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A Preliminary Decision Model for Shared Services: Insights from an Australian University Context

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Abstract

Shared Services involves the convergence and streamlining of an organisation's functions to ensure timely service delivery as effectively and efficiently as possible. This would result in lower cost, improved service delivery and economies of scale. The conventional wisdom of today is that the potential for Shared Services is increasing due to the increasing costs of changing systems and business requirements and also in implementing and running information systems (IS). However many organizations opt instead for an outsourcing arrangement as the alternative towards cost savings, due in essence to a lack of realization of this potential for Shared Services. This paper rationales turning from outsourcing (to looking within organisations) to leverage on Shared Services for similar cost savings and reaping other potential benefits. The paper's objectives and contributions are three-fold: (1) distinguish between Shared Services and Outsourcing, (2) report on insights from a single Australian university case study through a transaction cost lens, and to demonstrate the potential for Shared Services and (3) develop a decision model to gauge the potential of implementing Shared Services across similar organisations.

Keywords

Shared Services, Higher Education, Inter-organisational Shared Services, Outsourcing, Organisational Design

INTRODUCTION

Shared Services (SS) is a collaborative strategy in which a subset of existing business functions are concentrated into a new, semi-autonomous business unit for the internal customers of the parent corporation, like a business competing in the open market (Bergeron 2003). While traditional SS involves the sharing of services internally within an organisation (Intra-Organisational), Inter-Organisational Shared Services (IOSS) involves the sharing of services across more than one organisation (Yee and Chan 2008). Regardless of the duality, the main objectives of SS are driven primarily by *cost savings* and improvements in *service efficiency* and *effectiveness*. The conventional wisdom of today is that the potential for Shared Services is increasing due to the increasing costs of changing systems and business requirements and also in implementing and running information systems.

Shared Services is relatively young (having its origins in the early 1990s) but despite this, it is often confused with its older organisational design counterparts such as Outsourcing (OS) and centralization. Broadly, OS means to purchase a business function outside one's organization (Lacity and Hirschheim 1993). The notions of OS and SS are somewhat similar at least at a motivations level. The main motives for OS cited are to decrease the *cost of capital*, gain *flexibility* and to gain access to *external competencies* and technology (Karen and John 1999; Belcourt 2006; McFarlan and Nolan 1995). Prior to OS, it was expected that a growing organization would create internal departments to handle more and more support functions. Organizations in the past "in sourced" as they grew, seeking to become almost entirely self-sufficient production units. However, OS steadily evolved into practice whereby businesses and agencies increasingly sent their support functions to external suppliers. This occurs despite that OS does not work well for all organizations (Doig et al. 2001; Quinn, Cooke and Kris 2000). Organizations opt instead for an OS arrangement as the alternative towards cost savings, due in essence to a lack of realization of this potential for SS.

This study seeks to answer the research question of “*what is the difference between SS and OS?*” in which we would (1) compare and contrast OS and SS through a comprehensive archival analysis of literature. It also seeks to answer the second research question of “*What are the conditions or motivators for SS or OS?*” in which we attempt to (2) synthesize a framework which draws largely on insights from a single case study that illustrates the above conceptual differences for specifying conditions for SS or OS. Lastly, we (3) develop a decision model to assist in selection a model for (administrative) efficiency. The contribution of this study is thus three-fold. This study first provides a much needed conceptual differentiation between Shared Services and OS. In this light, the article further extends the notion and knowledge of IOSS. Secondly, the study demonstrates empirically, the conditions with which either SS or OS would be suited for particular organizations and agencies with particular needs. Last, empirical findings further aid in developing a decision model to gauge the potential of implementing Shared Services across similar organisations.

The empirical data drawn on for this study resides in Australian Higher Education where there has been past interest expressed in the area of SS for organisations in this sector (Jordan 2008a, 2008c, 2008b; Dove 2004), indicated most recently in a collaborative study between 2 Australian universities in South Australia²¹. The focus would be on the administrative financial functions of Accounts Payable, Accounts Receivables, General Ledger and Travel and Entertainment due to their relative homogeneity across organisations generally and across universities specifically. A case study approach was used to conduct a study on an Australian university with the pseudonym of UniQ to explore the potential of OS or SS as well as to test the conditions framework. Surveys in the form of a questionnaire administered via face-to-face interviews were used to assist in information gathering. The findings of the case study and the correspondence observed from the mapping of the case study findings to the conditions framework resulted in a decision model which assists in deciding which arrangement: SS or OS would be more appropriate for an organisation being developed.

The rest of the article is organized as such: Following the introduction, the second section defines Shared Services and OS. As previously mentioned, there are several overlaps in both notions. However, due to the limited publications in the SS area, the conceptual differences are not often reported. Thus, the section also introduces a transaction cost approach towards distinguishing SS and OS. The application of transaction cost in this study is to describe the nature of key findings in the case findings. In the third section, a comprehensive archival analysis that further elucidates the conditions for specifying SS and OS in an organization is reported. This contributes a specification framework with which it can be used to classify (into nine factors) the characteristics of the case organization. The fourth section reports on empirical findings from the case study approach adopted to investigate the potential for shared services, in light of the specification framework above. The fifth section presents the phased preliminary decision model to evaluate the potential for SS and summarizes the list of questions supporting each phase.

SHARED SERVICES VS OUTSOURCING

Although the idea and implementation of Shared Services is relatively young, a review of the business, marketing and management literature yielded several different definitions and conceptions of “Shared Services” or “Shared Service Centres” (SSCs). As mentioned earlier, (Bergeron 2003) defines Shared Services as “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 internal customers of the parent corporation, like a business competing in the open market.” (Quinn ,Cooke and Kris 2000) defines Shared Services as “the practice of business units, operating companies and organisations deciding to share a common set of services rather than have a series of duplicate staff functions” whereas (Shah 1998) defines Shared Services as “the internal consolidation of services that were formerly handled by individual business units, and that this consolidation facilitates the sharing of both staff and technological resources and the provision of high quality service”. (Schulman 1999) however, provides a common working definition of Shared Services as “The concentration of company resources performing like activities, typically spread across the organisation, in order to service multiple internal partners at a lower cost and with higher service levels, with the common goal of delighting external customers and enhancing corporate value.”

OS, on the other hand, is broadly defined to be to purchase a business function outside one’s organisation. (Lacity and Hirschheim 1993) and (Rochester and Rochester 1995) both define OS as the operation of shifting a transaction previously governed internally to an external supplier through long-term contract, and involving the transfer of staff to the vendor. In their studies relating to IT OS, (Lacity and Hirschheim 1993; Loh and

²¹ In example, the Flinders University of South Australia & the University of South Australia organised a joint initiative in 2001 to conduct a feasibility study to explore the possibilities of them sharing certain services. (Deloitte Touche Tohmatsu ,Australia and Australia 2001)

Venkatraman 1995) define OS as a decision taken by an organisation to contract-out or sell the organisation's IT assets, people, and/or activities to a third party vendor, who in exchange provides and manages assets and services for monetary returns over an agreed time period. (Gilley and Rasheed 2000) identify OS as procuring something that was either originally sourced internally (i.e. vertical disintegration) or could have been sourced internally notwithstanding the decision to source from external providers. (i.e. make or buy) whereas (Sharpe 1997) define OS as handing over non-core competency activities which an organisation deems to a supplier.

A Transaction Cost Economics Lens

As earlier mentioned, the overarching motive to consider SS (or in some cases OS) is cost reduction. This section explores the theoretical notions of transaction costs, a factor of overall costs of a company. A transaction cost approach typically encompasses looking at the cost incurred in making an economic exchange between companies in a market (Williamson 1975; 1981). A transaction cost approach has often been used to study the degree of OS in companies (for example in Wang 2002 and Bahli and Rivard 2003). Williamson (1981) identified three critical dimensions for describing transactions: (1) *level of uncertainty*, (2) the *frequency* with which transactions recur, and (3) *asset specificity*. According to Williamson (1981), asset specificity is crucial because once an investment is made; buyer and seller are effectively operating in a bilateral exchange relationship. Where asset specificity is great, both buyer and seller will make special efforts to design an exchange that has good continuity properties. Frequency of transactions between companies is important as the potential to add cost relative to buyer activity in the market varies; depending if the nature of frequency is one time, occasional or recurrent. Uncertainty is generally bounded by limitations in the capabilities of individuals and groups. Uncertainty is an important factor as costs of negotiating and writing enforceable contracts for each transaction for example can potentially be large if there is some uncertainty. Therefore the incentive to shift bilateral transactions from markets to companies (in-house) increases as uncertainty becomes greater because the costs of harmonizing the interface will vary directly with the need to adjust to changing circumstances. On this basis, a transaction cost approach could also be useful to argue for or against the decisions to adopt SS (or OS). In this study, the authors use a transaction cost lens to discuss the findings in the case study.

CONDITIONS FOR SHARED SERVICES OR OUTSOURCING

An extensive review of literature spanning the disciplines of OS, business, organisational design and shared services was conducted. From this, a specification framework which specifies the conditions in which SS or OS would be more suited for an organisation was synthesised and presented in Table 1. Nine (9) factors were identified and on this basis, researchers and practitioners can not only determine between SS and OS but use it to specify data collection in empirical work.

Factor(s)	Shared Services	Outsourcing
1. Cost and Projected Yield	Able to maintain low operation cost in the long run . If it cannot fulfil its main objective it might as well be outsourced) (Quinn ,Cooke and Kris 2000). Meant to yield cost savings with continuous improvements throughout its lifespan. (Quinn ,Cooke and Kris 2000; Melchior 2008).	Able to maintain low operation cost in the long run if well managed. (Quinn ,Cooke and Kris 2000) Short term contracts usually yield cost savings more than long term contracts. (Melchior 2008; Lacity and Willcocks 1998)
2. Dependency	Dependence is on the SSC (internal)to get things done (Self governed)	Dependence is external (on Supplier) (Alexander and Young 1996b) (Aubert ,Patry and Rivard 1998; Earl 1996; Hoecht and Trott 2006)
3. Knowledge Management	When employees already possess the knowledge of how processes work. (Organisation culture and work familiarity)	When there is need to gain access to external competencies (Belcourt 2006; Yang 2000; Alexander and Young 1996a; McFarlan and Nolan 1995; Barthelemey and Geyer 2001; Kakabadse and Kakabadse 2005; Sobol and Apte 2001; Martinsons 1993)
4. Motives	Seek reductions in cost with improvements in quality and efficiency . (Forst 2002; McReynolds and O'Brien 2002; Fahy and Donovan 1999; Bergeron 2003)	-Seek reduction in cost, financial savings and economies of scale . (Karen and John 1999; Belcourt 2006; Yang 2000; Barthelemey and Geyer 2001; Kakabadse and Kakabadse 2005;

		McFarlan and Nolan 1995; Martinsons 1993) -Gain access to external competencies (Belcourt 2006; Yang 2000; Alexander and Young 1996a) (McFarlan and Nolan 1995) (Barthelemey and Geyer 2001; Kakabadse and Kakabadse 2005; Sobol and Apte 2001)
5. Orientation	IOSS is process and customer oriented . It constantly involves the evolution of processes to continuously improve to meet internal customer demands. (Bergeron 2003; Schulman 1999)	OS is goal oriented and usually involves “one off” jobs and the only time when they “improve” process is when customers discover a new problem and engage their services again.
6. Nature of improvements	When the organisation wishes to seek a more proactive method of continuous improvements in service levels and efficiency. SSCs evolve to suit the ever-changing requirements of their customers. (Schulman 1999)	Gain Flexibility of hiring/firing staff at will . (Quelin and Duhamel 2003; Rochester and Rochester 1995) Usually involves “ one off ” jobs and the only time when they “improve” process is when customers discover a new problem. (Lacity and Willcocks 1998)
7. Risk of threat to security and confidentiality	Minimal or no threat to security and confidentiality (since it is internal)	Possible threat to security and confidentiality (Hoecht and Trott 2006; Rochester and Rochester 1995)
8. Strategic benefits	IOSS itself is not strategic. It is more of a tactical move to consolidate and improve the efficiency and effectiveness of non strategic activities; resulting in the affected business units and corporate managers to fully devote their time and energy to strategic activities . (Schulman 1999)	If to be adopted by organisations and fully integrated as a valid management tool, organisations must pursue it with a clear sense of where and why it leads to value. (Alexander and Young 1996a)
9. Nature of suitable functions	Functions being considered should be back office/transactional operations but as it evolves to an advanced model, strategic functions may be considered .(Quinn ,Cooke and Kris 2000)	Functions being considered should be back office/transactional operations. They should not be strategic or functions which give any of the member organisations competitive advantage.(Alexander and Young 1996b)
Table 1 – Conditions for Shared Services or Outsourcing		

From the above table, it would seem that SS and OS, although similar at least from a motivations perspective, can be distinguished. Firstly, SS or even IOSS is internal [owned by the parent organization(s)]. This yields potential savings in the long run since costs associated with it would be lowered as compared to paying a third party vendor to perform the same work (i.e. OS). Secondly, SS as compared to OS is autonomous by nature, which enables them to be customer and process oriented. In that, the focus is on specific activities within processes to support their customers (i.e. the other business units which turn to them to get work done). In this way, service efficiency and delivery can be tailored to their individual needs and customers will be able to get what they want in the most cost effective manner. Thirdly, OS has a lower initial outlay than SS. SS has been found generally to require a higher start-up cost. Fourthly, OS allows organizations to hire and fire staff at will (or when they are not needed) whereas in an SS environment, keeping an optimal level of staff to conduct streamlined processes is preferred. Lastly, OS is sometimes used as a means to transfer unwanted risks of organization and although this may be the case in SS as well, there is a lack of literature that reports this.

In the next section, we use the specification framework presented above to analyse empirical data gathered for determining the potential for SS or OS in a particular organization for a particular setting. We do this by formulating a set of pertinent questions²² to guide the case study approach. These questions are closely linked to each of the nine factors presented in the above classification.

²² A copy of the case study protocol can be obtained from the authors upon request

THE UNIVERSITY CASE STUDY

The case study was conducted in an Australian university with the pseudonym of UniQ. The primary objective of the case study was to look out for inefficiencies and ineffectiveness in the financial administrative functions of Accounts Payables (AP), Accounts Receivables (AR), General Ledger (GL) and Travel & entertainment (T&E) as it was conventional knowledge that the processes involved in these functions were relatively homogeneous across organisations generally and universities specifically. A secondary objective was to compare the findings with the conditions (specifications) framework presented in table 1 to comment on any correspondence (or not) observed. The case study approach (Yin 2003; Benbasat et al. 1987) has been chosen for its benefits such as allowing the authors to study the phenomenon (i.e. the state of SS potential) in a natural setting as well as gained valuable insights which the researcher has not discovered before or which has not been reported. As such, the case study is very much exploratory in nature and seeks to contribute to the (little) research studying the potential of implementing SS across organizations.

The business functions of AP, AR, GL and T&E all belonged to the same department and were covered in the data collection phase. Data was collected over two sessions via face-to-face interviews in the form of a survey questionnaire administered to them. The participants of the survey were of managerial level staff working in the department and were deemed to be in a position to provide credible evidence. The systems being engaged are Oracle financials, the ALESCO HR system, Onestop cashiering/receipting system and the Callista student administration system and it is worth noting that most of the reporting is done through the use of customised scripts written by the programmers in the IT department which serves them. It is also noted that the nature of reports which the General Accounting function handles is mostly ad hoc.

Findings

The findings observed in the case study are reported below. Tables 2a and 2b further summarizes the case study Investigative questions which were closely linked to aspects reported in the specification of conditions framework were used to guide the data collection efforts. The responses to these questions would ultimately allow us to understand the nature and complexities of operational process and decisions in university administration. Using critical dimensions (frequency, uncertainty and asset specificity) of the transaction cost approach; the authors examine various processes and functions of UniQ. The examples from the case findings illustrate the likelihood or the lack of each of the three dimensions. The assumption is that different functions and processes incur different degrees of intra (and inter)-organizational cost on UniQ. The authors use these findings to determine a preliminary decision model to determine SS potential, in the context of UniQ.

With regards to AP and AR, the results of the interview indicated that there were many disparate systems which are not linked to one another but are used by the university's AP, AR and GL accounting systems and that the only way by which the departments managed to get around such issues was to have a certain amount of manual human intervention, especially for the case of AR when it comes to Bank Reconciliation. Together with debt collection, AR processes typically assumed a higher frequency and volume of transactions. Further, processes such as debt collection and claims represent a certain degree of uncertainty. As such, efforts were usually made for such enterprise applications to be integrated and streamlined as a general improvement or as a pre-requisite for moving to shared services. There were also certain issues with procedures worth addressing such as the invoice-to-purchase order matching process. Although a financial system such as Oracle Financials was employed, automatic matching of invoices to purchase orders was not present (the system only matches 0.1% of invoices) due to the inconsistent description of products by the suppliers. (I.e. Suppliers might not describe a product in the same way the staff of AP do) and thus improvements can be made in this area (e.g. Training staff and suppliers to use standard naming conventions etc) It was also observed that for the AP and AR functions, most of the problems in AP were IT-related problems since IT is a major enabler for the day-to-day operations of AP and AR, and that the way in which improvements are made are when a problem occurs, suggesting that there is a lack of proactive improvements being carried out to ensure that problems are prevented instead of being allowed to occur. This distinct lack of effort doesn't suggest a great degree of asset specificity. It was also acknowledged that a certain amount of inefficient procedures exist and that efforts are being made to improve on them although most of the improvements are dependent on the amount of buy-in and support of the other departments which AP works with.

Factor	Observations/ Evidence
Seek proactive method of having a continuous improvements	<p>“Bank reconciliation is still a very manual process and it should be automated. It is not and it is one area which needs to be focused on.”</p> <p>“Projects are different because if we want o improve something, 99% of the stuff that we want to improve comes from a system development and then we have to go through a whole process; there’s a whole committee process to gain asset funding which is a whole other process in itself. We have to put up a proposal between Systems (dept) and us which then goes through a committee assessment they say yes or no and then it goes through another committee and they say yes or no and then if that’s agreed, they say “yep we’ll give this amount of money out of our AMP budget allocation to finance this particular purpose for this particular project” and that is a pot of money which is a separate pot of money to our general operational day to day running.”</p>
Functions involve confidential or sensitive data	Functions involved are AP, AR, GL, T&E and data involved are considered sensitive as they are financial data.
Is Organisation considering strategic functions in future?	<p>“The consolidation of the whole procure-to-pay process would work better for us. There is an agenda for procure-to-pay on the table. We have just not pursued anything as yet. So we are talking about a whole end-to-end procure-to-pay process but we’re not there yet. It’s just in the infancy ...conceptual phase.”</p> <p>The (then) Director of Corporate Finance of UniQ expressed interest in Shared Services and mentioned considering strategic functions for his department. Evidence from data collection suggests that the organisation is considering strategic functions in future.</p>
Table 2a: Potential for Shared Services	

Inefficiency in T&E was manifested in the duplication of work and certain work policies, specifically in the way the university did not mandate and enforce the rule of only using the 3 preferred vendors for travel arrangements being done by the faculties and divisions. This eventually resulted in a heavy administrative workload (and thus the volume and recurrence of transactions) on the Travel and Entertainment staff and faculty and division members. The decentralized nature of Travel and Entertainment procedures, which works by requiring the faculties and divisions to first settle their own travel and entertainment arrangements and then sending the final purchase requisitions to Travel and Entertainment to finalise the process creates an unnecessary workload for the faculties and divisions as it distracts them from their core business (i.e. teaching, student admin etc) and it involves redundancy and duplication of work (i.e. ultimately requiring Travel & Entertainment to approve the final step).

In addition, it is observed that AP “lends” out some of its staff to process T&E work, such as involving them with hospital claims and requiring them to liaise with the various faculty personnel for the proper paperwork (i.e. Hospital Claim Form) should they not submit the claim properly. As mentioned by the participant, this was a very time consuming distraction for AP staff which prevents them from carrying out their core tasks. In addition, the “international travel report” which requires 1 staff member from AP to spend 5 weeks of his time to collate for Travel & Entertainment further suggests that the borrowing of staff from another function not related to T&E places an additional workload and prevents them from focusing on their main operations to the best of their ability. The bulk of travel arrangement purchases done by the faculties and divisions also places additional workload on the staff as most of the hard work is done by the secretaries in those divisions. 90% of their work is on other purchases while 10% is on travel. The only observed inefficiency in GL existed in the manual intervention for the maintenance of the major payroll journal whereby 2 FTEs would be tasked to ensure that only valid combinations from the ALESCO system are passed into the Oracle system.

In sum, costs arising from the high recurrence of internal transactions and the general lack of agreement on uncertainties and asset specificity divert workers attention away from their core-competencies. According to (Lei and Hitt 1995) non core competency functions are better off being outsourced so that firms will be able use the time to leverage on their core competency processes to gain a competitive advantage. However, we also have to bear in mind other factors such as data sensitivity and confidentiality, duplication of work, disparity in systems involved in a particular process, amount of automation involved in processes, loss of core competency and innovative capability. Thus looking at the processes from solely a transaction cost perspective may not be

appropriate. The preliminary shared services decision model presented next, thus takes the above factors into consideration before suggesting which arrangement to adopt.

Factor	Observations/ Evidence
Is organisation willing to invest heavily in reengineering functions?	Evidence from data collection suggests that the organisation is not investing in re-engineering functions at the moment but rather, improving functions by putting in new systems (i.e. Unipay, Spendvision etc)
Is organisation comfortable with a 3 rd party handling sensitive data	Yes. “We send that to our debt collector and depending on what they come back with, generally make the decision to write off debts when it gets to about 120 days. But if they come back saying “nope you’re not going get it back we’ll write it off straight away so write-offs happen all the time because as the debts fall into the 90 day provision so this 180 days we do it well before that.”
Are functions considered strategic and help give the organisation a competitive advantage?	No. AP,AR,GL and T&E are considered back office functions which support the organisation
Are functions purely transactional?	The functions and work being covered in AP, AR, GL and T&E are mostly transactional functions.

Table 2b: Potential for Outsourcing

A PRELIMINARY SHARED SERVICES DECISION MODEL

The findings of the case study were then compared with the conditions (specification) framework. This mapping, yields a preliminary decision model for evaluating the potential of SS (an illustration of the model is presented in **Figure 27**). The further explanation of these determinant questions is described in the following table (3):

Question	Justification
Does organisation seek a proactive method of having continuous improvements?	A Shared Service arrangement will involve continuous improvements being chased as compared to OS where most of the jobs are one-off and vendors are only contacted again when there is a need for improvements in the future.
Does the function involve confidential or sensitive data?	A Shared Services arrangement would be more suitable if confidential and sensitive data is involved because a Shared Services unit usually serves its parent or member organisations and in doing so will be able to provide a certain level of security for them because it is internal as compared to OS where there have been cases when vendors take such confidential information for own business interests.
Are functions strategic and give the organisation a competitive advantage?	From the literature, IOSS is by itself not strategic although it is an enabler for organisations to gain a competitive advantage by concentrating processes which do not directly add to an organisation’s profits into a centre for expertise . As such, organisations should consider this factor while deciding on which arrangement best suits their long term goals. OS usually suffices for one-off improvements.
Is organisation willing to invest heavily in re-engineering functions?	The initial start-up costs for IOSS do not come as inexpensive and thus should be considered by every organisation before deciding on a particular arrangement. There are some cases where an incremental move to IOSS can be considered although the more important question is one in which arrangement will be able to save cost ultimately in the long run without compromising on efficiency and effectiveness.
Does staff possess matured knowledge of processes in functions?	Useful to know for organisations switching to an IOSS environment as they (and the inherent knowledge) can be easily transferred into the Shared Services unit. OS however, would require the vendor learning of the particular client’s organisation, processes and needs before being able to help them.
Are ERP systems in use and best practices in place?	Having ERP systems and best practices already being in place would probably ensure a smooth transition to IOSS and allow organisations to escape the initial start up costs (of buying and installing ERP equipment). OS vendors may also be able to offer such services of installing ERP equipment and providing best practices solutions for organisations.

Table 3 - An explanation of SSP model's questions.

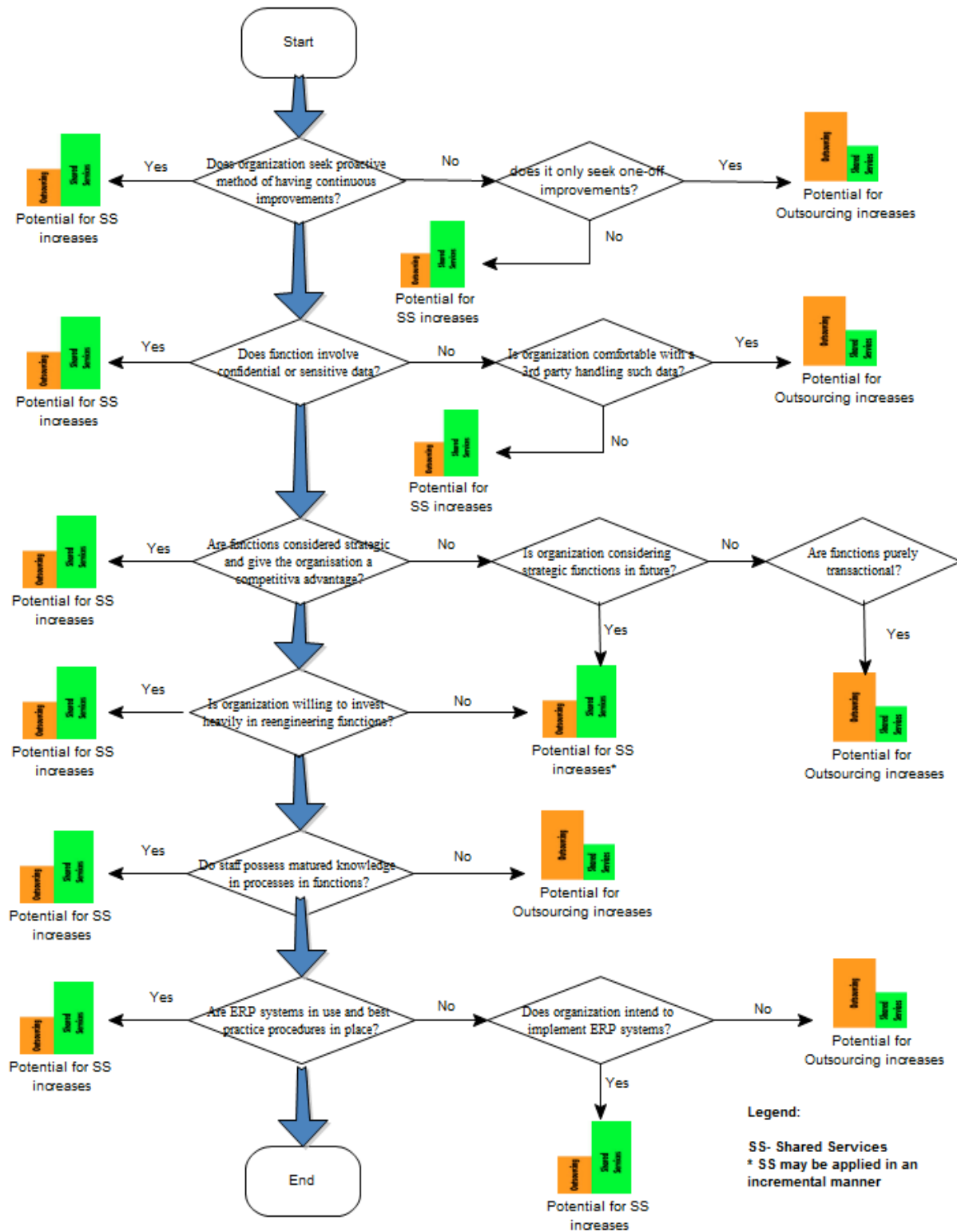


Figure 27: Preliminary Shared Services Decision Model

CONCLUSION

This exploratory study on SS for the higher education sector was motivated by the need to explore the idea of SS due to the ever-increasing commoditisation of large information systems and applications such as ERP systems which are now standard integral parts of most organisations, suggesting that it may well be possible for organisations to achieve savings in costs and improvements in efficiencies and effectiveness by sharing their common services with one another.

The context of the study was selected to be universities in Australia and the scope of the study limited to administrative functions in Financials (AP,AR,GL and T&E) where there is homogeneity and similarity in the processes which they perform (as common supporting functions across them are more or less standardised). The significance of this research was further amplified as it was conducted in a timely manner where universities are facing stricter funding from the federal government. These research motivations, in conjunction with evidence gathered from the case study, assisted and led to the conceptualisation of a preliminary Shared Services Decision Model which was synthesised from evidence from existing literature as well as data collected from a case study in an Australian university.

With regards to the systems and applications being used in practice in the higher education sector, the findings suggest that there is commonality among systems being used by universities in Australia; in other words, several universities are using the same applications independently to perform the same functions. This suggests that the potential for such universities to share such systems and services is significant. To further highlight this, the findings from a separate independent study by Higher Ed Services Pty Ltd²³ provides examples of systems which are common to universities in Australia, suggesting that such overlap and homogeneity in the use of administration systems and applications further makes the idea of sharing common services to save cost a possible one. Study findings can potentially be extended and validated in various contexts. The next section summarizes the rooms for further discussion and areas of improvement in understanding SS potential.

Limitations

This exploratory research contributes towards the consolidation of SS literature but is limited in several aspects. Firstly, it is acknowledged that the data gathered during the case study was only from one institution (UniQ) making comparisons across other institutions impossible (thus IOSS). It is thus suggested that future work include collecting data from more institutions so as to allow for comparisons and benchmarking where the institutions can benchmark performance among themselves. It is also acknowledged that although detailed data has been collected from only 1 institution (UniQ), secondary data from an independent study (Higher Ed Services 2008) shows that there is existing data which allows the drawing of the conclusion that universities are already currently using common systems in their day-to-day operations; but are not sharing them or using them in a collaborative effort.

Secondly, it is noted that the transaction cost approach to discuss the data analysis findings is still largely exploratory at this stage and warrants further investigation. The approach is we believe more applicable to UniQ should it adopt a SS model (i.e. the SSC will be the vendor/service provider whilst its parent organisation will be its client). Therefore, the reliance on and the contribution towards the economics of transaction cost here is minimal as the practical implication of the study is to gauge the feasibility of having UniQ adopt a SS model; as the (then) Director of Corporate Finance of UniQ expressed (interest in exploring SS). Moreover, this secondary data further suggests that there is value in assessing the potential of organisations coming together to share services as such an evaluation may yield insights into the areas for possible sharing of services and improvements where they are most urgently required but unable to attain.

A preliminary shared services decision diagram has been proposed in this study. The authors however, acknowledge thirdly that it might not encompass all the contextual factors which will affect the decision to go ahead with IOSS (or OS) and as such, note that further validation of the model is required to ensure its rigour. The authors also acknowledge that because the scope of this study only looks at the possibility of having organisations participate in IOSS, a lack of attention was given to implementing it. This is noteworthy as the implementation of IOSS would involve other issues such as gauging the appetite of IOSS adoption (i.e. how interested are organisations regarding the uptake on IOSS?), Governance issues (how will the SSC report and

²³ This consolidated list of Information Systems and their areas of use in Australian universities is available from the authors upon request. Higher Ed Services (HES) is a nonprofit, professional services company owned by Australia's peak higher education body, Universities Australia, which represents 38 of Australia's universities in the public interest, both nationally and internationally and members of Universities Australia are the universities, represented by their Chief Executive Officer - the Vice-Chancellor. HES specializes in the provision of management services for collaborative development projects for Australian universities.

who will it report to now that it involves several organisations instead of a single organisation), Confidentiality and Security issues (how will they manage security and confidentiality issues now that they are serving several organisations?) All these issues should be given due attention in future research work involving “Shared Services Readiness”. This research hopes to generate further discussions in these areas.

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