

BUSINESS PROCESS DESIGN AS A SHARED SERVICES ENABLER

by

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ABSTRACT

A lot of work has been done to implement a shared services model in various corporations as means to improve productivity, reduce operational costs and improve customer satisfaction. By combining services that are performed by different units within an organisation into a single business unit that allows each business unit to access those services, companies have been able to attain some of the benefits mentioned above. Process design is one of the critical activities that have to be performed to implement a shared services unit. Some companies, however, have not been able to optimally design processes in a way that adds value to the performance of a shared services unit. This study is a case study that explored how business process design could be utilised as an enabler to improve the performance of the Eskom Finance and Procurement Unit at Eskom Megawatt Park, in Johannesburg. Through an explorative study of the shared services process design project, the researcher studied how the processes were designed and implemented for the Eskom Finance and Procurement Shared Services. The study was able to identify important process design structures and principles, tools, and techniques that can be utilised to optimally design processes for a shared services unit. It also evaluated process design activities and processes to identify the gaps in process design as well to understand the impact of process design on Eskom.

The results of the study showed that the processes in the Eskom shared services unit were designed on the basis of the processes that existed within the business units. The new processes did not integrate all the interfaces from beginning to end of the process flow and the role of business clients and departments were not properly

analysed and incorporated in the new processes. The process design tools and programmes used were appropriate for this particular project, however, there were no sufficient programmes to prepare the whole organisation for implementation. The performance of the new processes was not evaluated to establish the extent to which the process design objectives and shared services objectives were realised. The study established that business process design was not optimally utilised as a shared services enabler.

The researcher recommended that the processes should be reviewed to ensure that they are seamlessly integrated and take into account the role of shared services clients. There is a need to ensure that the business pre-paredness programmes take place to ensure that the business is ready for implementation, since processes have interfaces that require interventions from different business units. The performance of shared service and processes needs to be evaluated against the process design objectives. These recommendations are intended to ensure that businesses realise optimum value from their processes.

DECLARATION OF ORIGINAL WORK

I, Bongani Khonjelwayo, declare that this dissertation is my own unaided work. Any assistance that I have received has been duly acknowledged in the dissertation. It is submitted in partial fulfilment of the requirements for the degree of Master of Commerce at the University of Johannesburg. It has not been submitted before for any degree or examination at this or at any other University.

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Bongani Khonjelwayo

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(DATE)



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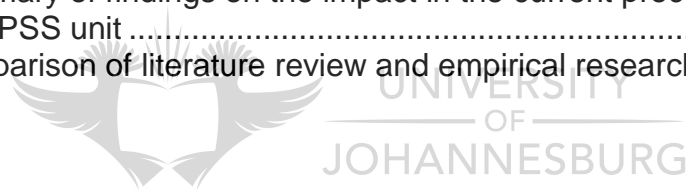


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List of acronyms

BPD	: Business Process Design
CPA	: Contract Price Adjustments
FPSS	: Finance and Procurement Shared Services
SOA	: Service-Oriented Architecture
SPC	: Statistical Process Control
SSU	: Shared Services Unit

CHAPTER 1

INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

The shared services model is designed to consolidate services from different units in the organisation into a single platform that can provide those services in a cost-effective manner and improve service delivery in the process (Walsh, McGregor-Lowdnes & Newton, 2008: 201). It is with this idea in mind that many organisations are moving towards the implementation of the shared services model to attain the benefits of cost savings and improved service delivery.

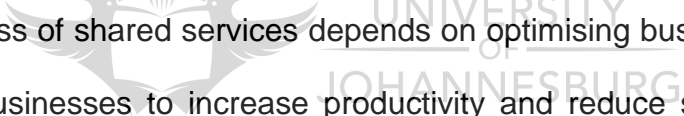
Planning and implementation of a shared services unit is, however, not an easy process. The process may encounter various problems and challenges that make it difficult for a firm to realise the full benefits that accrue from having a shared service unit in the establishment. There are several transformation challenges that business faces, and there are many critical decisions that must be made during the implementation of a shared services unit. These decisions include: designing quantifiable performance measurements, creating a customer-oriented culture/environment, safeguarding operational excellence, standardising processes, and making choices about which technology platform to utilise (Su, Akkiraju, Yanak, and Goodwin, 2009).

1.2 OVERVIEW OF SHARED SERVICES

The shared services model is designed and implemented with the intention to provide several benefits to organisations which include the cost advantages in reducing employee numbers (where appropriate), business process improvements, the

efficient use of resources, technology and improved productivity (Van der Linde, Boessenkoel & Jooste, 2006: 174).

Su *et al.* (2009) describe shared services as an organisational model where common business functions performed by several units within an organisation are brought together into a single entity that provides those functions to the business units and its business clients. The activities that may be provided by a shared services unit can range from transactional high volume services to specialised advisory and transformational services (centres of excellence). Back-office support, customer support, finance, and accounting are examples of transactional services, whilst legal advice and human resources are services which can be provided by centres of excellence.



The effectiveness of shared services depends on optimising business processes and should allow businesses to increase productivity and reduce staff costs. Workflow management is a prominent technique to manage crucial business processes and their relationship with other business units and networks. Workflow management also allows organisations to eliminate duplicate processes and to redesign processes to meet organisational strategies (Wang & Wang, 2007). It is therefore likely that in order to optimise workflow and productivity, effective design of business process is required as a means of standardising business processes, and to remove unnecessary steps in order to create effectiveness and efficiencies. Process design is required at some point in the implementation of shared services, which influences the reshaping of roles of employees and technology to support the design (Walsh *et al.* 2008).

Mare (2006: 43) identified several steps necessary for the successful implementation of a shared services model. These are: to redefine and redesign the core processes, to restructure organisational hierarchy, and review the delegation of authority, educate various stakeholders, re-evaluate key performance indicators and design service level agreements (SLAs). This makes process design one of the critical areas for ensuring that shared services functions optimally.

Van der Linde *et al.* (2006) state that the success of a shared services model relies on a number of preconditions and requirements. These include the following:

- Transformation of the people; this requires the development, inculcation and support of a customer-oriented culture. This transformation means that the personnel must shift from a culture where other sectional employees are seen as 'just employees' but are seen as partners, where the cost centres are seen as business units, and control processes are seen as value systems. This also means that functional specialists should see themselves as service providers and departments should be seen as customers. This is possible only if organisations provide a reward and benefit scheme that matches benefits with outputs and compensate performance accordingly.
- Transformation of business processes; this means redesigning business processes to ensure that they are not based on individual unit or sectional needs, but provide value to the organisation as a whole. Transformation of business processes also means that processes not aligned with business needs have to be transformed to those that deliver value and can be included in value adding activities.

- Change of products; this involves the transformation of processes and services with costs that are not well defined into a process orientation culture with product and service knowledge.
- The elimination of redundant processes; these are processes and business practices that are redundant and must be eliminated.
- Transformation of technology; the transformation of technology means a possible integration of the human resources, financial management systems, business application software packages, and technologies into a seamless and synchronised unit. This may also entail the abandonment of technologies that might be redundant because of this integration. Typical technological changes could include integrated data warehouses, improved standardisation, and implementing a customer relations management system.

1.3 BACKGROUND



In 2007, Eskom Exco, together with the Board, approved the establishment of Finance/Procurement and Supply Chain shared services model (FPSS) to be implemented and rolled out throughout Eskom. The model was implemented in a phased approach which included a pilot project that went live on the 11 January, 2010. The implementation of the model would incorporate all the divisions based in Megawatt Park (Head Office) and Distribution Southern Region (Anon A, 2010:).

The implementation had two phases, the design and the implementation phases. One of the steps within the design phases was process design. During this step, a workshop was held with all the divisional representatives where all the processes ('as is') were identified. Once this was done the team designed the processes to be used

in the new shared services unit. A software program called MS (Microsoft) Visio was used to design the new processes (Pillay, 2009).

The FPSS user briefing document states that the model will be implemented through the establishment of the main shared services centre as well as five satellite units located in five main centres throughout the country (Anon A, 2010). The aim of the FPSS is to provide a single platform where all core finance and procurement transactions and services will be provided to all the Eskom departments. The scope of the finance shared services covers the following:

- Accounts payable: payments processing, local travel, petty cash reimbursements, Forex management and month-end transactions.
- General ledger: analysis of account balances, management master records and GL account postings.
- Travel accounting: international travel requests, local and international credit cards processing, foreign exchange management and credit card reconciliation.
- Payroll process: update of payroll, month-end payment, statutory payments and year end processes.
- Accounts receivable-billing management: general debtor management, interest calculation.
- Cash management: cheque management, cash flow forecasting and bank management.

The Eskom FPSS End user Briefing Document (Anon A, 2010) identifies the key needs of users, customers and stakeholders that the implementation of a shared services model should address. These key needs include:

- The standardisation of the way in which business operations perform and the improvement of client services.
- Elimination of duplicated and unnecessary steps in all the processes of business units.
- Streamlining internal processes to optimise business performance.
- Standardisation of roles and grades across the business.

A need for effective and efficient processes played a pivotal role in the decision to implement the shared service model in Eskom. The achievement of the above objectives should be one of the critical yardsticks against which the share services business unit performance will be measured.

The FPSS has some challenges in executing and meeting the main roles and objectives that it was designed to handle. The main problems that were encountered were:

- Workflow problems of work items and requests as well as integration between different work items of customer requests through the workflow. For example, logged requests (on the Customer Relations Management system) were not received by back office personnel as work items (activities), leading to customer requests that were not resolved timeously.
- The duplication of roles causing workflow problems that led to a single customer request being processed twice; for instance, a single invoice being received by two different agents to process.
- The resolution of logged customer requests within the service level agreements. For example, an invoice is paid on an average of 57 seven days, instead of 30 days.

- Processes that are not standardised across divisions leading to users performing the same tasks differently. An example is that of a Contract Price Adjustment (CPA), that is done on an invoice, being applied differently across business units, leading to delays in invoice payments.
- Customer requests were not allocated through a 'first in, first out' basis, causing requests that were received early to be processed last, and a request received last to be processed first. This led to delays in customer requests resolution.

1.4 PROBLEM STATEMENT

Mare (2006: 46-47) is of the opinion that the failure of the implementation of shared services is due to a lack of proper business process re-engineering, the implementation of ineffective change management programmes, poorly defined and communicated performance criteria, lack of customer focus, and poor integration of the shared services centre with the rest of the organisation. Business processes must be reviewed and redesigned to ensure that they are in line with the new business model. This means more than just bringing people and processes together in a new business unit with the hope that they will function efficiently and effectively. The difficult choice that has to be made with process design is whether to use the current processes with fewer people, or whether to adopt one section's processes over the others. The drawback with the latter option might be that the processes adopted from another section might not be compatible with the new environment.

From the discussion above, it becomes clear that the effective and efficient design of processes is critical in ensuring that shared services performs optimally and delivers on the goals and targets required from shared services as a business unit. Based on this discussion, the problem statement can be stated as: **“Business processes are**

not optimally designed to deliver the required level of effectiveness and efficiency to the organisation's business units."

1.5 THE RESEARCH QUESTION

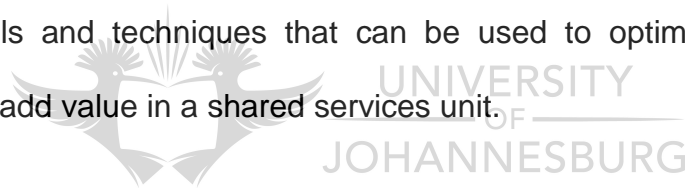
The research question for this study is: How can businesses optimise the use of process design as a shared services unit enabler?

1.6 THE PURPOSE OF THE STUDY

The research objectives of the study are divided into primary and secondary objectives.

1.6.1 The primary objective

To identify tools and techniques that can be used to optimally design business processes that add value in a shared services unit.



1.6.2 Secondary objectives

The secondary objectives of the study are:

- To understand the principles and structures of business process design.
- To evaluate the business process design in Eskom shared services.
- To identify gaps in the current business processes used.
- To understand the importance and impact of process design in the implementation and functioning of shared services.
- To make recommendations regarding business processes and business process design in the FPSS business unit.

1.7 RESEARCH METHODOLOGY

1.7.1 Nature of the research

This study is qualitative in nature. Qualitative research has several features that make it an attractive research method. Milena, Dainora and Alin (2008) state that through qualitative research, a researcher can recognise and analyse different perspectives emanating from the study, reflect on the research as part of knowledge production, and explore and ask questions as to 'why' instead of 'how many', in respect of the unit of study.

Moreover, qualitative research helps researchers approach, understand, analyse, and explain management phenomena at a social or company level. It helps managers understand current practices, and assists them in creating concepts, tools and techniques to apply research knowledge in practical management situations. Quantitative data, on the other hand, tests hypotheses by applying statistical criteria to the measured entity and comparing these with a central group. Data is represented using mathematical tables and graphs, and is often reported in an impersonal, third-person style (Delattre, Ocler, Moulette & Rymeyko, 2009).

A qualitative approach is appropriate for this study because as it allows the researcher to collect and analyse data in order to assist managers to optimally utilise process design as an enabler and a tool to improve operational performance within the shared services unit.

1.7.2 Research design

This study is exploratory in nature and because it determined how business processes were designed in the shared services unit, as well as discussing the

processes and techniques utilised to design the processes. The study also explored the impact of these processes in improving the efficiency and effectiveness of the performance of shared services operations. Researchers have to make a choice between an exploratory, descriptive, and causal design. An exploratory study clarifies and explains some issues in question. Descriptive research describes a situation, and causal research explains the relationship amongst variables (Qin, 2009). Using an exploratory study, the researcher was able to identify gaps in the process design and make recommendations on ways to improve process design in respect of a shared services unit.

1.7.3 Sampling

Sampling is the process of selecting a portion of the population that is representative of the whole. It is an important step in the research process because it determines the quality of conclusions that are made from underlying findings. In non-probability sampling, inclusion and exclusion of elements of the sample is left to the discretion of the researcher based on specific selection criteria. Probability sampling, on the other hand, involves sampling which is based on a random procedure, giving the elements a non-zero probability chance of being selected (Onwuegbuzie & Collins, 2007). This study was conducted amongst individuals who were involved in the Eskom FPSS project; therefore a non-probability purposive sampling method was utilised.

1.7.4 Data collection

The primary data was collected through a survey. A survey is a research technique that allows for the gathering of information from a sample (using questionnaires, interviews and observations). A semi-structured or unstructured interview is an interactive process where the researcher asks questions and the respondents

provide the relevant answers. In an unstructured/semi-structured interview, the researcher has the liberty to ask follow up questions which are not part of the prepared list of questions. In a structured interview the research only asks the questions on prepared list of questions (Nattal, Shankar, Beverland & Hooper, 2011).

The researcher used a combination of open-ended and closed-ended questionnaires in a semi-structured interview to collect data. The candidates were sent the questionnaires beforehand to complete the closed-ended questionnaires (self-administered). The researcher then arranged and conducted personal interviews with the respondents to ask open-ended questions. The detailed and explorative nature of the data required from the respondents (SSU managers, consultants and employees) could only be properly and thoroughly collected through personal interviews. This data collection methodology is supported by Gibbert, Ruigrok and Wicki (2008) who asserts that case studies are instrumental in providing knowledge to deal with real management situations and relies largely on information provided by practitioners and consultants. A semi-structured interview assisted the researcher to obtain the views and opinions of respondents to ensure that all of the facts were established during the research, and to be able to ask clarity-seeking questions as well. The questionnaire is included as appendix A.

1.7.5 Data analysis

Vivar, McQueen, Wythe and Armayor (2007) state that the data analysis method should be explicit, and that the procedure used should be properly justified to allow other researchers to appraise the development of findings and to evaluate the conclusions reached. Analysis of data is based on the categories, groupings, and units of coding related to the objectives of the study. Units of coding could include the

respondents' understanding of the impact of process design in a shared services unit performance as an example.

1.8 THE BENEFITS OF THE STUDY

The study is intended to provide the following benefits:

- To contribute to existing knowledge of process design and its impact on shared services performance.
- To identify gaps in process design and to provide recommendations on how those gaps can be closed.
- To provide insight into the different process design tools and approaches and their contribution to shared services performance.

1.9 DIVISION OF THE STUDY

This study is divided into five chapters. Chapter 1 will provide a background to the study, the problem statement, the purpose of the research and overall objectives, as well an outline of the research methodology and the remainder of the chapters.

Chapter 2 will provide a literature review that will outline various theoretical dimensions that are pertinent to the study.

Chapter 3 will be about the research methodology and research approach. It will also posit the research design in terms of the research problems, research propositions, the research sample and sampling methodology, research instruments, data collection.

Chapter 4 will present and analyse the results based on the data collected.

Chapter 5 will provide a summary of the research objectives and recommendations and suggestions for further research.



CHAPTER 2

BUSINESS PROCESS DESIGN IN SHARED SERVICES

2.1 INTRODUCTION

Falthoum and Nilsson (2010: 303) state that business process design was introduced in the 1990s and became one of the popular management concepts. Rather than focusing on functions, companies focused on processes as the means to be more flexible, more responsive to customers, and more efficient and effective in their business operations. When combined with information technology, processes design ensures that the focus is on setting up work units that are based on process teams instead of traditional functional teams. This means setting up “groups of people working together to perform an entire process”.

Tsai, Bein and Chan (2011) state that in order to survive in the changing business environment, companies have to be able to adapt their business processes to these changes. Business process design, including business process automation, are efficient tools used to improve the company’s profitability by simplifying processes to improve business operations, cost efficiencies and productivity.

Damij (2007) states that business process design (BPD) gained prominence and recognition mainly because of the need to implement information systems for process design and management, enterprise resource planning and e-commerce applications. Business process design is primarily aimed at the transformation of inputs into outputs. The quality of products and services can be improved by improving the processes and activities that are performed to produce those products and services.

Tissari and Heikkila (2001) state that BPD is a “fundamental rethinking” and radical design of business processes that bring about dramatic improvements in performances such as cost, quality, service and speed. Process design does not involve incremental improvements in old processes, but focuses on investing in new ways of delivering value to the customers. Process design emanates from a paradigm that considers that systems changes affect both people and technical elements in the organisation and that total quality management only provides incremental, continuous improvements to the organisation.

The authors also state that BPD is about viewing businesses as processes instead of viewing them as functions. The goal is to optimise processes to bring value to internal and external customers. Optimising processes could bring jobs together, or move decision-making and controls to where better decision-making can occur, irrespective of functional structure. Optimisation also means devising better ways of doing things through innovation and technology.

2.2 BUSINESS PROCESS DESIGN

2.2.1 A business process

Processes are part of organisational design. Process concepts have been used to give meaning to the organisational structure, work role behaviour and the interdependence between resources. Processes are also seen as coordination systems that are used to manage dependencies between resources in firms and to map process hierarchies and resource coordination (Earl, Sample & Short, 1995).

A business process is a “structured, measured set of activities designed to produce a specified output for a particular customer or market” (Doomun & Jangun, 2008: 841).

A distinction can be made between different types of processes:

- Core processes link internal and external customers and include primary activities in the value chain.
- Support processes have internal and external customer components and are responsible for performing secondary activities in the value chain.
- Management processes support both core and support processes (Melao & Pidd, 2000).

For firms to understand the interdependence of their activities, eliminate duplicated processes, and check whether standard processes exist, they need to categorise their processes into:

- Primary activities: these are activities that firms should keep in-house and are a top priority in business operations.
 - Shared activities: these are activities that can be shared with other divisions.
- (Merrifield, Calhoun & Stevens, 2008).

2.2.2 Rationale for BPD

Shen and Chou (2010) state that process design aims to improve business performance in areas such as quality, cost, service, and speed by identifying opportunities where technology can be used to support business processes. Process design also means that companies must seek ways to incorporate design quality into their processes, instead of focusing on ways to improve quality into their products and services.

According to Chen and Tsai (2008), business process design and organisational restructuring have been the most prominent methods that companies use to improve efficiency and effectiveness. In order to survive the volatile business environment, companies have been trying to enhance effectiveness and efficiency in their manufacturing and service systems with the hope that these will increase quality and flexibility in order to satisfy their customers better and therefore improve the expected business results.

According to Dekkers (2008), BPD is about ordering work activities in a particular sequence that allows better management and coordination of time, sequences, and human and technological relationship. It is about linking process flow with the organisational structure in a way that brings about efficiencies in business operations.

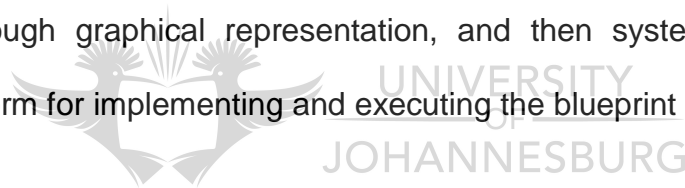


The prominence of BPD was also propelled by the fact that established businesses were challenged by faster and cheaper entrants from emerging markets. This led to many organisations restructuring, downsizing, or out-sourcing in order to respond to the new threat. Business process re-engineering and BPD was a way to bring about improvements in a customer-centred market. By looking at ways to improve cost efficiencies, quality, flexibility, speed, customer satisfaction, and accuracy, current processes had to be reviewed. Some organisations, however, confused process design with compiling business process manuals, which were drafted and tucked away in the vaults of organisations and never revisited. Moreover, most businesses replaced division of labour with BPD and management as the core of the firm's business strategy (Sarang, 2005).

Several organisations in South Africa use BPD tools to improve their processes and deliver superior benefits to their customers (Accenture, 2010). These tools include:

- Process analysis, simulation and testing involves analysing process maturity levels and doing simulations to test if the processing will work as well in the real environment as in a test environment.
- Process design and development allows organisations to analyse 'as-is' processes and to identify areas of improvement and optimisation when designing 'to be' business processes.

These tools have provided many tangible benefits to companies, such as: processing efficiency, workflow improvement, and cycle time improvements. The process modelling tools provide an architecture and framework for mapping organisational processes through graphical representation, and then systems are designed to provide a platform for implementing and executing the blueprint (Accenture, 2010).



2.3 KEY FACTORS FOR BPD

Ittner and Lacker (1997) state that there are several requirements which must be met in order for business process improvements to be successful. The first one is that firms must have a statistical understanding of the business activities in order to understand their processes. Process value analysis and process cycle time analysis are some of the tools available to management to analyse the impact of their processes on business operations.

The second requirement is the improvement of human resources capabilities. Training in problem solving skills, improvement of cross functional teams, improvement of employee's ability to respond to customer requirements, and

incorporating process management as one of the key measurable outputs will compel management to put more focus on business process management

Thirdly, information should be utilised in a way that provides a platform for problem solving and gives information to employees that can greatly reduce process variability and aids in identifying and correcting deviations. Statistical process control (SPC) charts, cause and effect diagrams, Pareto analyses, and benchmarking of products and services can greatly improve information available for process improvement and design. Lastly, without the commitment and support of management, any process redesign efforts will not realise maximum benefits.

Shen and Chou (2010) also highlight key factors that determine BPD success. These include: identification of process design opportunities before-hand, setting clear goals and expectations, detailed blueprints, alignment with business strategy, top management support, integration of information systems, effective IT infrastructure, and proper project management.

Hammer (2007) also identifies factors that have an impact on the success of BPD. These are that:

- The process must have a well-defined process design and objective in order for people performing work to know what to do.
- The people implementing the process should have the relevant skills and know-how to be able to implement the design.
- The process should have a senior executive as an owner in the organisation to be able to drive the whole process.

- The company must align its information technologies and infrastructure to support the new processes otherwise the whole process might fail.
- The company must develop the right measurement tools to measure performance over time; otherwise the intended results will not be visible.

2.3.1 Change management

Stoddard and Jarvenpaa (1995) state that change management is another factor that has an influence on process design success. Change can be broadly defined within two categories: the scope of change, and the planned depth of change. The scope of change refers to whether the impact of change will be confined to one function or several functions, one department or several departments, or one organisation or several organisations. The depth of change is defined by the strategic goals of the organisation embarking on BPD activities. The goals vary from reducing costs, and improving customer service, to improving efficiencies, or re-inventing the basic rules of business. Organisations must reflect on these broad change outcomes when embarking on BPD initiatives.

Lacity and Fox (2008) identify four critical change programmes that should take place before shared services are successfully implemented. These are BPD, organisational design, sourcing redesign, and technology enablement. These programmes create an organisational and technological infrastructure that is capable of managing the new processes. The main goals of BPD are to standardise processes around best practices, to reduce costs, and to improve controls of the services provided by the Shared Services Unit (SSU).

2.3.2 Risks associated with BPD

Mare (2006:49) states that there are also several risks inherent in improperly implemented business processes. The risks are: over-standardisation of systems and processes, unclear service accountability, systems complexity, as well as lack of operational flexibility. Su *et al.* (2009:394) state that “A business can be directly improved by addressing its processes than by analysing its functions”. Organisations should focus on the processes behind their functions in order to identify means to improve organisational effectiveness and efficiencies which will assist in minimising risks associated with business processes.

2.3.3 Lessons and improvements from a Reuters case study

Several key lessons were learned from the implementation of finance shared services model (SSU model) by Reuters. Reuters is a global news agency that provides news, current affairs, and financial market data. The executives of Reuters were concerned that finance’s operating model was consuming 2.3% of the company’s revenue, whereas the best companies in the industry were only utilising 1.5% of revenue toward finance costs. They decided to implement the shared services finance model between 2001 and 2004 (Lacity & Fox, 2008).

The following resulted from the SS model implemented:

- The finance staff was reduced by 47% and customer satisfaction (based on surveys) and controls were increased.
- There was reduction of finance processes from 600 to 359.

Key lessons learnt from the implementation of the SS model was that:

- It was important to get buy-in into the new processes from business clients.

- In order to obtain the necessary buy-in, the finance team had to set up coaches within the business to instruct users and clients on the new processes. The main lesson learned from this was that coaching and not policing was the best way to achieve change.
- Soliciting a culture of innovation assisted the implementation team in improving processes by obtaining suggestions on improvements from internal staff and business clients.

2.3.4 The costs and benefits of BPD for shared services.

Salo (2009) tabulates several costs and benefits of the SS model, in particular the costs and benefits that relate to process design:

Table 2.1: The costs and benefits of shared services

	Costs		Benefits	
	Qualitative	Quantitative	Qualitative	Qualitative
Processes	1. Standardise processes	1. Short-term decrease in process efficiency levels	1. Increase productivity	1. Best practice and standardised processes
	2. Implement best practice		2. Reduces cost of quality	2. Increased ability to respond to changing business needs
	3. Establish metrics			3. Consistently high quality management processes
	4. Re-engineer processes			

Source: Adapted from Salo (2009: 62)

The table above suggests that properly designed processes provide important benefits and costs for the SSU implementation. Costs of implementation include the costs of standardising processes, implementation of best practices, establishment of metrics, short term decrease in process efficiencies, and process re-engineering. The benefits that the SSU can acquire from process design include: increased

productivity, reduced cost of quality, the establishment of best practices and standardised processes, increased ability to respond to changing business needs, and consistent high quality management.

2.4 BPD APPROACHES AND TOOLS

Business process re-engineering methodology was made familiar by the seminal work of Hammer (2007). His later work also assisted in giving meaning to the field and aiding in the development of knowledge in this area over the period of seventeen years. The key points from these studies was that process design and re-engineering can only be successful if businesses are prepared to make radical changes to the way in which they do business. Small incremental changes will not deliver optimal benefits sought by organisations as they only lead to small operational effectiveness improvements (Kruger, 2008).



A comparative survey placed BPD approaches into two broad fields: graph-based and rule-based approaches. Graph-based approaches derive from graph theory, linking activities and sub-activities through graphic representations. Rule-based approaches, on the other hand, are based on formal logic that establishes certain premises and principles linking different activities (Odendaal, 2010).

Orman (1998) states that organisations are often made up of complex structures, systems and business models that are interacting with each other. In order to simplify the complex structure, the organisational structures and systems are decomposed into smaller components and tasks and assigned to individual employees. Alternatively, the systems and structures are broken down into smaller independent units. In order to understand and analyse an organisation's business processes, the

interrelatedness and relationship between systems and structures need to be analysed and understood.

2.4.1 BPD approaches

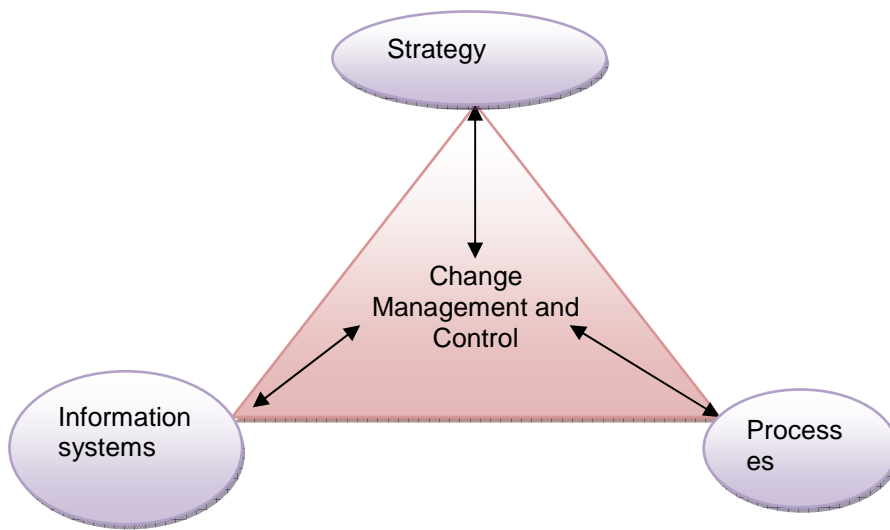
Process design approaches/models are valuable tools for creating well-structured processes. They do this by providing an insight into the critical components, drivers, and links between activities and processes of the organisation. Models also assist in visualising the link and interface between various business units, structures and systems (Stuit and Szirbik, 2009: 424).

These models and approaches emphasise various critical requirements and components that are necessary to ensure that processes are designed optimally. These models should provide a framework to which shared services managers and consultants should align their process design activities and programmes in order to ensure that all the essential requirements are taken into consideration. Some of these models will now be presented.

2.4.1.1 The Process Alignment Model

Re-engineering practitioners assert that performance management and controls can steer performance and behaviour toward the desired direction during radical change. In order to do this, management must implement proactive change management and control interventions. The Process Alignment Model, conceptualised by Henderson and Venkatraman in Earl, Sampler & Short (1995), visually demonstrates this statement.

Figure 2.1: Process Alignment Model



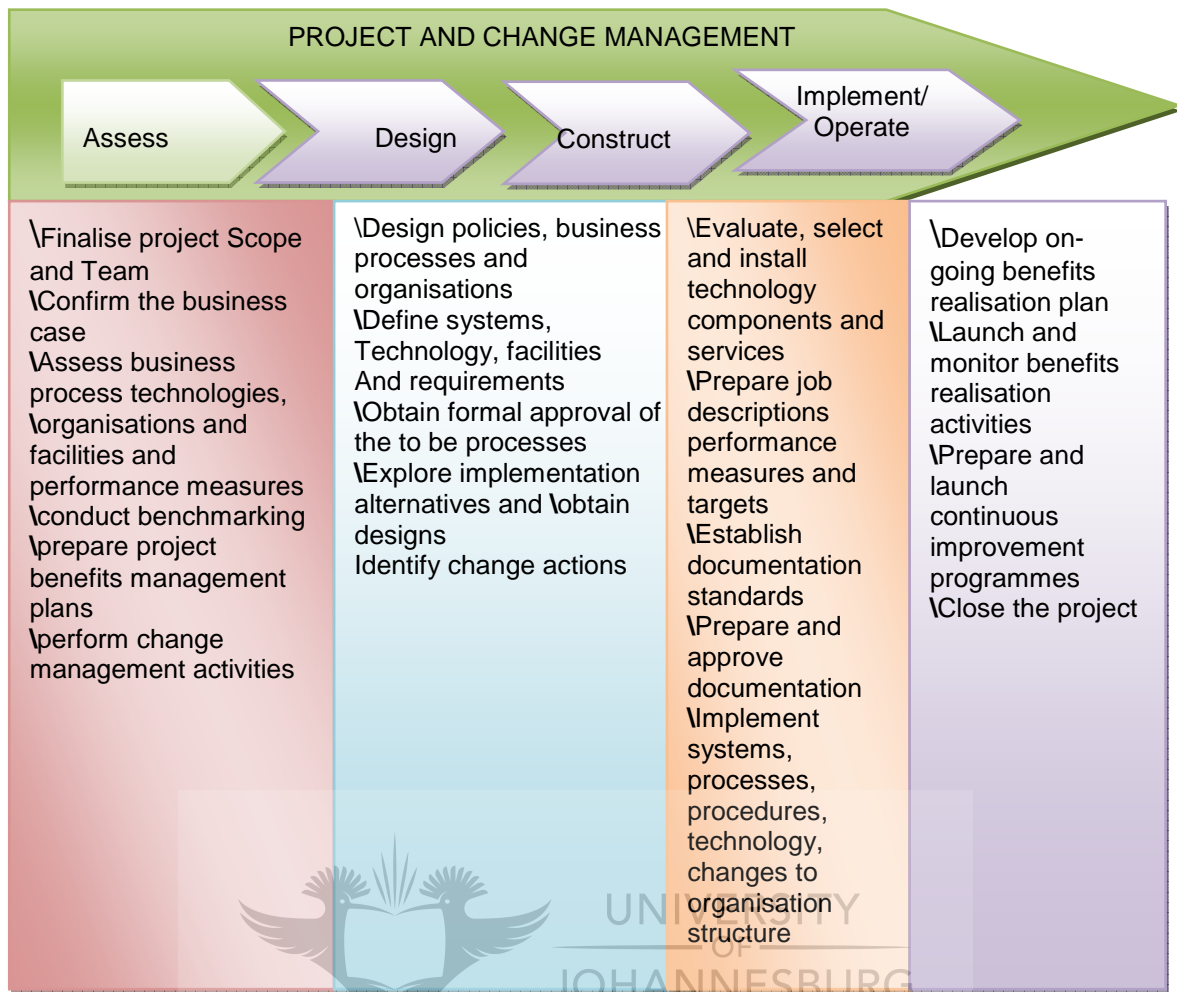
Source: Adapted from: Earl, Sampler and Short: (1995:36)

Earl, Sampler and Short (1995) are of the opinion that this model asserts that BPD should be an integrated effort that links the organisation's business strategy, information systems, and processes through change and control actions that seek to bring together the three dimensions. It is critical for shared services managers and professionals to understand this triangular interface between the business strategy, information systems, and processes. The insight provided by this model serves to highlight the importance of the interface and to take it into account when designing and implementing business processes, especially within the shared services environment.

2.4.1.2 The Process Improvement through Benefits Management Model

PricewaterhouseCoopers (PWC) (2011) utilises a framework called Process Improvement through Benefits Management (PITBM).

Figure 2.2: The Process Improvement through Benefits Management (PITMB)



Source: Adapted from Price, Waterhouse Coopers (2011:26).

The model outlines critical activities that must take place in each phase of process design. The design phases are:

- Assess the organisation,
- Design policies and procedures,
- Construct technologies,
- Implement/operate.

The model emphasises that the processes designed and implemented should be in line with the organisation's strategic vision, add value to the organisation and create a competitive advantage for the organisation. This model can assist shared services

managers and consultants in improving the success of share services process design initiatives.

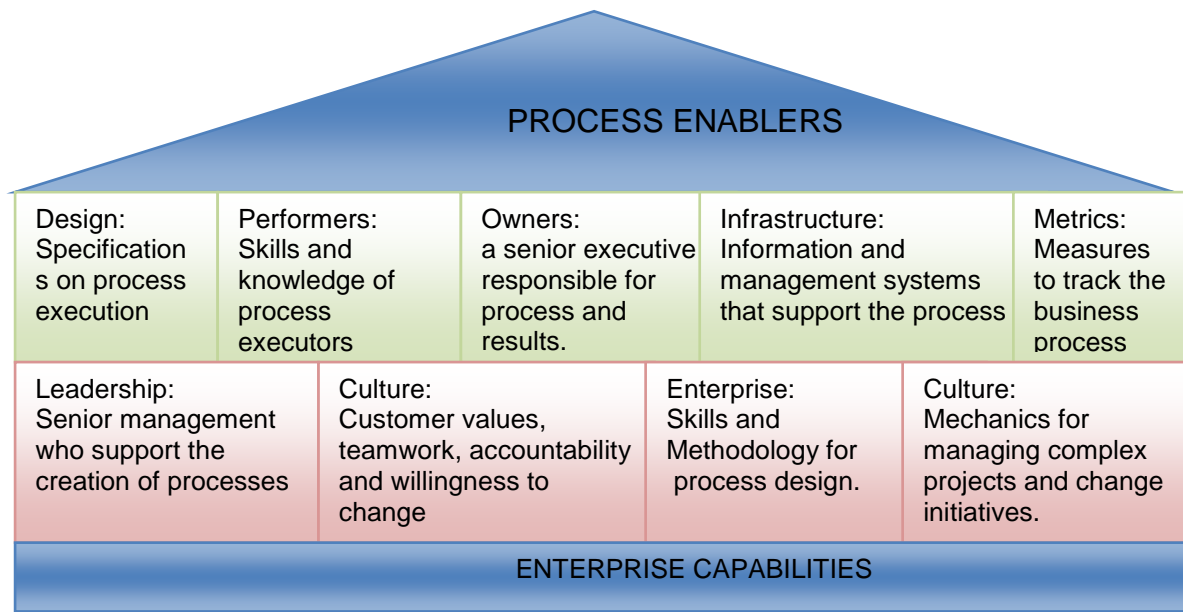
2.4.1.3 The Process Enterprise Maturity Model

Redesigning new business processes involves more than just realigning workflow. It is also about deciding what should be done, by whom, and where in the organisation. It also involves the redefining of jobs, providing training and support to enable decision-making, and the redefining of reward systems to focus on processes and outcomes. It also means endeavouring to change organisational culture in order to promote teamwork, improve customers' importance, redefine roles and responsibilities, emphasise process management as opposed to activity management, as well as restructure information systems to make cross-functional process more effective (Hammer, 2007).



Hammer (2007:113) has developed a model that can be used to audit, map, and implement business processes. This model is called the Process and Enterprise Maturity Model (PEMM). The model is intended to ensure that business processes are able to drive superior organisational performance by bringing together all the process design components and enablers with organisational capabilities. The model is presented in figure 2.3.

Figure 2.3: The Process Enterprise Maturity Model



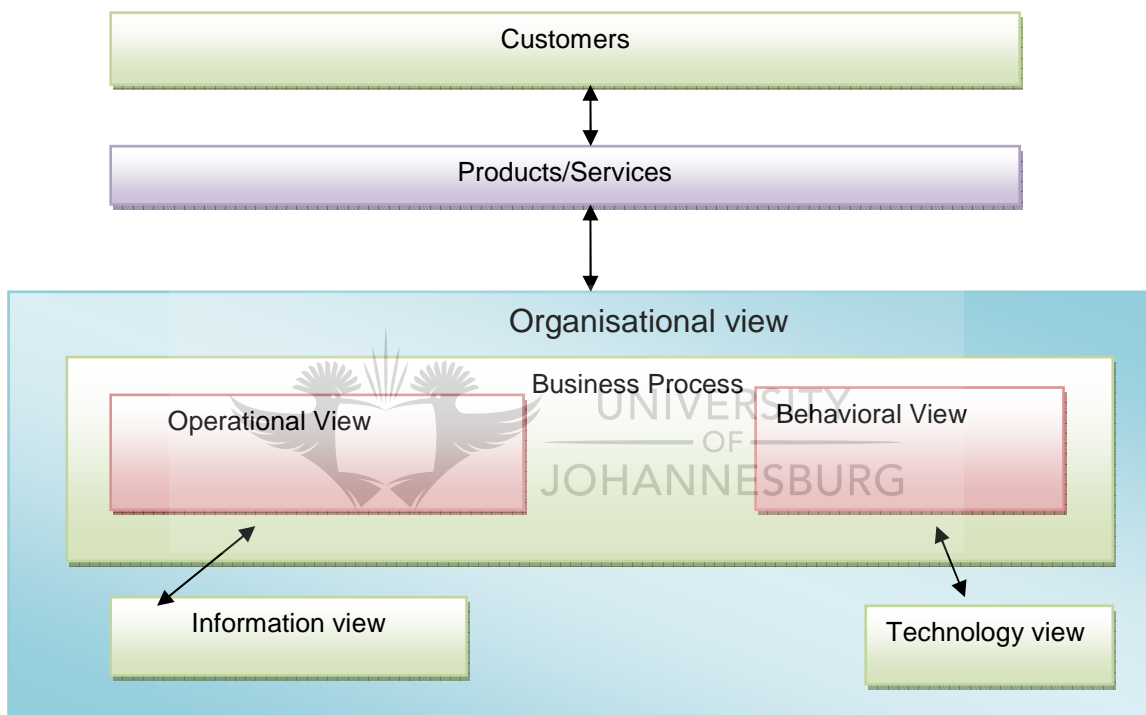
Source: Adapted from Hammer (2007:113)

Figure 2.3 identifies five process enablers. These are: design (specifications of process execution), performers (the people who execute the process), owner (a senior manager in charge of the process), infrastructure (information management systems), and metrics (measures of performance). Enterprise capabilities such as leadership, culture, and enterprise skills, provide the necessary support to process design. This model is expedient in assisting managers to align the SSU model with its processes, role players, and stakeholders in order to ensure improved business performance.

2.4.1.4 The Work-Centred Analysis Framework

The Work-Centred Analysis Framework (WCAF) is another model that graphically outlines the key components which influence business processes and the relationship between those components.

Figure 2.4: The Work-Centred Analysis Framework



Source: Adapted from Reijers and Mansar (2005: 292)

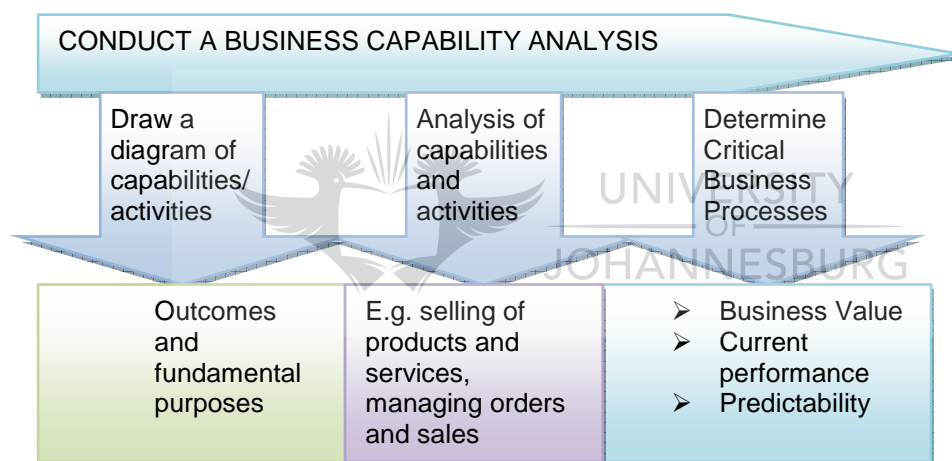
The organisational view looks at the whole organisation, including its operations, work and role behaviour, information systems and technology. Products and services that customers demand are the key drivers of this process. The information view looks at the objects to be processed, whereas operational view looks at what needs to be done to design the processes (such as workflow, job details, number of task in a job, relative size of tasks, and degree of customisation). The behavioural view

looks at execution of workflow in terms of task sequencing, task consolidation, and job scheduling (Reijiers & Mansar, 2005).

2.4.1.5 The Service-Oriented Architecture

The Service-Oriented Architecture (SOA), presented in figure 2.5, is used to design processes by doing a business capability analysis to understand the business activities and their capabilities. The capability analysis assists managers to determine critical business processes.

Figure 2.5: The Service-Oriented Architecture



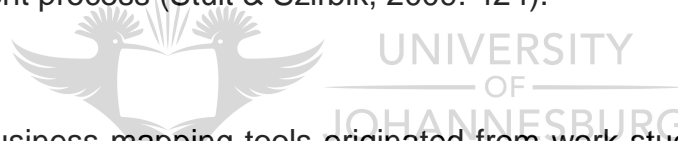
Source: Adapted from Merrifield, Calhoun and Stevens (2008: 75)

Merrifield, Calhoun, and Stevens (2008) state that a business capability analysis needs to be done to analyse a company's capabilities and activities, and to determine a company's critical business processes. Business capabilities and activities determine outcomes and fundamental purpose, and these in turn define the existence of an organisation. These capabilities could be the selling of goods and services, managing orders, or sales management. The key to successful implementation of design projects, and SOA in particular, lies in determining which

processes are important in the business. In order to be able to analyse the extent to which the processes bring business value, the current performance of those processes and the extent to which their performance can be predicted should be analysed.

2.4.2. BPD process mapping software

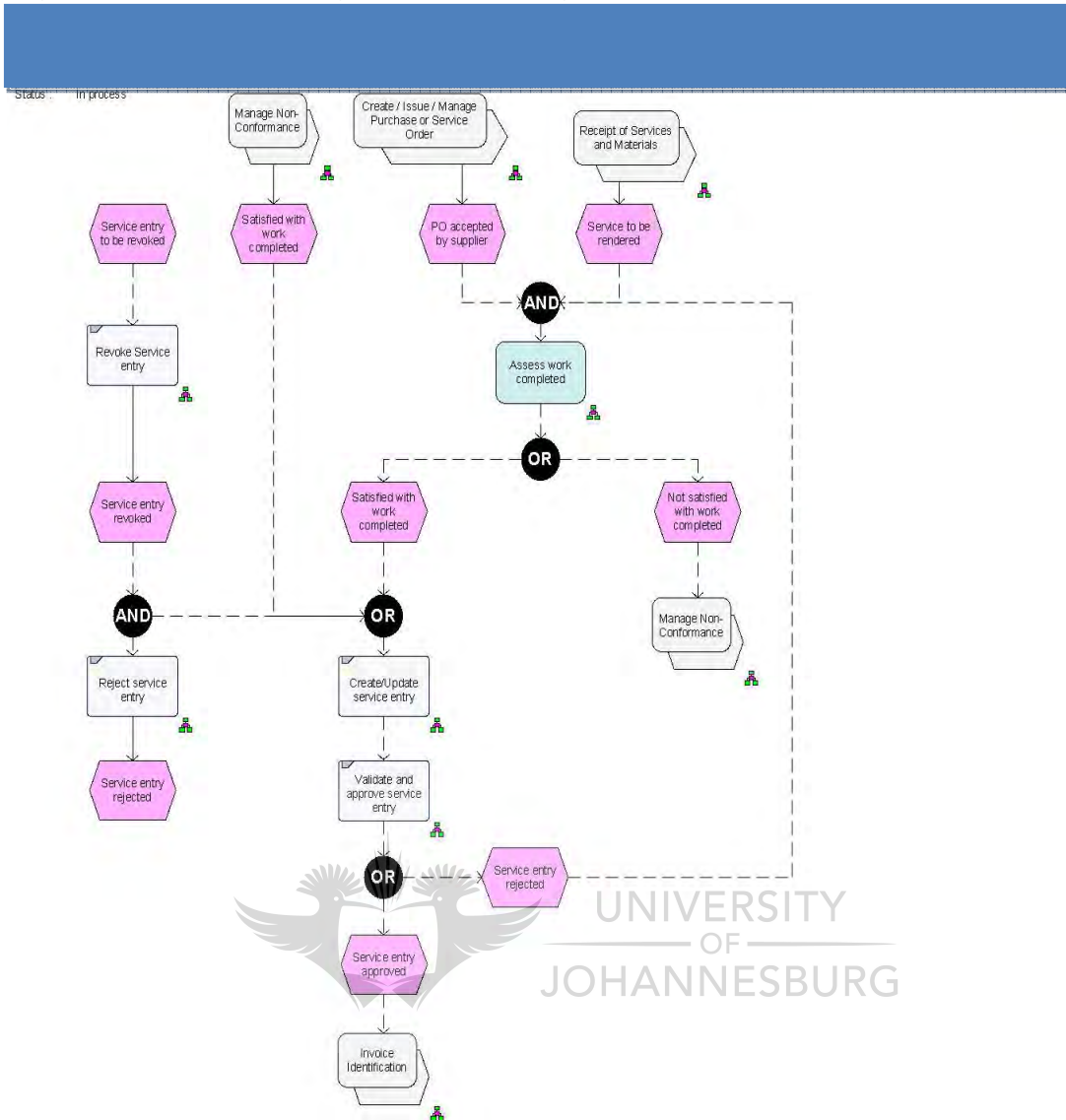
Most process design tools have common elements and constructs. For example, processes consist of agents and roles. Agents could be individuals or software agents and roles are specific task and activities that an agent performs (for instance, an accounts receivable clerk loads invoice details on to an accounting system). A trigger is a set of circumstances that cause a particular set of actions to take place. Receiving an invoice will be a trigger for certain activities that need to take place to start the payment process (Stuit & Szirbik, 2009: 424).



A number of business mapping tools originated from work study, organisational and method studies, process control and simulation, business modelling, and systems and engineering and analysis. Several tools that exist include flow charts, IDEF0, action workflow diagrams, and role activity diagrams (Melao and Pidd, 2000). These mapping tools represent the activities of a business, their sequence, and the agents that need to execute them.

Figure 2.6 is an example of a graphic representation of a process showing different activities and the sequence that exists between the activities. This a graphic representation of receiving a service from a supplier, showing events, activities, process interfaces, controls, as well any system-dependent events and activities.

Figure 2.6: Process diagram of receiving a service



<p>Process Interface Object: Value-added chain: Used on the Value Chain, Process, Sub-process, and Activity Level models. Purpose: Represents the Value Chain, Process, Sub-process, and Activity Level processes modelled elsewhere. It is not a part of the specific model.</p>	<p>Purpose: Represents the value-adding step in the Enterprise, Value Chain, Process and Sub-process Level models.</p>	<p>Activity Object: An "Activity" is a set of tasks that occur over time and has a defined result. It describes transformations from an initial state to a final state, consuming specific resources (Governance, Input, Output and Mechanisms). Purpose: Represents the activity, which is usually executed by a position in the organisation.</p>	<p>Event: Events are related to a "State change", hence, "activities" are required to give effect to a state change. Purpose: The trigger or result from an activity.</p>
<p>The 'C' indicates that the Sub-process / Activity object is Controlled, i.e. it is linked to at least one Control.</p>		<p>Purpose: Controls the process flows. Used on the Activity Level models. Rules: AND All process flow paths must be completed / followed. ANY One or more process flow paths must be completed / followed. OR Only one process flow path can be completed / followed.</p>	
<p>SAP Function: An "Activity" is a set of tasks that occur over time and has a defined result. It describes transformations from an initial state to a final state, consuming specific resources (Governance, Input, Output and Mechanisms).</p>			

Source: Anon C: (2010)

Wang, Guinet, Belaidi, and Besombes (2009) state that once the processes are designed, they are simulated. Simulation allows for the determination of process frequencies or statistical distributions based on process intervals. Simulation also allows for determining various aspects of performing processes like individual/collective work mode, processing time, static wait time, and probability control. Modelling software like ARIS (Architecture of Integrated Information systems) allows for the statistics like process statistics, as well as allowing for the entry and exit time point of each activity and function to be calculated and represented in a graphic form.

The process design tools and approaches that were described above provide a framework of key features and concepts that should be taken into account when designing processes. Notwithstanding the existence of these models, certain critical steps should be followed when designing processes. These steps ensure that all important process design phases take place and that the critical process design requirements are not overlooked.

2.5. BUSINESS PROCESS DESIGN IMPLEMENTATION STEPS

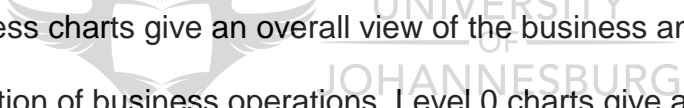
Kruger (2008) states that before processes can be designed, certain key issues must be analysed and understood by the project team. These issues are the unwritten rules (culture) of the company, the needs of the customers, the company's value proposition, understanding the current processes, and understanding the support functions. Once the extent to which the current processes meet the needs of the business have been analysed and the gaps identified, the design of new processes can commence.

Kruger (2008) has identified six steps necessary for the implementation of BPD:

1. Set the objectives: this process involves the setting of quantifiable and measurable objectives for embarking on a process redesign project.
2. Problem statement of objectives: management must categorise the objectives in terms of priority criteria and importance. They must precisely define the problems identified that have necessitated the need to redesign processes. This step must take into account the need to attract and retain customers, the performance measures of the processes, as well as the stability of the processes.
3. Identification of substitute processes: if a solution that was conceptualised is no longer practical and implementable, an alternative solution must be designed and tested during the implementation phase. This substitute process must be reviewed at regular intervals to check if it still meets the objectives identified.
4. Evaluate the impact of solution against identified goals: the identified solution must be evaluated against the goals of BPD to evaluate the impact of the alternatives (modelling methodology can be used to do this).
5. Establish substitute outcomes: the solutions that do not meet the performance criteria must be eliminated. This criterion can be either financial or time-based, and must be strict, yet achievable.
6. Select the best solution: the solution that is selected must be the best to meet the criteria (in terms of time and money). The trade-off between the costs and benefits must be analysed to find an optimum solution that has limited trade-offs between costs and benefits.

Lofts (2002) proposes a process design project workflow process, referred to as People Flow-driven Design Project:

- Understanding “as-is” business processes; understanding the current processes is important because it provides a guideline to the processes as they stand. Not all the current processes will change, and the parts that do not change will be taken over to the “to be” business processes. The ‘as is’ business processes documents include end-to-end business charts and narratives, current business rules and algorithms, scenarios and situations the processes handle, as well as the chart showing strengths and weaknesses of current processes.
- “To be” business processes: this involves designing the high-level processes. End-to-end process flows are designed based on key scenarios, and detailed charts showing mainline paths, resolutions, and exceptions. The processes must be linked and integrated with each other and data-flows and timelines need to be integrated as well.



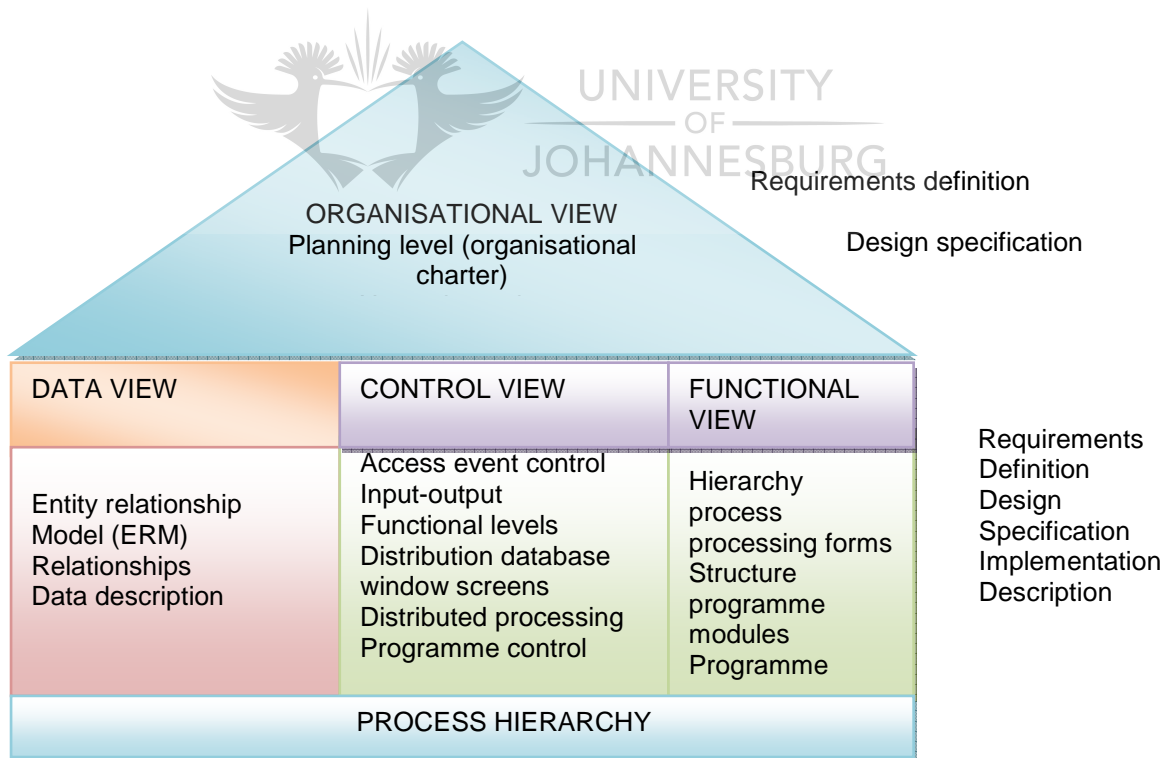
High-level process charts give an overall view of the business and its processes and ensures integration of business operations. Level 0 charts give a conceptual view of the organisation. Level 1 charts are referred to as wiring charts and attempt to keep the work integrated as processes are redesigned. Level 2 charts are the end to end process charts depicting the organisation’s flow of processes. The order fulfilment process, for example, will consist of the following individual processes: capture customer’s order, edit customer’s order, allocate and release customer’s order, pick/pack/ship the customer’s order, deliver to customer, and invoice customer (Lofts, 2002).

Lofts (2002) also identifies charts and diagrams that can be used as the best descriptors of business processes since they represent different the logic and flow of processes. Business processes are a number of activities linked together by flows of

information, products, and equipment and generates information from one activity to the next for further processing. This flow is represented by lines that connect these activities. Charts also depict what activities are taking place, who performs those activities, and what links them to form a business process. The charts also depict decisions and escalations, as well as different triggers of activities.

Wang *et al.* (2009), state that modelling techniques present the sequence of functions and allow for different levels of processes to be modelled. The process model must be related to the data model, the organisational model, and the functional breakdown framework.

Figure 2.7: The ARIS House



Source: Adapted from Chang *et al.* (2007:120)

The organisational view depicts the relationship between different units and the interface between the different systems networks. The control view shows the tools that are utilised to track and monitor the implementation of business processes and the related functional hierarchies. The data view describes the different data types that are processed throughout the organisation and the relationship between them. The functional view represents the functions that the organisation processes and analyses the process, object and execution. The process hierarchy represents the process levels and the different control levels (Chang, Fu, Ou & Chang, 2007).

2.6 DESIGNING PROCESSES FOR SHARED SERVICES

In designing a shared services model, important decisions need to be made as to the processes, the roles of the employees in the new unit (when compared to the old business units), the execution of business processes, and the delegation of roles. BPD and management is therefore important in the planning and execution of these tasks. It assists in the standardisation of tasks, reduction of costs, elimination of duplication, and the reduction of process time, as well as reducing customer complaints and improving accuracy (PriceWaterhouseCoopers, 2011).

An important aspect of shared services is that the unit is supposed to take over processes and activities which were performed by different sections in the organisation. These sections might have done the same activities differently, but for shared services to achieve economies of scale, these processes must be streamlined. To be able to do this, processes must be redesigned at some point in the process of shared service implementation (Eksteen, 2007).

Mclvor (2007) states that one of the lessons to be learned from any activity that seeks to centralise activities under a single unit is that the processes and interdependencies within business units should be understood, and their implications taken into account when processes are re-engineered. This involves drawing up specific service requirements and performance levels. SLAs assist with providing minimum service levels to customers and are important to benchmark service levels in a shared services environment.

One approach to a shared services implementation is the process approach. This approach views an organisation as a set of processes; “a time-based sequence of events governed by a process law” (Wang & Wang, 2007: 284). The process approach provides a coherent framework for establishing strategies, technological platforms, and design structures, as well as providing the implementation framework for shared services. The approach emphasises the need to integrate the different systems influencing the outcome of the processes that are designed for a new shared services unit.

Nakamura and Kameoka (2007) state that service provision by any business unit requires that their planning and operation must focus on a service concept that integrates and coordinates the main components of service-providing system. The service concept is relevant to a shared services unit that provides a service to different sections and departments in an organisation. The authors are also of the opinion that this service concept provides a roadmap for shared services planning because it allows for collaboration between different service business players. The shared services roadmap is hierarchical in nature and postulates that shared services planning should be approached from five layers. These are:

market/customer layer, service business layer, service infrastructure/network layer, basic technology layer, and regulation/standardisation layer.

A shared services model is tactical in nature and its operations allow an organisation to achieve its strategic goals. The formation of shared services is intended to convert a company's overhead processes into shared services core processes. This can only be achieved if the processes become more stable and standardised. This requires a transformation of business processes from individualised improvements to improvements that will deliver value to the whole organisation (Eksteen, 2007).

2.7 RESEARCH QUESTIONS EMANATING FROM THE LITERATURE REVIEW

The study above has highlighted critical issues, features and arguments about process design and shared services. From the above literature review certain research questions can be identified to assist in analysing and giving support to the empirical methodology emanating from the research objectives. These research questions are the following:

- Which tools and approaches, from various tools discussed above, can be optimally utilised to design processes for shared services?
- How can the process design approaches be used to guide process design activities in the business?
- How can a researcher analyse the impact of process design on shared services performance?
- How can shared services managers improve shared services performance through effective and efficient process design?

2.8 SUMMARY

From the above it can be concluded that BPD has been playing an important role in ensuring that organisations stay competitive by assisting in reducing operation costs, increasing productivity, and responding quickly to changing consumer demands. One way of doing this is to allow business units to focus on their core businesses and bring all the support functions together under the umbrella of a shared services model.

One of the critical aspects of the designing and implementation of the shared services model is the need to design processes that will allow shared services to operate more efficiently and effectively. Processes design allows the standardisation of processes and elimination of duplicated tasks and hence a more efficient and effective shared services model.

One of the yardsticks of measuring the success of shared services in achieving business operational goals will be the extent to which the business processes assist in ensuring that the model streamlines the business operations, and ensures the attainment goals of operation costs reduction, efficiency of operations, and the elimination of duplicated tasks and redundant activities.

There are several approaches, techniques, and tools that have been designed to ensure the success of business process design. The ultimate test for the success of these approaches, techniques and tools will be the extent to which they are able to link their goals and objectives to the organisation's overall strategy and are able to coherently link operational requirements with the information technology systems and human resources structures. The next chapter outlines the research methodology that was utilised to collect and analyse data.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In Chapter 2, the researcher highlighted prominent process design theories and concepts. This chapter discusses the research methodology utilised to collect empirical data for this study. This will include an explanation of the research objectives, research approach, and research design. It will also elucidate on the sampling methodology, data collection, data analysis, means of achieving validity and reliability, as well as the applicable ethical considerations.

3.2 THE RESEARCH OBJECTIVES

For purposes of coherence, the research objectives are:

3.2.1 The primary objective

To identify tools and techniques that can be used to optimally design business processes that deliver value for the stakeholders in a shared services unit.

3.2.2 The secondary objectives

The secondary objectives of the project are:

- To understand the principles and structures of BPD.
- To evaluate the BPD in Eskom shared services.
- To identify gaps in the current business processes used.
- To understand the importance and impact of process design in the implementation and functioning of shared services.
- To provide recommendations.

3.3 NATURE OF THE RESEARCH

This study is qualitative in nature. Burton-Jones (2007) states that qualitative research allows an in-depth understanding of human behaviour and phenomena. Thus, the use of smaller, focused samples is acceptable as compared to large samples seen in quantitative studies. The data collected can come in different mediums (such as: text, sound, and images). Qualitative research allows the researcher to learn about and understand complex situations, and become more experienced with the studied phenomenon. The stories can be told in detail from the participants' point of view. Quantitative research, on the other hand, relies on collection and analysis of numerical data using statistical tools.

Table 3.1 below highlights the main differences between qualitative and quantitative research. Hair, Rabin, Money and Samouel (2003) state that quantitative research is more useful for testing hypotheses, the provision of summary of information on many characteristics and to track certain trends. Qualitative research on the other hand is more useful for discovery of trends, the provision of in depth information on a few characteristics and assists in discovering hidden emotions and values. Moreover quantitative research uses a more structured collection technique as well as an objective rating, concerns itself with representation, uses a more passive and short interview process with large samples and the objectivity of the results is not easily questioned. Qualitative research on the other hand may have subjective interpretation, little concern for representativeness, and often requires a long interactive interview process requiring a skilled interviewer. Qualitative research interview samples are smaller and the data results have a higher inclination to be subjective.

Table 3.1 Comparison of qualitative and quantitative research

Description	Quantitative data	Qualitative data
Purpose	<ul style="list-style-type: none"> • More useful for testing • Provides summary information on many characteristics • Useful in tracking trends 	<ul style="list-style-type: none"> • More useful for discovery • Provides in-depth information on a few characteristics • Discovering 'hidden' motivations and values
Properties	<ul style="list-style-type: none"> • More structured collection technique and objective ratings. • High concern for representation • Relatively short interviews • Interviewer is passive • Large samples (over 50) • Results objective 	<ul style="list-style-type: none"> • More structured collection technique requiring a subjective interpretation • Little concern for representativeness • Relatively long interviews • Interviewer is interactive and should be highly skilled. • Small samples (1-50). • Results subjective

Source: Hair, Rabin, Money and Samouel (2003:76)

A qualitative research approach was a more relevant approach for this case study as it allowed the researcher to collect and analyse in-depth data on the approaches, tools, and techniques that were used to design and implement the shared services unit. A quantitative study may permit the collection and analysis of numerical data on the measurable information and statistics (using tools such as mathematical models, statistical tables and graphs). Such a study, however, cannot account for the human experience of the phenomenon being studied (BPD) and the relationship between processes and activities. The researcher analysed the process design methodology

and tools, as well as examined the way in which decisions were made and what their outcomes were. A qualitative study enabled the documentation and description of the experiences of the individuals in direct contact with the phenomenon or unit of analysis.

3.4 RESEARCH DESIGN

This study was explorative in nature and explored how processes were designed in the shared services unit. It also examined how the processes and techniques to design those processes were utilised. The study also explored the impact of these processes in improving the efficiency and effectiveness in the performance of shared services operations. From this exploration, the researcher identified gaps in the process design and made recommendations on ways to improve process design for the purpose of shared services.

Qin (2009) states that researchers have to make a choice between an exploratory, descriptive, and causal design. An exploratory study clarifies and explains some issue in question, especially when the research question is vague or when there is little theory to guide predictions. For instance, a case study on how to utilise the enterprise risk management as a business enabler is an example of an exploratory study. Descriptive research describes a situation, for instance, the views of airline passengers on airline security. Causal research explains the relationship amongst variables by accounting, for example, for the rate of increase in the sales of unit A leads to the decrease in sales in unit B (Nattal, Shankar, Beverland & Hooper, 2011).

3.5 SAMPLING METHODOLOGY

Cooper and Schindler (2006) state that sampling allows inferences to be made about the whole population by using selected elements in the population. Non-probability

sampling is utilised when the probability of any member of the population to be selected is not known. On the other hand probability sampling, every member of the population has a known non-zero probability of selection. The non-probability sampling methodologies that can be utilised include: judgment sampling, convenience sampling, and snowball sampling. These sampling methodologies are suitable in an environment where there is a need to obtain study elements through referrals.

This research is a case study of the Eskom Finance and Procurement Shared Services (FPSS). The researcher investigated the process that was followed to design and implement processes within the newly established unit, as well as the results and experiences of the employees, managers, and consultants. Rajshekhar, Javalgi, Granot, and Alejandro (2011) are of the view that a case study is useful in studying phenomena that has not captured the attention of researchers. Through a case study, a researcher can transcend boundaries of investigated cases by capturing new realities, and developing new theoretical insights that are testable and valid. Case studies are useful in understanding causal relationships, how things happened in the way they did, and in the creation of thick and rich descriptions of events and phenomena (Vissak, 2010).

A purposive sampling criterion based on the number of years of experience within the shared service environment and the individual role in BPD environment was used as selection criteria through which respondents were selected. The respondents were selected based on the following rationale:

- The project consultants that were involved in the process design phase of the FPSS unit implementation.

- The FPSSU managers that were involved in the design and implementation of the FPSS unit and have roles in the newly established unit.
- Employees who have experience in both the old business units and the new FPSS. The sample was drawn using the following criteria to ensure that the researcher is not biased in the selection of respondents and to obtain expert opinion based on a specific minimum level of experience and exposure.

Table 3.2 The criteria used for the selection of project team members

Role	Organisation	Selection Criteria
SSU Consultants	Accenture	5+ years of consulting experience in shared services implementation. The number of years experience will ensure that the respondents selected have extensive knowledge and experience in the shared services consulting arena.
Managers- Shared Services	Eskom	5+ years' experience in managing sections that fall within the SS unit. Extensive management experience provides broad knowledge in a topic that is studied.
Employees- Shared Services (agents)	Eskom	5+ years' experience of working within sections that fall within the SS unit allows for respondents to share a broad knowledge about the field of study.

Source: Author-derived

The table below represents the number of responses that the researcher was able to identify which meet the selection criteria specified above.

Table 3.3 The breakdown of respondents

Role	Organisation	Number of Respondents
Consultants-process design team	Accenture	6
Managers- Shared Services	Eskom	4
Employees- Shared Services	Eskom	7
Total Number of Respondents		17

Source: Author-derived

3.6 DATA COLLECTION



The primary data was collected through a survey. A survey is a research technique that allows for the gathering of information from a sample using questionnaires, interviews and/or observations. A questionnaire is a series of questions (open-ended or closed-ended) about psychological, social, and educational topics given to an individual or group of people in order to obtain data in relation to the topic. It is also a document that asks the same question to individuals in sample. There are three types of questionnaires, self-administered questionnaires, group questionnaires and mail questionnaires (Aksu, 2009).

Aksu (2009) further states that interviews are an interactive process where the researcher asks questions of respondents in order to determine what they think about a certain topic. There are three types of interviews:

- Structured interview: a set list of questions is given to a respondent to answer and responses are recorded in a standardised list.
- Semi-structured interview: the interviewer has a list of prepared questions that he/she asks, but can change the order of questions and ask follow-up questions at any given time.
- Unstructured interview: in this type of interview, the interviewer gives the respondents a topic and allows them to discuss it, and he/she may ask follow-up questions in the process.

The researcher used a semi-structured interview to collect data. The respondents were sent the questionnaires beforehand to complete the closed-ended questionnaires (self-administered). The researcher then arranged and conducted personal interviews with the respondents to ask open-ended questions. A semi-unstructured interview assisted the researcher in obtaining the views and opinions of respondents in order to ensure that all of the facts were established during the research. This also allowed for the asking of questions which would provide clarity. The questionnaire is included as Appendix A.

3.7 DATA ANALYSIS

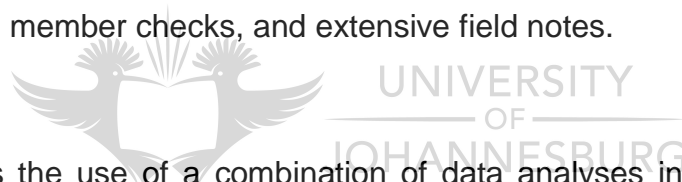
The data analysis methods must correspond to data collection methods in order to achieve methodological parity. This means that personal interview data with open-ended questions should be analysed thematically. Closed-ended questionnaire data, however, can be analysed statistically (Rosenberg & Yates, 2007).

Data analysis was based on categories, grouping, and coding relating to the objectives of the study. The grouping of data analysed is determined by the

responses emanating from the questionnaire. For instance, the respondents will answer questions on the degree of importance of having processes designed in way that improves coordination between different activities in the value chain. Coding could be the “respondents experience with processes activities before and after the implementation of shared services”.

3.7.1. Validity and Reliability

Validity refers to the extent to which the research findings accurately represent the phenomena being studied. Reliability is the extent to which the same findings can be obtained if the research process was repeated. There are several methods of achieving validity and reliability within the qualitative research paradigm. These include: utilising a highly representative sample of the case study elements, the use of triangulation, member checks, and extensive field notes.



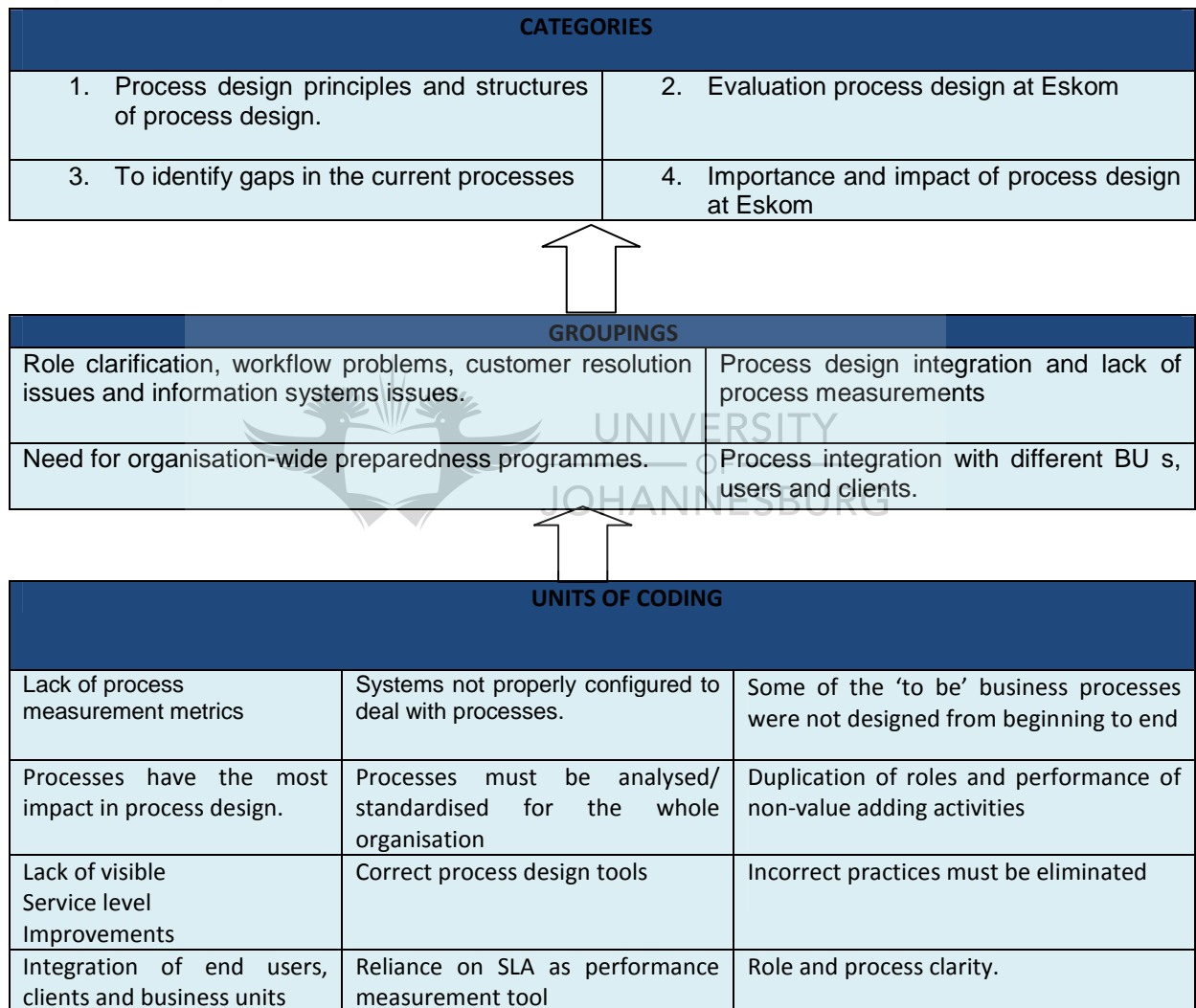
Triangulation is the use of a combination of data analyses instead of relying on a single researcher, thereby eliminating personal biases (Babbie & Mouton, 2010). The use of a combination of closed- and open-ended questionnaires will assist in the elimination of limits on the data collected and will allow for broad descriptions and in-depth analysis to be made.

Another method that can be used to increase validity is to establish a clear chain of evidence. This allows the readers to be able to reconstruct how the researcher moved from the initial research questions to the final conclusions (Gibbert, Ruigrok & Wicki; 2008). This will primarily be achieved by using clear and precise data analysis and interpretation methods.

3.7.2 The alignment between categories, groupings, and units of coding.

Figure 3.1 (below) indicates the flow and link between the different categories, grouping, and units of coding. It is also an indication of how the evidence accumulation occurs throughout the research process, and how all of the pieces fit together.

Figure 3.1: Alignment with research objectives



Source: Author-derived

3.8. ETHICAL CONSIDERATIONS

The respondents were informed of the purpose of the study beforehand (informed consent). The right of respondents to remain anonymous was upheld at all times, and

the information received handled in a confidential manner. The report will be published and will reflect the issues and findings as objectively and accurately as possible.

3.9 SUMMARY

In this chapter the researcher discussed the research methodology and highlighted that the study would be qualitative and explorative in nature. The non-probability sampling methodology was utilised to obtain data about the primary objectives of the study: “to identify tools and techniques that can be used to optimally design processes for shared services”. The data collected through interviews and questionnaires was analysed and the findings defined. Chapter 4 will present the results on the data that was collected through the semi-structured interviews conducted with the respondents.



CHAPTER 4

PRESENTATION AND ANALYSIS OF THE RESULTS

4.1 INTRODUCTION

Chapter 3 provided an outline of the research methodology through which the data was collected and analysed. A semi-structured interview with the respondents was conducted. This chapter will present the research findings and analysis of the data collected from Eskom employees, managers and external consultants who were involved in the SSU project.

4.2 FINDINGS ON THE PROCESS DESIGN PRINCIPLES AND STRUCTURES

The researcher intended to establish the research design principles and structures that can be utilised to design processes for shared services. To achieve the above objectives, interviews with expert consultants and shared services managers were conducted to provide insight on the critical and more salient features of successful process design principles and structures. The purpose of the study was to determine whether the principles and structures utilised to design processes for the Eskom SSU project met this criterion. In this regard, the questions were satisfactorily answered by the respondents.

Table 4.1 (below) shows the responses that were obtained on the principles and structures of efficient and effective process design. Process design principles and structures provide a guideline for process design that managers must take into account when designing processes. The results reflect responses from the 10 respondents (SSU managers and consultants).

Table 4.1 Summary of the findings the process design structures and principles

Previous incorrect practices must be eliminated	A organisation-wide process re-design project should take place before shared services is implemented	The design must be designed from beginning to end.	integration of end users, clients and business units (BUs)	Business needs to be ready and prepared for the implementation
7	6	6	7	6
70%	60%	60%	70%	60%

Source: Author-derived

4.2.1 Elimination of previous incorrect practices

70% of the respondents stated that any process design project should assist an organisation to eliminate previous incorrect practices that were taking place within the departments. Process design should ensure that correct practices are applied throughout the organisation.



4.2.2 Organisation-wide standardisation of processes

60% of the respondents highlighted the fact that all processes must be analysed and standardised throughout the whole organisation for shared services to work effectively. Standardising of processes is concerned with performing tasks in a similar manner across the organisation.

4.2.3 The processes should be designed from beginning to end and integrate users/clients and business units

Processes should be designed from the beginning to end, according to 60% of the respondents, and this should take into account the role of users, clients, and business units (70% of respondents). Process design projects should consider the

workflow of processes from beginning to end and all of the roles of clients, users, and business units having an influence in process execution should be considered.

4.2.4 The business must be ready and prepared for implementation

60% of the respondents stated that the organisation must be prepared in order for process design implementation to be effective and efficient. Organisational preparedness and change management programmes must be put in place to ensure that process design is a success

4.2.5 Conclusion on process design principles and structures

The findings above highlight the critical principles and tools that process design should incorporate. The key findings from this set of data is that process design activities should occur at organisational level, addressing previous incorrect practices by business units through processes standardisation, and should review processes from beginning to end, integrating the role of clients and Business Units.

4.3 FINDINGS ON PROCESS DESIGN AT ESKOM

Process design at Eskom was evaluated from the perspective of users by asking them questions regarding their experiences with their roles and activities in respect of:

1. Task execution and workflow improvements.
2. Customer requests and service level improvements observed.
3. Analysis and evaluation of process performance improvement observations emanating from process design.

Respondents were asked to provide responses regarding the processes and steps that were followed to design processes, and their observations of the process design project. Understanding process design at Eskom will assist the researcher in comprehending the steps, approaches, and tools that were applied in designing processes and to be able to identify gaps, if any exist. Table 4.2 below depicts the responses to questions around the process design activities at Eskom.

Table 4.2 Summary of findings on process design at Eskom SSU

Some of the 'to be' business processes were not designed from beginning to end	The method/tools used to design processes was appropriate	Interfaces between different roles were not properly analysed.	All 'as is' processes were identified.	Business units were not prepared for implementation
9	9	6	8	8
82%	82%	55%	73%	73%

Source: Author derived

4.3.1 'To be' processes not designed from beginning to end

82% of the respondents pointed out that some of the processes 'to be' were not designed from beginning to end. The 'to be' business processes are the new business processes that will be executed in the new SSU.

4.3.2 Process design tools/programmes

82% of the respondents felt that the tools/programmes that were used to design the processes were appropriate and correct for the specific process design project.

4.3.3 Interface between different roles

55% of the respondents felt that the interfaces between the different roles were not properly analysed. Process interfaces relate to those activities which need to be executed by more than one agent and which require a handover from one agent to the next.

4.3.4 The 'as is' processes were identified and analysed

73% of the respondents stated that all of the 'as is' processes were identified and analysed. The 'as is' business processes were the processes which were executed before the process design project.

4.3.5 Business preparedness for implementation

73% of the respondents stated that the business units were not prepared for the implementation of the SSU. The BUs were not aware of the impact and importance of their role in ensuring that the new SSU was successful.

4.3.6 Conclusions on process design at Eskom

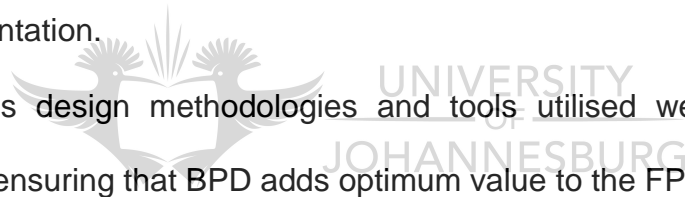
The above findings highlight important points about process design at Eskom:

The 'to be' processes design was not complete/comprehensive enough to ensure that the processes were designed from the beginning to end. Some of the processes have several interfaces with clients and business units, and the design of processes should ensure that all of the workflow (from beginning to end) is incorporated in the process design.

There was a general consensus among the majority of respondents that the process design and tools and programmes were appropriate for process design.

Respondents stated that the interfaces which exist between different roles were not properly identified and analysed.

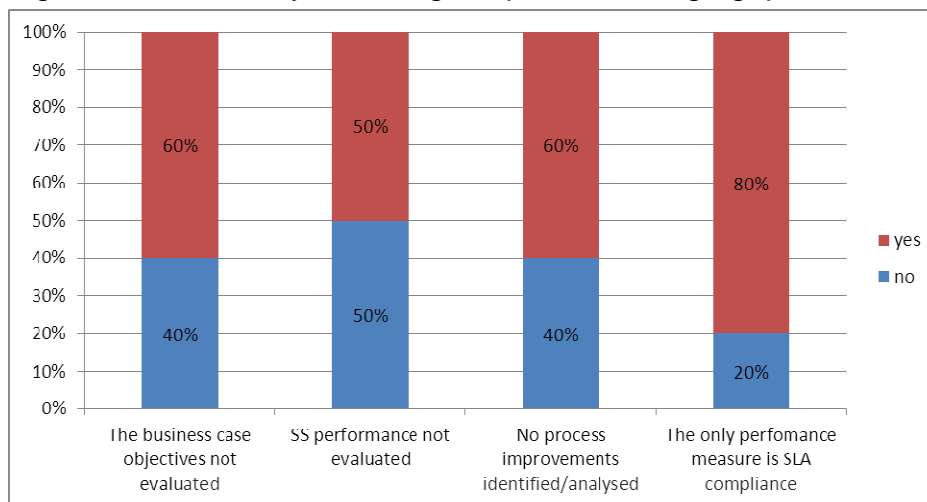
- The respondents stated that all of the 'as is' processes were identified by the process design team. The 'as is' processes were all the processes that were performed by all the business units which were incorporated in the shared services unit.
- The respondents stated that the business as a whole (including clients and business units) was not prepared for the SSU unit implementation. This is an indication that the organisation's change management and preparation programmes might not have been effective and efficient in preparing the business for implementation.
- The process design methodologies and tools utilised were not efficient and effective in ensuring that BPD adds optimum value to the FPSS unit performance.



4.4 FINDINGS ON THE GAPS IN THE CURRENT BUSINESS PROCESSES USED IN ESKOM SHARED SERVICES UNIT

Figure 4.1 summarises responses to the process design dynamics observed after the SSU implementation.

Figure 4.1: Summary of findings of process design gaps within the SSU



Source: Author derived



The responses that were received on process improvements/gaps identified after the SSU was implemented (based on the business case objectives) are:

- 60% of the respondents stated that the extent of achievement of business objectives was not evaluated and 40% stated that they were evaluated.
- 50% of the respondents stated that the SSU process performance was not evaluated and 50% stated that it was evaluated.
- 60% of respondents stated that process improvements were not identified and were not analysed or evaluated and 40% stated that they were identified and evaluated.
- 80% of respondents stated that the only performance measurement used in the FPSS unit is the Service Level Agreement (SLA) and 20% stated that there were other performance measures other than the SLA.

4.4.1 Conclusions on current process design gaps used in Eskom FPSS

The results above indicate that the business objectives were not evaluated and that the shared service process performance was not measured. Based on the research findings, process improvements were not implemented and performance measurement is only done through service level agreements performance measurements. This indicates that even though the objectives of establishing the FPSS were largely focussed on the need to improve processes, a follow-up analysis to measure the extent to which this was achieved did not occur.

4.5 FINDINGS ON IMPACT AND IMPORTANCE OF PROCESS DESIGN IN THE FUNCTIONING OF SHARED SERVICES

The third objective of the study relates to impact of process design in shared services. The respondents were asked to discuss the extent to which processes are important to shared services performance and the extent to which process design can assist in improving service levels. The respondents were also asked to relate their views on the contribution of processes to shared services performance as compared to other critical success elements (for instance: technology, people, and training). This question was designed to determine the importance of processes in relation to other factors that impact on shared services unit optimum performance.

Respondents were requested to provide input on their experiences before and after the shared services implementation, especially with regard to processes. The purpose of this line of questioning was to establish if there were any visible improvements in agent roles which can be attributed to process design. Such questions assist in evaluating the contribution of process design as it relates to day

to day improvements in business operations, and to ascertain if the resources expended towards process design activities add value.

The interviews also successfully assisted the researcher in identifying the problems that can be caused by incorrect/inefficient process design methodologies or approaches. This was achieved by asking respondents to relate their experiences and observations during shared services implementation and to evaluate them according to the extent to which they relate to process design. Using a four point scale assisted the researcher in gauging the intensity of each factor and in eliminating insignificant factors and variables.

Table 4.3 and the figure 4.2 below highlight the responses regarding the impact of process design in the functioning of shared services.



Table 4.3 Summary of findings on the impact in the current processes used

In the Eskom FPSS unit

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
Clear processes and workflow impact on speedy and efficient performance of roles/tasks.	2 (18%)	7 (64%)	1 (9%)	1(9%)
Delays and backlogs in resolving customer requests experienced can be attributed to inefficient processes coordination and workflow.	2 (18%)	5 (45%)	2 (18%)	2 (18%)
Standardised processes are critical in ensuring clarity of roles and creating uniform service levels.	8 (47%)	4(24%)	3 (18%)	2 (12%)
Designing/reviewing processes is important for a new shared services centre to perform effectively.	5 (29%)	7 (41%)	5 (29%)	0%
Properly designed processes and workflow are important to ensure that a shared services unit performs optimally.	5 (29%)	7 (41%)	5 (29%)	0%
There has been a great improvement in the execution of task/processes and resolution of customer requests since implementation of the shared services.		3 (27%)	4(36%)	4(36%)
My role is clearer and the processes are much clearer since I am working in a shared service centre as compared to before shared services implementation.	2 (18%)	2(18%)	4(36%)	4(36%)

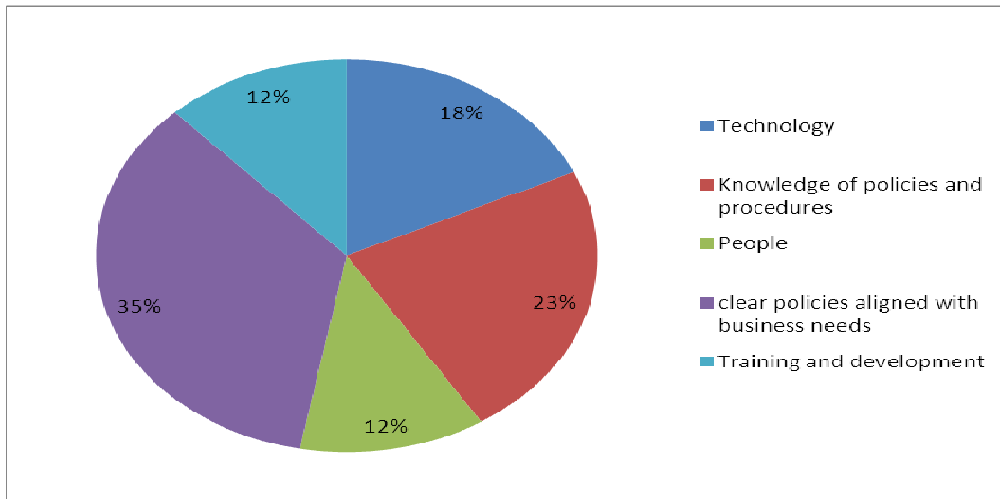
Source: Author derived

Respondents were asked to rate each element and the impact it has on shared services performance. The results are as follows:

- 18% of the respondents ranked technology as the element with the most impact on shared services performance.
- 23% of the respondents ranked knowledge of policies and procedures as the element with the most impact on shared services performance.
- 12% of the respondents listed people as the most important element.

- 35% of the respondents ranked clear processes aligned to business needs, and 12% of the respondents ranked training and development as the element with the most impact.

Figure 4.2: Summary of the impact of various elements on shared service performance



Source: Author derived



4.5.1 Key findings on impact and importance of process design in the implementation and functioning of shared services

The findings on the process improvement objectives show that an analysis was not done to evaluate the achievement of business core objectives and to evaluate if there were process performance improvements. The findings also show that the different Service Level Agreements (SLA) are the only performance indicators used. This suggests that the objectives for establishing the FPSS unit as stated by Eskom Exco were not evaluated. The objectives of establishing the Eskom FSS unit were:

- Standardisation of business operations performance and improvement of client services.
- Elimination of duplicate and unnecessary steps in the processes.
- Streamlining internal processes to optimise business performance.

- Standardisation of roles and grades across the business.

The respondents were required to provide their opinion of what they considered the impact of process design in a shared services unit. The findings above allude to the fact that agents/employees and managers regard processes as having a significant impact on the performance of shared services in respect of speedy resolution of customer requests, clarity of roles, service improvements, and reduction of workflow problems.

The process approach used for SSU project shows that managers and consultants attempted to streamline processes from all of the divisions into a uniform and standard process that could be used in shared services. The workshops that were conducted to review processes were representative of all division and their inputs were considered in designing 'to be' processes. This exercise was designed in order to eliminate previous incorrect practices. A significant oversight was a failure to review the client input in the processes and the role of finance business units that were retained in the division (internal clients).

Respondents were also required to provide opinion of what they consider to be the critical elements for optimum shared services performance. The processes were ranked first by the majority of the users, followed by knowledge of processes and procedures, and then technology. The responses to this question are based on the level of understanding of the challenges that the managers and consultants experienced during implementation and what they consider to be the role of designing processes for shared services and its impact on performance. This confirms that processes have a significant impact on process design.

4.6 ALIGNMENT BETWEEN THE LITERATURE REVIEW AND EMPIRICAL RESEARCH

Case study findings are criticised by other researchers on the ability to generalise findings to a broader environment. One of the means to overcome this is the use of analytical generalisation. This technique uses the established theoretical framework (through literature review) and matches this against the collected data in order to establish patterns. A match between collected data and the theory supports the generalisability of the data collected.

The table below outlines some of the symmetries between the literature review and the collected data. It is an indication of the extent to which the researcher tried to juxtapose the literature expostulations with empirical data.

Table 4.4 Comparison of literature review and empirical research

Literature review	Empirical Research
1. Business process design will assist organisations to realise improvements like quality, costs efficiency, customer satisfaction, responsiveness and increasing shareholder value (Tissari and Heikkila, 2001)	1. The researcher tried to establish if there were any improvements in process performance, as defined by the shareholder objectives. The findings were that these were not evaluated, only the SLA are used as a measurement.
2. Business process design requires integration between the organisation's structure, information systems and business processes (Dekkers, 2008).	2. The research questions were directed towards analysing the interface between the information system, the business units and the different roles. The researcher discovered several integration/interface problems.
3. The transformation of organisations requires the transformation of behaviours, jobs, skills,	3. The researcher established that there were no significant transformational changes in the roles

structures, performance measures and information technologies (Stoddard and Jarvenpaa, 1995).	and activities of agents after the SSU unit was implemented.
4. Certain process design tools graphically represent processes and the link between the different activities (Odendaal,2010).	4. The researcher established that the FSS project team analysed process maturity levels and designed the processes utilising MS Visio to visually represent processes.
5. There are five process enablers. These are design (specifications of process execution), performers (the people who execute the process), owner a senior manager in charge of the process), infrastructure (information management systems), and metrics (measures of performance) Hammer (2007).	5. The researcher tried to establish the existence of process measurements, the role of the information systems, as well as the role of the agents in the process value chain, and to ascertain if the process enablers are in place. The analysis above demonstrates the extent of success in this regard.
6. The People Flow-driven Design Project by Lofts (2002), outlines the need to design 'as is' processes before 'to be' processes can be designed.	6. In analysing the process steps that were followed in designing processes at Eskom, the researcher discovered that the 'as is' business processes were analysed before the 'to be' business processes were designed.

Source: Author-derived

4.7 SUMMARY

This chapter outlined responses from interviews conducted with shared services employees, managers, and external consultants who were part of the Eskom FPSS project. The responses exposed several key themes and issues around process design in the Eskom FPSS. These responses provided clarity on the process that was followed to design the process, the activities that were performed to design the process, the principles and features of process design, as well the impact of process design in the performance of duties and the SSU performance. The following chapter will provide recommendations and conclusions based on the research findings.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Chapter 4 provided a presentation and analysis of the results from the empirical research. This chapter will provide conclusions and recommendations in line with objectives of the study. The purpose of the study is to identify gaps and opportunities of improvement that will be forwarded to management in order to assist in decision-making.

To review, the research objectives for this study are the following:

- To identify the tools and techniques which can be used to optimally design processes that add value in a SSU.
- To understand principles and structures of BPD.
- To evaluate BPD in Eskom shared services.
- To identify gaps in the current business processes used.
- To understand the importance and impact of process design on the implementation and functioning of shared services.

2.2 PROCESS DESIGN TOOLS, TECHNIQUES, PRINCIPLES AND STRUCTURES

5.2.1 Conclusions

The study has outlined several process design tools and techniques that are essential for optimum process design projects and programmes. The literature review and the empirical research highlighted key issues that should be considered when

processes are designed, particularly for a shared services unit. These include the following:

- Process design tools and approaches are radical in nature prompting organisations to rethink their processes.
- Process design tools analyse relationships between activities and roles and the sequence, speed, controls, and hand-over of activities that form part of the processes.
- Process design tools and techniques also graphically or linguistically visualise/represent activities and interfaces between roles and agents.
- Process design tools and techniques can be used to analyse process maturity levels, test processes, and simulate processes to analyse performance.
- Preparing the organisation for BPD, including agent/employee, management, clients, and business units participation.
- Efficient process design requires alignment between systems, structures, information systems, organisation structures, people, business units, and the business's strategy.
- Process design should allow organisations to achieve improvements in areas like quality, cost, efficiency, customer satisfaction, responsiveness, and increasing shareholder value.
- Transformation required for efficient process design requires the transformation of behaviours, job skills, structures, performance measures, and information technology.

5.2.2 Recommendations

Eskom FPSS management and consultants need to be aware of the tools and techniques for efficient process design and should also incorporate the

process design principles in their process design projects and initiatives. They should also understand the potential benefits of effective and efficient process design and the principles that should be applied to ensure that process design provides positive benefits for organisations in general, and the SS unit in particular.

The use of methods which allow the organisation to visualise its processes as a value chain is encouraged. This will assist the organisation in developing a better view of its process flow and interfaces within different departments, business units, partners, and clients.

Assessment of information systems capabilities and functionality is important in ensuring that the process design efforts are not compromised by systems failures. The decision on which technological platform to utilise should be guided by processes that will be performed by the organisation, and not the other way round. The department should **review the systems capabilities in line with the processes to be performed.** The ability to isolate system capacity issues from the process design issues is a key determinant in a diagnosis of performance problems.

5.3 THE EVALUATION OF PROCESS DESIGN AT ESKOM AND GAP IDENTIFICATION

5.3.1 Conclusion

Processes can only be optimally evaluated against the objectives that the process design project intended to achieve. Consequently, the Eskom Briefing Note identified objectives as: the standardisation of way of doing things, the improvement of client services, the need to eliminate duplicate processes and unnecessary steps, and streamlining of processes in order to optimise business performance.

The empirical research identified that the only measurement tool available to measure processes at the Eskom FPSS unit is the attainment of SLA targets. Evaluation of process improvements without tools that allow for statistical analyses of processes improvements is difficult. The researcher can only rely on the perspectives and viewpoints of employees and managers to establish if there were any observed process improvements (for instance: the improvement in the speed and co-ordination of customer requests resolution).

The literature review highlighted the fact that processes design is an organisation wide transformation exercise and requires the review of all organisational structures and units in order to ensure that the benefits accrue to the whole organisation. This entails ensuring that the all of the processes and their interfaces are analysed and designed from beginning to end, including client interfaces. Such a process involves alignment between business strategy planning, information systems, and change management and controls.

The Process and Enterprise Maturity Model states that one of the process enablers are the metrics which allows for business process performance measurement. Without such metrics in place, it is difficult to assess process improvements or process failures. Without these metrics, process improvements cannot be analysed.

The process design methodology and approach used by Eskom meets several attributes that are required for process design methodology/approach to be effective and efficient:

- The process was inclusive in that the relevant stakeholders (such as departmental managers, agents from various divisions, and consultants) were involved.
- The 'as-is' processes were reviewed in order to assess their maturity levels.

Alignment between business processes, the organisation's strategy, and the information system is one of the requirements of the BPD methodology, as demonstrated by the process alignment model. The challenges experienced with the Customer Relationship Management system and SAP (Systems Applications and Data Processing) in terms of workflow and request backlog are indicative of the misalignment between the information systems and the processes. This misalignment makes it difficult to separate systems dysfunctions from process design inefficiencies.



There is no indication that the process design project yielded radical improvements/changes in the processes performance. This was demonstrated by respondents stating that they could not identify any visible changes in the way that the work is done. It is possible, however, that the process maturities were already at the required level and no radical changes were necessary. On the other hand, it may be possible that the design process was not radical enough to identify potential improvements and changes.

5.3.2 Recommendations

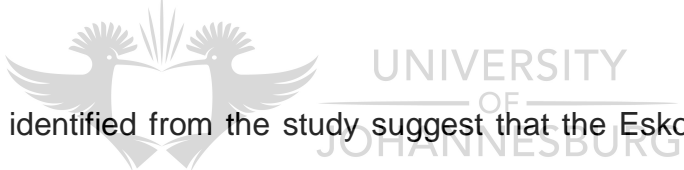
Specific process measurement metrics must be designed. The shared services project objectives (especially process improvements) that were identified by Eskom Exco should be revisited to determine the extent to which they were realised. If they

were not realised, improvement measures must be identified. **Process improvement goals, tools and strategies** should be developed to ensure that process improvements can be measured against specific targets and to identify process performance gaps.

5.4 THE EVALUATION AND THE IMPACT OF PROCESS DESIGN AT ESKOM

5.4.1 Conclusions

Shared services implementation involves more than simply bringing people together with the hope that they will be able to function effectively and efficiently. Process design is supposed to assist companies to realise improvements in areas such as quality, cost, efficiency, customer satisfaction, and responsiveness. If any of these improvements are not realised, management needs to assess whether or not the resources committed to designing processes are warranted.



The key issues identified from the study suggest that the Eskom FPSS unit project gave attention and resources to BPD, but that Eskom was not aware of the business process improvements that could be achieved by dedicating resources and effort to process design and following up to ensure that process management takes place in order to identify areas of opportunity and improvements. The researcher is of the opinion that process design was done as one of the necessary stages of the project implementation plan without putting effort into ensuring that processes bring positive benefits to shared services.

It is difficult to ascertain if the process design project that took place at Eskom has an impact in bringing about improvements in any of the areas identified. This conclusion is based on the following factors:

- There is no indication that there were any radical changes in any of the sections that existed before and after shared services were implemented. Process design assists organisations to realise improvements in any area of business, including the ability to do tasks with fewer people or the elimination of unnecessary steps in some of the processes.
- After the shared services unit implementation employees were still doing the same activities and therefore they could not identify any change or reduction in the number of steps that were required to perform any of the tasks that they were performing at the time of this research. They could not identify any process activities that were deemed redundant as part of an effort to optimise processes.

Reviewing the literature on the concepts, issues, and theories of process design, the researcher has found a correspondence between the Eskom case study and the literature focus. The importance of streamlining and standardising processes before implementing shared services was emphasised in the literature review. All of the models highlighted in the literature review, particularly the Process Transformation Model, focused on the importance of transforming processes not aligned with business needs (redundant and fragmented processes) into common and standardised processes across the business.

The literature review also identified a company that managed to show visible improvements in several areas of its business operation. This is an indication that such improvements are not pipe dreams, but are possible occurrences. Reuters managed to reduce its processes from 600 to 359, reduced the finance staff by 47%, and managed to improve its control efficiencies.

5.4.2 Recommendations

The FSS needs to review the processes that were implemented for shared services to see if they bring any improvements to the unit's performance. On-going process management can assist in identifying potential areas of improvement.

Benchmarking of process performance against other corporations in a related industry or against other utilities might provide a composed evaluation framework against which process improvements can be identified and executed. This study will be concluded with recommendations regarding future research on this topic.

5.5 PROPOSAL FOR FURTHER RESEARCH

The study identified many BPD theories, concepts, and issues. There is a need for a study that analyses how state utilities have implemented process design programmes, especially within the shared services context. Such a study will be useful in analysing how successful BPD is in government owned companies and to analyse the challenges and opportunities that emerge from such endeavours.

REFERENCES

- Accenture. (2010). *Achieving high performance through shared services*. [Online] Available at: <http://www.accenture.co.za/consulting/navy/BPM.htm> [Accessed 10 May 2010].
- Aksu, H.H. (2009). *Questionnaires and interviews in education researchers*. Ataturk University, *Journal of the Institute of Social Sciences*. 13(1): 201-216
- Anon A. (2010). Eskom FPSS End User Detailed Briefing Document. Sunninghill: Eskom, unpublished.
- Anon B. (2010). *Achieving High performance through shared services* . [Online] Available at: <http://www.accenture.co.za/consulting/navy/BPM.htm> [Accessed 13 July 2011].
- Anon C. (2010). Eskom electronic process control manual: procure to pay. [online]. Available at <http://mp2vmsa035.eskom.co.za/ehpum%20website/models/html%20-%20Model/26b804e2-f161-11df-46ca-0017a4770400.html> [Accessed on July 12 2011].
- Babbie, E. & Mouton, J. (2010). *The Practice of Social Research*. Cape Town: Oxford University Press.
- Burton-Jones, E. (2007). Research methods and the relevance of the IS discipline; a critical analysis of methodological pluralism. *Journal of Information Technology*, 26(7): 306-312.
- Chang, T.H., Fu, H.P., Ou, J.R., Chang, T.S. (2007). An ARIS based model for implementing information systems from a strategic perspective. *Production Planning and Control Journal*, 18 (2):117-130
- Chen, C. & Tsai, C. (2008). Developing a process re-engineering-oriented organisational change exploratory simulation system (PROCESS). *International Journal of Production Research*, 46 (16): 4464-4481.

Cooper, D.R. & Schindler, P.S. (2006). *Marketing research: Concepts and cases*. Atlanta: McGraw-Hill.

Dekkers, R. (2008). Adapting organisations: the Instance of business process re-engineering. *Systems Research and Behavioural Sciences*, 25(1):45-66.

Damij, N. (2007). Business process modelling using diagrammatic and tabular Techniques. *Business Process Management Journal*, 13 (1): 70-82.

Delattre, M., Ocler, R., Moulette, P., Rymeyko, K. (2009). Singularity of qualitative research: from collecting information to producing results. *Tamara journal*. 7(7): 33-49.

Doomun, R. & Jungun, V. (2008), Business process modelling, simulating and reengineering in the call Centre. *Business Process Management Journal*, 14 (6): 838-848.

Earl, M.J., Sampler, J.L., Short, E.J. (1995). Strategies for business process reengineering. *Journal of Information Management Systems*, 12(1): 31-56.

Eksteen, K.L. (2007). *Designing and implementing shared services for Capricorn Investment Holdings*, Namibia. Stellenbosch: University of Stellenbosch.

Falthoum, Y. & Nilsson, K. (2010). Business process re-engineering and the balanced scorecard in Swedish public sector organisations: solutions for problems or problems for solutions. *International Journal of Public Administration*, 33 (1): 302-310.

Gibbert, M., Ruigrok, W., Wicki, B. (2008). What passes as a vigorous case study? *Strategic Management Journal*, 29(13): 1465-1474.

Hammer, M. (2007). The process audit. *Harvard Business Review*, 1(4): 111-123.

Hair, J.F., Rabin, B., Money, A.H., Samouel, P. (2003). *The Essentials of Business Research Methods*. New Jersey. John Wiley and Sons, Inc.

Ittner, C.D. & Lacker, D.F. (1997). The performance effects of process management techniques. *Management Science*, 43(4): 522-534.

Kruger, D.J. (2008). *Lean production and business process re-engineering in the South African context: a case study*. Johannesburg: University of Johannesburg.

Lacity, M.C. & Fox, J. (2008). Creating global shared services, Lesson from Reuters. *MIS Quarterly Executive*, 7(1):pp. 17-32.

Lofts, N. (2002). *Process visualisation: an executive guide to business process design*, Wiley & Sons, Canberra.

Mare, S.E. (2006). *Improvement of materials management function in a shared service centre*. Pretoria: University of Pretoria.

Mclvor, R. (2007). Outsourcing and the spin-off arrangements: Lessons from a utility company. *The Journal of General Management*, 33(2): 23-31.

Melao, N. & Pidd, M. (2000). A conceptual framework for understanding business processes and business process modelling. *Information Systems Journal*, 10 (3):105-129.

Merrifield, R., Calhoun, J., Stevens, D. (2008). The next revolution in productivity. *Harvard Business Review*, 33 (2). 89-104.

Milena, R.Z., Dainora, G., Alin, S. (2008). *Qualitative research methods: a comparison between focus group and In-depth Interviews*. Romania: Bucharest University.

Nakamura, K. & Kameoka, A. (2007). Service business planning towards a shared services road mapping-an application to RF-ID using Service in the research

activities of Japanese Industrial Association. *International Journal of Innovation and Technology Management*, 4(4): 511-534.

Nattal, P., Shankar, A. Beverland, M.B., Hooper, C.S. (2011). Mapping unarticulated potential for qualitative research stepping out of the shadow of quantitative studies. *Journal of Advertising Research*, 51(1): 153-166.

Odendaal, M.J. (2010). *Business process modelling using model checking and theory of constraints*. Johannesburg: University of Johannesburg.

Onwuegbuzie, A.J. & Collins, K.M.T. (2007). *A Typology of mixed methods sampling designs in social science research*. *The Qualitative Report*, 12(2): 281-316.

Orman, L.V. (1998). A model management approach to business process reengineering. *The Journal of Management Information Systems*, 15(1): 187-212.

Pillay, C. (2009). *Finance and procurement shared services: Project background and overview*. Johannesburg: Eskom.

PriceWaterhouseCoopers. (2011). *Shared services and process management*. [Online] Available at: <http://www.pwc.com/za/en/business-process-management/index.jhtml> [Accessed on September 16 2011].

Qin, S. (2009). Case study in contemporary educational research. *Cross Cultural Communication Journal*, 15(4): 34-41.

Rajshekar, R., Javalgi, G., Granot, E. Alejandro, S. (2011). Qualitative methods in international sales research: cross cultural considerations. *Journal of personal selling and sales management*, 31(2): 157-170.

Reijers, H.A. & Mansaar, .S. (2005). Best practice in business process redesign: an overview and qualitative evaluation of successful redesign heuristics. *The International Journal of Management Science*, 33(2): 282-306.

Rosenberg, J.P. & Yates, P.M. (2007). Schematic representation of case study research. *Journal of Advanced Nursing*, 60(4): 447-452.

Salo, C.B. (2009). *A shared services centre for municipalities in Overberg*. Stellenbosch: University of Stellenbosch.

Sarang, S. (2005). *The implementation of business process management in the banking Sector*. Johannesburg: University of Johannesburg.

Shen, C. & Chou, C. (2010). Business process reengineering in the logistics industry: a study of implementation success factors and performance. *Enterprise IS Journal*, 4(1), 61-78.

Stoddard, D.B. & Javernpaa, S.L. (1995). Business process redesign: tactics for managing radical change. *Journal of Information Management Systems*, 12(1): 81-107.

Stuit, M. & Szirbik, N.B. (2009). Towards agent-based modelling and verification of collaborative business processes: an approach centred on interactions and behaviours. *International Journal of Cooperative information Systems*, 18 (3&4): 423-479.

Su, N., Akkiraju, R., Yanak, N., Goodwin, R. (2009). Shared services transformation: conceptualisation and evaluation from the perspective of real options. *The Decision Sciences Institute*, 40(3): 381-402.

Tissari, T. & Heikkila, J. (2001). Successful re-engineering-learning by doing. *International Journal of Logistics: Research applications*, 4(3): 329-344.

Tsai, L.C., Bein, C, Chan, T. (2011). Business process re-engineering for supplier selection in electronics industry. *The journal of Grey systems*, 2: 175-182.

Van der Linde, T.N., Boessenkool, A.L. and Jooste ,J. (2006). Understanding shared services. *Acta Commercii*, 1(1): 188-197.

Vissak, T. (2010). Recommendations for using the case study method in international business research. *The Qualitative Report*, 15(2): 370-388.

Vivar, C.G., McQueen, A., Whyte, D.A., Armayor, N.C. (2007). Getting started with qualitative research: developing a research proposal. *Nurse Researcher* 14(3): 60-73.

Walsh, P., McGregor-Lowndes, M., Newton, C.J. (2008). Shared services: lessons from the public and private sectors for the non-profit sector, *The Australian Journal of Public Administration*, 67(2): 200-212.

Wang, H. & Wang, S. (2007). Shared Services beyond sourcing the back offices: organisational design. *Human Systems Management*, 26(1): 280-281.

Wang, T., Guinet, A., Belaidi, A., Besombes, B. (2009). Modelling and simulating of emergency services with ARIS and arena: a case study of the emergency department of the Saint Joseph and Saint Luc Hospitals. *Business Process Management Journal*, Vol 18 (4): 585-599.

