

Shared services centres and business relationships dynamics: a case study research

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Abstract

The aim of this paper is to explore Shared Service Centres (SSC) dynamics as an opportunity to develop business relationships practices creating value for business. The paper presents a case study research of an engineering SSC that provides global technical support to internal customers. The research examines the vast SSC literature, and calls the Industrial Marketing & Purchasing Group (IMP Group) authors to discuss business relationships and interaction dynamic processes to better understand the SSC activities and practices. The research reveals three main findings: how operations and practices are developed in SSC; how business interactions within the network can empower the SSC model considering the activities, the resources and the actors exchanged; and, how value is created within a Technical & Engineering SSC.

Keywords: shared service centre; business relationships; ARA model; networks.

Introduction

Companies consider new business solutions and organizational forms to enhance competitiveness. Those business answers were defined as integrated solutions that represent value creation not only for the company, but also for the customer, requiring extensive coordination and the organisational responses (Ferreira *et al.*, 2013). One of the business solutions developed by companies to answer to the evolutionary changes were Shared Services Centres (SSCs), which currently play a significant and strong role to ensure activities and practices in organizations (Lopes, Proença and Soares, 2017). The SSC concept emerged in the late 1980s in the private sector, with the main purpose for organisations to reduce administrative costs and focus on the core business (Walsh *et al.*, 2006; Marciniak, 2013; Paagman *et al.*, 2015). The naming of Shared Services arises from being a collection of services that once were spread across many locations are now concentrated in a single location and can be shared and used by several customers (Van der Linde *et al.*, 2006). Primarily services in SSCs were finance, information technologies, human resources, accounting and purchasing. For companies, these activities were considered as peripheral services, which means, that they were not the core business and they did not contribute directly to the value creation (Ramphal, 2011; Tomasino *et al.*, 2014). In other words, SSCs work within a business network that allows fast activities aggregation with the main purpose of providing great quality services at minimum costs to its internal customers. It is focused on process improvement and the drive to realise the business and expand the low-cost benefit by driving process efficiencies.

Business networks can be seen as arenas for the SSCs work. They contribute directly to business relationships that have great importance in the business world amongst several actors. SSCs evolve through interactions and exchanges between actors, resource and activities (Lopes, Proença and Soares, 2017). The ARA (Actors – Resources – Activities) model developed by the researchers of the IMP Group (Hakansson and Snehota, 1995; Hakansson and Johanson, 1992) is pivotal in the study of relationships and networks (Axelsson and Easton 1992, Ford *et al.* 2010). This literature is a good theoretical context to discuss SSCs and to analyse business dynamics since it explains how business networks develop showing how the interactions of a SSC within a wider network enhances the creation of value for companies and for the network. Thus, in this research we call the IMP Group literature to

analyse and to discuss SSCs, since it has remarkable outlooks of how companies are connected into a greater network through their relationships. By considering the interplay between actors and how all activities are linked to each other as well as how the existing resources are used, value is created for the organizations within the network. The SSCs dynamic' process is achieved through the establishment and consolidation of structured and integrated business activities, processes and flows, through the inception of localized businesses in competitive shared services organizations. However, some questions emerge to understand the dynamic process of SSCs: *What* activities and practices run when implementing Shared Services Centres (SSC)? *How* operations are developed in SSC? and, *How* the business interactions within the network can create value and empower the SSC and the whole network? Next, we present the relevant literature and the research methodology, namely the data collection and analysis to address those questions. Then, the data are presented, and the findings are discussed in order to explore the nature and the SSCs dynamics. A qualitative and exploratory research method was adopted using a case study research involving one of the leading automobile manufacturers worldwide and its technical & engineering SSC counterpart. The paper discusses the activities and the practices underlying SSC dynamics, and shows how business relationships and interactions processes are opportunities for Shared Services Centres create business prosperity across business networks.

A brief review of relevant literature

Shared services centres

Shared Services Centres are “the concentration of organizational resources performing activities, typically spread across the organization, in order to serve multiple internal partners at lower cost and with higher service levels, with the common goal of delighting external customers and enhancing corporate value” (Schulman *et al.*, 1999, p. 9). Main descriptions and definitions of Shared Services Centres are presented at the Table 1. There are several concepts and ideas that are highlighted in common by several authors. All of them agree that SSCs are an aggregation of services in a single business unit that provides support activities to the multiple internal customers. Higher levels of performance, great quality in services and cost savings are the main achieved benefits that will be further displayed. SSCs can be considered as an additional independent a separate business unit, which provides services at a fee to the other business units (Ramphal, 2011; Van der Linde *et al.*, 2006), enabling them to focus on the core business, yet maintaining the control of the decisions and enhancing the SSCs to be more receptive to the client needs (Van der Linde *et al.*, 2006; Walsh *et al.*, 2006; Bondarouk, 2014; Raudla and Tammel, 2015). They develop critical mass of skills, as it creates economies of scale and synergies in the group by sharing the best practices and obtaining the group recognition and, of course, empowering companies (Van der Linde *et al.*, 2006).

Companies must analyse the best options for the entire group and decide which services SSCs can provide and at what cost, not only economical costs, but also performance costs. Raudla and Tammel (2015) outline the main dichotomies that need to be in consideration when implementing SSCs, namely a mandatory or optional decision, and an incremental or a rapid implementation process. SCC may follow a big bang approach when the objective is to create the SSC in a short-time period and in a comprehensive manner by including all organizations that will use the centre. Otherwise, SSC may follow an incremental reform strategy when the implementation of the SSC is seen in a long-time period, step-by-step gathering the different paces of each organization that will be evolved in the SSC (Raudla and Tammel, *op. cit.*).

Sharing services is seen by Van Aken (2011) as a collaborative strategy that promotes effectiveness, value generation, cost savings and improved service. SSC allows the protection of the critical know-how, the business experience and the management control inside the company, side by side with the opportunity (and the benefit) to provide or seek high quality services adjusted to the clients (Deloitte, 2014). This business solution enables the parent-company to focus on its core business while the SSC can focus on its core competencies in order to generate a higher return of investment (Deloitte, *op. cit.*). According to Ferreira *et al.* (2016) the opportunity to re-model organisations is enhanced enabling a better usage of the available resources to meet the customers' needs with sharing services. In short, cost savings can be achieved by using economies of scale, a better service provided to internal customers because by focusing on core competencies allows SSCs to be more competitive and profitable and promoting efficient resources usage. Table 2 reviews the main benefits of Shared Services Centres as presented by several authors.

Table 1. Shared services centres concepts and definitions

| Authors | Concepts |
|------------------------------------|--|
| Ramphal (2011) | Collection and concentration of duplicated non-core and non-value-adding activities from the various business units of an organization into a separate business unit whose task is to provide and manage these services as value-adding activities. |
| Van der Linde <i>et al.</i> (2006) | Concentration of organizational resources performing like activities typically spread across the organisation, in order to serve multiple internal partners at lower cost and with higher service levels, with the common goal of delighting external customers and enhancing corporate value. |
| Paagman <i>et al.</i> (2015) | Shared services is an organizational concept that consolidates processes within the group in order to reduce redundancies; delivers support processes; is a separate organizational unit within the group; is aligned with external competitors; has cost-cutting as a major driver for implementation; is focused on internal customers and is operated like a business. |
| Raudla & Tammel (2015) | SSC has been conceived of as a “sourcing arrangement”, which takes the form of “in-sourcing” rather than “out-sourcing”. SSC enables the participating organizations to focus on their core tasks. The argument is that since the management does not have to deal with the day-to-day operations of back-office functions anymore, they would have more time to concentrate on the main (substantive) activities. |
| Schulz <i>et al.</i> (2009) | Result of consolidation of processes within the company: In de-centralized corporations, each unit has its own support service tailored exactly to individual requirements. These previously distributed support services are consolidated while forming SSCs. |
| Tomasino <i>et al.</i> (2014) | In most shared services arrangements, one or more organizations consolidate activities into a shared services centre (SSC) that supports non-mission-critical business processes from each participating organization in a separate operating unit that runs those activities as its core business. |
| Bergeron (2002) | SSC 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. |
| Bondarouk (2014) | SSC can be defined as an accountable entity in the internal organization of a firm or institution tasked to deliver specialized services to operational units (business units, divisions) on bases of a service-level agreement SLA against set transfer prices. |
| Rothwell <i>et al.</i> (2011) | An emerging alternative to outsourcing is the shared service center (SSC) in which activities previously located in business units or head office are retained within the organization but aggregated into a new central unit, operating at arms' length from the mother organization in a quasi-market manner. |
| Baraldi <i>et al.</i> (2014) | Shared Services Centre emerges as new business model, with a purpose to generate business value for the clients, throughout the identification of the market segmentation and the specification of the revenue generation, defining the value chain structure and the company structures as well and what is its position in the network and connect the organization to its suppliers and clients. |
| Herbert & Seal (2012) | The SSC is a new organisational form that combines a market-style, customer-centred, outlook with in-house management direction and control. |

All the benefits presented in Table 2 are important advantages that organisations can obtain with the implementation of Shared Service Centres. The most common advantage recognised by the authors is the cost saving that SSCs promote, by enabling economies of scale. It is unanimous that a SSC model reduces administrative costs in general. By aggregating all the non-core core business activities into a single location and serving multiple locations, reduces service redundancies and allows the maximum usage of resources. Another very noted advantage is the high quality that SSCs provide in services delivery. By being customer-centred and fully dedicated to the services that are provided to customers

through a specialised workforce, hence creating value for the company and improving efficiency, effectiveness and productivity. Besides all the benefits mentioned, SSCs cannot be created with the sole purpose of cost savings. SSCs are an example of how companies can improve the services provided, increase creativity, innovation and enhance "...better relations with partners, suppliers and customers." (Deloitte, 2014, p.15).

Table 2. Advantages of Shared Service Centres implementation

| Authors | Sumi, 2007 | Ramphal, 2011 | Van der Linde, 2007 | Paagman <i>et al.</i> , 2007 | Raudla & Raudla, 2017 | Schulz <i>et al.</i> , 2000 | Marciniak, 2012 | Schulman <i>et al.</i> , 2000 | Bergeron, 2002 | Bondarouk, 2011 | Rothwell <i>et al.</i> , 2011 |
|--|------------|---------------|---------------------|------------------------------|-----------------------|-----------------------------|-----------------|-------------------------------|----------------|-----------------|-------------------------------|
| Advantages | | | | | | | | | | | |
| Protect Critical Know-how | X | | | X | | | | | | | X |
| Business Experience | X | | | X | | | | | | | |
| Cost Savings | X | X | X | X | X | X | X | X | | X | X |
| High Quality | X | X | | X | X | | X | X | X | X | X |
| Value Creation | | X | X | X | | | | X | X | X | X |
| Promotes Economies of Scale | | X | X | | X | | | | X | X | X |
| Enables High Quality Resources | | X | | X | | | | | | | X |
| High Degree of Specialization | | | X | | X | | | | | | |
| Customer Focus | | | X | | X | X | | | X | X | |
| Continuous Improvement | X | | X | | | | | X | | | |
| Usage of Leading Technology | X | | X | | | | X | X | X | | |
| Promotes "One Company" Approach | | | X | | | | X | | | | |
| Improve Efficiency, Effectiveness and Productivity | X | X | | X | X | | | | X | X | |
| Process Standardization | X | | | X | | | X | | | | |
| Promotes Innovation | | | | X | X | | | | | | |
| Improve Control | | | | X | | | | | | | X |
| Consistent Management Information | | | | X | X | | | | | | |
| Improve Compliance with Legislation and Standards | | | | X | | | | | | | |
| Risk Minimization | X | | | X | | | | | | | X |
| Creates Synergies | | | | | X | X | | | | X | |
| Reduce Redundancies | X | | | | | X | X | X | | | |
| Aligned with External Competitors | | | | | | X | | | | | |

Source: Adapted from the authors referred in the table

SSC management challenges

There are some risks that companies must consider when implementing SSCs (Deloitte's, 2014, p.17). We emphasize the administrative, the technological and the market risks. The administrative risk derives from the inside of the business structure and is related with inadequate implementation strategies, fragile organisational structures, and incomplete planning or resistance to change. Technology is seen as one of the most precious resources of companies, and the technological risk, understood as "...outage of crucial processes of parent company..." must also be avoid (Deloitte, 2014), as well as the marketing risk that means the lack of an internal market. All these aspects and risks call for a careful investigation and great coordination in the organisational responses when implementing a SSC organisation structure (Ferreira *et al.*, 2013). Thus, it is essential to have riskless and stable relations between all the business

units and the SSC (Ramphal, 2011). In order to prevent those risks and to facilitate the management process emerged the SLA, Service Level Agreements (Van der Linde *et al.*, 2006; Walsh *et al.*, 2006; Herbert and Seal, 2012; Marciniak, 2013). SLA are one of the best procedures to define which elements must be present in the contract between SSCs and their customers to promote interaction between parties (Scotland Government, 2011). SLA are written agreements that deliver precise definitions of what customer needs and what organizations can provide to avoid unrealistic expectations and establish reasonable limits. The SLA identify which type of services will be provided and “...fee-for-service cost basis.” (Walsh *et al.*, 2006, p.12). As more elements are included in SLA and foresee as much situations as possible, the lower are the chances of having conflicts between the parties in the future (Marciniak, 2013). SLA have a win-win purpose of transparency, but it may “...over-regulate services delivery...” (Marciniak, 2013, p.220) and reduce the fit and the capacity of adjustment to the clients’ requirements. Therefore, it should explicitly to have as goal to enhance the SSC proximity to their customers and to be supported by their feels, aiming to increase the customer satisfaction and retention. Throughout the entire SSC structure, strong communication channels must be accurate, effective and understandable at all levels, in order to correctly transmit the goals of the organisation and enhancing the business growth. Thus, the management of the parent-organization and the management of the SSC needs to be well coordinated, with defined and adjusted goals in furtherance to achieve success, and communication is vital to this achievement (Bondarouk, 2014; Marciniak, 2013 and 2016).

Top management must decide which services to move into the SSC, and needs to ensure an effective governance arrangement in place, balancing business process redesign and reshaping of roles and/or technology. Furthermore, top management involvement is pivotal, since this is a change to a new business model, and tensions and resistance may appear particularly from dispersed services that will become centralized with the SSC. The SSC implementation process demands and needs to deal with a new culture combined with the existing corporate culture (Walsh *et al.*, 2006). As SSCs operates as independent business unit and promotes inside management control and flexibility allowing the resources level to be adjustable to each step the company defines (Rothwell *et al.*, 2011; Ramphal, 2011), managing costs, accountability issue, or performance accountability need to be carefully monitored on-going operations (Walsh *et al.*, op. cit.). Whilst the parent company is focusing in its core activity, the SSC is also focused in its own core activity and operates almost like a private company within the parent company.

The most significant challenges for the SSC management is the capability to maintain a high customer service level with a great level of quality, as well as high process efficiency and the capacity of recruiting and retaining management staff. SSC management must balance supply and demand in order to attract internal customers and also to “optimize internal and external delivery resources and demonstrate the value delivered in a tangible way” (Marciniak, 2013, p. 218). Meaning that customers expect integrated business solutions that include all their requirements, custom-made, with great support on an ongoing basis (Ferreira *et al.*, 2013; Ferreira *et al.*, 2016). If SSC management have the capability to coordinate all these elements, an “unique and indivisible” service solution will arise (Ferreira *et al.*, 2013, p.1094-1095). Tomasino *et al.* (2014) present the guidelines that may help management to operate SSC successfully, namely to gain consensus, to develop a highly interactive governance structure, to preserve the flexibility, to prevent workarounds, and to assure sustainability and long-term funding.

Cost savings and efficiencies are important, but the non-formal relations are also determinant for the SSC life (Marciniak, 2013 and 2016). The SSC credibility depends in maintaining high levels of service satisfaction, and thus SSC managers have to be seen “...as internal consultants than support staff helping line managers solve difficult business problems and producing data-based observations...” (Marciniak, 2013, p.219). By creating integrated solutions, solving business problems and producing data-based systems will enhance the dynamic capacity that a SSC adds to the parent company Therefore, business relationships have a key role in this subject and needs to be called and analysed.

Business relationships

We review the business relationships literature due to the richness of the studies presented in the field to explore and analyse interorganizational interaction. The Industrial Marketing and Purchasing Group (IMP Group) literature analysis the phenomenon of business relationships, and its dynamic process, to show how service providers, suppliers, customers and other institutional actors interact each other, all of them imbedded in networks (Hakansson and Snehota, 2017; Axelsson and Easton, 1992; Hakansson

and Johanson, 1992). This literature shows how business relationships develop and add value to firms. It provides an encompassing theoretical model to analyze how interaction and relationships are established and developed with SSCs and to explore and understand the SSC structure and dynamics'. Next, we review the business relationship approach and the ARA model both developed by the IMP Group.

The IMP approach to business relationships

One of the central assumptions of the IMP Group research is that the market is not static but dynamic and it is through this assumption that several authors analyze the relationships between customers and suppliers in industrial markets (Håkansson, 1982; Axelsson and Easton, 1992; Håkansson and Snehota, 1995; Håkansson and Ford, 2002) and later in services (Morgan and Tax, 2004; Håkansson and Snehota, 2006; Ford, 2011). The IMP research provides a framework for analyzing how to establish and maintain relationships (Baraldi *et al.*, 2014), involving a complex pattern of interaction between and within each company or department. The interaction process is based in episodes and relationships. Episodes involve short-term exchange processes (products and services, information, finance and social exchange) between the parties. The relationships are built across multiple exchanges over time, giving them structural characteristics. Håkansson and Snehota (1995) systematize these characteristics as continuous, complex, symmetrical and informal. The longer the episodes of exchange between the parties, the greater the likelihood that interactions become institutionalized in sets of roles, in which each of the parties (customers and suppliers) develops expectations from the other part (Håkansson, 1982). Håkansson and Snehota (1995) argue that a relationship is "the result of a process of interaction where connections are developed between two parties that produce mutual orientation and commitment" (Håkansson and Snehota, 1995, p. 26). A relationship is developed between companies, almost creates a "quasi-organisation" (Håkansson and Ford, 2002), becoming one of the most treasured resource. Each relationship is unique, because each interaction is adaptable in its resources, activities and actors, leading to the development of "...heterogeneous interdependencies with business relationships (Ford and Hakansson, 2013, p. 1020). This enables dependence and enhances the opportunity to deliver a customised service, according to each customer specification (Ford *et all*, 2010). Business relationships are established in a wide interdependent environment where the explanation of each relationship is also sought in external factors and not only in the interactions and intrinsic processes developed between the parts (Håkansson and Snehota, 1995; Ritter *et al.*, 2004; Axelsson and Easton, 1992; Håkansson and Snehota, 2006).

Business relationships contribute to the "...improved production technology, customer know-how, distribution capability, or gaining market access" (Möller and Halinen, 1999, p. 418), and are important to all organizations that want to improve their value proposal by enhancing business interaction, as is the case of SSCs. Businesses are not isolated units (Håkansson and Snehota, 2017; Håkansson and Snehota, 2006) and, as seen before, the SCCs as business unit are not isolated. On the contrary, they are embedded in an extensive network of business relationships. SSCs develop internal and external business relationships imbedded in networks. Internal relationships when SSCs interact with internal actors, departments or companies of the parent company. External relationships when they interact with customers, providers or other market and institutional actors outside.

Next, we present the ARA (Activities, Resources, and Actors) model to understand how the activities, resources and actors interact, and are related in business relationships networks (Holmlund and Törnroos, 1997; Raskovic, 2015; Hakansson, 2009).

The ARA model

The ARA model (Håkansson and Johanson, 1992) studies business relationships by separating them into three main tiers: activities, resources and actors, and how these three layers interact with each other, enabling the connection between the interacting members. This structure is embedded in the network of the company as whole, where each relationship can influence and be influenced (Baraldi *et al.*, 2014), in a fully adjustable and looped sequence. The original model by Håkansson and Johanson (1992) provides a basis for studying interactions according to the three elements: actors, activities and resources. The **actors** are defined as those who carry out activities and control resources. They can be an individual, group of individuals, parts of companies and companies. In the exchange process the actors develop relationships with each other, which allow them to access and use the resources of other

actors and their association to carry out activities. Actors aim to mobilize the biggest amount of direct resources (their property) or indirect resources (based on relationships with other actors) to achieve greater individual benefits, increase and improve their position in the network (Håkansson and Snehota, 2006; Håkansson and Johanson, 1992; Håkansson and Ford, 2002). Thus, actors invest in relationships and develop narrow bonds with some counterparties that influence the identity of the organization and also the partners involved. Usually problems arise during the interaction process, which are tackled by knowledge, resources and capabilities of the counterparties. If well succeed, it strengthens mutual commitment, dependency and the value of that relationship. In this sense, the perceived relationship affects the actors' action, their behaviour, since this depends not only on the direct interaction, but also on their perception of the relationship's value, trust and commitment between counterparties (Håkansson and Snehota, 2006; Håkansson and Snehota, 1995). The objectives of the actors in the network can be simultaneously compatible or contradictory, which means that companies sometimes adopt behaviours of cooperation and sometimes adopt behaviours of conflict. The tension between conflict and cooperation is inherent in the network because every actor wants to increase its benefits. (Ramos et al., 2013; Håkansson and Ford, 2002; Araujo and Easton, 1992). However, as the relationships between actors develop, they become connected and bonded to each other and have the knowledge of what can be requested and exchanged with each party. Then, unique bonds are developed between actors according to the perception of each one of them (Håkansson and Snehota, 1995; Raskovic, 2015; Ford *et al.*, 2010) and formed "an organised structure of actors" (Håkansson and Snehota, 1995, p.33). Given this, it is vital for companies to have a set of actors in order to develop a strategic network (Möller & Halinen, 1999).

In a similar way, this happens in Shared Services Centres. Here, the strength of the activity links has a "...substantial economic effect" (Ford *et al.*, 2010, p. 11) on the actors' layer. To maximise this economic effect, it is required to integrate activities in the most efficient manner to produce a bigger impact to the network. Therefore, activity links are a factor that can have effects in the productivity of the company (Håkansson and Snehota, 1995). This layer is connected to which activities actors decide to do and which resources will be used (Håkansson and Johanson, 1992). Business relations are created and developed, and can be pivotal to empower the actors to exchange resources, to execute activities, as well as enhancing trust and commitment between actors (Håkansson and Snehota, 1995, p.42).

Moreover, organizations establish relations largely by the substance of the activities. **Activities** are the actions, tasks or services that actors can develop in a more or less extensive integration and coordination and take place when the various actors combine, develop, or create resources using other resources. Different and numerous activities are conducted and coordinated within an organization (technical, administrative, commercial,...), which are linked to other activities of other organizations (Håkansson and Snehota, 1995; Håkansson and Johanson, 1992). Thus, organizations need to coordinate and adapt their internal structures with other partners of the network and vice versa, since they influence the effectiveness, the cost structure of both and are part of a chain of activities. This connection reflects the interdependence of the relationship based on activities. The change in one of the structures of the activity will have higher impact the greater the degree of interdependence (Håkansson and Snehota, 1995). These interactive processes of joint learning and mutual adjustments create routines and implicit rules that generate stability, thus facilitating the resolution of potential conflicts and coordinating the activities of networks in which different parties are interested (Håkansson and Snehota, 1995).

Finally, **resources** are used by actors when carrying out activities. Each organization has heterogeneous resources that can be tangible (products, equipment and materials, financial...) or intangible (technical know-how, knowledge and skills, access to other relationships) and that are naturally insufficient for the development of its activity (Håkansson and Snehota 1995; Håkansson and Snehota, 2006; Håkansson and Ford, 2002). The combination and access to the resources of other companies provide a valuable asset to the counterparties, depending on how the resources are combined (Lenney and Easton, 2009; Ford *et al.*, 2010). The confrontation of differentiated expertise, resulting from the connection of activities and resources, leads to new knowledge and more combination opportunities. Thus, network relationships are seen as enhancers, but also as action restraints, since the companies are in part dependent on their relationships (Håkansson, 1982; Håkansson and Ford, 2002; Håkansson and Snehota, 1995). "As relationships are valuable bridges of access to resources, they can also be considered in themselves as resources. A relationship is a feature that unites various resource elements." (Håkansson and Snehota, 1995, p. 31). Thus, as the relationships grow, resources become available, valuable, rare,

unique and irreplaceable and under control of the actors (Raskovic, 2015), which means that strong ties will strengthen activity links and these same resources ties connect the various elements and enhance the network empowerment and actors' interrelationship through the resources dependence (Möller and Halinen, 1999).

This literature shows the dynamic between business relationships, and it a good theoretical framework to explore and analyse SSCs. Next, we present the research and the methodology used.

Methodology

The main purpose of this research is to explore Share Services Centres, studying (1) *how* operations are developed in SSCs, and (2) *how* business interactions involving activities, resources and actors empower the Shared Service Centre model. The study of these questions shows us *how* value is created within the SSC model framework. Thus, we needed a method which enables investigating, a complex phenomenon in its context and by means of multiple sources of evidence.

Case study research (Yin, 2003; Byrne & Ragin, 2009; Ragin, 1992) is an appropriate method to answer to our objectives. Case study research is exploratory by nature and it is used for theory-building purposes. Furthermore, it investigates contemporary phenomena within their real-life contexts using multiple sources of evidence (Yin, 2003; Byrne and Ragin, 2009). It is extensively used in management to investigate the decisions and behavior of groups and individuals within organizations and in inter-company relations (Barratt et al., 2011; Dubois and Gadde, 2002). The method draws on the study of one or more cases of a given phenomenon to acquire an improved understanding of, or form a general conclusion about, the topic under study.

Our methodology relies on a single, in-depth case study design (Yin, 2003; Byrne and Ragin, 2009; Ragin, 1992). This methodology is widely used, due to its empirical value to study internal and external business relationships (Yin, 2003; Baraldi, 2014; Ferreira *et al.*, 2016). And, it is particularly important and appropriate "...when the boundaries between the phenomenon and context are not clearly evident." (Yin, 2003, p.13). A single case study allows penetrating deeper the events and structures of the phenomenon under scrutiny (Dubois and Araujo, 2007), a key aspect for theory development (Dubois and Gadde, 2002). Several authors argue that a single case study is suitable when there is rich information (Easton, 2010; Baraldi *et al.*, 2014; Ferreira *et al.*, 2016), and it is justified or even preferable to multiple cases if one aims to show the impact of many, powerful and contingent relations working in particular ways (Easton, 2003; Siggelkow, 2007). In this perspective, a single case study can be more accurately developed with the information that is being researched and can have a vast impact, contributing for theory building (Baraldi *et al.*, 2014). Thus, a single case analysis was considered for this specific research, as it provides vast, despite unique and specific data to discuss the richness about SSC business relationships. This method allows to explore in depth the case selected to discuss it as an Illustrative Case or example, providing empirical evidences and a detailed description of the process researched (Easton, 2010). Thus, this paper presents an exploratory investigation that allows a deeper knowledge about SSC: its substance, its dynamic process and its embeddedness with business relationships and industrial networks.

We focus on the automotive industry and in engineering services as a useful example of complex SSC in engineering solutions. This Case is pivotal because it could vividly illustrate the structure and the dynamics of SSC relationships that were neglected in the extant literature on SSC by revealing new or previously neglected dimensions of this phenomenon – namely its interactive nature and the importance of the business relationships discussed in our theoretical review. Our research case illustrates SSC as a relational phenomenon, stressing the SSC's perspective, and shows how the activities, resources, and actors interact and are reallocated between the SSC and its customers in a way to create value together. Next, we present the data collection and our Case - the PTC Share Services Centre (PTC SSC) of the Y Multinational Group corporation.

Data collection and analysis

During the process of data collection, multiples interviews were undertaken as well as careful document analysis provided by the PTC SSC, contributing to the understanding of the impact of the centre within the organisation from the inside of the SSC perspective. Main themes analysed were related to the ARA Model and how the PTC SSC function as a business unit within a network frame.

Interviews

Four main in-depth non-structured and, open-ended, face-to-face interviews were made to the PTC SSC top management in order to understand the impact of the centre within the organization from the inside of SSC perspective involving a total of 210 minutes. Beside the interviews, some contacts were made in order to clarify questions related to the case study. The interviewees were the Senior Director, identified as holder of the key role towards the SSC and towards the parent-company; and the EDS-E Director of the PTC Shared Services Centre, acknowledged with a pivotal role on the understanding of the interactions between the actors in the network. Four main dimensions were identified to better understand the guidelines that led the interviews as shown in Table 3.

Table 3. Interview guidelines

| Interviews | Dimensions | Guidelines | Details |
|-------------------|---------------------------------------|--|--|
| Interview 1 | About the PTC SSC | Creation of the PTC SSC Services provided in the PTC SSC | PTC SSC Senior Director 60 minutes Face-to-face interview |
| Interview 2 | Dynamics within the Y Group | Relational aspects towards actors in the network | PTC Senior Director 60 minutes Face-to-face interview |
| Interview 3 | Importance of SLA | Business commitments through the SLA | PTC SSC Senior Director PTC EDS-E Director 40 minutes Face-to-face interviews |
| Interview 4 | The PTC SSC Competitors and Customers | PTC SSC differentiation Strategies' analysis | PTC SSC Senior Director PTC EDS-E Director 60 minutes Face-to-face interviews |

The interviews were non-structured to enable greater flexibility and dynamics in the questions as well as in the answers. The script created was specifically directed to the interviewees, top members of the PTC SSC. It was created dimensions that were unfolded into guidelines, based on the theme and the research questions. The interviews made allowed the analysis of how the shared services business model adopted by the PTC SSC works within the studied engineering centre. They also enabled the analysis of the interactions between the actors within the PTC SSC networks and how the ARA model adjusts to the centre. Detailed findings collected from the interviews will be further explained in the case study analysis section. The data collected were systematically transcribed and subjected to content analysis (Krippendorff, 2004), and at the analytical stage, units used for content analysis purposes were sentences, paragraphs and phrases. Open coding was conducted by noting comments in each interview. Then, codification and interpretation processes were undertaken.

Document analysis

Several documents were accessed within the PTC SSC, enabling a more accurate analysis of the case study. The documents provided were the PTC Profile; the actions plans; the Balanced Scorecard, the SWOT Analysis and the Service Level Agreements. As previously mentioned in the literature review, the SLAs is one of the best methods to define the elements in the contract between all parties (Van der Linde *et al.* 2006, Walsh *et al.*, 2006, Herbert and Seal, 2012 and Marciniak, 2013), promoting interaction between parties (Scotland Government, 2011). A considerable number of Service Level Agreements were found in the documents provided by the PTC SSC, which currently holds 31 SLAs. By analysing these SLAs, common points were verified, and they will be discussed in the next section. This analysis facilitates the understanding of how the PTC SSC is committed to their internal customers and these actors constitute a dynamic network. These documents were collected and analysed within the PTC SSC, with the support of the Senior Director and the EDS-E Director, in order to have a better understanding on the dimensions of the PTC SSC.

Direct observation

In this research there was a continuous presence of one of the authors' in the field, which can be considered by "direct observation". According to Marconi and Lakatos (2003), this type observation supports the qualitative nature of the case study, since it allows a descriptive and exploratory analysis. Then, the systematic registration of behaviours and data collection, enabled the observant to have updated information which was very important to this case study since it is not static. The continuous direct observation enabled the observant to have a straight reflection of the company environment and has the possibility to directly experience the social actors' interaction. With this technique, the level of information that is accessed is different from the information accessed by an "outsider". One major advantage of this method is that it was neither invasive nor threatening, but it was able to access and record activities and interactions at the exact time as they occur, as faithfully as possible, considering the different variable factors that may influence the business environment. This time consuming technique was done between 2013 and 2017, what contributed to the enlargement of the business case study analysis.

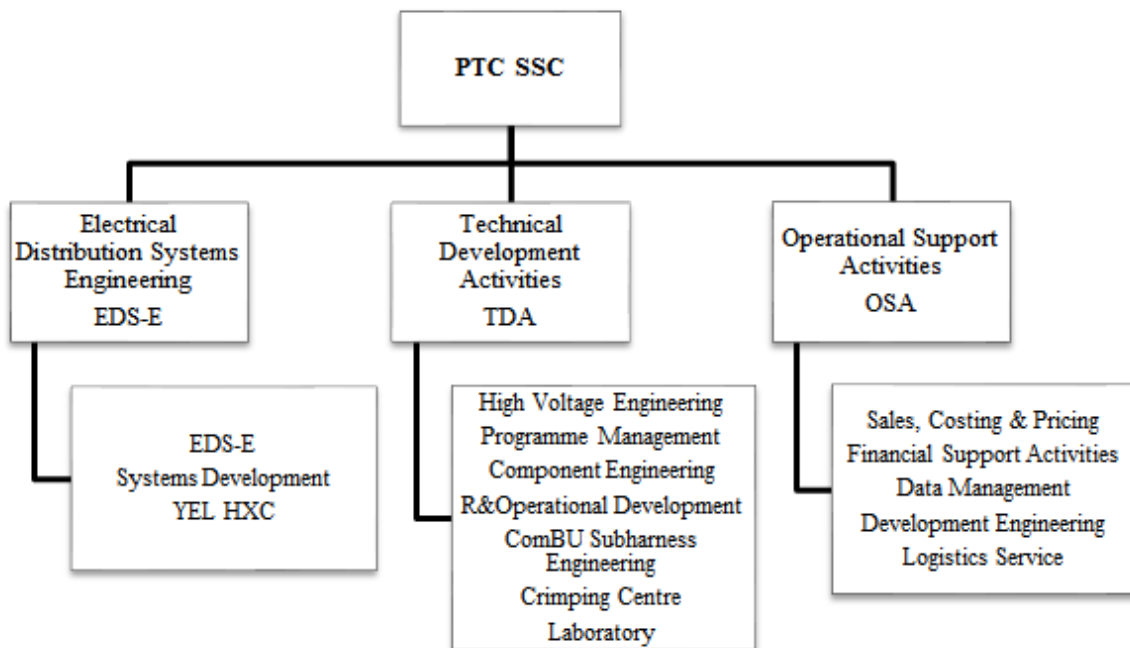
Results: the PTC SSC case study

The PTC SSC is a part of Y, a multinational automotive company, and it was established to answer to the need for a best cost technical centre to support non-core activities of European Research & Development (R&D). The PTC SSC initiates its activity in 2001 as an engineering technical centre that consolidates and handles Wire Harness design data for internal customers within the European group. This service, now named as Electrical Distribution Systems Engineering (EDS-E), is the core business of the PTC SSC. The expansion of the PTC SSC is related to the recognition of opportunities associated to the inputs and outputs in the EDS-E. To fulfil these opportunities, other services are created to provide the necessary inputs and outputs to the core business. Therefore, the Technical Development Activities (TDA) and Operational Support Activities (OSA) service areas have been created and developed, as a part of the PTC SSC, benefiting from the physical proximity and promoting a closer interaction. Thus, maximising inter-process synergies. Considering this dynamic growth and interaction, the PTC SSC becomes a business unit within this multinational Group. Due to this, the PTC SSC was chosen to be the case study object, considering that it can illustrate the substantial nature and essence of Shared Services Centre business model.

The decision to create this SSC was due to a need of centralizing R&D activities to reduce costs, whilst benefitting from the established activities in Manufacturing Design of Wire Harness and the Laboratory, which already existed and were consolidated. The service of Wire Harness Design, named as Electrical Distribution Systems Engineering (EDS-E), is the main service provided to the PTC SCC customers. This main area, cause the expansion of the PTC business due to the recognition of the inputs and outputs that were missing within the PTC SSC service delivery. Therefore, the Centre identified the existent gaps in the business and creates other services that provide the necessary inputs and outputs mainly to complement EDS-E service range. The Technical Development Activities (TDA) and Operational Support Activities (OSA) departments are created and they are in the same building as the PTC SSC. The activities that the EDS-E, TDA and OSA develop, creates a dynamic and complete service package. Figure 1 presents the structure of the PTC SSC.

All of the departments represented above, constitute the range of business solutions that are offered to the PTC SSC internal customers, considering engineering services offering with associated upstream and downstream processes, presented in Table 4. Currently, the PTC employs more than 500 skilled and experienced people. The main purpose for this centre was to create best cost technical support centre for the whole Group in Europe and worldwide. This Shared Services Centre focuses in: (1) R&D Engineering; (2) Sales, Costing & Pricing; (3) Laboratory Services; and (4) Group Tooling & Equipment.

Figure 1. PTC Chart



PTC SSC offers a different range of engineering services that forms an almost indivisible and aggregated business solution for their internal customers. PTC SSC started only with wire harnesses engineering purposes, but rapidly grew and other areas were created and aggregated. This offer variety, see Table 4, is the service range that this engineering centre as a SSC offers to their customers. The adjustment of the PTC SSC offer range was considered one of the main acknowledged advantages of the SSC model because it provides specialised solutions at a high service performance, and allows the business expansion, what can be considered part of the value proposition for the PTC SSC (Van der Linde *et al.*, 2006). This research also highlights the importance of competing internally, as the object of this case study is a multi internal service provider. Business relationships are seen as a tool that empowers the PTC SSC through their network interactions to successful business aggregation (Hakansson and Snehota, 1995). It is also analysed that this aggregation between the SSC frame and the business relationships, impacts the network position (Morris *et al.*, 2015) and enhances competitiveness. The range of services that the PTC SSC offers is in constant adjustment to the internal market (Rothwell *et al.* 2011), in order to meet each customer requirement. It is concluded that the output of the PTC SSC is not only an accurate execution of services, but also to be flexible enough to provide tailored services, resulting on the maximisation of the value generated for the business and relationships.

The main customers of the PTC SSC are the Y Customer Service Centres (CSC) as well as the Y manufacturing plants (BU Plants), thus internal customers, see Fig. 2. Those CSCs are geographically located as close as possible to Original Equipment Manufacturers (OEMs) automobile plants and if possible, close to the Group (Y) manufacturing plants. This enhances a better communication between CSC, OEMs and PTC SSC, that acts mostly as a CSC provider. Figure 2 shows that the PTC SSC competitors are mainly internal, namely: (a) Business Unit CSC (that are also the main customer), due to the perception of in-house control lost and due to possible effect in labour relations (such as, possible downsizing); (b) Business Unit Plants, that hope to receive more in-house processes in order to enable greater autonomy; (c) Other competitors in the Group (Y) that perform in the same areas as the PTC SSC. Those competitors are PET in Philippines, YSS in Mexico, YELZ and YCTT in Europe; and (d) SSCs developments in competing countries. Given this, two constraints may be identified, the geographical distance from the industrial core in Europe – PTC SSC is peripheral; and the external (but within the Group) resistance to business consolidation, due to the fact that PTC SSC competitors are internal and do not want to lose business volume. In this dual role of the players, being both customers

and competitors, lie many of the management challenges to balance the operation in a sustainable manner, and therefore creating dynamics interesting of being analysed.

Table 4. The PTC SSC Engineering Services Offering

| EDS E | TDA | OSA |
|---|---|---|
| Harness design solutions | Automotive sliding doors electrification solutions | Finance and controlling services |
| 3D Design installation & workability simulation | Hybrid & electrical vehicles battery packages | Logistics, delivery, order management and invoicing |
| Complexity studies & management | Sensors – high & low voltage solutions | Master database management |
| Systems availability & solutions | Automotive E. D. systems routing components | Supplier & technical documents management |
| Applications development | Development of High Voltage solutions | Environmental data |
| | Project leadership | Support to plants engineering departments |
| | Crimping tools design & production | Benchmarking |
| | Crimping validation and standard evaluation | Investment calculation industrial scenarios |
| | Electrical, mechanical, chemical, dimensional, calibration and environmental laboratory | Business development |
| | | Marketing & media |

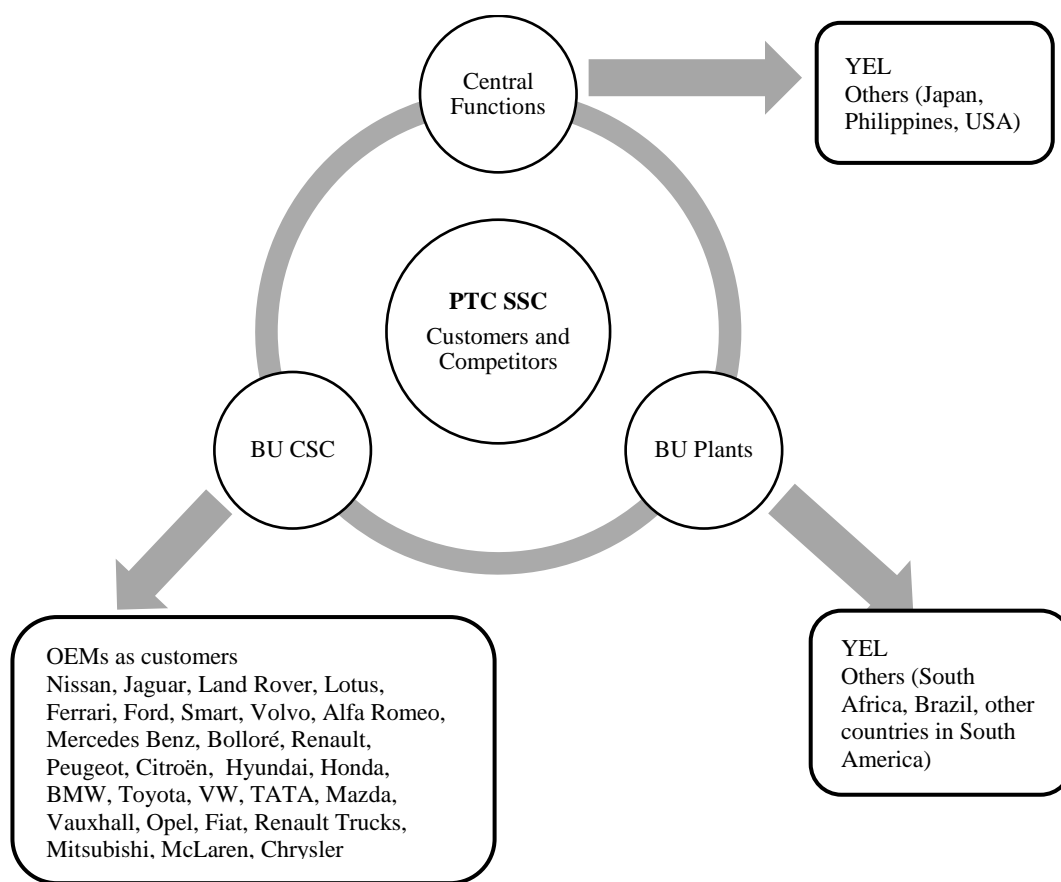
The PTC SSC connections with the parent-company are the sharing of common internal services such as Human Resources, Information Technologies, Accounting, Purchasing and others areas (in order to reduce costs). Another link to the Y is the macro strategic alignment. As in any SSC, it was found that the PTC SSC acts as a nearly independent unit, by organising services offering according to their main goals and by having strategies to compete in the open market, as supported by Bergeron (2002), Van der Linde *et al.* (2006) and Ramphal (2011). All strategic approaches are in line with customers, through the understanding of their own expectations and strategies, so that services can be constantly tailored to meet varying and evolving needs which is consistent with Schulz *et al.* (2009) and Schulman *et al.* (1999). This means that being a share services centre does not always imply that there is a (“blind”) protection from the parent-company. On the contrary, this Case illustrates that the SSC competes internally for new business.

Furthermore, as a partner that serves multi-customers, the PTC SSC is not concentrated only in cost savings and reducing services redundancies, but it is able to focus on its core competencies to take advantage of the SSC model benefits, as for instance matching the resources availability to the customers’ needs. This means that the re-organisation of resources within the PTC SSC enabled the competition by finetuning the resources availability to customers’ needs and services redundancies. Therefore, the variety of services that the PTC SSC presents, is capable to generate value, cost saving and high-performance services, which is crucial for customers. As these customers are internal, the PTC SSC works closely with the entire organisation, contributing not only for its own survival, but also for the whole of value chain within the multinational company. Quoting the Senior Director:

“The PTC SSC cares about each customer. Business is not static and it is always evolving. Since our customers and competitors are internal, we take advantage by providing tailored services. The capacity of services adjustment is a strong advantage for us, because customers need specific business solutions and the PTC SSC by providing specialised solutions, ensures sustainability. The cost reduction and service excellence that the PTC SSC offers to the network, justifies the continuous investment and expansion of the Centre”.

Four dimensions were found to be determinant for the SSC success: (i) Service Level Agreements; (ii) Employees training; (iii) Communication and corporate culture; and, finally (iv) Organization and metric tools. Next, we will discuss these findings.

Figure 2. The PTC SSC Customers and Competitors



Discussion

Service Level Agreements

The Service Level Agreements are written agreements signed and recognised by the partners that support the activities developed in the PTC SSC. Currently, the PTC SSC holds 31 SLAs that were reached with their internal customers. Through these agreements, a commitment was achieved between the parties deciding the terms of the business regarding the activities and resources shared. Furthermore, SLAs promote and facilitate the interaction between the actors involved, avoiding unrealistic expectations that may arise in the course of business. However, the SLAs are not static agreements, despite of services delivery being regulated, the PTC SSC has the capacity to adjust its offer over time according to the need of customers. Quoting the EDS-E Director:

“Service Level Agreements represent a commitment between parties within the network. Through the establishment of SLAs, every formal aspect of the business is considered to avoid unrealistic expectations. However, the PTC SSC is flexible enough to consider amendments to the SLAs. This is important to be adjusted to our customers’ requirements.”

SLAs are also seen as a method of business funding and also as a technique to create and secure relationships. Hence, this also contributes for business prosperity. Citing the Senior Director:

“SLAs are a part of business funding of course, due to its nature. With SLAs not only the PTC SSC is protected but also our customer. Also, through SLAs defines payment methods which is of course crucial for business prosperity.”

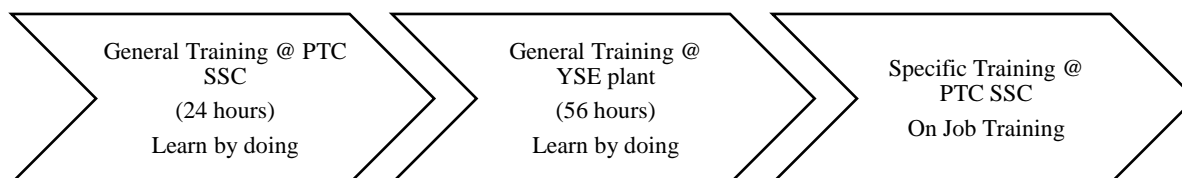
As supported by Marciniak (2013) and previously mentioned in the literature reviewed, as more elements are included in SLA and foresee as much situations as possible, the lower are the chances of having conflicts in the future. The analysis and comparison of the 31 agreements shows that only two aspects differ between the SLAs: (i) the commencement date, which is defined accordingly to each agreement, and (ii) the engineering services that specifies the type of service that is provided to each customer contributing to the tailored service. The other dimensions presented in all the SLAs analysed

include the SLA definition and interpretation; the obligation of the parties; the procedures for request services; payments and methods of calculation; warranty; terms of agreement, termination and of confidentiality; assignment, remedies, and force majeure; amendment and waiver; miscellaneous provisions; and governing law (in accordance to the country where is located the PTC). All these aspects protect the parties and potentiate the engineering services operations that are the core activity of the SSC. Furthermore, they assure the internal customers, equality and fairness in terms and conditions reached by all actors.

Employee training

One of the biggest concerns in the PTC SSC is to have skilled and experienced associates. In consequence one of the major assignments in the PTC SSC is to give the appropriate training and create involvement between all associates to achieve common goals. Thus, the PTC SSC creates a development training program for new associates in order to involve them with the business, see Figure 3. This training plan is not only to the PTC SSC new associates, but also to the parent-company people, and it is considered essential to develop the bonds between all associates towards the PTC SSC and to strengthen the corporate culture. This means that a ripple effect is created, and a union is formed between all associates in the PTC SSC, creating a unified perspective for the customer, which it is considered not easy to replicate by competitors. Therefore, this aspect was noticed as one of the most important within the PTC SSC frame.

Figure 3. The PTC SSC Training Plan for New Associates



Communication and corporate culture

Communication channels are also considered vital within the PTC SSC. Multiple channels are used in the Centre, not only towards its customers, but also with the parent-company and with all the associates. Thus, external and internal communication is pivotal in the business. Table 5 shows the methods used by PTC SSC to disclose information. All those communication channels are accurate, understandable and shared at all levels. They share information, enhance the involvement of all actors, and help to strengthen corporate culture, which is also considered essential to the PTC SSC success. Communication channels have been pointed out as developers of corporate culture reinforcement, and pivotal for strengthening the corporate culture itself as quoted by the Senior Director:

“Corporate culture is unique. We recognise that a united team relies on a strong corporate culture. Y spirit values foresight, as an ability to anticipate problems and take timely preventive actions; values service mind to help those in need; and values fortitude, the indomitable fighting spirit that has to lead our way in everything we do. As strong as the corporate culture, as difficult it is do replicate by competitors. If we have an unified spirit, the easier will be to achieve common goals.”.

All the methods referred maintain a united team towards a common goal, as well as the proximity of top management to all associates and the capacity of the oldest associates to receive and transmit Y values and corporate culture. These strategies promote the corporate culture and develop social bonds between all associates (Hitka *et al.* 2015; Karyotakis and Moustakis, 2016).

Organization and metric tools

The Centre is divided into three main divisions as previously referred: the EDS-E division, OSA and TDA, all of them have senior managers responsible for each area. The PTC SSC is headed by the Senior Director that manages all the divisions. These four elements are responsible for the operations within the PTC SSC, and constituting the top management group. Then, several service managers, team leaders, technical coordinators and remaining associates exist, whose input is crucial for the top management,

see Figure 1 and Table 4. The PTC SSC has a budget, an administrative staff and other business-related management areas (as supported by Bergeron, 2002), and organises itself accordingly to a Capacity Analysis System that is done every fiscal year, as presented in Figure 4. This figure shows how the PTC SSC carefully analysis their capacity to act in the network, through the services that are provided to other actors. This anticipates not only the budget needs, but also what is necessary in terms of resources. Furthermore, it shows how the Centre is constantly adjusting the available resources to the provided activities, trying meeting customers' needs without causing extra costs coming from misorganisation. Those actions enable win-win situations between the Centre and the customers, whilst creates value within the Group.

The SSC results and services delivery are measured by all the departments. Performance metrics are considered a key point, and as referred by Bondarouk (2014) must be aligned with the SSC objectives and management actions. The PTC SSC defines metrics based on: quality, cost, delivery and environmental key performance indicators. The information gathered from the measurement system of the PTC SSC considers three main types of measures, see Table 6. PDP metric is connected to the human resources, while KPI is related to the department achievements associated to the activities. MHT relates activities provided to the actors in the network. These three metrics helps the Centre to have a multidimensional perspective when evaluating its resources capability and in order to provide accurate tailored services.

The purpose of achieving balance between all parties may be different for each actor in the network (Hakansson and Snehota, 1995). Through the interaction between the actors, business relationships are created within the PTC SSC network (Hakansson and Snehota, 1995). These relationships almost create an organisation on their own (Hakansson and Ford, 2002), due to the fact that they contribute directly to the business strengthening and therefore empowering services cooperation. In the PTC SSC network, the Centre plays the lead role as a main actor, being directly related to the other actors in the same network - its customers: the BU CSC (that plays a double role as it is also a competitor), BU Plants, Central Functions and also the parent company. All the parties jointly decide which activities must be executed and which resources to use, resulting in a mutual commitment (Hakansson and Snehota, 1995). Due to these connections, cooperation is enhanced and bonds between actors arise. Actors can acquire knowledge of each party, enabling proactivity in the requirements fulfilment and strengthening bonds.

Figure 4. The PTC SSC Capacity Analysis System

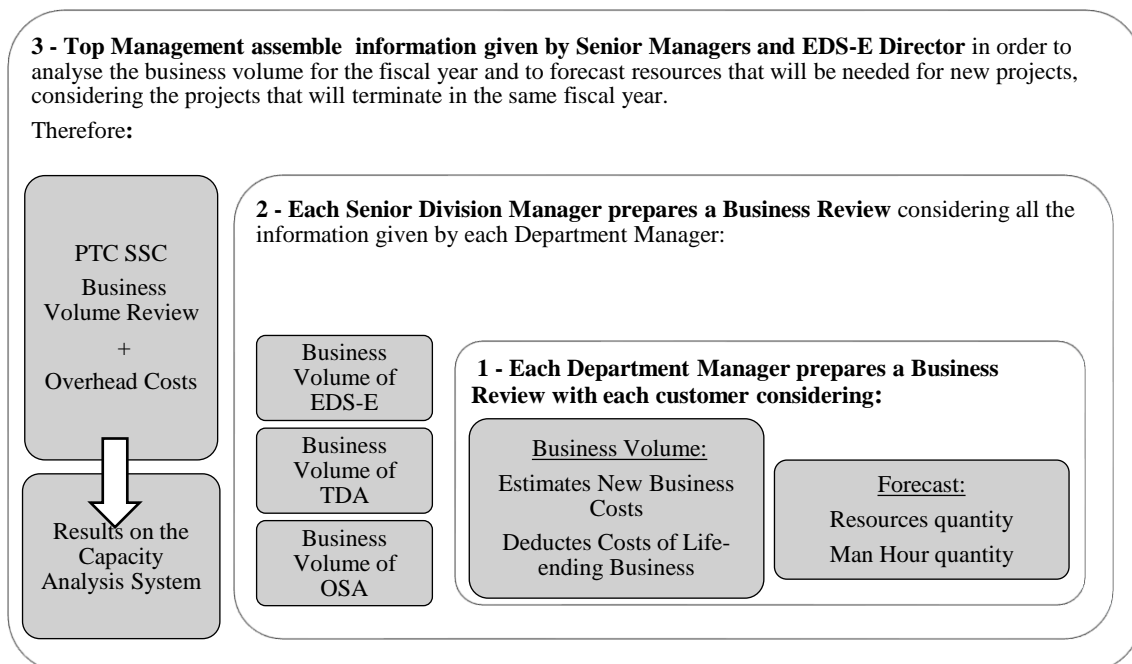


Table 5. The PTC SSC Communication Channels

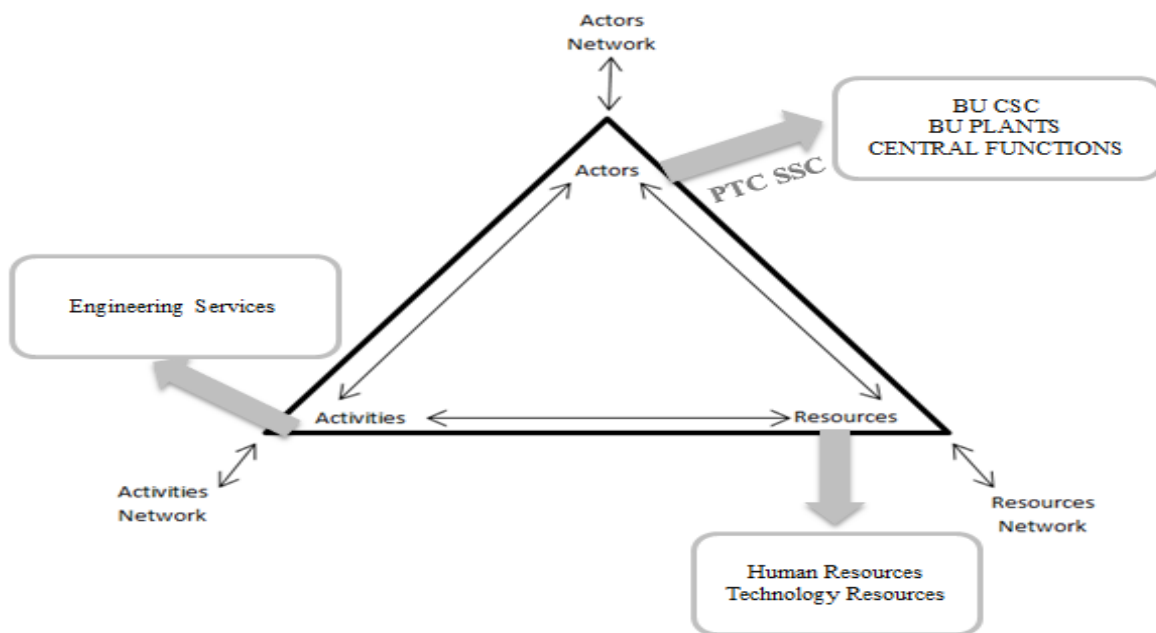
| Communication Channel | Purpose | Distributed for | Result | Frequency |
|-------------------------|--|---|---|--|
| Emails | To disclose formal information | To all associates intended | Effective and rapid channel | When necessary |
| PTC Newsletter | Present business related news, new technologies and social activities | Entire Y Community | Information share Employer branding | Quarterly issued |
| PTC SSC Intranet | Private network to share company information, new staff announcements and some trivialities, as for example pictures of hosted events | Only available to the PTC SSC | Very useful for associates as it has direct links to the PTC SSC tool and main webpages that are used daily | When necessary |
| Others | Banners; Exhibition of specific messages about the PTC SSC social activities, social curiosities and the Centres' value and vision; Associate events; Social media. | Available to the PTC SSC and to the visitors that come to the PTC SSC | To contribute for corporate culture reinforcement and associates' union Relationships enhancement Employer Branding To attract new associates and business partners | Yearly Weekly When necessary |

Table 6. The PTC SSC Metric Tools

| Tool | Purpose | Interaction | Result | Frequency |
|---|---|--|--|-----------|
| Performance & Development Process (PDP) | Individual performance metric, based on targets developed by management | All associates in YEL group/network | Critical for self-assessment Results benchmark Evaluation of general needs and resources' capacity | Yearly |
| Key Performance Indicators (KPI) | Measurement of specific targets at all levels | Department of the PTC SSC | Access PTC SSC overall performance | Monthly |
| Man Hour Tracking (MHT) | Tracks how many hours were spent in customers' project | All associates in the PTC SSC/internal | Accurately sell the labour hours and keep track of time measurements per associate and project | Daily |

How business interactions within the network empower SSC and its customers?

As mentioned in the literature reviewed, problems between actors may arise and the approach to those difficulties may contribute to create powerful connections, but also can be a way to destroy them. For this, and as mentioned before, SLAs play an important role in this matter. It is intended to have business elements established to avoid any misunderstanding or unrealistic perspectives and to protect each actor contemplated in the agreement. Therefore, SLAs act as a structural and dynamic factor to create relationships bonds through the network, as it is the first step of the interaction of the resources and activities that will be exchanged. Actors, activities and resources act in a triad that intensifies interactions, as shown in Figure 5. Breaking down the figure, the resources identified within the PTC SSC are frequently human and technological resources. These are the resources that are most exchanged between actors within the Centre network, between PTC SSC - BU CSC, between PTC SSC - BU Plants and between PTC SSC – CF.

Figure 5. The ARA Model Adapted to the PTC SSC

Source: Adapted from Hakansson & Johanson (1992)

Table 7 shows the type of resources that PTC SSC shares with other actors in the network. As depicted in the Table, the human resources are defined by the permanence of the staff at the actors' location, which dictates the type of activities' support that is given directly to other actors. Regarding the technological resources that are used by the actors, these are mainly hardware and software items that are also shared to improve business dynamics. By sharing these resources, ties are created, which brings to the PTC SSC an empowerment in the network and enhances actors' interdependence, therefore reinforcing business relationships through the development of bonds.

Table 7. The PTC SSC Resources

| Human Resources Support | | |
|--|--|---|
| Permanent Staff | Non-Permanent Staff | Occasional displaced staff |
| Located permanently in the actor location | Working in PTC SSC location supporting directly the actors | Going to support the actors according to each request |
| Technological Resources Support | | |
| Software | Hardware | |
| Shared self-developed software, APIs and bridges, hosting of software as Data Centre | Servers, IT support and interface equipment, prototyping machinery (3D printing,...) | |

Moreover, in the PTC SSC, activities play a very dynamic and variable role. For example, for the same project, the activities are different, and each OEM has different specifications. The activities requested by the customer, who plays the role of actor with the PTC SSC that also acts as an actor, together they work on a best business solution in order to accomplish the customer order. At this very challenging level, activity links are created and the integration of these activities increases actors bonds. Results from this coordination process in the PTC SSC are unique activities that are tailor made according to each specification, contributing directly to the network customer retention. The dynamic created by these connections enhances competitiveness and generates value from all the actors involved in the network (Ritter *et al.*, 2004; Stenroos and Jaakkola, 2010). During these interactions it is noted that concerns arise regarding the influence that each actor has on the PTC SSC, since the type of services that are provided have pronounced impacts in OEMs, that will have an effect the entire organisation.

Another dual aspect is the concern related to the fact that the internal customers are also internal competitors, mainly PET, YSS, YELZ and YCTT, as mentioned before at the case study presentation. This causes an urge to be the chosen partner within the network, regarding low cost and high performance. This is translated into the creation of better solutions, enhancing the development of the formal and informal strategies. However, competition was not the focal point of the PTC SSC, as it can jeopardize the whole structure and break important business relationships. On the contrary, it intends to provide the best service offering to the customers, as mentioned by the EDS-E Director:

“Our competitors are internal and they want expand as much as we do. Hence, we all want to be the best partner for each customer. Since we all are connected into a wider network, the urge to offer the best business solution, must be controlled and coordinated. Try to monopolise the network is a mistake that will affect the entire chain. However, this does not mean that the PTC SSC will not try to be an excellent and reliable partner as much as possible.”

Taking into consideration the information above, the PTC SSC is a reference within the network. As observed, business relationships that the PTC SSC creates within the network have an effect throughout the entire Centre structure. The existence of these interactions shows that, in spite of being an independent unit, it is not an isolated unit. The result of all of these aspects is a strong positioning within the network. For this second question and from the observance of the dynamic of business interactions within the PTC SSC, the empowerment of the SSC model comes from the capability of the Centre to manage the relationships between actors. By taking advantage of all benefits that these relations bring, building strong and reliable partnerships in cooperative networks.

Contribution, limitations and further research

This paper contributes to the literature about the SSC business model. We have analysed a pivotal case study of a SSC in engineering services operations to discuss the practices and the nature of the relationships between SSCs and their counterparties. The paper provides empirical data to show how operations are developed, how actors, resources and activities are exchanged between the SSC analysed and its network, contributing for the theory development about how SSCs. The paper also enriches and diversifies the research of *Industrial Marketing Purchasing Group*, with empirical findings from applying the interaction and business relationships approach to the Shared Services Centre networks field. The illustrative case shows that the Centre does not have a blind protection from the parent-company, but competes (internally) for new business, benefiting from the advantages of the SSC model and, from the Centre's network position. Furthermore, our empirical work shows the dynamic nature of the SSC model, which aggregates several business relationships resulting in positive business market solutions that empower the SSC, its customers, and the whole network. By creating a different and aggregated range of services, the SSCs can evolve over time to produce business solution for their internal customers, and in time a gain value through market.

The paper has some limitations. The research presented is based upon a single case study and the network dynamic observance was limited. Mostly, the perspective of the targeted SSC was the one considered, and the approach used was to give voice to more central actors. By listening to the perspectives of less central actors in the network, other inputs could have been added to the conclusions. Moreover, other cases should in future be analyzed, by using multiple case studies design to obtain more rich and diverse contributions to deepen the behavior and leadership issues in SSCs and their network. Furthermore, in spite of the advantages of having used the direct observation method, it may also represent a limitation due to time consuming and the neutrality of the observant may be jeopardized.

Further research should continue investigate the activities and practices involved in SSCs. It is suggested to call other theoretical and methodological frameworks to get a complete understand of the phenomenon. Moreover, it is essential to research the perception of the other actors in the network, to get a more complete vision of resources integration and business relationships development. Further research should also be considered analysing the suitability of our findings in other contexts than the engineering service operations. Another suggestion for future research is the analysis of a SSC from the perspective of the parent-company, which for reasons of convenience was not considered in this case study.

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