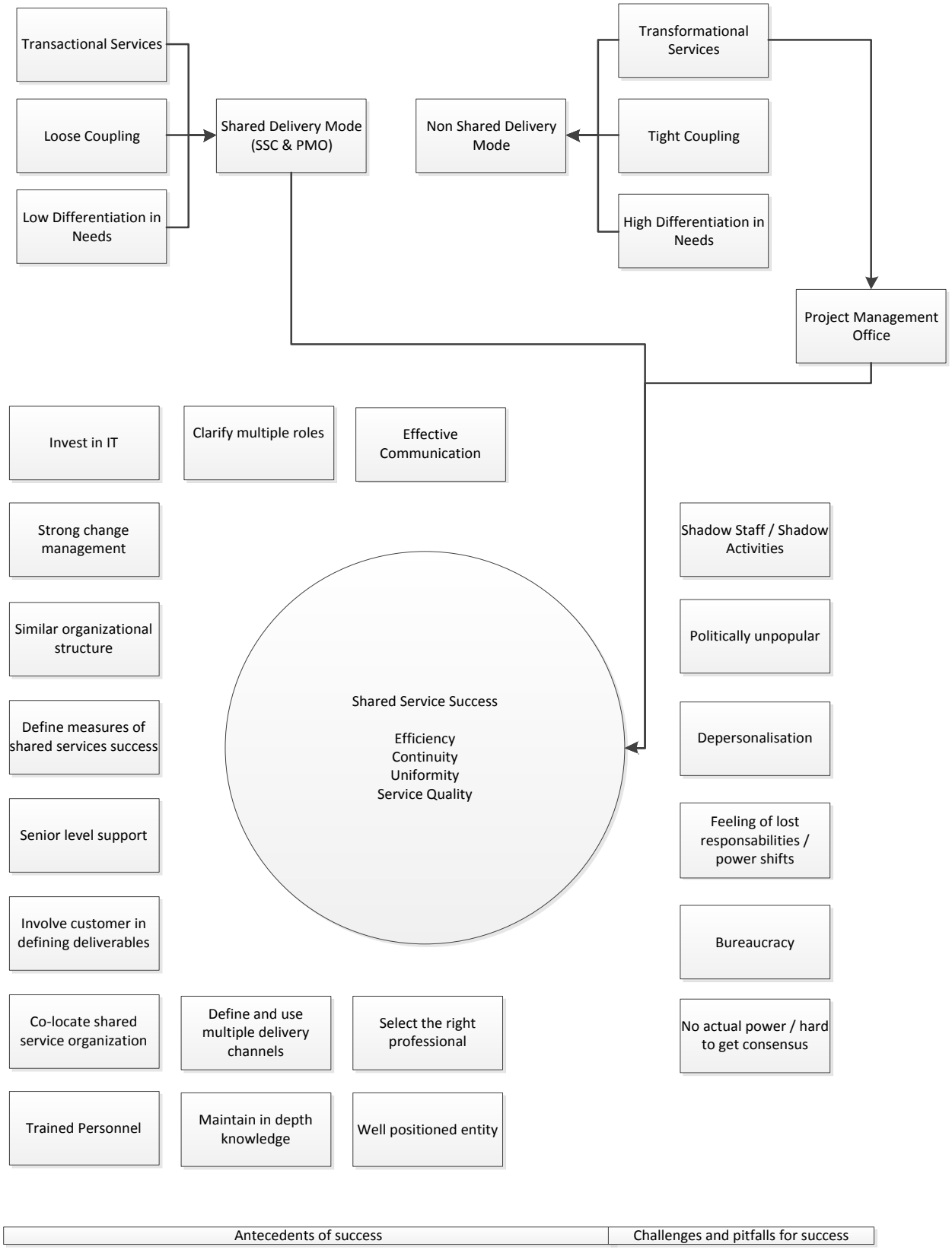


Figure 38: Conclusive criteria, best practices, challenges and the antecedents of success

7. Discussion, Limitations and Future Research

7.1. Discussion

This chapter examines the results of this research. This is done by three parts. First the contributions of this research to practice and theory. Second, the limitations and shortcomings of this research will elaborated. Finally, direction for further research are listed.

7.1.1. Practical contribution for Thales Hengelo

This project will add value to Thales cause there will be more insight in the planned shared service entity. Thales will have information about practical issues like pros and cons, recommendations on the design of the shared service, providing insights in comparable companies' shared service. This is important, because the design needs to be carefully chosen, Hofman et al. (2011) states that a poorly designed shared service may result in low quality and higher costs instead of the planned lower costs.

This research contributes to the understanding of shared services and their underlying principles. This research gives a framework how to design a shared service entity. During this research two entities were studied and two special cases were analyzed. All results are dealt with accordingly and are listed in the results, cross case analysis and conclusions & recommendations sections.

A question arises, what does Thales have to do with this information. This research has a clear structure. First of all, all the benefits, possible downsides, general best practices, general challenges and criteria are elaborated. After the methodology section the specific case results are in depth listed. The researcher chose for a full analysis of every case and a summarized approach. A guide to read this research is read the conclusions & recommendations section. If that is not clear, then the combined case study results section is advised. For in depth-knowledge of every case chapter 4 does have all the in-depth and specific information.

The advise for Thales is to learn from this paper by considering the recommendations that are listed in chapter 6. All recommendations are elaborated and extended with examples from the researched companies. The researcher chose for that approach to combine theory with practice. Every theoretical recommended aspect is listed, in depth knowledge of all these aspects are listed below. Three new aspects are found during this research (12, 13, 14)

The results are generalizable. During this research several noticeable differences are addressed in the cross case analysis. These differences are dealt with accordingly in the conclusions & recommendations. Further reasons to assume that the results are not generalizable are not found during this research. The primary goal of this research was to help Thales find design criteria and their antecedents of success for a successful support organisation. During this research some criteria interested for Thales are analysed during the interviews. The setting of Thales itself is not investigated, because of the possible delicacy of this research. For that reason it can be assumed that these results are not only applicable for Thales, but for most companies who are interested in a shared service entity.

7.1.2. Theoretical contributions

According to Halman et al. 2003, this research can contribute to the literature because platform studies investigate only a narrow range of platform types. This research contributes by investigating different types of platform types, and especially service types. (Halman, et al., 2003) Second, according to Hofman & Meijerink (2015) it remains open to question which condition determine the appropriate delivery mode. This research in service platforms (not only HRM) contributes to a widener view on the platform theory with other than HRM services. According to Voss & Hsuan (2009), further research to service architectures is necessary and emergent, this research briefly addresses this topic and therefore contributes to this topic.

7.2. Limitations

Every research has its limitations. Limitations are an important part of the research, because it can change the view or perspective on the outcomes of the research by the reader. With the limitations section the reader can decide how much value he will put on the outcomes.

The first limitation is that Thales itself is not taken in consideration to this research. That is one of the reasons why the conclusions and recommendations are a bit broad and not mainly specific for Thales. Thales did not want internal interviews around this matter, because sharing of services normally means redundancies. Thales did not want to risk that an interview may be misinterpreted with the result of employees thinking that their jobs are at stake. Therefore the best practices, recommendations and criteria are there for consideration and eventual further research if Thales is planning to further elaborate this possible implementation of a shared service entity.

The second limitation is that PMOs and SSCs are different and unique in organisations (Aubry, et al., 2007; Schulz, et al., 2009). Especially the PMOs in this research tended to be very different to each other and it was difficult to give general conclusions about the shared service entity PMO. The PMO is not a well-established entity in the theory and industry. During interviews with Thales, Fokker, Philips Healthcare and ASML about the perceptions of the PMO, several different perceptions came forward. This is understandable according to the theory by Aubry, et al. (2007). Shared service centers however were, due some minor differences, more or less the same and those results were more generalizable.

The third limitation is that the research is based on a rather limited amount of resources. The research was performed by a single student within a short period of time. Thereby, the units of analysis, eight cases could be considered as low. The saturation level with the SSCs can be considered reached. Not much new information came forward after the last interview. This cannot be said about the PMO entities. However, due time, resources and particular interest in the PMO there is chosen not to investigate more in the PMO area. Due to this limited number of cases, the generalizability of the research is not clear. The amount is not enough to be statistically sufficient for generalization of findings. Nevertheless, the statistically generalizability of the findings was not a goal for this research. The goal was to get insights in several shared service entities by gathering several perspectives, opinions, best practices and criteria. These insights were considered valuable for the managers of Thales. Therefore the goal of the research is considered to be fulfilled.

Fourth, during this research only the 'supplier-side' was investigated. This was done by interviewing PMO managers, shared service center managers and financial shared service managers. Most of them were involved by the implementation of the shared service entity. These managers might be biased to give mostly advantages, best practices and say that the entity is working excellent, because these entities gives them their work. Therefore it can be assumed that the answers given in the case studies are possibly biased.

Fifth, the semi-structured interviews do have their downsides. During the process, the interviewer could have given unconscious signals or cues that give expectations about the answers. The interviews were only one hour to one and a half hour, so not every question was elaborated in depth. Thereby, a semi-structured interview is hard to repeat exactly. Respondents could interpret questions differently with other researcher. Respondents could deliberately make it difficult to generalize the findings by

effectively answering question other ways. Finally, the validity could be questioned, the research has no real way of knowing that the interviewee is giving them wrong information. During this research the researcher tried to stick to the prepared questionnaire and tried to get in-depth information about relevant and interesting topics. In the opinion of the researcher the results are not false or misinterpreted because of the feedback they gave afterwards. Finally, there is no reason to believe that the respondents gave false information because of the complete openness of the respondents. Next to interviews they gave insights in their processes (documents) and were a helpful point of contact after the interviews.

Final, during an exploratory multiple case study many aspects are studied. This can be considered as a strong point of investigation, but also as a weakness. Because of the wide view of such a research many topics of interest are not studied in detail. (Most important points are given in the future research part of this research (6.3).

7.3. Future research

According to Saunders (2009) a case study can be very worthwhile of exploring the current theory. An addition to a case study is, because of lack of time and scope new interesting topics for further research could arise. Several topics arose during this research.

First of all, a research about how to measure the success of the shared service entity. Several authors gave some indications (Hofman & Meijerink, 2015). But, what could be measures of the benefits of the shared service entity and in what order of importance. Difficult to measure is how valuable a shared service entity is for the whole organisation. A shared service entity could do for their measurements very good work in efficiency, uniformity etcetera, but the core business could experience a lack of communication, speed of service or diminished value. It is hard to measure what the overall value is. A research to the overall value of a shared service entity would be very useful.

Second, an investigation for what companies a shared service entity is useful. During this research it did not become clear which companies have the organisational setting to implement a shared service entity. That means, at what point in time or point in development, size, turnover or any other measure is company fit to implement a shared service entity. During this research some indications were given, but not in depth investigated. This could be a very useful point of further research.

Third, more study towards project management offices are necessary. During this research the researcher notices that there are different perceptions in theory, but also in practice. The current definitions about the project management office are very wide. A sound investigation to the project management office would contribute to the literature. An addition to this, the differences between competence centers, centers of expertise, project management offices are not always clear. Authors use those entities as the same, as slightly different or as totally different. A sound investigation to the differences or similarities between the entities would help future investigators to these shared service entities a lot.

The development and understanding of service architectures is seen as one of the challenges in service innovation and service science (Voss & Hsuan, 2009, p.542). More research in service science is needed to create a bigger understanding of service architectures. During this research this topic is not specifically dealt with due the topics that were important for Thales.

Finally, further research within Thales is necessary about the applicability of this research. As mentioned, no internal measurements or interviews where held in Thales.

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Appendixes

Appendix I: Abbreviations

AWS	Above Water Systems
BU	Business Unit
CSS	Customer Support Systems
GBU	Global Business Unit
HRM	Human Resource Management
ISD	Information Systems Department
IT	Information Technology
PMO	Project Management Office
SSC	Shared Service Center
TRT	Thales Research & Technology

Appendix II: Questionnaire in Dutch

Shared service organisatie omschrijvingen:

1) Wat betekend shared services voor u?
2) Wat is uw rol in het SSC?
3) Introduceer uw shared service organisatie is?

- Span of control
- Grootte
- Bedrijfsgrootte
- Interface

4) Wat was voor **Company** de voornaamste reden(en) om een SSC te introduceren?
5) Welke zijn de (onverwachte) voordelen geweest van de implementatie?
6) Welke principes/methodes werden er gehanteerd om tot de genoemde voordelen / doelen te komen, waarom werken deze?
7) Wat zijn (onverwachte) nadelen van het SSC?
8) Door welke principes / methodes, hoe zijn deze nadelen ontstaan?
9) Welke principes werkten wel en welke werkten niet?
10) Hoe is de hiërarchie in de SSC, wie is de baas, hoe zijn de verantwoordelijkheden?
11) Waarom koos je voor het huidige locatie design van de SSC?
12) Ben je tevreden over het SSC?
13) Waarom ben je (on)tevreden?
14) Wat zou je veranderen als je het opnieuw zou doen?
15) Hoe zie je de toekomst van uw SSC voor de komende jaren?

Vragen omtrent criteria:

16) Welke diensten sharen jullie?
17) Welke diensten vallen er bewust niet onder en waarom?
18) De support staff contract management, finance, resource planning, quality, configurations, heeft Defensie een van deze activiteiten ook geshared? En werkte dit?
19) Hou je er rekening mee of diensten geshared kunnen worden?
20) Aan welke criteria voldoen de diensten die jullie sharen?
21) Veranderden de behoeften die de gebruiker van de services vaak?
22) Waren de services wat nu geshared zijn erg gekoppeld aan specifieke business units? Hebben jullie hier over nagedacht om te sharen? Wat is uw visie hierop?

23) Hoe zou je de services omschrijven die geshared worden, waarom zijn juist deze activiteiten geshared?

Thales specifieke vragen:

24) Wat zijn de beweegredenen van jullie SSC om continu optimaal te presteren? (incentives?)
25) Thales heeft de vrees dat er 'shadow staff' kan ontstaan, hoe zijn jullie hier mee omgegaan? (the hiring of excessive administrative assistants, they arise when the shared service partner fails to deliver value to the organisation)
26) Een andere vrees is de in-depth and specifieke kennis die verloren kan gaan bij implementatie van een shared service, hoe zijn jullie hier mee omgegaan? Hoe hebben jullie er voor gezorgd dat er genoeg specifieke kennis voor de business units aanwezig blijft.