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EVERYONE IS DIFFERENT! EXPLORING THE ISSUES AND PROBLEMS WITH ERP ENABLED SHARED SERVICE INITIATIVES

ABSTRACT

In today's increasingly competitive environment, there is constant pressure for corporate leaders to add value to their organizations. These contemporary organizations are increasingly moving into business models that attempt to reduce duplicate supporting processes and staff by streamlining business processes that are not central to the organization's operations and concentrating on strategies on strategic or core, business processes. This concept, known as Shared Services, attempts to bundle some of the supporting processes and non-strategic activities into a separate organization, which in turn treats those processes and activities as the core of its own business. Shared Services consolidate and support redundant functions, such as accounts payable and procurement, for disparate business units. By leveraging economies of scale from a common IT infrastructure, such a group is able to market specific services to business units. Many organizations are employing Enterprise Resource Planning (ERP) systems, for example SAP, to facilitate Shared Service initiatives by aggregating backroom functionality across departments. This research-in-progress paper investigates issues and problems with ERP enabled Shared Services in 19 organizations. The results reveal five main issues that organizations face in implementing a Shared Services initiative.

Keywords: ERP, Shared Services, Processes Harmonization, Application Consolidation

Introduction

A Shared Service is defined as a concentration of company resources performing like activities, typically spread across the organization, in order to service multiple internal partners at lower cost and with higher service levels, with the common goal of delighting external customers and enhancing corporate value (Schulman, Danleavy et al. 1999). The concept is simple bring-together functions that are frequently duplicated across divisions, subsidiaries or operating units and offer these services more efficiently and at a lower cost. In a Shared Service, the disparate activities and operations (such as finance, human resources, payroll, and marketing) that have been seen by business executives as back office and secondary to the core business processes are treated as if they themselves were the core processes. A Shared Services initiative typically expects tangible benefits such as expense reduction, increased productivity and economies of scale and skill across the newly established business processes. Intangible benefits range from enhanced customer service to standardized business process and consolidation of Information Technology (IT). Many organizations are creating 'Shared Service centres' that perform administrative transactions for numerous divisions or subsidiaries of the same company, rather than having those transactions conducted in every division or subsidiary.

With the overarching objective re-directing savings (and potential savings) into direct service delivery and also to better focus on the main business processes, many organizations, especially in service delivery, where there are many organizations providing services to the community, Shared Services facilitate greater consistency of services. Similarly, Shared Services increase the transparency in costs of services between the organizations. It is believed that greater transparency increases healthy competitiveness within fellow organizations. Furthermore, many organizations embark on a similar business processes for Shared Services to facilitate better environment for skill development, training and career enhancement. From an information system viewpoint, Shared Services assist organizations to consolidate information technology assets – both in terms of software and hardware. Especially, in relation to the IT, Shared Services organizations could engage in shared maintenance of the system and other cost consolidation activities.

Increasingly, organizations utilize ERP systems to facilitate Shared Services initiatives by leveraging on such features of ERP like; (i) process standardization, (ii) common information systems platform, (iii) common databases, (iv) process automation and (v) ERP workflow (Markus, Axline et al. 2003). The Shared Services centres enable organizations to use ERP systems to retain control of those functions while maximizing cost efficiencies.

This study is motivated by the disparate reports on the success of Shared Services initiatives and the lack of discussion in academic literature on Shared Services. With the limited trade press reports, it is clear that despite the positive objectives, evidence of Shared Services initiatives has been mixed with some organizations showing positive impacts to the organization, while others have shown nil or detrimental impacts. While providing a generic model to investigate on Shared Services related topics, this paper specifically investigates issues and problems of Shared Services initiatives from the point-of-view of the ERP system.

The paper begins with a description of the cases observed in this study. Next, the paper provides a synopsis of key objectives of Shared Services, followed by outlining the role of ERP systems in a Shared Services initiative. Subsequently, the paper focuses on illustrating issues and problems with an ERP enabled Shared Services initiative. The paper concludes with the research outlook.

Case Studies

The preliminary results discussed in this paper are based on findings of nineteen (19) case studies reported in the popular press. As noted above, the emphasis on popular press was encouraged by the novelty of the topic area and the lack of academic publications in Information Systems on ERP enabled Shared Services. The nineteen cases provide a coherent mix of public and private sector organizations, representing a range of industry sectors.

	Organization	ERP	Functions Shared
	Public Sector		
1	Bank of Ireland, Ireland	SAP	FI and HR
2	Public Works and Government Services, Canada	not stated	FI, HR and MM
3	Government of Ontario, Canada	PeopleSoft	FI, HR and Procurement
4	Queensland Government, Australia	SAP	FI, HR, Procurement, Documents Mgmt
5	New South Wales Government	not stated	FI, HR, and Procurement
	Private Sector		
6	Allied Bakeries. Staines, Middlesex, U.K.	PeopleSoft	FI
7	Marriott, Washington D.C. USA	PeopleSoft	FI
8	Rhodia, France – Shared service centre set in Prague	not stated	FI
9	Oracle – Shared service centers in Dublin, US and Australia	Oracle	FI
10	Alcoa – Shared Service centers in Hungary.	Oracle	FI
11	Ericsson, USA	SAP	FI and Procurement
12	Bluescope Steel, Melbourne, Australia	SAP	HR
13	BHP Billiton, Melbourne, Australia	SAP	FI, HR and Procurement
14	KeySpan Corporation, New York, USA	not stated	HR
15	UNICCO Service Company, Massachusetts, USA	not stated	FI, Benefits Administration, and SCM
16	UPM-Kymmene, Helsinki, Finland	SAP	HR
17	Barclays, London	not stated	HR
18	Fuji Xerox Asia Pacific, Singapore	Oracle	SCM, Sales, and Marketing
19	Cendant, New York, USA	not stated	HR
FI = Finance, HR = Human Resources			

Table 1: Shared Services Case Studies

The table above demonstrates summary information of the organizations that we investigated in. From table 1, we make the following broad observations. As depicted in figure 1, we note that the majority (68%) of the organizations focus on consolidating Financial Applications, followed by Human Resources (58%) and Procurement (32%). This view is somewhat different to the A. T. Kearney (2004) findings, where Human Resource management was identified as the most implemented Shared Services Foci.
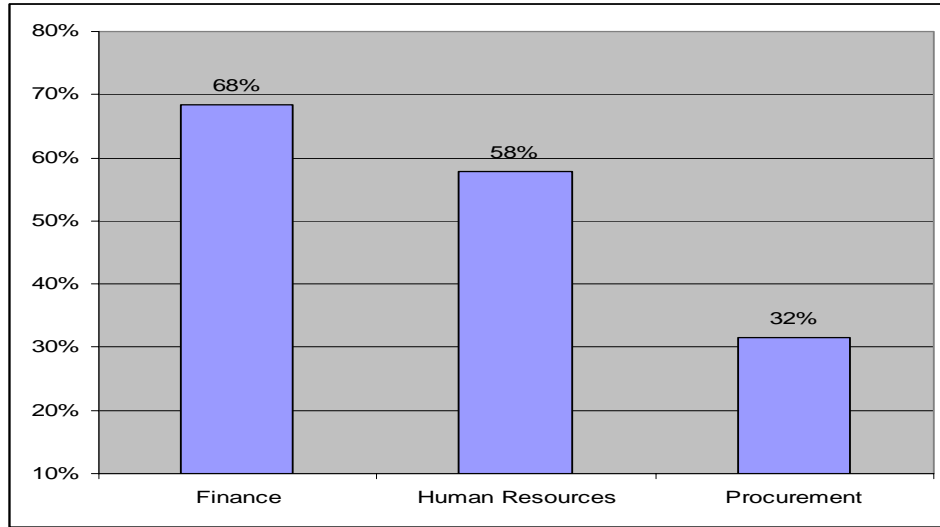
Figure 1: Top Functions of Shared Services

A Shared Services Research Model

A Shared Services model, from an Information Technology point-of-view, is derived to structure our research statements. We also note that this model may be of use to future researchers to identify research areas associated with Shared Services and to engage in a structured research approach to develop a cumulative tradition of research. From cases observed we argue that a Shared Services initiative can be structured in a four interrelated layers: (1) IT infrastructure, (2) IT applications, (3) Enterprise level business processes and (4) cluster of organizations. The bottom layer, IT infrastructure, is primarily associated with Information Technology hardware, while the second layer is associated with IT applications within each of the organizations. Typically, in contemporary organizations, these applications correspond with the modules of ERP applications. The third layer of a Shared Services model relates to the business processes within the organization. It is highlighted, in a Shared Service, the disparate activities and operations (such as finance, human resources, payroll, and marketing) that have been seen as back office and secondary to the core business processes are treated as if they themselves were the core processes. The forth level depicts the clusters of organizations that belong to the Shared Services initiative. The forth level clusters are largely formed on the basis of 'compatibility' of the three bottom layers.
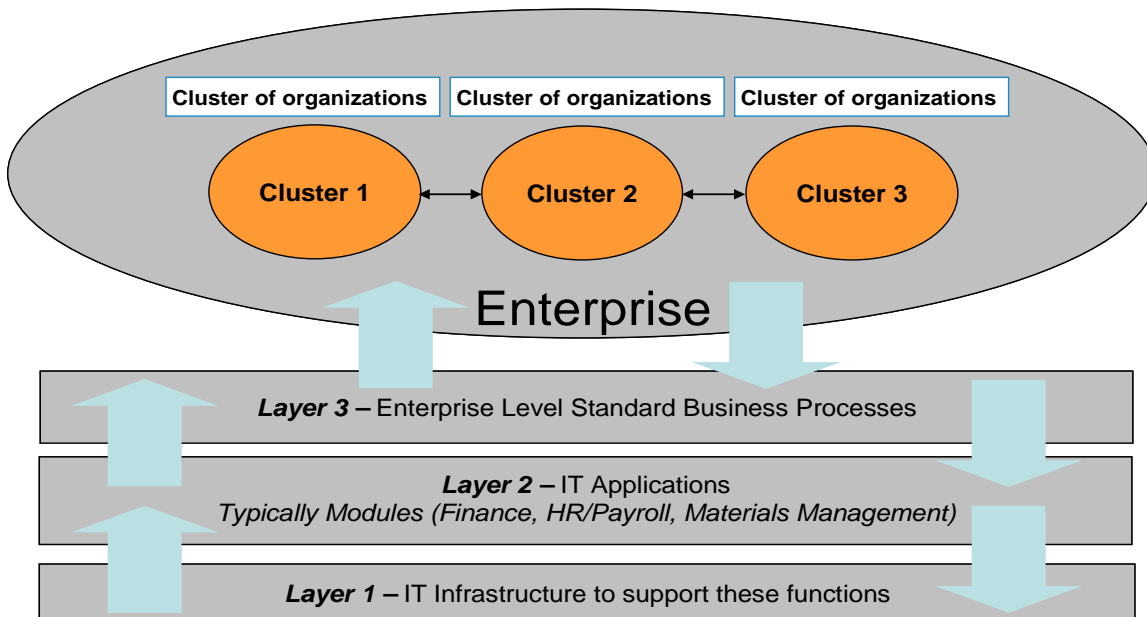

Figure 2: Shared Services Model

ERP enabled Shared Service initiative

The role of an ERP system is central to the notion of Shared Services through the provision of adequate Information Technology infrastructure across the enterprise. As suggested in much Information System literature (Brynjolfsson and Yang 1996; Barua and Lee 1997), an effective IT infrastructure is one of the most important aspects of a contemporary organization.

A report on Shared Services by (ATKearney 2004) highlights the importance of (1) consolidation, (2) standardization and (3) automation as three key-pillars of a Shared Service success. It is clear that an ERP system not just provides the necessary technical backbone, but also provides an environment that facilitates standardized business processes across many organizations. As discussed earlier, ERP facilitate the aforementioned three aspects within a single application. The cases investigated in this study demonstrate that a common ERP system (e.g. SAP) at the organization level, having the same versions of ERP (or at least versions that are common), and the similar IT infrastructure (e.g. storage devices) ease the implementation of a Shared Services initiative. The studies further suggest that, in order to obtain maximum potential from a Shared Services initiative, all the Information Technology operations at the enterprise level should be operating in a common system platform, support common functional and processes that the enterprise is planning to consolidate and standardize. Since an ERP system provides an integrated suite of applications which provide transaction processing and management information systems for the common core of business processes, the consolidation and standardization become easier. Moreover, ERP systems provide comprehensive administrative systems and help to automate and streamline business processes. It is argued that ERP systems facilitate organizations to combine information from multiple, but disparate business entities to achieve a unified system and business processes.

According to a recent survey conducted by Accenture, '*having an ERP system*' has been regarded as the key enabler for successful Shared Services implementation. This is evident in recent examples of Shared Services initiatives in large number of *Fortune 500* companies, including Microsoft, Chevron Texaco, and HP. According to a survey conducted by the National University of Ireland, 30% of the companies surveyed identified '*lack of a common system*' as the biggest obstacle to facilitate functionality of a Shared Service center. Usage of an ERP system allows management of massive amounts of transactional information rapidly with minimum human interference and standardization of transaction data processing. This allows organizations to develop better contractual agreements with suppliers and consistent service to customers. Not having an ERP system to facilitate a Shared Service initiative may require organizations to integrate a number of disparate systems and to consolidate data into a standard format.

Using the ERP system as an enabler, the case organizations attempt to 'Harmonize' business processes from organization level to a 'Whole-of-Enterprise (WoE)' level. Similarly, the case organizations attempt to 'Consolidate' applications from the organization level to a 'whole-of-Enterprise' level (See depiction in figure 3)
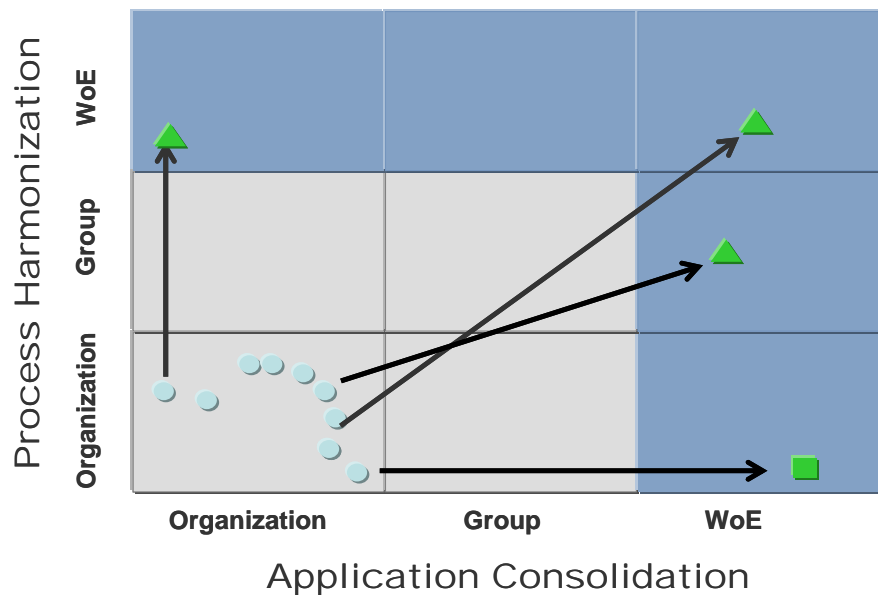

Figure 3: The key activities of an ERP system enabled Shared Services Initiative

In ERP enabled Shared Services, these two activities on 'Application consolidation' and 'Business process harmonization' are interrelated and have a strong dependence with each other. The intended outcomes of process harmonization include: (i) reduce process variability across organizations, (ii) greater consistency of information across all organizations, (iii) economies of scale and skill, (iv) greater transparency in costs and services, and (v) promoting efficiency in internal business

processes. The application consolidation attempts to (i) consolidate infrastructure and support structure, (ii) economies of scale and skill in application maintenance and upgrade, and (iii) cost effective implementation of new technology.

Though the move towards Shared Services centers using Process Harmonization and Application Consolidation tends yield aforementioned benefits, it tends to compromise the individual needs of each organization. The following section outlines some of the issues that we identified from the study of those 19 organizations.

Issues with Shared Services

The preliminary findings identified several issues and problems that may hinder the potential benefits of Shared Services initiative. One of the main challenges of a Shared Services initiative is the amount of changes made to the business processes and systems. Since many organizations attempt embarking on Shared Services when the ERP applications in each organization are at the mature stage of the ERP lifecycle, converting 'intra-organizational' standardized applications to 'inter-organizational' standardized applications is harder.

Firstly, consolidating individually customized ERP applications to implement a Shared Services initiative is a complex technical undertaking. In one case organization[1], where 14 'similar-in-nature' organizations were consolidated into a single cluster, there exists 3 versions of SAP ranging from 3.1i to 4.6c and two instances of Finance 1. It was revealing that, though this reported initiative was a Shared Services initiative was largely a business-driven Shared Services initiative, the clusters of organizations were formed on the basis of 'technology interfaces'. As a result of achieving a common business practice, many compromises are made against organizational specific business requirements. In organizations where many ERP modules from many versions of the same ERP application are being used, it is debatable which version to consolidate the applications to and which modules to consolidate. Similarly, different hardware and operating platforms provide similar issues for Shared Services organizations. In many instances, organizations decide to upgrade into a higher version of the ERP application through the Shared Services initiative. Another issue that Shared Services organizations face is the out of scope functionality in the ERP software.

Secondly, the importance of achieving common business requirements for a group of organizations that engage in a range of different business objectives has been identified as another key issue. Though the issue of diverse core business objectives was not so common with organizations that solely focused on consolidating Financial modules, it was quite prevalent in Procurement and Human Resource Management respectively. Many organizations in our case studies deal with specific customers, suppliers and are governed by certain public policy arrangements, thus have demonstrated some dissatisfaction towards a central Shared Service initiative.

With the introduction of 'common functionality' to facilitate Shared Services, many organizations reported 'out of scope functionality' in the ERP software as an issue for many specific functionality. The move towards application consolidation compromises the existence of many in-house applications that many organizations had developed to cater for the 'out-of-scope' SAP functionality. We note that the majority of organizations that we investigated had implemented the ERP system prior to year 2000. As prior ERP research pointed out (Stein and Zwass 1995; Mabert, Soni et al. 2000; Vickers 2000), many of these organizations had not engaged in any business process improvements, rather focused on ERP as a technology swap as a solution for then looming Y2K issue. As a consequence, many 'boot-leg' applications were developed to supplement what ERPs offered to the organizations. Though the value of such applications is dubious in light of the capabilities of the ERP applications, these applications provide vital support to some organizations. Thus, removing them in a central Shared Services initiative may have adverse effects.

Timing considerations were also reported as a problem in a Shared Services initiative. Like many ERP initiatives, ERP enabled Shared Services are notorious for lengthy delays and cost overruns. (ATKearney 2004) note that a standard Shared Services initiative taking an average of 2.2 years to complete. We trail the published documents of a public sector Shared Services initiative, where the project delivery data has shifted from 2 years to six years.

A commonly stated issue in Shared Services was the difficulty of managing change within and across the organizations. With many specific system features and business processes compromised, tasks and roles changed for employees, Shared Services initiatives undergo intense resistance. Many organizational middle managers tend to resist the notion of Shared Services in fearing loss of control and autonomy. Furthermore, we note that the most savings are at the enterprise level while most changes are at organizational level, thus require extra caution to manage user expectations. In general, it is expected that for both the Shared Service centers and the individual organizations require a major change management exercise to cope with the transformations in business processes and information technology.

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[1] Name suppressed due to confidentiality.

Conclusion and Research Outlook

This research-in-progress paper investigated an under-researched area of ERP enabled Shared Services. The study specifically explored issues and problems pertaining to large ERP enabled Shared Services initiatives through information gathered from popular press from different 19 organizations. First, the study developed a Shared Services model that can be useful in future studies. Next, the study discussed the approach of an ERP enabled Shared Services initiative, describing the 'process harmonization' and 'application consolidation'. The study identified five key issues that the sample organizations face in implementing Shared Services. The second stage of the study is planned with two case studies in a large public sector Shared Services initiative with over 10 organizations and a relatively small private sector organization with 3 sub-divisions.

References

ATKearney (2004). Success through Shared Services. Illinois, USA.

Barua, A. and B. Lee (1997). "The Information Technology Productivity Paradox Revisited: A Theoretical And Empirical Investigation In The Manufacturing Sector." International Journal of Flexible Manufacturing Systems **9**(2): 145-166.

Brynjolfsson, E. and S. Yang (1996). "Information technology and productivity: a review of literature." Advances in Computers **43**: 179-214.

Mabert, V. A., A. Soni, et al. (2000). "Enterprise Resource Planning Survey Of U.S. Manufacturing Firms." Production and Inventory Management Journal **41**(2): 52-58.

Markus, L., S. Axline, et al. (2003). Learning From Adopters Experiences With ERP: Problems Encountered And Success Achieved. Second-Wave Enterprise Resource Planning Systems. G. Shanks, P. B. Seddon and L. Willcocks. Cambridge, UK, Cambridge University Press**:** 23-55.

Schulman, D., J. R. Danleavy, et al. (1999). Shared Services : adding value to the business units. New York . Wiley.

Stein, E. W. and V. Zwass (1995). "Actualizing Organizational Memory With Information Systems." Information Systems Research **6**(2): 85-117.

Vickers, V. (2000). "The Real ERP Fast Track: Forget ROI And Go Vanilla!" Enterprise Systems Journal **15**(5): 46-49.