New opportunities for shared services through operations management

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Abstract
The largest Brazilian company (Petrobras) achieved greater efficiency, quality, reliability and a reduction of 74% in operating costs with property security. Grounded on Resources Based View and Transaction Cost Theory, through action research, researchers and technicians expanded shared services model's perspective with the combination of technological and management new tools.

Keywords: Shared Services; Property Security; Operations Management

Main purpose of this paper
Most Shared Services empirical research has focused on case studies of highly standardized and centralized areas or functions. Besides, the activities analyzed in these studies are usually non-core business and require less (internal) customer proximity. Research on the implementation of Shared Services for activities that require greater customer proximity (i.e partially centralized) is scarce. For this reason, this action research methodology-based research went deeply into the implementation of a Shared Services department for property security in order to evaluate how beneficial that could be to the company.

The main objective of this paper was to demonstrate that, under certain circumstances, the boundary that separates the services that can be managing through Shared Services from the ones that cannot can be redefining in terms of operational gains and partial centralization of activities. That would lead to higher organizational efficiency through the standardization of processes, cost reduction and quality improvement of the services provided.

This research is basing on three assumptions: 1) reorganization of work, 2) implementation of new technologies and, 3) centralization of management. These three pillars are basic requirements for the implementation of the Shared Services model in departments that at first would not be eligible since their activities are mainly decentralized for geographical needs, for
instance. Property security fits the description. Although some of its operations still require customer proximity, there is significant potential in it.

Theoretical background

The two most current theories on internalization versus outsourcing are the Resources Based View theory– RBV and the Transaction Cost Theory – TCT. Taken individually neither addresses thoroughly these matters; however, if combined, they may offer an useful frame to ground the decision (Arnold, 2000; Janssen & Joha, 2006). Arnold (2000), for example, suggests that activities and resources should be evaluating under three main lenses: specificity, strategic relevance and, core competence.

As regards centralization versus decentralization, the decision is mostly based on highly flexible trade off present in decentralized models or under higher control and standardization inherent in centralized models (Bergeron, 2003). The Shared Service model came as an hybrid approach that addresses the usual benefits of centralized and decentralized models, as well as some of the benefits of outsourcing (Bergeron, 2003) and has an important strategic impact on the company in the long run (Janssen & Joha, 2006). Unlike outsourcing, in which activities or services are performed by an outside company, the Shared Service model proposes reorganization and centralization of activities or services in a semi-autonomous business unit (Bergeron, 2003).

Cost reduction and efficiency improvements through gains of scale mainly influence the decision on implementing the Shared Services model (Bergeron, 2003). Nevertheless, Shared Services should be seen not only as a model for cost reduction, but also as a more advantageous approach, compared to outsourcing, to organization redesign.

Action-research

The action research methodology is an epistemological approach to research that is different from others usually used, e.g. case studies. It is carried out by researchers who play an active role in the environment of the study and can better provide greater understanding of problems and effective solutions to them. Coughlan & Coughlan (2002) have shown that action-research can be successfully used in Operations Management and can bring benefits to both practitioners and academics.

Four pillars are crucial to the research’s success: 1) the research must be in action, not about action; 2) it must be participative; 3) it must be conducted concurrently with action, and; 4) the researchers must track and report on the sequence of events as solutions to the problems are developed and implemented. That brings practical and applied benefits as well as scientific benefits, and also adds to academic knowledge in this field (Coughlan & Coughlan, 2002).

The guidelines above were adopting in our research in order to find solutions to practical problems. Close Cooperation between researchers and managers resulted in valuable contributions to the solution of key problems and provided an environment for academic learning.

Methodology
The main objective of this paper was to demonstrate that, under certain circumstances, the boundary that separates the services that can be managing through Shared Services from the ones that cannot can be redefining. This work also aimed to enhance the prospects for the implementation of Shared Services throughout the company, which would result in more efficient processes, standardized activities, lower costs and higher quality.

However, a question arose about whether there would be financial gains if property security services were transferred from Petrobras’s refineries, where they are were run by each unit in a decentralized and autonomous way, to the Sao Paulo-South Shared Services office.

Managers and employees’ views on this question differed and many times were conflicting. They reflected their apprehension about the possible positive and negative impacts of the centralization proposal as well of the business model itself. The action research methodology suited the challenge because the research question emphasized the need for reporting in detail the many events resulting from the implementation of the Shared Service model for Petrobras’s property security and because the managers wanted to fully understand how their actions could change and improve certain aspects of the system in order to learn from it (Coghlan & Brannick, 2005).

As already described, the centralization of Petrobras’s property security services was addressed. In order to meet the requirements of the action research methodology, the scope of the study was delimited to observations and data collected from the eight Petrobras’s refineries located in the south and southwest of Brazil, under Sao Paulo-South Shared Services office.

Results and contributions

By acting and interpreting facts, action-researchers contributed a great deal to the study. They assisted teams in developing scientifically substantiated solutions to the issues presented. They also helped to elicit logical reasoning from the management teams involved. That resulted in collective learning and achievement of successful results.

Our results have proved that, under certain conditions, the boundary separating the services run by Shared Services from the ones run by other systems can be crossed. They enhance the prospects for using this model in a broader set of services, which is likely to bring greater organizational efficiency in terms of standardization of processes, costs and quality.

Action Research was initiated to find a solution to a particular problem. It detected certain factors that could potentially driver centralization, even partial centralization, of functions and typically decentralized activities. The three factors were: (1) reorganization of work, (2) implementation of new technologies and (3) centralization management. These factors, combined or individually, contributed to the implementation of the Shared Services model in departments that, at first, would not be eligible.

The property security services in the eight major oil refineries of Petrobras in the South and Southwest of Brazil were transferred to the Regional Shared Services Unit. After that, centralization, with the support of the company's managers and researchers-action, due to the good results of actions already taken. While the first phase of centralization, in 2012, the focus was to management processes, in the second phase, in 2013, the goal was to act on the operational processes.

The results can be presenting separately considering the two phases of the project implementation. In the first phase (2012), the centralization of procedures for managing its asset
security resulted in a 74% savings for Petrobras, in compared with the previous year (2011). The second phase (2013) real reduction in operating costs of approximately 30% over the previous year (2012). The latest data for the preparation of this paper refer to the period up to October 2013.

In the first stage, gain scale was relatively more significant because eight local management teams have been demobilizing, past management activity to be performing by a single team in a centralized manner and with greater expertise and efficiency. In the second phase, the absolute results proved far superior. At this stage, the work unfolded in three interrelated fronts, characterized by greater technological complexity and operational coordination: new work organization, introduction of new technologies and resource reallocation.

Regarding the organization of labor, was redefined the functional structure of the activity, seeking a single standard to be applied throughout the Petrobras. Besides the uniformity, the goal was also reducing supervisory positions and operations, leveraging the context of strong expansion. Thus, for the supervision and operation of the refineries were effectively available "shared" with other business units within the same geographic space.

While it gained in scale, the company also found new operational possibilities, from the comparison of the various practices in the previous model, besides the adoption of options that are more efficient. The expansion of scale also allowed the hiring of skilled managers in the activity, contributing to the analysis of processes and routines. With that processes and procedures, promoted layout adjustments, the adjusted work schedules, optimizing the use of resources always based on best practices observed internally and compared with market solutions, were redefined.

Along with new work organization and standardization of operating procedures, several opportunities for large-scale technological applications with reduced marginal costs occurred. The technology applied to asset security resulted in efficient and convenient operations with an extensive range of features and flexibility. Sophisticated video monitoring or even a simple process of building automation systems are potentially leveraged in centralized models.

The technological improvements in Petrobras gained support in terms of standardization, scale and efficiency. Sophisticated and costly equipment became viable in the equity security activities of high intensity and large geographical coverage. In addition, they became excellent alternatives to best suit the needs for the introduction of an integrated security policy. Thanks to the centralization process, Petrobras was able to implement its policy of automation of the activities of the equity security services by creating an integrated system of intelligent analytical monitoring done by specialized teams of local intervention.

In terms of human resources, two issues emerged with centralization. Firstly, the introduction of new technologies required more skilled human resources. Secondly, there was a significant reduction in the ratio of “men per monitored area” in operational activities. Two programs have recently been introduced in order to meet the needs of the company’s rapid growth – Petrobras should have doubled its size by 2020. One program aims to provide technical training in order to meet new technological needs; the other aims to reallocate the available resources to new units or areas in need.

The quantitative results presented in the study show the importance of Shared Services for big companies such as Petrobras. The main opportunities generated by centralization are:

- Greater flexibility in the allocation of resources between client units;
- Rationalization of coordination and supervision activities to reduce costs in several units in a larger geographical area;
- Reduction in the marginal costs of deploying new technologies;
• Introduction of new standards of quality based on professional experience and utilization of the knowledge developed and acquired.

This study represents only an initial assessment based on the economic results from the economies of scale resulting from centralized management and operation of some of the equity security services in Petrobras. Therefore, the implementation of Shared Services is likely to produce even more benefits. In the medium and long term, operating costs should be reduced further as new forms of work organization and new technologies are introduced. Further research should be conducted to analyze and assess the implications and relationships concerning the use of these new technologies and different ways of organizing work from a strictly operational perspective of the equity security services in Petrobras.

References