An approach to business process management at a higher education institution

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B.Sc. Hons

Mini-dissertation submitted in partial fulfilment of the requirements for the degree Masters in Business Administration at the Potchefstroom Campus of the North-West University

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November 2009

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Innovation through diversity

ABSTRACT

Business processes can play a fundamental role in the improvement of quality of an organisation's services and products. Management is responsible for the organisation as a system and can improve it by defining policies and procedures, and by optimising processes. When an organisation's processes are well-designed and well-managed, the organisation institutionalises its success through its processes - it does not merely rely on individual heroes, their insight and talents to create the organisation's success. Business process management (BPM) is the structured manner in which business processes are designed, implemented and managed to achieve business objectives and improve operational performance. Successful implementation of BPM proved historically difficult. It is expected that process-based change will be complex within the study area, being the North-West University (NWU), due to its history, culture and the recent merger activities which resulted in major organisational change on strategic as well as operational levels since 2004.

The main objective of the study was to develop an approach to implement business process management at North-West University. This objective was achieved by performing a literature study and an empirical investigation. The literature study focused on process concepts and factors relevant to business process management in the study area. According to the literature, complexity can be limited by structuring process redesign as series of smaller projects, each with manageable steps and with concrete, measurable payoff. Process management should not necessarily begin with automation. In organisations with low process maturity, it is advisable to follow a 'business-case' approach, in which smaller process redesign/design projects are launched within departments or divisions. Priority processes are identified; involved staff educated about processes; the processes are redesigned and implemented and relevant measurements are introduced.

The second part of the study entails an empirical investigation, in which ways were explored to: (i) determine process maturity of selected processes; (ii) determine the level of process orientation of selected departments; and (iii) comment on the

usability of the instruments that were utilised during (i) and (ii). Two separate investigations were conducted using modified questionnaires based on the Hammer Process and Enterprise Maturity Model (PEMM) and Reijers process orientation model. The first PEMM-based investigation was conducted within two support departments, namely Human Resource Operations and Finances. The second Reijers-based investigation was performed within an academic department, being the School of Continuing Teachers' Education.

The PEMM-based model investigates three aspects, namely: *process maturity* of a process; *enterprise maturity* of a department; and *aggregated process orientation*, which is a combination of process maturity and enterprise maturity. The Reijers-model investigates only *process orientation*.

The most important observation was the different process maturity ratings between the three respondent groups of process owner/s, performers and customers. As far as overall process orientation of all three departments is concerned, there is also a significant difference in maturity ratings between the process owners and performers in two departments. Further investigation is necessary to determine the reasons for this. The PEMM instrument was experienced as difficult by respondents but provided more specific pointers to process or enterprise maturity problems. The Reijers instrument is easy to use but does not provide detail on possible problem areas. Further refinement of the instruments is recommended.

Implementation of business process management at the NWU should be structured in a series of smaller, manageable steps. It is advised that the "business case" approach is followed and priority processes be identified. Business process implementation projects should be carefully planned and executed, taking into consideration the level of process maturity of relevant processes as well as the process orientation of the department involved.

Keywords: Business process re-engineering; higher education re-engineering; business process models; process-based change; business process maturity.

OPSOMMING

Besigheidsprosesse kan 'n fundamentele rol speel in die verbetering van die kwaliteit van 'n organisasie se produkte en dienste. Bestuur is verantwoordelik vir die organisasie as 'n stelsel en die verbetering daarvan deur die definisie van beleide en prosedures en die optimisering van prosesse. Indien 'n organisasie sy sukses institusionaliseer deur goed-ontwerpte en -bestuurde besigheidsprosesse, is die sukses van die organisasie nie afhanklik van individue, hul insigte en talente nie. Besigheidsprosesbestuur (BPB) is die gestruktureerde ontwerp, implementering en bestuur van besigheidsprosesse ter bereiking van besigheidsdoelwitte en verbetering van operasionele doeltreffendheid. In die verlede was suksesvolle implementering van BPB dikwels moeilik. Na verwagting sal proses-gebaseerde verandering in die studie-area, naamlik die Noordwes-Universiteit (NWU), kompleks wees as gevolg van die NWU se geskiedenis, kultuur, asook die samesmeltingsaktiwiteite. Laasgenoemde het sedert 2004 noemenswaardige organisasie-veranderings op strategiese sowel as operasionele vlak tot gevolg gehad.

Die hoofdoelwit van hierdie studie was om 'n benadering tot besigheidsproses-bestuur by die NWU te ontwikkel. 'n Literatuurstudie en 'n empiriese ondersoek is gedoen ter bereiking van hierdie doel. Die literatuurstudie het op proses-konsepte en faktore relevant tot BPB in die studie-area gefokus. Kompleksiteit van prosesherontwerp kan verminder word deur dit te struktureer as 'n reeks kleiner projekte, elk met bestuurbare stappe en konkrete, bereikbare doelwitte. Dit word aanbeveel dat prosesherontwerp nie noodwendig met outomatisasie begin nie. In organisasies met lae proses-volwassenheid, is die 'besigheidseenheid'-benadering meer effektief. Hiervolgens word verskeie kleiner proses-herontwerp projekte binne departemente/divisies geloods. Prioriteit-prosesse word geïdentifiseer, die betrokke personeel word in prosesdenke opgelei, die prosesse word ontwerp/herontwerp en geïmplementeer, en relevante maatstawwe word ingestel.

Die tweede deel van die studie het 'n empiriese ondersoek behels, waartydens maniere ondersoek is om: (i) proses-volwassenheid van geselekteerde prosesse te bepaal; (ii) die vlak van proses-oriëntering van geselekteerde departemente te

bepaal; en (iii) kommentaar te lewer oor die bruikbaarheid van die instrumente wat tydens (i) en (ii) gebruik is. Twee afsonderlike ondersoeke is gedoen deur gebruikmaking van vraelyste gebaseer op die "Hammer Process and Enterprise Maturity Model" (PEMM) en die Reijers proses-oriënteringsmodel. Die-PEMM ondersoek is binne twee ondersteuningsdepartemente, naamlik Mensehulpbronnne-bedryfsafdeling en Finansies, gedoen. Die Reijers ondersoek is binne 'n akademiese departement, naamlik die Skool vir Voortgesette Onderwysersopleiding gedoen.

Die PEMM-model het drie aspekte ondersoek, naamlik: *prosesvolwassenheid* van 'n proses; *ondernemingsvolwassenheid* van 'n department; en *saamgestelde prosesoriëntering* as kombinasie van proses- en ondernemingsvolwassenheid. Die Reijers-model het slegs *prosesoriëntering* ondersoek.

Die belangrikste waarneming was die verskillende proses volwassenheidsvlakke tussen die drie respondent-groepe, naamlik proseseienaars, uitvoerders en kliënte. Die saamgestelde prosesoriëntering het 'n noemenswaardige verskil in volwassenheidsvlakke tussen die proseseienaars en die uitvoerders in twee departemente getoon. Verdere ondersoek is nodig om die onderliggende redes hiervoor te bepaal. Alhoewel die PEMM instrument deur respondente as moeilik ervaar is, verskaf dit meer inligting oor proses- en ondernemings-volwassenheidsprobleme Die Reijers-instrument is maklik om te gebruik maar verskaf nie detail rakende probleemareas nie. Verdere verfyning van die instrumente word aanbeveel.

Implementering van BPB by die NWU moet dus volgens 'n besigheidseenheid-benadering aangepak word. Dit word aanbeveel dat prioriteitsprosesse geïdentifiseer word en 'n reeks kleiner, gestruktureerde projekte hiervolgens geskeduleer word. Besigheidsproses-implementeringsprojekte moet fyn beplan en bestuur word met inagneming van die vlak van die relevante prosesvolwassenheid sowel as die prosesoriënteringsvlak van die betrokke departement.

Sleutelwoorde: Besigheidsprosesherontwerp; hoër opvoedingsinstansie herontwerp; besigheidsprosesmodel; prosesgebaseerde verandering; besigheidsproses volwassenheid.

ACKNOWLEDGEMENTS

This study was done with the kind permission of the North-West University (NWU).

The following departments and people deserve special recognition:

All study participants, whose kind participation made the study possible:

- The Director and staff of the Human Resource Operations Department.
- The Director and staff of the Finances Department.
- The Director and staff of the School for Continuing Teachers' Education at the Potchefstroom Campus of the NWU.
- Managers at various levels that participated as customers of the processes.

Dr. Maarten Venter, who initiated the study and opened up a new world to me: Thank you for believing in me.

Mr. Johannes Coetzee: For your supervision and enthusiastic support – it was invaluable.

Karen Hurn: For your technical and administrative assistance.

All my valued colleagues and friends: For your constant encouragement and friendship during tough times.

My sons Theuns and Izak: For your unconditional love, especially during hardship, many cold suppers and late nights. I love you!

My husband André: Thank you for the fruitful, stimulating discussions, encouragement and support with the children. You are very special.

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LIST OF ABBREVIATIONS

BPC	Business Process Change
BPI	Business Process Innovation / Business Process Improvement
BPM	Business Process Management
BPR	Business Process Re-engineering
CHE	Council for Higher Education
CU	Customer (of the process)
ERP	Enterprise Resource Planning
Finances	Finances Department
HCD	Human Capital Development
HE	Higher Education
HEI	Higher Education Institution
HEQC	Higher Education Quality Committee
HOD(s)	Head(s) of Department(s)
HR	Human Resource Operations Department
IO	Institutional Office
MC	Mafikeng Campus
NWU	North-West University
PE	Process performers
PEMM	Process and Enterprise Maturity Model
PC	Potchefstroom Campus
PO	Process owner
SCTE	School of Continuing Teachers' Education
SL	Strength level
TQM	Total Quality Management
UNW	University of the North-West
VC	Vice-Chancellor
VTC	Vaal-Triangle Campus

Note: Institution, Organisation, Company and Business are used interchangeably to include any commercial sector entities, government agencies or non-governmental organisations.

CHAPTER 1
NATURE AND SCOPE OF THE STUDY

1.1. INTRODUCTION

Global developments during the past thirty years had major impacts on the way in which organisations conduct business. These include shifts in world trade and increased competition due to globalisation (Hoisington & Vaneswaran, 2005:1), quantum-leap developments in information and communication technology (ICT) such as the world wide web and internet (Harmon, 2007a:21) and a shift towards a customer-oriented economy (Hammer, 2003:10). Organisations can no longer merely rely on trusted products and/or services to survive, but have to continuously improve operational effectiveness, efficiency and quality to stay competitive (Carpinetti, Buosi & Gero'lamo, 2003:533; Cummings & Worley, 2005:480).

Logical and effective business processes are necessary for the achievement of organisational goals (Baltzan, Phillips & Haag, 2009:299). By improving business processes, organisations can improve operational efficiency and effectiveness and enhance competitiveness. The quality movement, starting in the mid-twentieth century, developed various continuous improvement methodologies by employing process thinking philosophy (Gitlow, Oppenheim, Oppenheim & Levine, 2005:33). Numerous examples exist of the successful implementation of these methodologies in Fortune500 companies such as Motorola, General Electric, Dupont and Allied Signal (Gitlow *et al.*, 2005:33). Re-engineering, starting in the early 1990's, advocated a radical approach to process redesign. Although re-engineering had its flaws (discussed in section 2.5.1) the notion of process thinking has become an integral part of successful business day-to-day operations (Hammer, 2007:111).

The higher education sector did not escape global developments. Student profiles, industry requirements and customer expectations are continuously evolving (Allen & Fifield, 1999:3). Growth in student numbers, resulting in disproportionate lecturer/ student ratios, increases the difficulty to maintain high quality teaching (Belarmino & Canteli, 2001:66). Universities as publicly funded institutions are increasingly

expected to deliver improved services of greater relevance at decreased cost. These forces put increasing pressure for change on higher education institutions (HEIs), forcing universities to explore new ways of delivering services and improving quality in order to stay competitive.

1.2. CAUSAL FACTORS TO THIS STUDY

In South Africa, political changes had a far-reaching impact on the education sector. On 27 July 1999 the then Minister of Education, Professor Kadar Asmal, announced that the higher educational landscape will be reviewed (CHE, 2000:4). The Council for Higher Education (CHE) was established, which announced major restructuring to most existing South African HEIs. Through mergers, the number of HEIs in South Africa was reduced from 36 in 2003 to 23 in 2004 (CHE, 2009). The Higher Education Quality Committee (HEQC) was established to oversee, amongst others, transformation as well as general quality management at HEIs (CHE, 2009:49; Stephenson, 2004:65).

Newly merged South African HEIs faced major governance, operational and administrative challenges, such as the alignment of academic and administrative support systems and processes of previously separate institutions. Although special funds were made available by government for implementation of new systems, the renewal and alignment of not only technology but also processes across vastly different management and work structures, cultures and geographically distributed business units proved much more comprehensive and time-consuming than originally anticipated.

In order to assist with quality development, the HEQC adopted an auditing process for all public and private HEIs to determine the status of quality management. Preparation for such an audit includes a self-assessment review of quality management arrangements at the HEI. The North-West University (NWU) audit was performed during March 2009. The NWU decided to use the self-assessment review as an opportunity for organisation-wide quality awareness. The result of this review revealed that: (i) in many instances business processes were not yet established or redesigned in line with the requirements of the merged institution; (ii) in some

instances quality management of existing processes was insufficient; and/or (iii) the knowledge and skills of staff regarding processes were insufficient.

The major challenge after the completion of the audit in March 2009 was to perpetuate the quality awareness momentum and establish a process thinking culture to contribute towards quality management and improvement at the NWU.

1.3. PROBLEM STATEMENT

Historically, process thinking approaches ranged from incremental improvement approaches such as Total Quality Management (TQM) to radical process redesign methodologies such as Business Process Re-engineering (BPR) (Attaran & Wood, 1999:752). Incremental improvement strategies usually provide stable but small improvements while the BPR approach promises radical and rapid results. However, numerous problems have been identified when establishing process-based change within an organisation. These problems include the creation of unrealistic expectations about performance and business improvement; not taking into consideration the human dimension and not involving the correct people; underestimation of the complexity, duration and cost of transformation and taking on too much change at once (Hammer, 2007:112; Davenport, Prusak & Wilson, 2003a:48; Grant, 2002:85). The redesign of work as business processes involves not only the redefinition of workflow, tasks and its sequences, but also reviewing job descriptions, reward systems and decision making authority. Furthermore, training on new jobs and processes is essential for successful implementation of redesigned processes.

The North-West University (NWU) was formed on 1 January 2004 from the merger of the former Potchefstroom University for Christian Higher Education (PU for CHE) and the University of the North-West (Uniwest) as well as incorporating the Sebokeng Campus of Vista University in Vanderbijlpark. From a process perspective, the merger necessitated major process-based change. As mentioned above, the outcomes of the audit indicated that one possibility to improve quality, is through improved process management. No formal approach towards business process management exists at the NWU. It was decided to investigate ways in which

to institutionalise process thinking and implement business process management at the NWU. However, the successful establishment of business process management, being a process-based change intervention, requires careful planning, management and implementation.

1.4. OBJECTIVES OF THE STUDY

1.4.1. Primary objective of the study

The primary objective of this study is to develop an approach to implement business process management at the North-West University.

1.4.2. Secondary objectives of the study

The primary objective of the study is to be achieved through the following secondary objectives:

a) Performing a literature study to obtain a theoretical basis of relevant concepts. These concepts include business processes, the relationship between process and quality, the development of process thinking, business process management and an overview of business process maturity models.
b) Conducting an exploratory investigation, using two instruments based on published process maturity models, to determine the process maturity of two selected processes and the level of departmental process orientation of three departments at NWU. Comments on the usability of these instruments within the selected departments as well as the rest of the institution will be made.
c) Using the theoretical concepts and the results of the investigation, a possible approach for business process management in the selected departments as well as the rest of the NWU may be suggested.

1.5. SCOPE

The empirical investigation is limited to three departments of the North-West University, namely Human Resource Operations, Finances and the School of Continuing Teachers' Education. The aim is not to determine process maturity for the

whole organisation. Due to the limited nature of a mini-dissertation, the questionnaires used as instruments are not tested extensively, but are used in an exploratory way.

1.6. LIMITATIONS OF THE STUDY

The literature review is limited to sources that are readily available on the Internet at the time, as well as publications readily available in libraries in South Africa until 30 September 2009.

1.7. RESEARCH METHODOLOGY

This research consists of a literature review and an empirical investigation conducted through questionnaires.

1.7.1. Literature review

The following topics are covered in the literature study:

a) The definition and relevant elements of business processes, as well as the relationship between process and quality.
b) The development of process thinking, the concept of business process management, the most important elements of a framework for business process management and considerations for the implementation of business process management.
c) An overview of business process maturity models, its role in determining an organisation's process maturity and its value in developing business process thinking.
d) The context, development of and requirements for business process management at the North-West University.
e) Possible alternative approaches for process-based change.

1.7.2. Empirical investigation

An exploratory investigation was performed to determine process maturity of two selected processes and to establish the level of enterprise process orientation of three selected departments within the study area.

- ***Participants***

Management and staff from two support departments, namely the Human Resource Operations Department (HR) and the Finances Department, and one academic department, namely the School of Continuing Teachers' Education, were involved in the investigation. Vice-rectors, deans, school directors and support department managers were also involved in the investigations relating to the HR and Finances department.

- ***Measuring Instruments***

Two measuring instruments have been developed based on process maturity models in literature. The first instrument was a questionnaire based on the Process and Enterprise Maturity Model (PEMM) (Hammer, 2007:113) and is discussed in section 3.2.2. The questionnaire consisted of twenty-four questions, addressing process maturity and enterprise maturity for supporting process implementation. Question responses were categorical and classified on an ordinal scale. Descriptive statistical analyses were used to interpret the results.

The second instrument was a questionnaire based on the Reijers model (Reijers, 2006:405) and is discussed in section 3.2.3. The questionnaire consisted of eight questions addressing general process orientation. Question responses were categorical and were converted to numerical values. Each respondent's converted question responses were totalled according to a given weighting formula to give a total process orientation score. Descriptive statistical analyses were used to present the results.

- ***Statistical Analysis***

Data analysis was done using Microsoft Excel 2007 with PHStat2 Version 7.

1.8. LAYOUT OF THE STUDY

The mini-dissertation is divided into four chapters, which will be presented as follows:

- ***Chapter 1: Nature and scope of the study***

  This chapter discusses the context of, and causal factors to the study as well as the problem statement. It also presents an overview of the research design and layout of the next chapters.

- ***Chapter 2: Literature Review***

  This chapter investigates, through a literature review, the basic elements of process thinking, business process management and process management frameworks. Factors affecting successful implementation of business process management as well as process management maturity models are reviewed. An overview of the organisation and specific departments in which the investigation is conducted is also provided.

- ***Chapter 3: Empirical study***

  This chapter presents the research methodology by discussing the compilation of the questionnaire, the study participants and the data collection. The results of the investigation are also presented and discussed.

- ***Chapter 4: Conclusions and Recommendations***

  The conclusions of the study based on the literature review and empirical investigation as well as recommendations for further study are presented in this final chapter.

1.9. CHAPTER SUMMARY

Globalisation and ITC developments exert pressure on organisations to find new ways to stay competitive. Organisations can improve operational effectiveness through process improvement, but process based change has proved difficult to implement. The mergers of HEIs in South Africa affected the NWU and resulted in many processes in need of redesign. Process based change projects are expensive

and risky, and need to be carefully planned and managed. A process maturity measurement will enable management to determine which processes are deficient and which aspects can be rectified.

The outcome of the NWU HEQC Audit in 2009 indicated that there is a need for the development of process thinking at the NWU. This study performs (i) a theoretical investigation of relevant process thinking principles and (ii) an exploratory investigation into the current level of process orientation at the NWU. Using the theory principles and the empirical results, the study aims to suggest an approach for the business process management at the NWU.

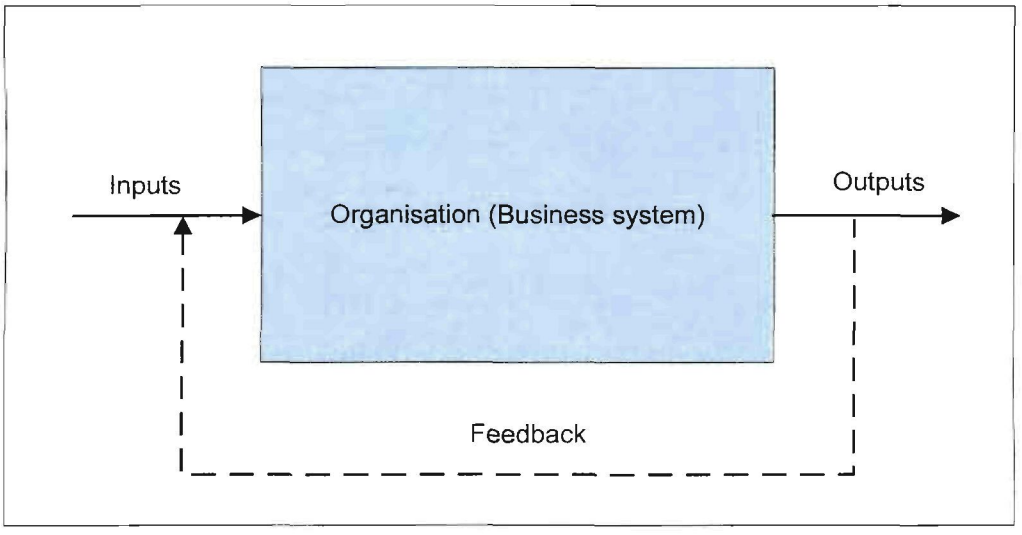
CHAPTER 2
LITERATURE STUDY

The literature study contained in this chapter firstly provides an overview of business processes, business process management principles and related subjects. Secondly it provides an overview of the study area.

2.1. INTRODUCTION

The systems theory approach to understanding organisations was developed in the 1960's (Harmon, 2007a:2). According to this theory, an organisation or business is an open system which interacts with its environment from which it receives inputs, transforms these inputs into outputs, and transmits these outputs back to the environment (see figure 2-1). Transformation is brought about by various organisational elements. The system, and thus the organisation, should be viewed as a whole in which these elements, such as work activities, data and flows are operating in complex relationships. One of the best ways to describe and understand these complex relationships is to diagram these activities, data and flows in terms of flows and feedback loops. These diagrams are often referred to as process diagrams.

Figure 2-1: The organisation viewed as a system



Source: Adapted from Harmon (2007a:3).

Improved understanding of the relationships between organisational elements is one of the building blocks for improving organisational management. The process approach to improving quality and operational efficiency is not new. At the beginning of the twentieth century, Frederick Taylor introduced the idea that work can be viewed as processes which can be managed and improved (Madison, 2005:1; Harmon, 2007a:2). Taylor is regarded by many as having introduced the science of work study, which concentrates on the creation and improvement of consistent processes. The quality movement, starting in the mid-twentieth century, developed the business process thinking philosophy and introduced various process improvement methodologies. Measurement of process variation, continuous improvement (Kaizen) and total quality management (TQM) were made popular by quality experts such as Deming, Juran and Shewart (Davenport *in* Jeston & Nelis, 2008a:xiv). Six Sigma Management is a statistical quality process management methodology that aims to reduce the number of defects. It was originated by Motorola in the 1980's (Gitlow *et al.*, 2005:735) and has been successfully implemented in various other leading organisations such as General Electric, Allied Signal and Dupont.

Business process re-engineering (BPR), which entailed finding radical new ways of performing business operations to improve competitiveness, emerged in the early 1990's (Grover, Kettinger & Teng, 2000:15). Although the use of the term BPR and its radical approach declined, process thinking, design and redesign continued under different names such as Business Process Innovation (BPI) (Davenport, 1993:1), Business Process Improvement (BPI) (Dalmaris, Tsui, Hall & Smith, 2007:280) and Business Process Change (BPC) (Grover *et al.*, 2000:16). The approach that is currently widely used is called Business Process Management (BPM) (Jeston & Nelis, 2008a:4).

Process thinking has become an integral part of successful business day-to-day operations and management (Jeston & Nelis, 2008a:11; Hammer, 2007:111; Grover *et al.*, 2000:16), as logical and effective business processes are necessary for the achievement of organisational goals and improving competitiveness (Baltzan *et al.*, 2009:299).

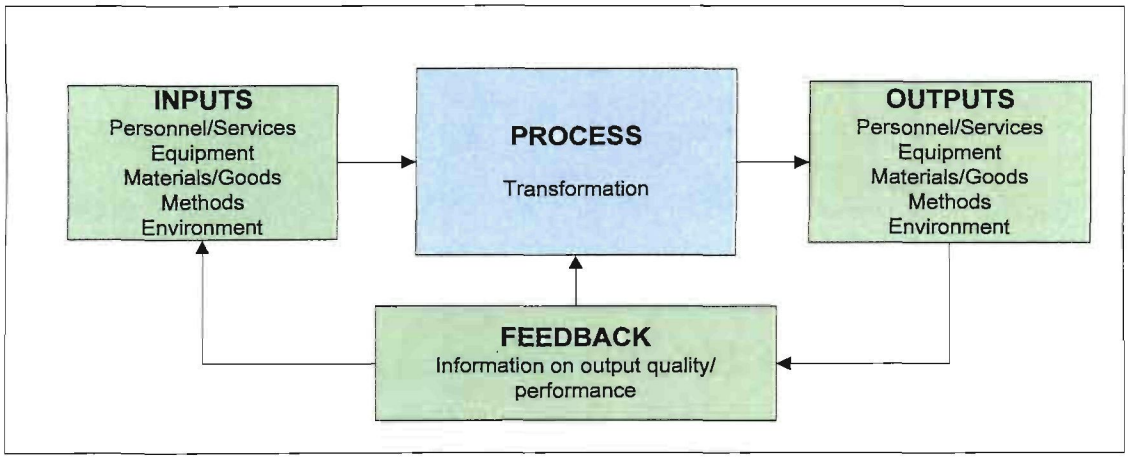
2.2. PROCESS OVERVIEW

In this section an overview of business process (hereafter referred to as *process)* concepts is provided by providing a definition, discussing the relationship between process and quality, highlighting process characteristics, exploring the link between strategy and process and finally having a brief look at process classification and levels of standardisation.

2.2.1. Definition

Various types of process definitions exist (Melão & Pidd, 2000). A simple, mechanistic process definition by Gitlow *et al.* (2005:5) refers to a process as "a collection of interacting components that transforms inputs into outputs towards achieving a common aim". Schematically, these elements are represented in figure 2-2 below. Inputs and outputs can be human resources, services, materials, goods, methods and the environment. An important aspect depicted in figure 2-2 is the feedback loop, which conveys information about output quality during any stage of the process, and is used to improve overall process quality. Gulledge and Sommer (2002:366) note that processes are event-driven, that is, a process is triggered by a specific activity or decision.

Figure 2-2: Schematic representation of a process



Source: Adapted from Gitlow et al. (2005:3).

Hammer's definition (2003:53) is more customer-focused and defines a process as "an organised group of related activities that together create a result of value to customers". Hammer continues to analyse each component of this definition. This provides a better understanding and also illustrates the alignment with the definition of Gitlow *et al.* (2005:5):

- ***Group:*** A process comprises of a collection of activities.
- ***Related:*** Activities are organised and interact in a specific repetitive manner.
- ***Together:*** Activities must be aligned to a common goal.
- ***Result:*** A process must exist for a specific purpose that creates value for a customer.

Thus, for applicability within the study area, a process is defined as a group of related activities in one or more business functions, which execute repetitively after having been triggered by a specific event, to create value for internal and/or external customers.

2.2.2. The link between quality and process

One of the aims of this study is to investigate how processes and process management can assist at improving quality at a higher education institution (HEI). The debate on a definition for quality is widespread, with no consensus on a definition for quality within the higher education (HE) context. Some of the HE definitions are "exceptional or excellence", "perfection or consistency", "fitness for purpose" and "value and for money" (Stephenson, 2004:62).

The North-West University (NWU) decided to adopt a continuous improvement approach to the management of quality (NWU, 2008:55) to improve the system and its services. The quality expert, W. Edwards Deming's fifth point for management (Deming, 1991:23) states: *"Improve constantly and forever the system of production and service to improve quality and productivity, and thus constantly decrease costs."* The definition of quality relating to continuous improvement is thus applicable, stating that "quality is a predictable degree of uniformity and dependability, at low cost and

suited to the market" (Gitlow *et al.*, 2005:18). Deming's theory of management is based on four paradigms, two of which should be mentioned for this study (Gitlow, *et al.*, 2005:35):

i. Management should not only be result-focused, but should also have a *process-based orientation*;
ii. As a system consists of interdependent parts, it is management's function to optimise the *entire system,* not only some components, even if it requires to willingly sub-optimise some parts of the system.

The quality of the processes of a system plays a significant role in the quality of the overall system (SEI, 2006:5). An organisation, as a system, consists of a multitude of micro processes, which combine to form macro processes (Gitlow *et al.*, 2005:5).

It is viewed that 85% of all organisational problems are the result of process, control mechanisms and structure, while only 15% are the result of people (Madison, 2005:3). Process, control mechanisms and structure form part of the organisational system. According to Gitlow *et al.* (2005:17) the system determines the primary performance of workers (people). Individual workers cannot improve outputs if the system and its processes are badly designed (Hammer, 2003:55).

Management is responsible for and can improve the system by defining policies and procedures, and by optimising processes. This concept of **process ownership** and **managerial responsibility** is of such importance that it is regarded by some authors as a paradigm shift (Gitlow *et al.*, 2005:6). If organisational processes, policies and procedures allow poor performance by workers, the primary problem lies not with the workers. The solution must be found at the problem origin, that is, organisational processes, policies and/or procedures must be improved to prevent poor performance, and this accountability lies with management.

2.2.3. Common and special causes of variation of a process

Process outputs vary over time. In managing variable process outputs, it is important to distinguish between two typical types of variation that can occur, namely common cause variation and special cause variation (Gitlow *et al.*, 2005:5). Common cause

variation is the result of the process and its design, while special cause variation occurs as a result of factors external to the process or system. For example, variation due to product or service design is common cause variation. Workers cannot control and cannot be held accountable for variable outcomes of a badly designed process. It is the responsibility of management to improve the process and product design.

When variation occurs due to an event external to the system or process, such as bad raw materials or a broken machine, it is referred to as special causes of variation.

Variable outputs decrease the level of predictability and dependability and need to be managed. It is therefore imperative for managers to distinguish between special and common causes of variation in order to determine appropriate mitigatory action. Special causes must be resolved, while management need to intervene through process improvement to minimise common cause variation.

2.2.4. The cross-functional nature of processes

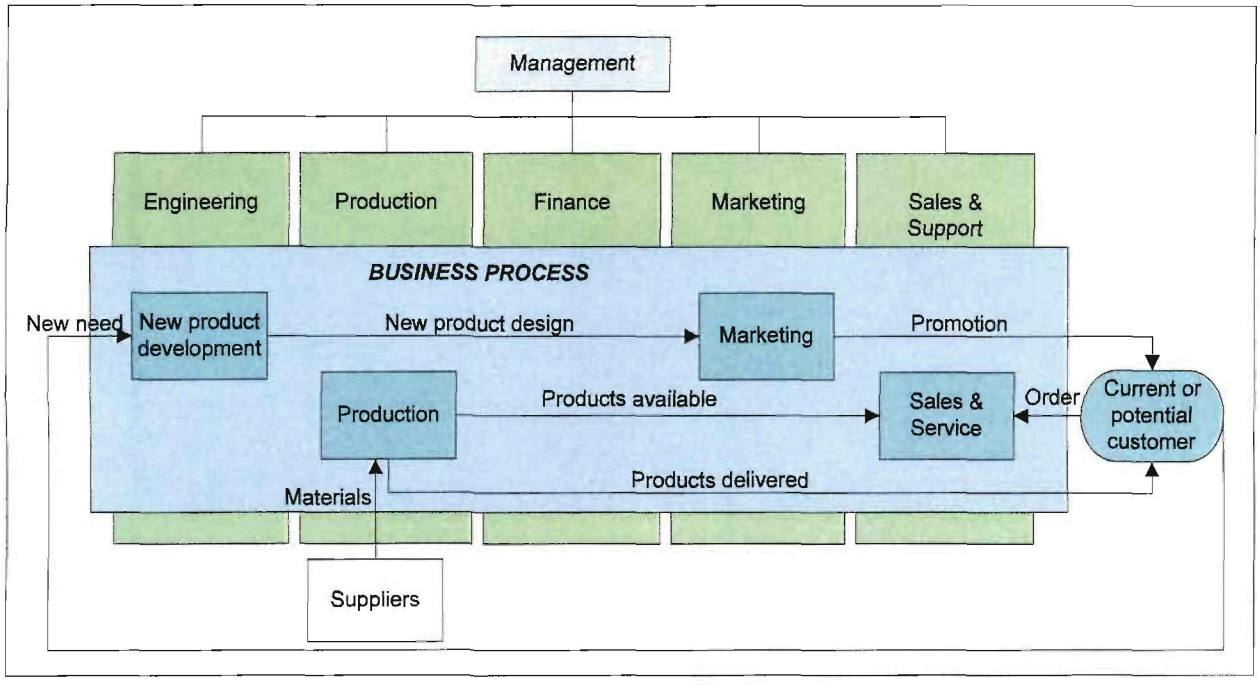
Processes, as structured groups of related activities within or across functional boundaries, work together towards creating value for internal or external customers and enable management and workers to (Hammer, 2003:63):

i. Perform work that is outcome-orientated, that is, people also understand why work is done, not only what is done.
ii. Be customer-centred, whether customers are external or internal to the organisation. Customers and suppliers can be man, machine or an up- or downstream operational activity.
iii. Have a platform for repeatability, as processes provide repeatability (Hammer, 2003:55).
iv. Have a holistic view of work as processes transcend individual and functional boundaries.

An important characteristic of processes is mentioned in the fourth instance above, namely that processes transcend functional boundaries. This is also emphasised by

Harmon in reference to the work of Rummler (Harmon, 2007a:5), pointing to the fact that many problems occur during the hand-over from one functional department to the next. Historically, before systems and value chain thinking concepts became popular in the 1980's many processes were developed in functional silos, with no or little cross-functional coordination (Harmon, 2007a:7). To overcome this, processes must be well-designed, implemented together with the job redesign and training where necessary. This must be accompanied by proper process management. A typical process in a manufacturing environment is depicted in figure 2-3.

Figure 2-3: The cross-functional nature of a business process



Source: Adapted from Harmon (2007a:5).

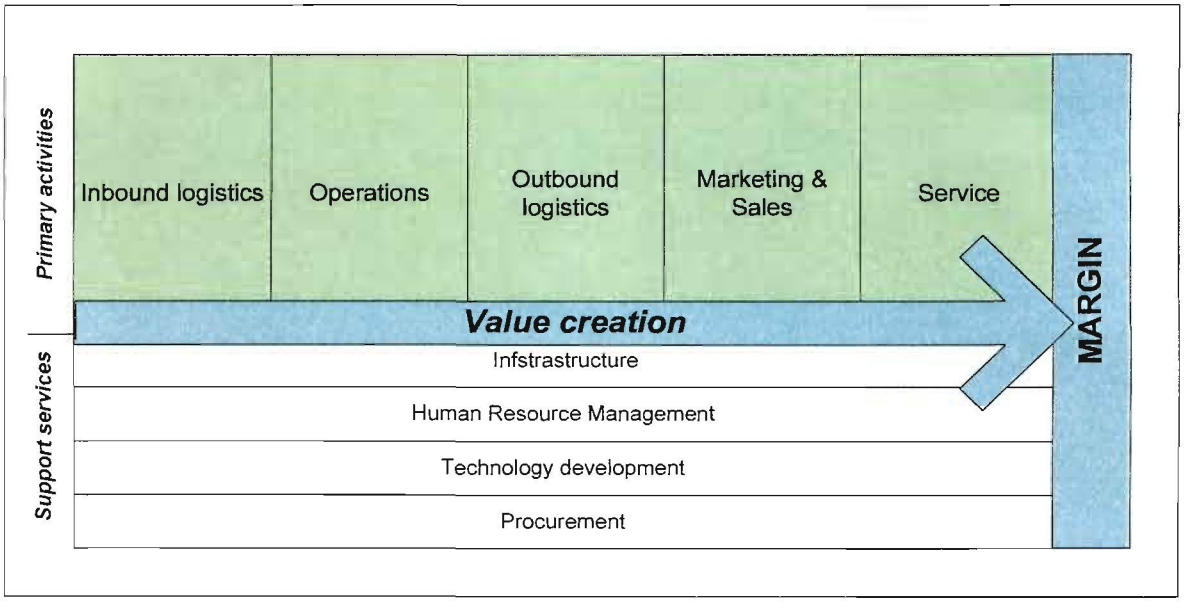
2.2.5. Strategy, the value chain and process

The well-known concept of value chains as defined by Porter (*in* Harmon, 2007a:3) is illustrated in figure 2-4 below. Porter's definition of 'value chains' is actually similar to the definition of large-scale cross-functional processes, as illustrated in figure 2-3 above (*in* Harmon, 2007a:41). A value chain consists of all activities from one to the other end of the organisation that adds value to the product and that the customer is willing to pay for. Therefore, every activity, process and sub-process should be

included in a specific value-chain or product line. Hammer terms value chains core processes (Harmon, 2007a:42).

Porter's theory of competitive advantage states that to sustain competitive advantage, an organisation must firstly choose a strategy and maintain its focus on that strategy. Secondly, the organisation must refine its business processes and improve operational efficiency to support the strategy in such a way that competitors find it difficult to duplicate (Harmon, 2007a:45). ***When an organisation's processes are well-designed and well-managed, an organisation institutionalises its success through its processes – it does not merely rely on individual heroes, their insight and talents to create the organisation's success.***

Figure 2-4: Porter's generic value chain

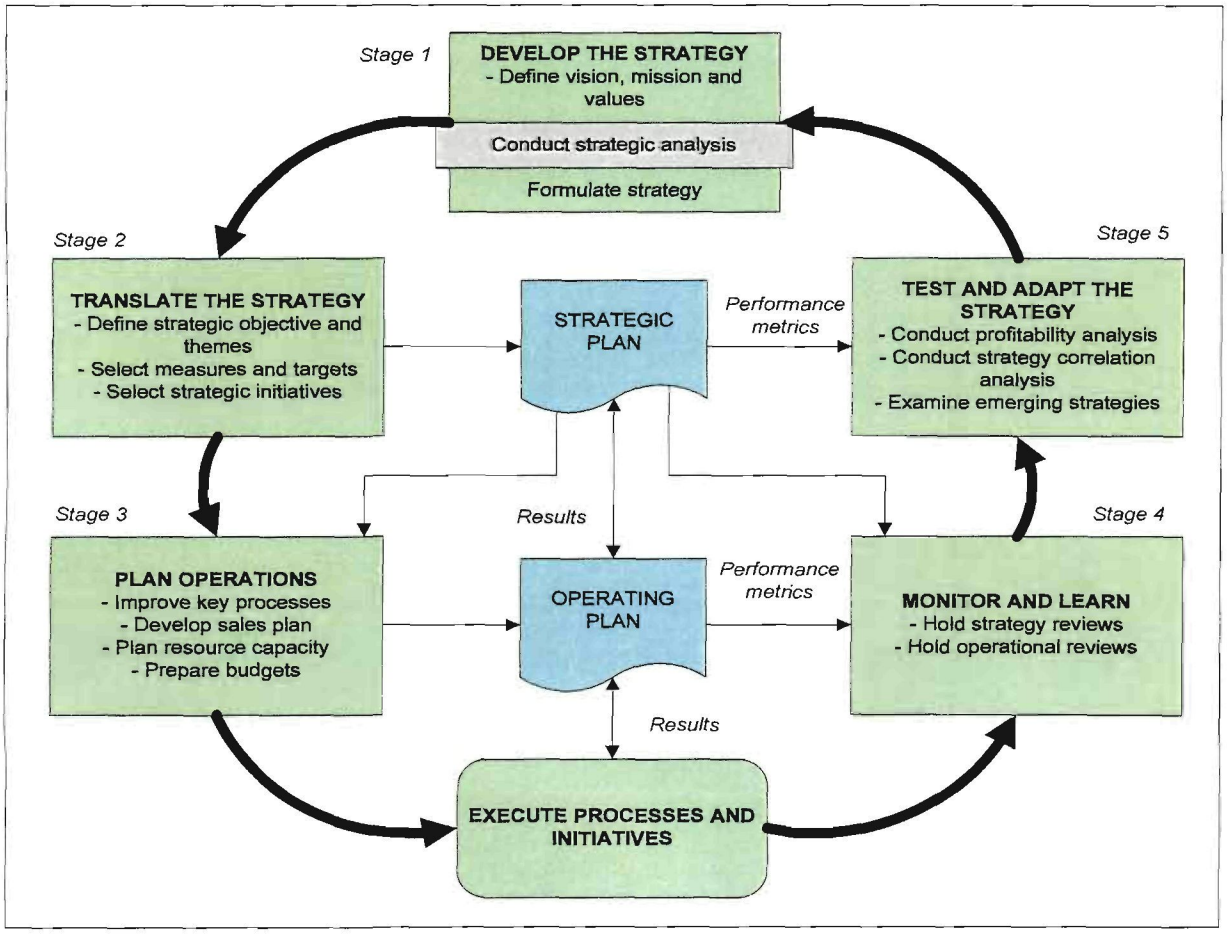


Source: Adapted from Harmon (2007a:3).

A more detailed perspective describes the interaction between strategy formulation, operational execution and strategy review as a continuous cycle of improvement (Kaplan & Norton, 2008:65). The cycle is illustrated by figure 2-5. Stage 1 is strategy formulation, which is then translated into objectives, goals and operational processes (stages 2 and 3). These processes and initiatives are monitored through strategy and operational reviews (stage 4), after which the strategy is adapted (stage 5) to

restart the cyclical process of strategy reformulation, translation and operational process improvement.

Figure 2-5: Management of strategy and operational processes



Source: Adapted from Kaplan and Norton (2008:65).

However, monitoring and improving strategic and operational effectiveness is by no means an easy task. According to studies done over the past 25 years, between 60% and 80% of companies do not achieve the success predicted by their strategies (Kaplan & Norton, 2008:64). In other words, organisations find the execution of their strategies very difficult (Jeston & Nelis, 2008b:223).

2.2.6. Classification of processes

Processes are classified according to different criteria. A commonly used criterion is based on the value chain concept (Melão & Pidd, 2000:108; Mackay, Bititci, Maguire,

& Ates, 2008:24,35) according to which the following three categories of processes can be identified:

- *'Operational' or core processes:* These are the primary value-adding processes, have external customers and should create competitive advantage. In the HE industry sector, these processes are teaching/learning, research and implementation of expertise (Van der Merwe, 2005:180). Core support functions such as registering students and keeping track of their progress towards graduation and certification are also regarded as elements of the core processes (Venter, 2003:2).
- *Support processes:* These processes support the core processes, enabling competitive advantage by creating the environment for the core processes. Support processes have internal customers from the core processes. In the HE sector, these include marketing and sales, general student support, quality management and administrative functions such as human resources, finances and procurement.
- *Management processes:* These processes sustain competitive advantage by providing strategic direction to core processes, and also manage both core and support processes.

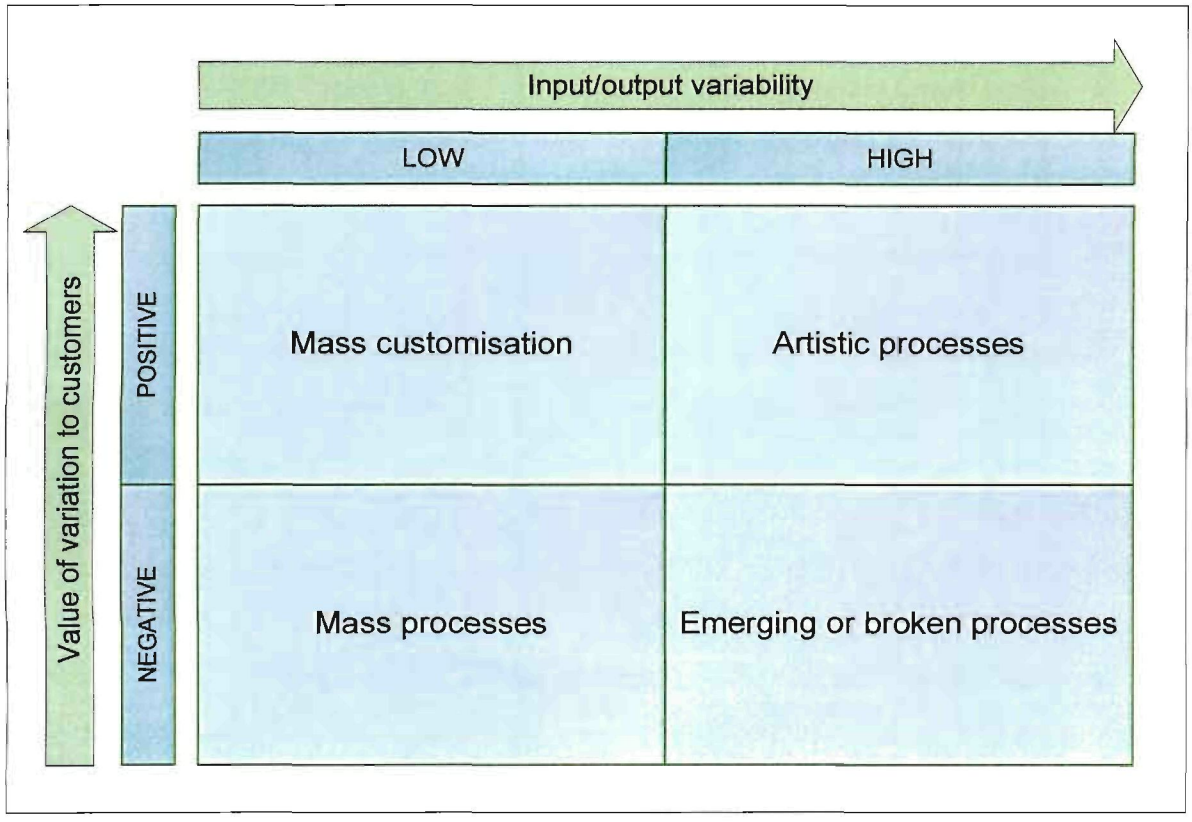
2.2.7. Process standardisation and levels of specification

An important aspect of process thinking is the level of standardisation which is necessary within a specific organisation and within various environments in the organisation. Some processes do not require standardisation, and standardisation may reduce performance of these processes (Hall & Johnson, 2009:60). These processes have inherent variability in inputs and/or outputs that is valued by customers and that require a level of 'art-work' during the transformation stage. The relationship between the variability of the process environment and the value of output variation to customers as variables provides a measure of processes' artistic or standardisation characteristic, as is schematically represented in figure 2-6 below.

Applying this concept to the higher education environment means that core processes such as lecturing and research could fall into the artistic category. Academics are highly specialised staff that in most cases prefer to develop the most

effective means of teaching for their respective subject and field of expertise themselves (Allen & Fifield, 1999:32; Stephenson, 2004:65). Administrative processes such as human resources, financial management, and student academic support processes could be standardised due to less variance in inputs and outputs.

Figure 2-6: The process standardisation matrix



Source: Adapted from Hall and Johnson (2009:62).

This section defined processes and its main characteristics. The next section investigates the concept of business process management.

2.3. BUSINESS PROCESS MANAGEMENT

2.3.1. Definition

Process management has been implemented on industrial shop floors for many years under methodologies such as Total Quality Management, Kaizen and Continuous Improvement (CI) (Jacobs, Chase & Aquilano, 2009:314). However, process management was more difficult to establish in service-oriented businesses as a business management strategy (Gulledge & Sommer, 2002:364). The term Business Process Management (BPM) was developed during the last decade (Jeston & Nelis, 2008a:11; Hammer, 2007:111; Grover *et al.*, 2000:16), but is defined differently by two disciplines.

Software engineers define BPM as either *software*, or an *approach supported by software tools*, driven by process design, to implement and manage business processes (Weske, Van der Aalst & Verbeek, 2004:1; Chaffey & Wood, 2005:387). Industrial engineers generally adopt a broader view, referring to BPM as "more than just software" (Jeston & Nelis, 2008a:11; Hammer, 2002:27). In a survey of about 270 companies by Harmon and Wolf (2008:12) on organisations' understanding of the term Business Process Management, 40% of respondents preferred the definition of BPM as a methodology to organise, manage and measure an organisation's processes, while another 29% of respondents preferred BPM to be defined as an approach to redesign and manage a specific process.

Davenport (*in* Harmon, 2007a:ix) distinguishes between the two definitions. He uses the acronym BPMS to relate to the 'software engineering' definition which focuses on systems or technology, and the acronym BPM for the 'industrial engineering' definition.

The industrial engineering definition is appropriate for the purpose of this study: ***"BPM is the achievement of an organisation's objectives through the improvement, management and control of essential business processes"*** (Jeston & Nelis, 2008a:11). According to this definition, BPM supports the implementation of organisational strategy, forms an integral part of management and

concerns not only the modelling and/or redesign of processes, but also the implementation and execution of these processes. *Software tools may be used in the process or not.* Business Process Management can range on a continuum from radical re-engineering on the one end to process improvement (also referred to as continuous improvement or Kaizen) at the other end (Melão & Pidd, 2000:109).

2.3.2. The development from business process re-engineering to business process management

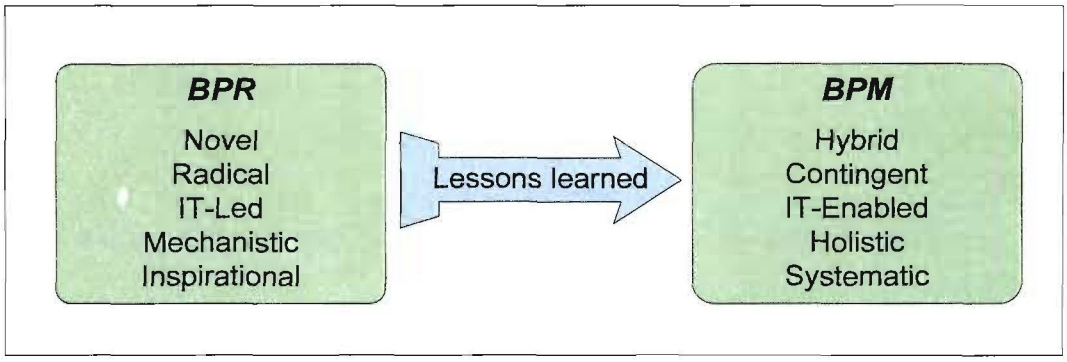
The negative economic climate and strong global competition of the 1990's, as well as lower than expected returns on information technology (IT) investments forced firms to explore radical ways of improving competitiveness (Elliman & Eatock, 2005:79; Grover *et al.*, 2000:15). Business process re-engineering (BPR), which entailed finding radical new ways of performing business operations, usually with the aid of information technology (Chaffey & Wood, 2005:387), emerged in the 1990's. Although BPR intended to improve cost, quality, speed and productivity, 're-engineering' soon became associated with downsizing, lay-offs and low staff morale (Davenport *in* Melão & Pidd, 2000:108).

Much has been published about the successes and failures of BPR during the last decade of the twentieth century. Some authors quote failure rates of between 50% and 75% (Hall *in* Ahmad, Francis & Zairi, 2007:451; Grant, 2002:85; Varghese, 2004:13). On the other hand, better quality products, more responsive services, increased company revenues and better share values are quoted by other authors (Hammer and Stanton, 1999:114).

A recent quantitative study done by Ozcelik (2009:6) on 93 large US Fortune-1000 firms with a time span between 1984 and 2004 investigated the effects of BPR projects on company performance in terms of labour productivity, return on assets and return on equity. The study concluded that overall performance of these firms significantly increased after re-engineering, with better improvements in firms where the re-engineering was functionally focused than those where it was cross-functional. Champy and Weger (2005:56) quote from a survey by Darrell, Rigby, Barbara and Bilodeau that 61 percent of companies now utilize BPR.

As it learnt from its failures, BPR itself has been re-engineered. BPR was regarded as a novel, radical approach, being led by IT, and performed in a mechanistic manner by inspired leaders, often ignoring people and change-management concerns. The new approach, referred to as Business Process Management, is a more hybrid approach, not necessarily IT-driven but rather IT-enabled, with more emphasis on people and change-management issues (Melão & Pidd, 2000:109). Valuable lessons learnt from BPR successes and failures were incorporated in the BPM approach. (The lessons learnt and critical factors for successful BPM implementation are discussed in section 2.5.1.) The development from BPR to BPM is depicted in figure 2-7.

Figure 2-7: Development from BPR to BPM



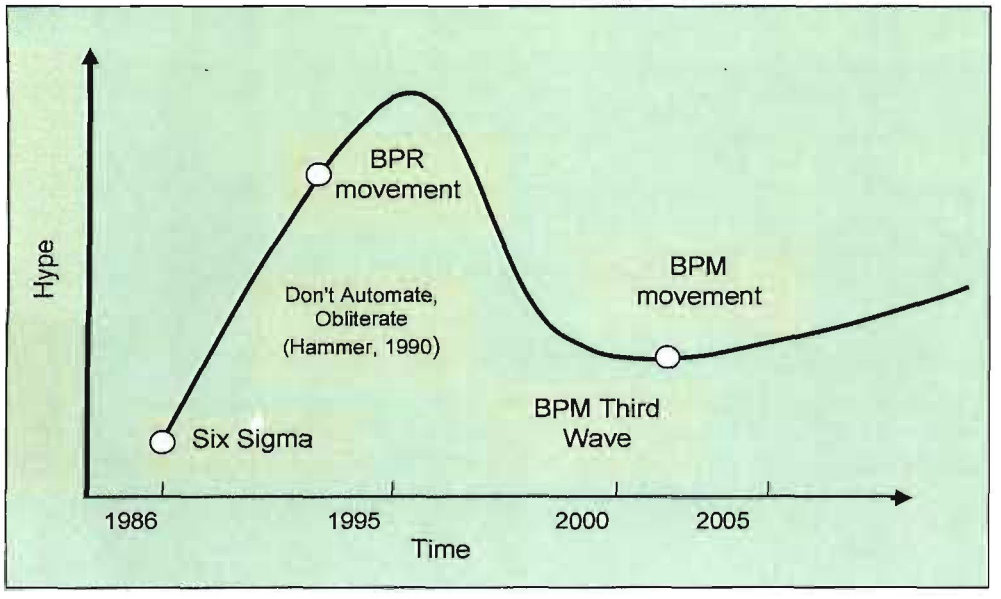
Source: Adapted from Melão and Pidd (2000:109).

The development of process thinking over the last two decades is illustrated by the BPM hype cycle in figure 2-8. Six Sigma and Total Quality Management were introduced in the late 1980's, soon to be followed by BPR, which reached its peak during the middle 1990's. The failures of re-engineering dampened the BPR enthusiasm.

After the IT world recovered from the Y2K-non-event, process thinking regained its momentum. The concept of Business Process Management System (BPMS), which entailed the coordination of employees' daily activities with software applications, was proposed in 2003 (Smith & Fingar *in* Harmon, 2007a:19). This speared new enthusiasm with vendors creating BPMS products.

However, it was not merely a software development. Companies started investing to develop business process architectures, align processes and define metrics for process success (Harmon, 2007a:19). New methodologies for process redesign and improvement as well as process maturity models came into being. The BPM movement had started.

Figure 2-8: The BPM hype cycle indicating process thinking development over the last two decades



Source: Adapted from Jeston and Nelis (2008a:5).

2.3.3. Process performance and process management

Confusion often arises between process design, process performance and the role of process management. A performance framework described by Rummler and Brache (*in* Harmon, 2007a:6) distinguishes between three levels namely organisational, process and activity levels. The framework assigns different performance levels (in term of goals and measures) to the organisational, process and activity levels. It also distinguishes between design and implementation at each level, as well as management of each level. The framework is represented schematically in table 2-1.

Table 2-1: An organisational performance framework by Rummler and Brache

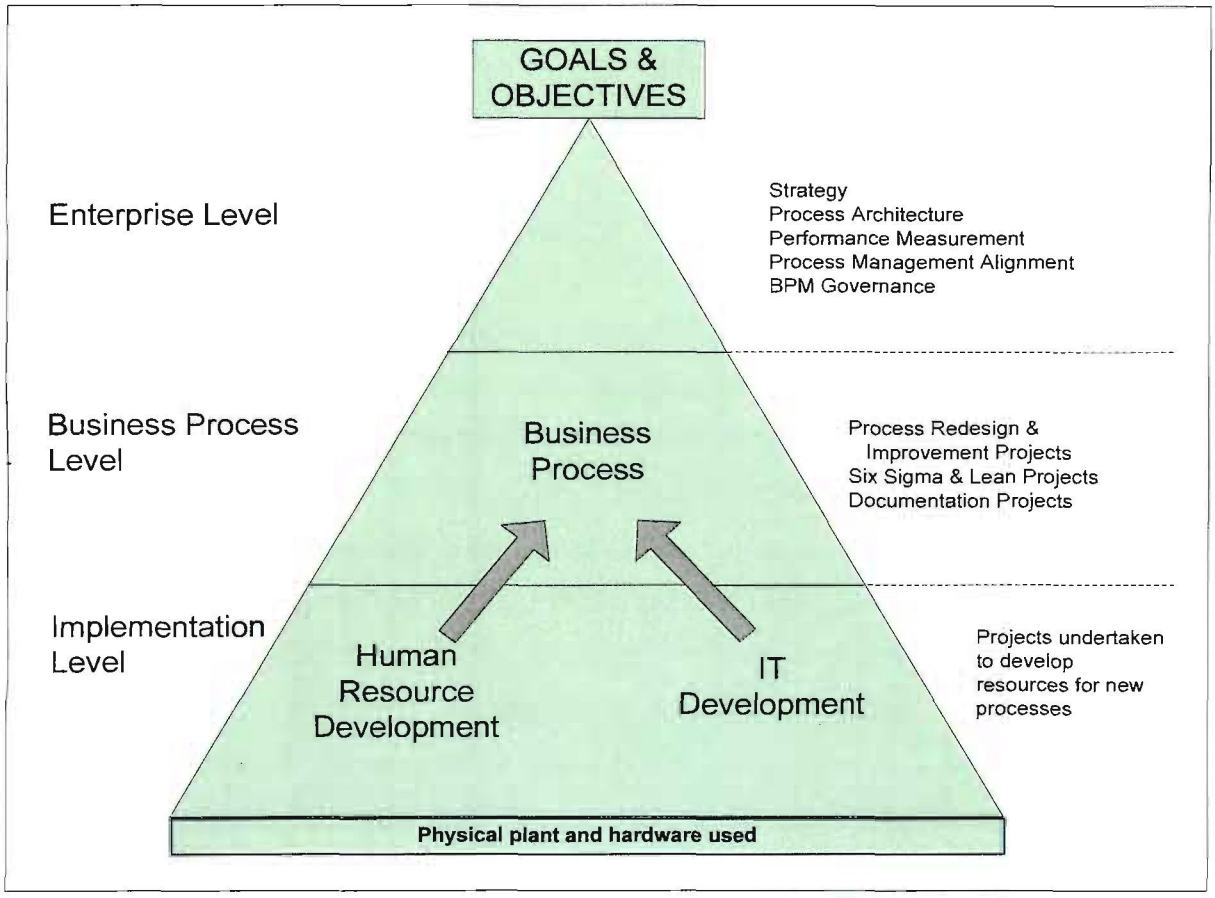
	Goals and measures	Design and implementation	Management
Organisational level	Organisational goals and measures of organisational success.	Organisational design and implementation.	Organisational management.
Process level	Process goals and measures of process success.	Process design and implementation.	Process management.
Activity level	Activity goals and measures of activity success.	Activity design and implementation.	Activity management.

Source: Adapted from Harmon (2007a:6).

Another model, addressing levels of process concern, is the BPTrends Process Pyramid (Harmon, 2007a:xxvii). The Process Pyramid is represented schematically in figure 2-9. The vertical levels correspond with that of Rummler and Brache, except that the lowest activity level is called the 'operational' level. The motivation for the Process Pyramid is that process efforts at different levels require different methodologies, participants and support. The process related issues addressed at each level are:

- *Enterprise level:* At enterprise level, an organisation is concerned about strategy, process architecture, process management alignment and BPM governance.
- *Business process level:* At business process level, process-related projects are undertaken, such as process redesign and improvement, Six Sigma and Lean.
- *Implementation level:* Two major developmental activities are involved at implementation level, namely: (i) the development of human resources with the necessary process skills and (ii) the development information technology to facilitate new or improved process implementation.

Figure 2-9: Levels of process concern within an organisation



Source: Adapted from Harmon (2007a:xxxvii).

Some leading organisations have, by adopting an integrated process management approach, achieved the enterprise level. These enterprises are referred to as process-enterprises and are at a higher level of process maturity (see section 2.6). However, process-initiatives in most organisations are often focused on the business process level and are limited to the redesign or improvement of one major business process or major functional unit. In such organisations, process maturity is at lower levels.

2.3.4. Basic elements of process management

Processes are not goals in themselves, but serve as a means to achieve organisational objectives (Jeston & Nelis, 2008a:20). Effective processes will not happen by themselves but need to be controlled, reviewed and renewed, that is, they should be managed in order to achieve organisational goals (process management).

On the business process level, the basic steps in process management being an integral part of management and quality improvement are the following (Jeston & Nelis, 2008a:21; Gulledge & Sommer, 2002:364):

- Document the process to understand work flows and specify metrics to determine service, product or process quality of performance.
- Assign process ownership to establish managerial accountability that will ensure that the process delivers its results.
- Manage the process to improve/optimise (some) aspects of process performance and enhance product quality. This includes:
    - Communicate objectives, measures and targets to the workers that execute the processes.
    - Involve workers to exceed objectives and identify process disturbances such as bottlenecks.
- Monitor progress and adjust targets and measures where necessary.
- Improve the process in order to improve product or service quality or process performance measures.

In summary, business process management can be described as a structured manner in which business processes are designed, implemented and managed to achieve business objectives and improve operational performance.

2.4. BUSINESS PROCESS MANAGEMENT FRAMEWORKS

The purpose of a framework for Business Process Management is to assist an organisation to understand and assess the extent of, plan for and execute process-based transformations such as BPR and BPM (Hammer, 2007:112). A variety of frameworks focusing on different aspects of process thinking are available in literature (e.g. Dalmaris *et al.*, 2007:280; Mansar & Reijers, 2005:459; Abdous & He, 2008:3; SEI, 2006:5). An overview of frameworks that provide relevant information for the establishment of a BPM framework within the study area is discussed in this section.

2.4.1. The framework elements according to Mansar & Reijers

A comprehensive study by Mansar & Reijers (2005:459) of existing frameworks for BPR provides some insight on elements that can be relevant when planning BPM implementation. The following framework elements were identified:

- Customers.
- Products and/or services.
- Business processes, from both an operational and a behavioural point of view.
- Information that is used or created by business processes.
- The participants in business processes, consisting of (i) organisation structural elements such as departments, roles, users and groups and (ii) organisation population, that is, staff who are tasked with execution as well the relationships between them.
- Technology used by business process.
- The external environment (other than customers).

The study concluded that the 'customer' and 'product' elements were crucial. However, approaches that also included the information technology and organisational aspects were more successful.

2.4.2. The framework for Higher Education according to Abdous & He

Abdous and He (2008:3) designed a framework based on their experience in the higher education environment. This framework consists of five non-sequential

phases which are supported by three essential elements. The phases are Initiation, Analysis, Re-engineering, Implementation and Evaluation, while the supportive elements are: a thorough understanding of the organisational culture, politics and dynamics; vision, commitment and sustained support from top management; and the availability and appropriate application of technology.

2.4.3. The BPTrends Process Change Methodology

The BPTrends Process Change Methodology comprises of two methodologies, namely:

i. The BPTrends Business Process Architecture Methodology, in short the *Enterprise Methodology*
ii. The BPTrends Business Process Redesign Methodology, in short the *Process Methodology.*

The relationship between these two methodologies, as well as the levels of concern addressed by each methodology, are illustrated by figure 2-10.

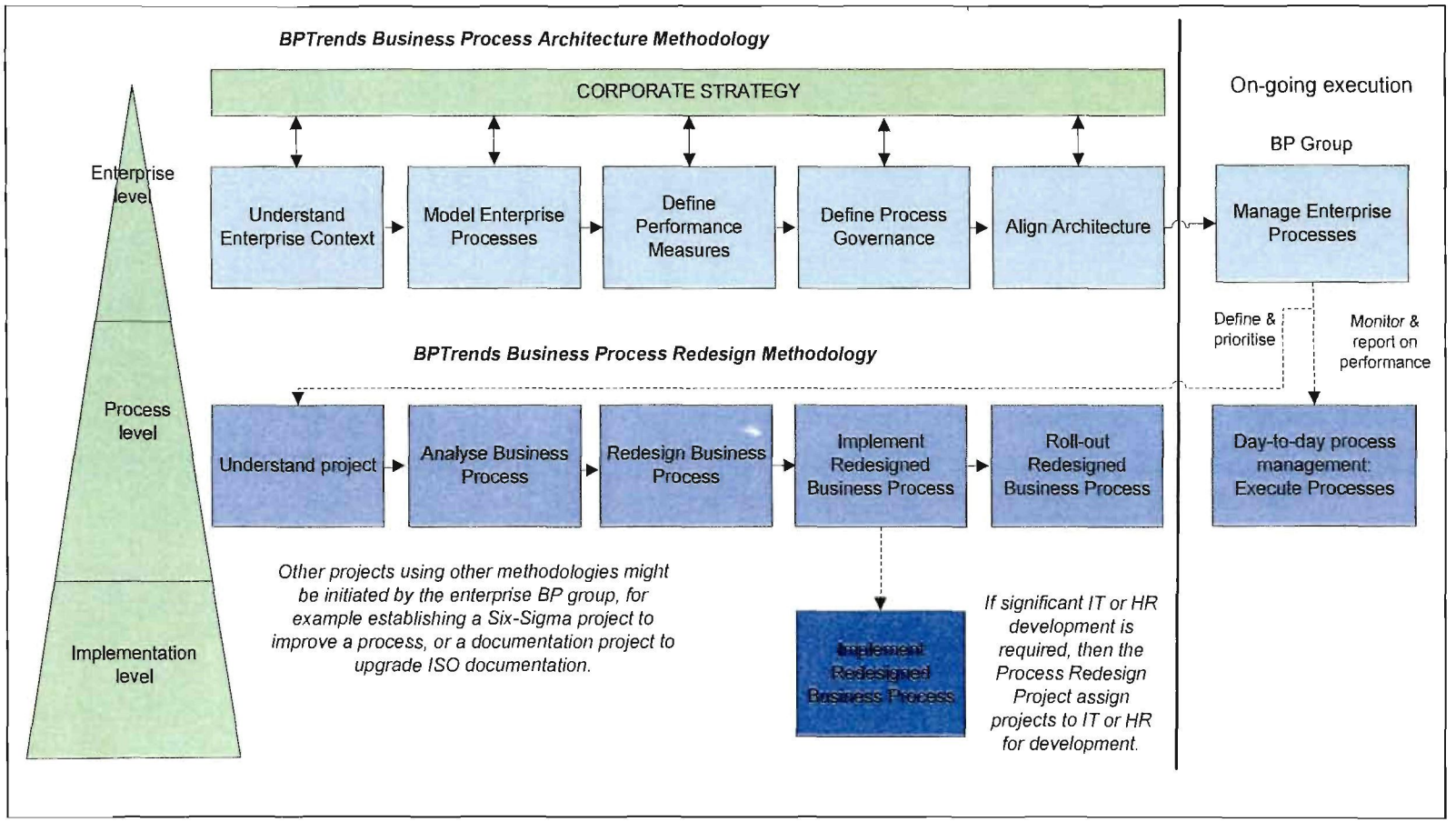
2.4.3.1. Enterprise Methodology

The Enterprise Methodology comprises all enterprise process work, which are in constant interaction with the corporate strategy to ensure alignment with corporate goals. The most important elements of the Enterprise Methodology are: understanding the enterprise, defining the business process architecture, defining business process governance and managing enterprise processes.

2.4.3.2. Process Redesign Methodology

The Process Redesign Methodology is aimed at a major process redesign effort, in which an organisation undertakes to redesign a major business process to improve its performance. This type of redesign effort has a project nature, and also involves change management, communication and facilitation. The most important elements as well as their interaction are illustrated in figure 2-10 below.

Figure 2-10: The BPTrends Process Change Methodology



Source: Adapted from Harmon (2007a:60).

2.4.4. The Jeston and Nelis project-oriented framework

A comprehensive framework using a project-oriented approach for BPM implementation is proposed by Jeston and Nelis (2008a:56). Three essential components must support a business process management project for successful implementation:

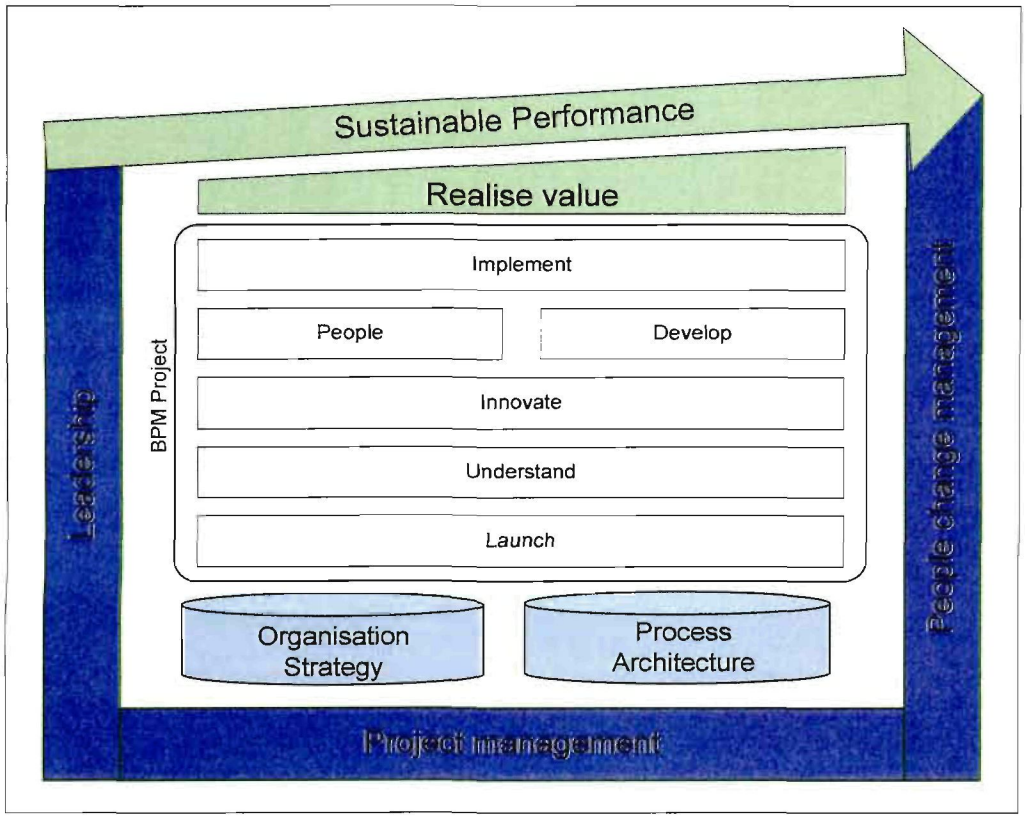
- Leadership support, which is key to successful implementation of a business process change initiative.
- People change management, as the success or failure of the design and implementation of processes are dependent on people.
- Project management, providing experience and structure to the project.

The first step in a BPM project is to understand the organisational strategy. If business process architecture exists, the process change project must take into consideration this architecture, linking current and new business processes to both the organisational strategy and the architecture. Technology, which includes all tools and systems that support processes, must be utilised to facilitate process design and implementation. (Note that technology is not limited to automated BPM software.)

A BPM project typically follows the phases of launching, understanding the situation and problem, innovation of a new design, training and development of people, development of the technology, which may or may not include software, implementation, and the realisation of value and the ultimate sustenance of performance. The framework is represented in figure 2-11 and is described in detail in Jeston and Nelis (2008a:56).

The frameworks discussed in this section can be used to plan and execute process-based transformations. However, process-based transformations are complex change interventions and historically have high failure rates (Grant, 2002:85). It is therefore necessary to examine history for lessons to be learnt and to determine critical success factors for successful BPM implementation. Critical success factors and other considerations for process-based change management are investigated in the next section.

Figure 2-11: The Jeston and Nelis Business Process Management Framework



Source: Adapted from Jeston and Nelis (2008a).

2.5. CONSIDERATIONS FOR BUSINESS PROCESS MANAGEMENT IMPLEMENTATION

2.5.1. Critical success factors for business process management

As BPM evolved from BPR and often employs at least some re-engineering techniques, studying the successes and failures of BPR is useful when considering approaches for BPM implementation. Thomas Davenport, one of the founders of the BPR movement (Davenport *et al.*, 2003b:156), stresses that re-engineering projects are difficult and time consuming. Reasons for failure of BPR are (Davenport *et al.*, 2003b:169; Hammer, 2004:88; Grant, 2002:85):

- Too much attention being paid to the design of processes and too little to work practice, where work practice refers to an understanding of the way in which workers execute their tasks and why they perform it as they do. Process design needs to take note of this for successful implementation of new processes.
- The over-involvement of outsiders in the process redesign and implementation project: By having outside consultants do the bulk of the work, employees get estranged from the project and feel that change is imposed on them, limiting the potential success rate.
- Taking on too much change at once: The idea of BPR to radically redesign processes across a broad spectrum of the organisation, often involving the development of major IT systems within a short time frame is in most organisations downright impossible.
- Creation of unrealistic expectations about performance and business improvement.
- Not taking into consideration the human dimension and not involving the correct people.
- Underestimation of the complexity, duration and cost of transformation.
- Business does not value operations, with operations and processes not being visible enough but being regarded as a "branch of engineering".
- Lack of process ownership.

Various studies have been done on critical success factors (CSFs) of BPR and BPM. Two studies (Al-Mashari & Zairi, 1999:452; Abdolvand, Albadvi & Ferdowsi, 2008:499) formally classify CSFs of BPR according to five dimensions. An investigation by Ahmad *et al.* (2007:453) done at three HEIs is of specific relevance for this study. This investigation identified seven CSFs for BPR in *higher education*, which corresponds to that of the BPR CSFs, with the additional factor of adequate financial resources. A list of CSFs for *BPM implementation* is found in the work of Jeston and Nelis (2008a:35), which correspond to a large extent with the BPR and HE CSFs mentioned. The CSFs according to these studies are listed in table 2-2.

Table 2-2: Critical success factors for BPR/BPM

CSF in BPR in HE	CSF in BPR in general	CSF in BPM
Change management.	Change management.	Change management.
Project management.	Project planning and management.	BPM experienced project manager; Structured project approach to implementation.
Quality management system and satisfactory rewards. Teamwork and quality culture.	Management competency and support.	Leadership. People and empowerment. Linkage to organisation strategy.
Less bureaucratic and participative structure.	Organisational structure.	Process architecture.
Information Technology.	IT infrastructure.	
Adequate financial resources.		

Source: Adapted from: Ahmad et al. (2007:453); Al-Mashari and Zairi, 1999:452, Abdolvand et al. (2008:499); Jeston and Nelis (2008a:35).

2.5.2. Considerations for process-based change at Higher Education Institutions

Organisational history, culture and inclination towards change play an important role in the success of any major organisational change program (Hammer, 2007:112). Traditional public higher education institutions are described by some authors as 'political organisations', with 'high managerial ambiguity, unclear goals and complex decision making processes' (Caruso, 2005:2).

A study of re-engineering at three HEIs in the United Kingdom revealed that the following typical characteristics of HEIs had a strong influence on re-engineering and change outcomes (Allen & Fifield, 1999:8):

- Academic freedom is valued strongly and academia tends to strongly resist any change program that seemingly threatens this freedom.
- HEIs have a culture of individualism where many staff members consider it their prerogative to make decisions on organisational mission and goals. This is in contrast with most business environments, where the chief executive officer and his immediate staff assume this responsibility.
- Departments tend to develop individually, not only with respect to faculty matters but also with regard to administration, and resist integrative processes.
- Management is administrative and reactive rather than supportive and pro-active. This is enhanced by the fact that traditionally, academic management is appointed through a democratic process with little attention to management aptitude and/or management training and development (Venter, 2006:18).

2.5.3. Approaches to implementing business process management in an organisation

Organisational history, culture and inclination towards change and the complexity and difficulty of successful process-based organisational change must be taken into account when considering a process-based change initiative (Hammer, 2007:112). The redesign of work as business processes involves not only the redefinition of workflow, tasks and its sequences, but also reviewing job descriptions, reward

systems and decision making authority. Furthermore, training on new jobs and processes is essential. It is clear that successfully establishing business process management within an organisation requires careful planning, management and execution.

Implementation of process redesign should be structured in a series of smaller, manageable steps, each with concrete payoff (Hammer, 2003:241). Process management should not necessarily begin with automation. This approach implies that priority processes are identified; involved staff is educated about processes; the priority processes are designed and relevant measurements are introduced. Only after process thinking has become 'natural', a new organisational structure supporting process orientation is introduced.

A one-approach-fits-all to the implementation of BPM in an organisation is not advisable (Jeston & Nelis, 2008a:63). Two aspects are important to consider when contemplating an approach for process-based change: the trigger for process-based change and the organisational process maturity:

i. The first aspect to consider is the trigger for process-based change. BPM implementation can be driven by:
   a. Strategy: A top-down approach is followed to implement organisational strategy through assigning organisational objectives to specific managers that take responsibility for implementation;
   b. Business-case: A business issue within one division or department will initiate a project on a smaller scale;
   c. Process-performance: A project is initiated when process-performance issues are investigated on a lower level.
ii. The second aspect to consider is organisational process maturity (Jeston & Nelis, 2008a:67; Harmon, 2007a:xxxvi) which is measured by the level of process management within the organisation, and the commitment of business managers with respect to process knowledge and management. Depending on this maturity, process change initiatives are handled in one of three ways:
   a. Organisations with high levels of process-maturity regard process initiatives as 'business as usual'. When high process maturity prevails, an enterprise

process architecture exists, and several process-change initiatives may run concurrently at enterprise level.

b. Organisations with varying levels of process maturity between major divisions/departments may launch process-initiatives within a division/ department of which the business manager is well-knowledged about process management and committed to the implementation of BPM ('in the driver's seat');
c. Process-immature organisations, where little is known about BPM and not much attention is paid to process management, will launch an 'under the radar' project to improve a process, but not mention BPM formally.

The topics of maturity, both on enterprise level and process level, and business process maturity models which measure and describe maturity, are discussed in the next section.

2.6. BUSINESS PROCESS MANAGEMENT MATURITY MODELS

2.6.1. Introduction

A maturity model uses collection of elements to describe the essential elements of processes. It can be used for three purposes (Roseman, De Bruin & Power, *in* Jeston & Nelis, 2008a:314), namely: (i) to describe the current state of an organisation in terms of strengths and weaknesses; (ii) to prescribe a path for improvement; and (iii) to provide a basis for comparison against industry standards and competitors.

Context-specific maturity models describe the evolutionary path of an organisation's development in one or more disciplines from ad-hoc processes to well-managed, optimising processes (SEI, 2006:535). One of the earliest maturity models was the Quality Management Maturity Grid (QMMG) of Phil Crosby (OMG, 2008:17; Kaner & Karni, 2004:229). More than 150 discipline-specific maturity models have since been developed (Roseman *et al. in* Jeston & Nelis, 2008a:328; Kaner & Karni, 2004:230).

Context-free maturity models that have been developed include business process, information quality and knowledge management models. Business process maturity models, which are relevant here, aim at improving business processes and describe the developmental path of an organisation's business processes (Curtis & Alden, 2007:1). Process-immature organisations do not have a process discipline, with ad-hoc, ill-defined processes (Harmon, 2007a:129), while process-mature organisations have well-defined processes which are measured and managed. At the mature stage high levels of quality and effectiveness are present.

The software process capability maturity model (CMM), created by Watts Humphrey at the Carnegie Software Engineering Institute (SEI) in the 1980's, is one of the best known and served as guide for the development of many other types of models (Harmon, 2007a:xxxii; OMG, 2008:18). It provides not only a description of the levels of maturity but also describes the transformational path of from one level to the other (Curtis & Alden, 2007:1). The CMM will therefore be used as a starting point to discuss a number of maturity model principles.

Of the many business process maturity models that are available in literature and on the market place two models have been selected for discussion in this study:

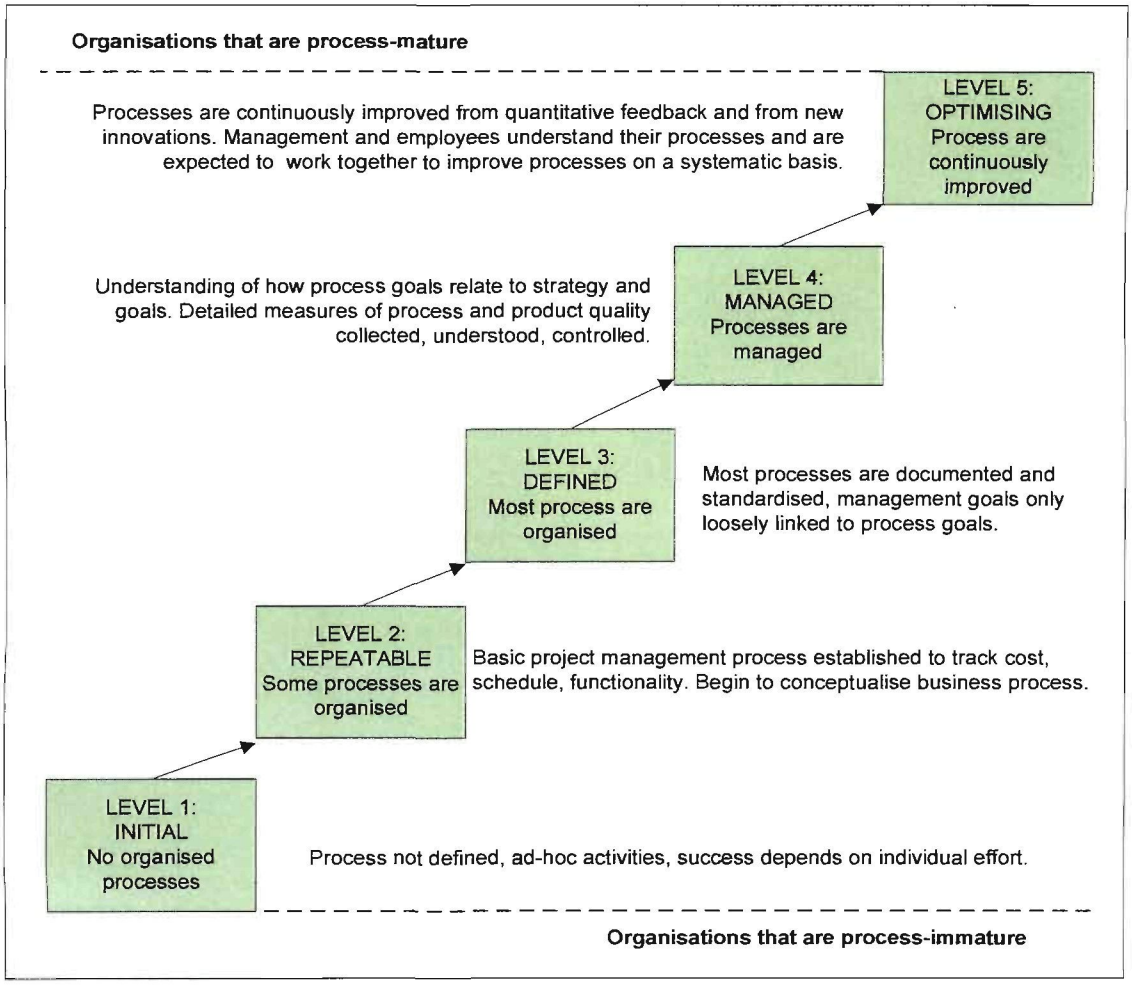
i. The Object Management Group's Business Process Maturity Model (BPMM) (OMG, 2008), for two reasons: (i) it has an approach similar to the CMM approach, by describing both the evolutionary path of best process practices as well as support practices for transformation from level to level; and (ii) it is a widely accepted industry standard and is supported by the Object Management Group (OMG) (Curtis & Alden, 2007:2).
ii. The Hammer Process and Enterprise Framework (Hammer, 2007:111) for its relative simplicity to understand and to use (Power, 2007:2).

2.6.2. Software Engineering Institute Capability Maturity Model Integration

The first SEI maturity model was the Capability Maturity Model (CMM) (SEI, 2006: 5). It is a five-level model which describes a software organisation's evolution from an immature level, where there is no (software) process discipline, to level 5 where there are measured and managed, high-performance (software) processes, that is, the organisation is mature. The five levels of maturity are represented in figure 2-12.

The important aspect is that the model is not a process performance or process flow standard, but a process *management* standard. This means that the model is not specific about what processes should be at certain levels, but what the *level of process management* should be on the different levels. Organisations at level 1 have no organised processes, but a culture of heroes; those at level 2 have basic, repeatable processes; level 3 organisations have basic characteristics of good management and good software engineering such as quality assurance in their software processes; level 4 organisations engage detailed software and quality management processes and level 5 organisations have all of the above characteristics but also perform continuous improvement, encompassing feedback from controlled experiments (Harmon, 2007:xxxiii; Davenport, 2005:105).

Figure 2-12: Process maturity levels



Source: Adapted from Harmon (2007a:xxxiv).

Various models for different related software engineering disciplines consequently developed from CMM. These models were incorporated to form an integrated model, namely the Capability Maturity Model Integration (CMMI) (SEI, 2006:5). CMMI describes an organisation's maturity level in terms two of representations:

- The *continuous* representation, which is used when an organisation wants to improve processes across several areas simultaneously. Processes are improved at different rates.
- The *staged* representation, which is used when an organisation wants to improve processes in a one-stage-at-a-time manner. Process are organised an improved according to maturity levels.

2.6.3. Object Model Group's Business Process Maturity Model

The Object Management Group's (OMG) Business Process Maturity Model (BPMM) follows the principles of Humphrey's original work and was developed by the co-authors of the CMI and CMMI (OMG, 2008:18). The BPMM is a conceptual process relevant to various domains such as banking, marketing, finance, operations etc. Through describing effective processes, BPMM provides the foundation for quantitative control of processes, and therefore the basis for continuous improvement. BPMM is based on four foundation principles, namely:

i. The capability of a process to contribute to organisational objectives can be determined by evaluating its attributes.
ii. The organisation must be mature enough for capable processes to be sustainable.
iii. Successful process improvement is achieved through an organisational change program of staged improvement from one predictable capability level to the next.
iv. Improvements on higher levels of maturity are built on the requirements and attainment of lower levels of maturity.

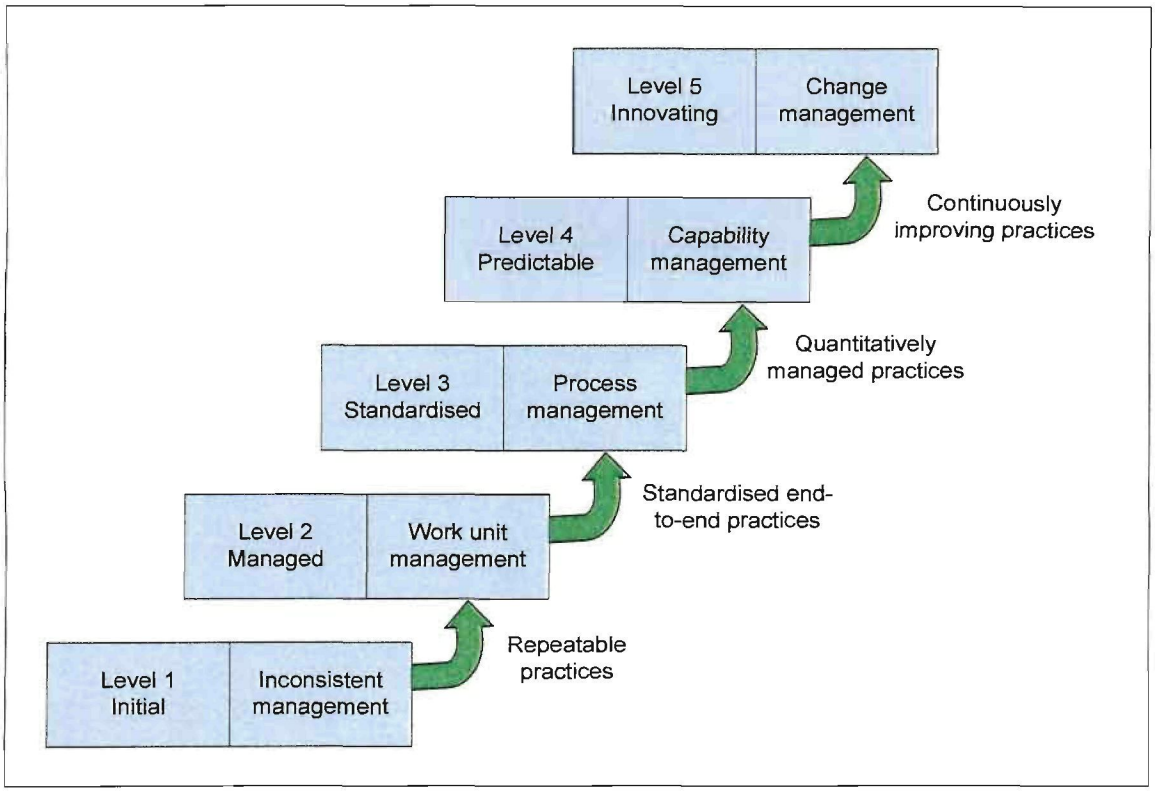
BPMM comprises five layers, similar to CMM. The five layers represent the levels of process maturity and are depicted schematically in figure 2-13 below. These levels are:

i. *Level 1: Initial:* Business processes are performed in an inconsistent and ad-hoc manner, and results are difficult to predict. Individual efforts exist with no explicit process or organisational support.
ii. *Level 2: Managed:* A stable environment is created by management within a local unit so that processes within this unit can be executed in a repeatable way to ensure attainment of primary work unit goals. Different work units, however, may perform similar tasks and procedures differently.
iii. *Level 3: Standardized:* The organisation establishes common processes across work units and standardises processes according to best practice. Guidelines are established to support different business needs. Using standardised business processes, the advantage of economy of scale is achieved and learning is achieved from common experience.

iv. *Level 4: Predictable:* Work processes are managed quantitatively, using statistic measures, to establish predictable results. Variation is understood and process outcomes can be predicted.

v. *Level 5: Innovating:* The gap between the organisation's current capability and its required capability to reach its goals is closed through proactive improvement of processes.

Figure 2-13: The BPMM Five Maturity Levels of Process Maturity



Source: Adapted from OMG (2008:66).

2.6.4. The Hammer Process and Enterprise Maturity Model

The aim of the Hammer Process and Enterprise Maturity Model (PEMM) (Hammer, 2007:113) is to assist an organisation to understand its level of process maturity on the one hand and understand the organisational capabilities to support process thinking on the other.

Process maturity levels are used to improve process performance, while organisation capability maturity levels give an indication of readiness for process-based change (Hammer, 2007:118). This distinction is useful as it relates to the levels of concern in the BPTrends Process Pyramid (see 2.3.3.) The PEMM framework is depicted in figure 2-14.

PEMM measures process effectiveness according to the following five characteristics, called process *enablers*:

i. Design, which is the level of specification of processes. Processes should be well-designed and documented so that performers know what activities to do when.
ii. Performers, which are the people (and their skills) who must execute the processes. They need to have appropriate skills and knowledge in order to implement the process design.
iii. Owners, which are the senior managers who are responsible for processes and their outcomes.
iv. Infrastructure, which is the process supporting systems.
v. Metrics, which measure process performance.

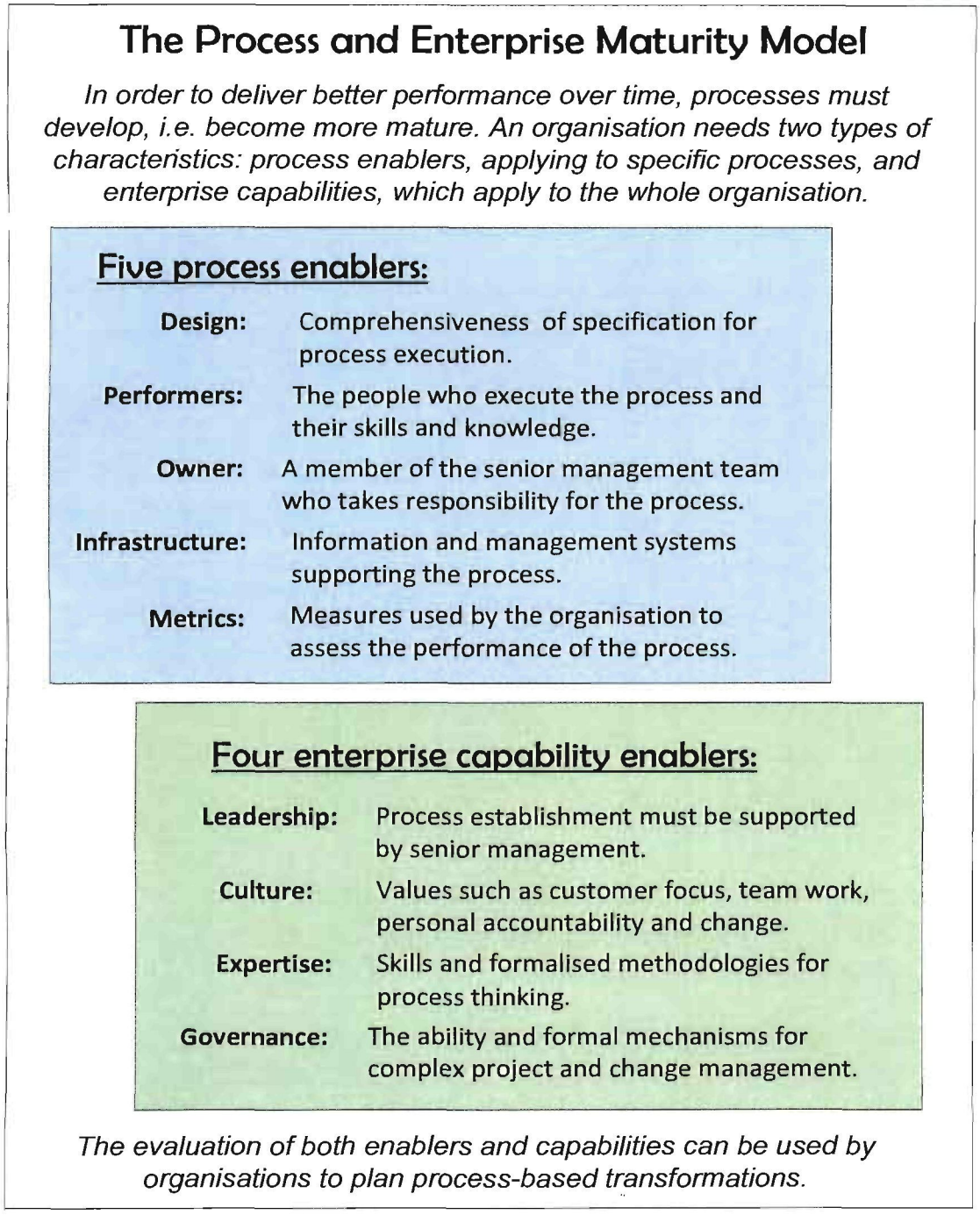
For processes to function optimally, the organisation must provide the necessary supporting environment. This supporting environment can be characterised in terms of four enterprise *capabilities*:

i. Leadership, which is the level of senior management that supports process creation.
ii. Culture, which includes values such as customer focus, teamwork, personal accountability and levels of resistance to change.
iii. Expertise, which is process redesign skills and methodology.
iv. Governance, which is the ability and mechanisms to manage complex projects and change initiatives.

Both the process enablers and organisation capabilities are rated in terms of four strength levels in the PEMM framework. Process enabler strengths are indicative of overall process maturity and are interdependent (Hammer, 2007:114). This implies that if one enabler is absent, the process will not be able to deliver sustainable long-

term results. For instance, if all five process enablers are at level 1 (low), then the process is also at level 1 (low). However, when one enabler is missing or on a level below the other enablers, the process will function at the lowest enabler level.

Figure 2-14: The Hammer Process and Enterprise Maturity Model (PEMM)



Source: Adapted from Hammer (2007:113).

Similarly, enterprise capabilities are also interdependent, implying that all capabilities must be present to deliver long-term results. The practical application of the PEMM framework within the study area is discussed in more detail in section 3.2.2.

2.6.5. The Reijers Process Orientation Questionnaire

A study that investigated the relation between business process orientation and the success of business process management systems (BPMS) implementation concluded that the lower the level of process orientation, the more likely it is that problems will be experienced with BPMS implementation (Reijers, 2006:401). During the study a questionnaire was constructed to determine the level of business process orientation. The study also found that, in the three businesses where the questionnaire was tested, the degree of problems encountered during BPMS implementation related to the relative degree of process orientation.

The Reijers questionnaire focuses on general process orientation. It addresses four categories, each with between one and four parameters. One question is formulated to address each parameter, totalling eight questions. Each question has 5 response options ranging from low maturity to high maturity on a Likert scale. An aggregated process orientation score is calculated by calculating a weighted total for all the question answers and expressing it as a percentage (see section 3.2.3). The structure of the questionnaire in terms of categories, parameters and question description is presented in table 2-3.

The Reijers questionnaire is not as comprehensive as the PEMM framework and does not provide for separate calculations of process maturity and enterprise capability to support ongoing process thinking and implementation. However, it has the advantage of being simple, easy to use and can be used to identify "a critical lack of process orientation" (Reijers, 2006:401). Although the Reijers study focused on BPMS implementation, it was reasoned that the questionnaire could be tested for BPM implementation. It was therefore decided to include it in this study as an alternative method to perform an exploratory investigation into process maturity and forms part of the empirical research discussed in chapter 3 (see section 3.2.3).

Table 2-3: Reijers process orientation questionnaire structure

Category	Parameter	No.	Question Description
Structure	Organisational structure	1.	Organisational structuring: Process or functional oriented.
Focus	Focus language	2.	Employees talk about work either in functional orientation or process orientation.
	Process documentation	3.	The extent to which processes are identified, described and maintained.
	Utilisation of process documentation	4.	The extent to which the process documentation is utilised.
	Information systems	5.	The extent to which information systems support the execution and control of tasks and processes.
Measure-ment	Type of performance measurement	6.	Performance measures used at lower levels of the organisation: Do these include process metrics?
Ownership	Process ownership	7.	To what extent is management based on processes and have process ownership been assigned?
Customers	Customer requirements	8.	To what degree are customer requirements understood and drive the organisation?

Source: Adapted from Reijers (2006:405).

2.6.6. Application of maturity models

The main critique against most business process maturity models is:

i. That they focus on one dimension of business process maturity;
ii. the lack of application of the models;
iii. the complexity of application; and
iv. the high cost of application (Roseman *et al. in* Jeston & Nelis, 2008a:328).

CMMI and BPMM define comprehensive, integrated frameworks at enterprise level to evaluate and improve process management maturity (Harmon, 2007a:130).

However, due to the exhaustiveness and complexity of these models, implementation requires high expertise, long time frames and high cost. Often, organisations on low maturity levels require a relatively simple methodology as starting point to establish process thinking first, and then move on the enterprise-wide understanding and implementation of BPM.

2.7. PROCESS BASED CHANGE AT NORTH-WEST UNIVERSITY

Having considered the basic concepts of business processes, process thinking, business process management and process management frameworks, the North-West University which is the area of empirical investigation is discussed next.

2.7.1. Change factors and the effect on higher education processes

Since the late 1980's and early 1990's, higher education institutions (HEIs) found themselves increasingly under pressure to transform their daily business to become more accountable, cost-effective and more efficient (Oblinger & Katz, 1999:xviii). The major factors causing change in HEIs during recent years are (Scott, 2003:64; Temponi, 2005:18; Stephenson, 2004: 65):

- Increased competition between HEIs.
- Decreasing funding from government sources.
- Changes in student demographics.
- The move towards a customer economy which creates increasing customer demands.
- Major advances in information communication technology (ICT), also with respect to education and training.
- Increased government oversight of HEIs, such as the establishment of agencies for quality assurance in many countries.
- Increased expectations from business and industry for graduates to have not only academic knowledge, but also competencies regarding teamwork and customer orientation.

Most of these factors are applicable to South African HEIs. Additionally, the political changes in South Africa had far-reaching changes on the education sector. The higher education landscape changed dramatically, as discussed in section 1.2. One of the main goals of the South African higher education transformation was to enable participation from the broader South African society, which implied major changes to the demographics of the HE sector. For some historically advantaged universities this meant that staff bodies had to adapt to new student demography, with these

students often having below-par primary and secondary school educational backgrounds as part of the historical legacy (Venter, 2006:17). The South African merger process was by far the most demanding pressure towards change during the last five years.

In the majority of the South African merger-affected HEIs, merging required not only the urgent appointment of new governing bodies such as council and management, but also the review and/or development of statutes, strategies and policies to transform separate physical and organisational institutions into one new entity. The extent of these changes were beyond the experience of most academic managers involved (Venter, 2006:18).

In most of these institutions, historical processes existed in the separate pre-merged institutions, delivering expected outputs, albeit to varying degrees of success. The mergers required most of these processes to be aligned across various newly-merged business and functional units. Processes can withstand a lesser degree of change and still deliver expected results. However, the impact of the merging process created such a large amount of change in the environment that these processes could no longer withstand the pressure and could not deliver required results (Venter, 2006:17).

What is usually necessary in a situation where the external environment change is of such great impact, is that the system (and by implication its processes) need to be revised. This is a managerial responsibility that is often overlooked in the struggle to adapt to new circumstances. The risk is that management tends to overlook the system/process aspect and reacts by focusing on the workers: new reward and motivational schemes, training programmes and other measures are introduced to encourage workers to achieve desired goals. In such a situation, these schemes prove wasteful as meaningful improvement can only be achieved through system intervention.

2.7.2. NWU Organisational Structure

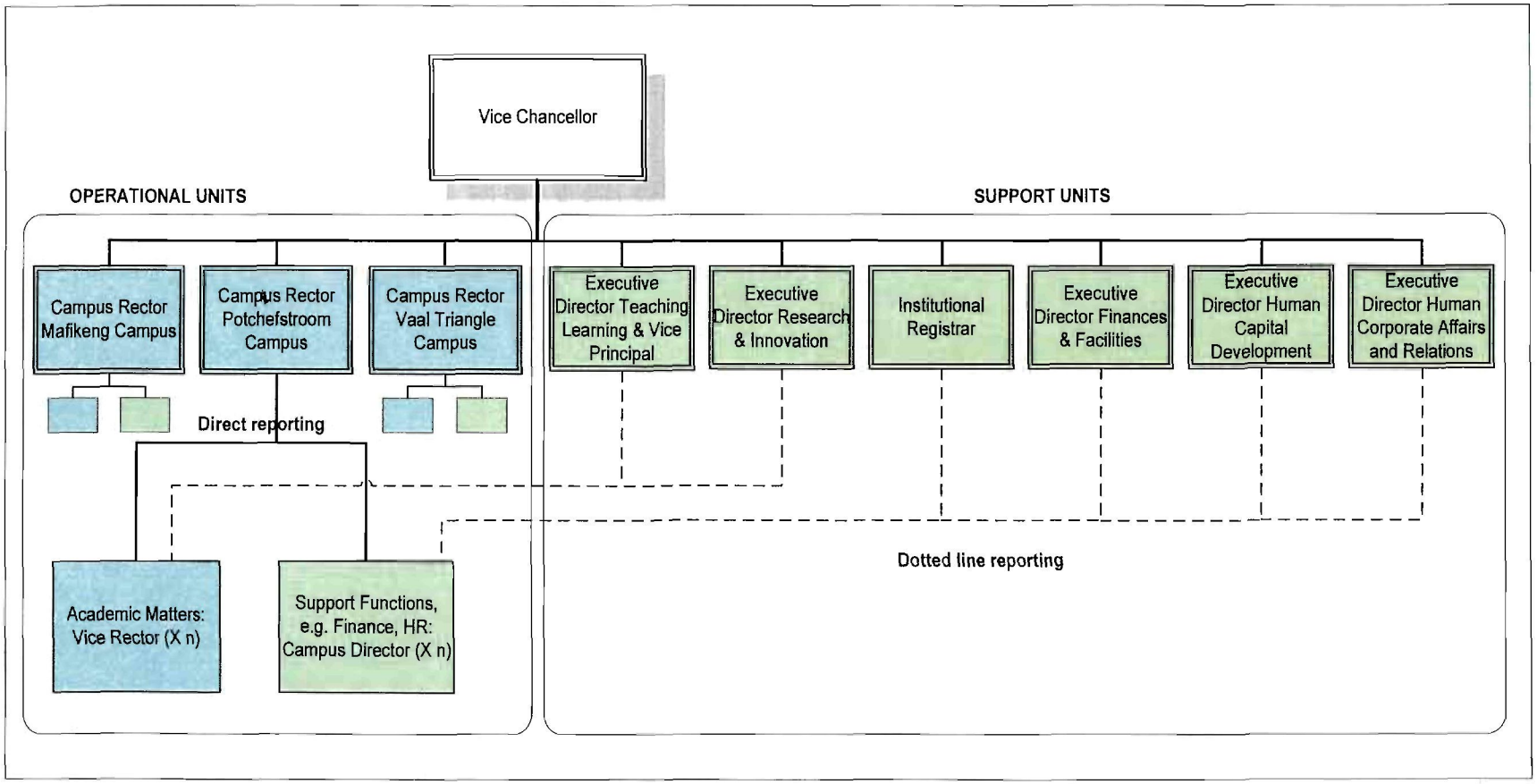
A description of the organisational and management structure of the study area, the North-West University, is provided first, before discussing strategy and process development at the merged NWU.

The North-West University (NWU) was formed on 1 January 2004 from the merger of the former Potchefstroom University for Christian Higher Education and the University of the North-West (Uniwest), as well incorporating the Sebokeng Campus of Vista University in Vanderbijlpark. The NWU currently consists of four business units: Institutional Office (IO) and three campuses: Mafikeng (MC), Potchefstroom (PC) and Vaal Triangle (VTC). The physical distance between the campuses range from 100 to 360 kilometres, adding to the complexity of finding a suitable management model for the NWU.

A divisional management model was adopted for the NWU, with the three campuses functioning as the operational entities handling the 'production' activities of teaching/learning, research and implementation of expertise (NWU, 2008:30; Venter, 2003:2). The IO is responsible for maintaining unity within the institution through designing and maintaining effective, integrative business processes such as strategic planning, institutional policy development, institutional quality management and budget planning. The chief executive officer of the university is the Vice-Chancellor (VC), who leads a team of nine executive directors, each heading either an operational division (the three campuses) or a support division (registrar's office, finances or human resources) (Venter, 2004:1). The high-level organigram of NWU is depicted in figure 2-15 on page 51.

Although operational decisions are taken at campus level, the NWU as unified institution has to deliver comparable products and services on all campuses (Venter, 2003:4). Processes are designed centrally on institutional level, and are coordinated through a dotted-line structure to campus-level managers who must deliver the products and services. For instance, the Executive Director: Finances and Facilities at IO level defines the budget policy and processes that must be implemented by campus-level finance directors. This dotted-line relationship is illustrated in figure 2-15.

Figure 2-15: Organigram of the NWU depicting operational and support relationships at top management level



Source: Adapted from NWU (2008:31).

2.7.3. Strategy and process alignment in the first merger years (2004 – 2006)

An organisation's strategy sets out its vision, mission and goals - it provides the direction and defines what the firm will be (Montgomery, 2008:56). The NWU defined its first strategy for the merged institution in May 2006, in a document called the Institutional Plan (IP) (NWU, 2008:12). Annual updates have followed since. The IP contains the NWU vision, mission and goals on a 3-year rolling basis and provides the strategic road map for managing and operating the university.

The mission consists of a number of mission elements which are translated into high-level goals. These goals are assigned to the nine executive directors who are responsible for attainment of intra-divisional goals as well as inter-divisional activity coordination (Venter, 2004:4). A staff performance management system, based on the Balanced Scorecard, is utilised to ensure efficient execution. One of the main challenges was (and still is) to ensure efficient and aligned implementation of strategic goals across all four business units of the university (NWU, 2008:14).

Before the NWU merger process, various operational processes existed within the separate institutions. These processes had to become aligned for the NWU to function as a unified institution. The formulation of the vision, mission and high-level goals provided an essential point of departure, but integration and deployment of processes to lower operational levels was a much more complex endeavour.

One of the initial steps at operational level was to standardise the administrative support systems across business units. The main administrative support systems include student administration, financial, human resources (HR) and procurement systems. The student administrative system (SAS), which was in development before the merger, was rolled out on the Potchefstroom and Vaal Triangle Campuses in 2005 and on the Mafikeng Campus in 2007. A new enterprise resource planning system (ERP) was implemented for human resources, finances and procurement in June 2006. The ERP system integrated the financial, HR and procurement functions across business units and also provided a technological platform for data integration.

Due to the scope and nature of the merger, process redesign and implementation for the merged university and associated systems proved much more comprehensive and time-consuming than originally anticipated. Although selected processes were revised during both the ERP and SAS design and implementations, not all relevant processes could be adequately reviewed and/or redesigned before technology implementation.

2.7.4. Process thinking development from 2007 onwards

Two events signal major advancement of process thinking since 2007, namely the manner in which preparations for the HEQC Audit were conducted, and the establishment of a business process office at institutional level in the office of the VC.

2.7.4.1. The HEQC Audit

A major impetus towards quality improvement and process awareness was provided by preparations for the HEQC institutional audit of quality assurance mechanisms in 2006 (NWU Self-Assessment Report, 2008:59). The NWU performed a self-assessment of quality management in the core business areas of teaching/learning, research and implementation of expertise, as well as core support functions. During the assessment, divisions were encouraged to develop quality manuals which describe the division's main processes, its customers and its quality management arrangements.

The self-assessment revealed, amongst others, situations where policies, processes and quality assurance mechanisms in both core business areas and core support areas were inadequate and in need of revision or redesign to meet the requirements of the new merged institution. In many instances, these deficiencies were indicative of a lack of process thinking – insufficient customer orientation, lack of team work and working in silos. A major process-related deficiency, which is relevant in view of the merged nature of the NWU, is that various processes have not been aligned across business units or do not cater for requirements of more than one business/functional unit.

From a process perspective, the audit provided the NWU with two advantages:

i. The Self-Assessment Report can be regarded as a high-level process manual which can be used as a point of departure for establishing a formal process architecture.

ii. The identification of gaps and the recommendation to Institutional Management that formal projects be launched to address these gaps as part of a formal improvement plan, will enhance a process awareness. *This process awareness must especially be enhanced with executive directors of institutional support units (see figure 2-15) who are responsible for process development and coordination across all business units.*

2.7.4.2. The establishment of an institutional business process office

The VC showed his insight and commitment to process thinking with the establishment of an office for business process development support. This office, referred as the business process office (BPO), functions from within the VC's office. This one-person office follows a *decentralised philosophy* whereby process thinking capacity is established *throughout the organisation.* Business process projects, although conducted under project management of the BPO, aim to establish process knowledge and process ownership with appropriate process owners and performers.

2.7.5. Selected process improvement initiatives

Selected process redesign and improvement projects have been undertaken by separate divisions within different business units of the NWU. The approaches followed in the various divisions were either business-case driven or performance driven (see section 2.5.3). A major change initiative that is currently conducted is the academic alignment process, albeit not in a formal process approach.

Examples of some of the major support process change initiatives are listed next. This is not intended to be a complete list of all process change initiatives, but serves as indication of the typical nature of process change initiatives that have been undertaken in the NWU during the past three years.

- ***Mafikeng Campus student administration***

Due to unacceptable delays during the January 2007 registration process, the BPO was consulted to assist the campus registrar's office to investigate the performance problems. This resulted in a redesign of the processes in the academic administration office. The redesigned registration process was successfully implemented during the January 2008 registration process. During the January 2009 registration, process performance metrics were introduced and reported on. This displayed process insight and process improvement effort from the process owner.

- ***Vaal Triangle Campus student administration***

Redesign of the student administration processes at the Vaal Triangle campus was undertaken during 2008. This is an example of a business-case driven process improvement, where the departmental manager decided to redesign and document all processes.

- ***Human Resources***

This is another example of a business-case driven process improvement. During the implementation of the ERP system in 2005-2006, various new policies pertaining to human resource issues were not yet implemented in all business units. Implementation of the ERP system was complicated by unexpected negotiations regarding employee benefit alignment, payroll issues such as pay date and other political issues between business units. Implementation of a new ERP system necessitates not only technological rethinking but requires major process redesign outside of the IT components (Volkoff, Sterling & Newson, 1999:54).These issues, together with tight implementation schedules, limited the extent to which process redesign could be carried out successfully before implementation of the IT system within HR.

After thorough investigation into the existing problems at the division, the HR department decided during 2008 to embark on a redesign of its work processes and staff structure in order to become more client-oriented and upgrade the level of customer service. Rollout of the new structure started in April 2009 at the

Institutional Office. However, difficulty with implementation of the new structure was experienced on Mafikeng campus.

2.7.6. Types of process improvement initiatives

From the above discussion, it can be derived that the NWU as organisation has had some exposure to process-thinking. With reference to the Harmon levels of concern (see section 2.3.3.), this exposure can be summarised as:

i. *Implementation level:* The implementation of an ERP system as well as the student administration system is representative of IT development on the implementation level. Although no factual evidence is available of human resource development at the implementation level, some informal change management projects have been undertaken during the implementation of these IT systems. A formal BPMS has been implemented, although it has only been used on for technical interfacing between different IT systems.

ii. *Business Process level:* Some divisions have launched process-initiatives, ranging in approach from formal to informal. The business process knowledge of the managers of these divisions range from well-knowledged to almost illiterate while commitment to process-based change ranges from sceptic to enthusiastic.

iii. *Enterprise level:* Although the establishment of a business process office is indicative of the CEO's (VC's) awareness of process-thinking, the process-awareness of the rest of the executive team has not been determined.

With reference to both the business process and enterprise level, the evaluation done during 2008 by an external consultant to determine the usefulness of the university's management model provided some insight into management's level of process thinking. The report found that evidence is available of many managers either not understanding the advantages of a process-based approach, or not accepting such an approach (Stumpf, 2008:32).

2.8. CHAPTER SUMMARY

Business processes as sets of structured, related activities, which create value for customers in a repetitive manner, can play a fundamental role in the improvement of quality of an organisation's services and products. However, process thinking is complicated by various process characteristics such as the cross-functionality, ownership, level of standardisation and sources of output variation. Management is responsible for and can improve the system by defining policies and procedures, and by optimising processes. When an organisation's processes are well-designed and well-managed, an organisation institutionalises its success through its processes – it does not merely rely on individual heroes, their insight and talents to create the organisation's success.

Business process management is a holistic approach towards establishing a process thinking approach within an organisation. BPM aims, on the one hand to develop employees' process knowledge and skills, and on the other hand, to develop the organisational systems and capabilities to support an ongoing process approach. However, the successful implementation of BPM and process-based change proved historically difficult. Implementation of process redesign should be structured in a series of smaller, manageable steps, each with concrete payoff (Hammer, 2003:241).This approach implies that priority processes are identified; involved staff is educated about processes; the priority processes are designed and relevant measurements are introduced. Determining an organisation's level of process maturity before embarking on a process-based change project may contribute to the timeous identification of roadblocks, proper project implementation planning and monitoring of project progress.

The area of investigation, the NWU, had been under pressure to change by various external factors, the major one of which was the merger process. A stable and well-functioning organisational, management and governance structure has been established during the first merger years. The next phase was to align operational processes across business units within the merged institution and to improve organisational efficiency.

No formal investigation of the level of process orientation within the NWU has been done. However, in view of the organisation's history and culture, it seems valid to expect that bringing about process-based change at the NWU will be a comprehensive and complex task. Furthermore, the one-approach-fits-all would not be suitable to this environment.

Two considerations are important in considering an approach to BPM implementation, namely the process-change trigger and the organisation's process maturity. It was therefore decided to follow the 'business-case' approach. Three departments, where the managers have displayed a need for process-thinking or process-redesign, were selected for investigation of their process maturity.

Formal business process maturity models are complex and require high levels of expertise for implementation. In view hereof, as well as the scope of this study, it was decided to utilise two relatively simple maturity models to determine the level of process thinking within these three departments: (i) The PEMM framework, which is more comprehensive and investigates both process maturity and enterprise capabilities to support process implementation; and (ii) the simpler Reijers questionnaire, which focuses only on process orientation.

The investigation and results are discussed in the next chapter.

CHAPTER 3
EMPIRICAL RESEARCH

3.1. INTRODUCTION

The literature review conducted in Chapter 2 provided an overview of the concepts of business processes and business process management. The development from BPR to BPM as well as considerations for implementation of business process management was also investigated. It was concluded that determination of an organisation's business process management maturity could assist as a first step to planning BPM implementation. Relatively simple business process maturity models were found in the PEMM framework (Hammer, 2007:113) and Reijers model (Reijers, 2006:389). An empirical investigation was performed during which simplified versions of these models were used to determine process orientation at selected departments within the NWU. The investigation procedures, data analyses and results are described in this chapter.

3.2. EMPIRICAL DESIGN

Two investigations were performed using modified versions of the PEMM (Hammer, 2007:113) and Reijers models (Reijers, 2006:405). The investigation based on the PEMM model was performed within two support departments, namely Human Resource Operations (HR) and the Finances Department (Finances). The investigation based on the Reijers model was performed at an academic department, namely the School of Continuing Teachers' Education (SCTE), at the Potchefstroom Campus of the NWU.

The investigations were exploratory in nature, aiming to investigate ways to:

i. Determine process maturity of two selected processes;
ii. Establish the departmental process orientation, and therefore the readiness for process-based change of three selected departments; and
iii. Determine the usability of the instruments utilised.

3.2.1. Areas of investigation

The reasons for selecting each of the three departments for participation in the investigation are as follows:

i. The Human Resource Operations department is currently transforming its structure to implement a more process-oriented structure. In this structure, multi-skilled staff will be delivering services with a customer-oriented approach.
ii. The Finances Department plays a critical role in effective financial management of the organisation. It has implemented a decentralised annual budgeting process about five years ago which is aimed at decentralising financial management.
iii. The School of Continuing Teachers' Education has a proven success record in academic distance learning programmes. Extension of distance learning processes to faculties other than education is of strategic importance for the NWU.

The structure, customers and services of each of the three departments are discussed in more detail in this section.

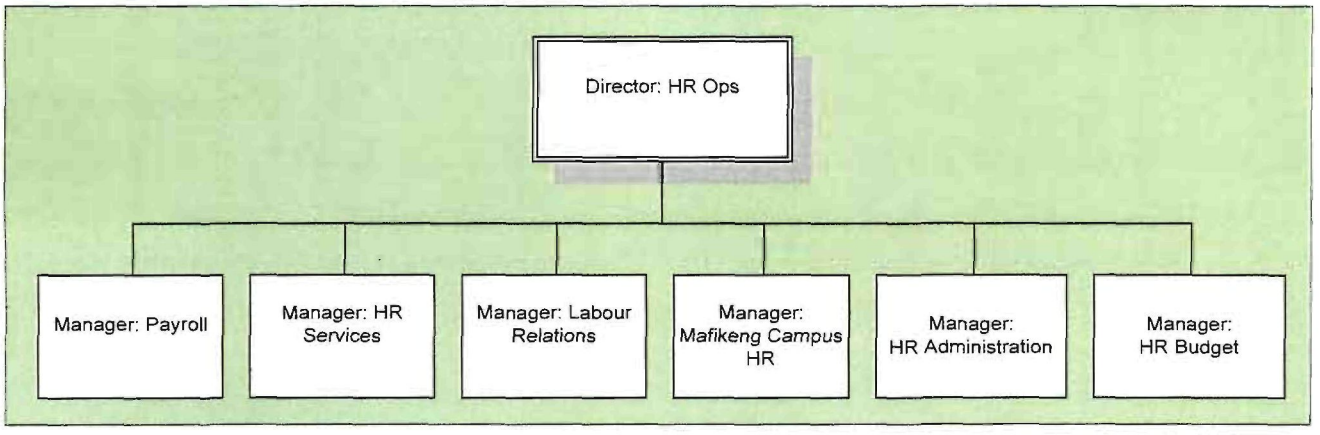
3.2.1.1. The Human Resource Operations Department

The Human Resource Operations Department (HR) is responsible for all organisational HR-related processes such as recruitment, appointment, staff benefits, disciplinary and grievance procedures, as well as employment termination in the NWU. The department is headed by the Director: HR and consists of 53 employees (52 permanent and 1 temporary). The departmental structure is depicted by the organigram in figure 3-1.

The department's customers consist of managers within the NWU (referred to as heads of department or HODs), who are responsible for either academic units or support units. These managers are at varying levels of seniority, for example, faculty deans, who usually have at least three school directors reporting to them. Similarly, executive directors of support divisions have various support directors and/or managers reporting to them. Customer services of the HR department are delivered by the HR

practitioners, who are the main interface between HR and academic and support unit managers, as well as between HR and other NWU staff.

Figure 3-1: Organigram of HR



The main services of the department are the following:

i. Customer services, e.g.

- Recruitment, selection and appointment of new staff as well as handling of transfers of existing staff between departments.
- Administration of employee termination e.g. resignation.
- General customer support such as conditions of service and employee benefits.
- Customer support for faculties and departments.
- Administration of staff benefits, such as medical aid, pension fund, group life insurance and others.

ii. Staff budget management and related IT systems administration.

iii. HR administration, including appointments, maintenance of staff information, temporary appointments, etc.

iv. Payroll.

v. Labour relations and assistance with disciplinary and grievance procedures.

The NWU is dependent on its human capital for the delivery of its core services of teaching/learning, research and implementation of expertise (NWU, 2008:69). The process for recruitment, selection and appointment of staff forms an important process

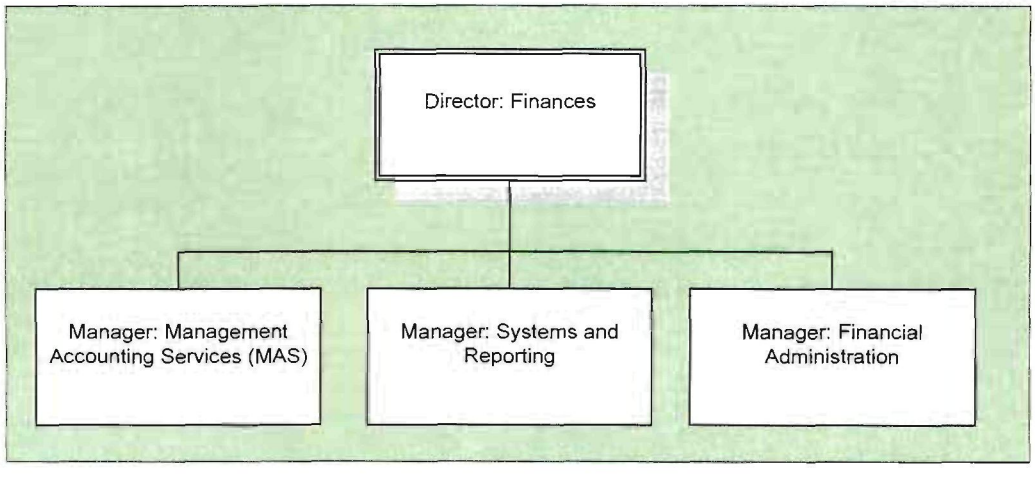
within the NWU and it is essential that this process delivers high performance. This process was selected as the HR process to be included in the study and will be referred to as the 'R&A process'.

3.2.1.2. The Finances Department

The Finances Department (Finances) is responsible for the policy formulation for all financial aspects of the NWU. It is also responsible for execution of various centralised financial functions, such as coordination of the budgeting process, centralised procurement and centralised reporting. The department is headed by the Director: Finances and consists of 44 permanent and 3 temporary employees. The departmental structure is depicted by the organigram in figure 3-2.

The department's customers consist of managers within the NWU (referred to as heads of department or HODs), who are responsible for either academic units or support units. These managers are at varying levels of seniority, for example, faculty deans, who usually have at least three school directors reporting to them. Similarly, executive directors of support divisions have various support directors and/or managers reporting to them. The department also has as customers the administrative staff who support these managers, and who often need detail support with regard to financial systems and reporting for the managers. All Finances employees are involved in servicing the above customers through various processes.

Figure 3-2: Organigram of Finances



The main services of the department are the following:

i. Budget management, which includes coordinating the annual organisational budget compilation process, as well as the process for budget variance reporting, to support budget control by management.
ii. Financial project control, which includes the financial management of the project and contracts budget system in co-operation with the appropriate role players to ensure completeness of income and cost recovery, as well as effective financial planning of projects.
iii. Provision of management information regarding budgets and projects.
iv. Financial systems management, including systems control and development and preparation of financial statements and reports in accordance with regulatory specifications.
i. Procurement of all services and supplies to the University, including creditor and inventory management.
ii. Fixed Asset Management.
iii. Debtor policy and process management.
iv. Cash/bank account management.

The NWU budgeting process was introduced five years ago, decentralising financial responsibility to all managerial levels aiming to improve financially viability of the organisation (NWU, 2008:23). This process plays an important role in improving managerial efficiency and is required to deliver high performance outputs. It was selected as the process at the Finances department to be investigated and will be referred to as the Budget process. The Budget process is one of the main responsibilities of the Manager: Management Accounting Services (MAS) division within Finances.

3.2.1.3. The School of Continuing Teachers' Education (SCTE)

SCTE is responsible for the in-service training of under- and unqualified teachers, as well as further training of already qualified teachers. The department is headed by the Director: SCTE and consists of 53 permanent and 88 temporary employees, as well as 370 staff members on a contract basis who act as facilitators at decentralised tuition centres. The departmental structure is depicted by the organigram in figure 3-3.

SCTE offers various qualifications through distance education to teachers with varying qualifications and levels of experience. Their customers are full-time teachers. Currently, the SCTE has 21,000 students across South Africa and Namibia.

The SCTE's main processes include:

i. Marketing and student enrolment throughout the year.

ii. The teaching/learning process, which entails:
   - The provision of the necessary study material to enhance self-study.
   - Contact sessions by trained facilitators twice a month on Saturdays at 36 Tuition Centres throughout South Africa.
   - Three-day study schools are also arranged during school holiday periods.
   - Each student is also allocated a contact person for telephonic and personal support.

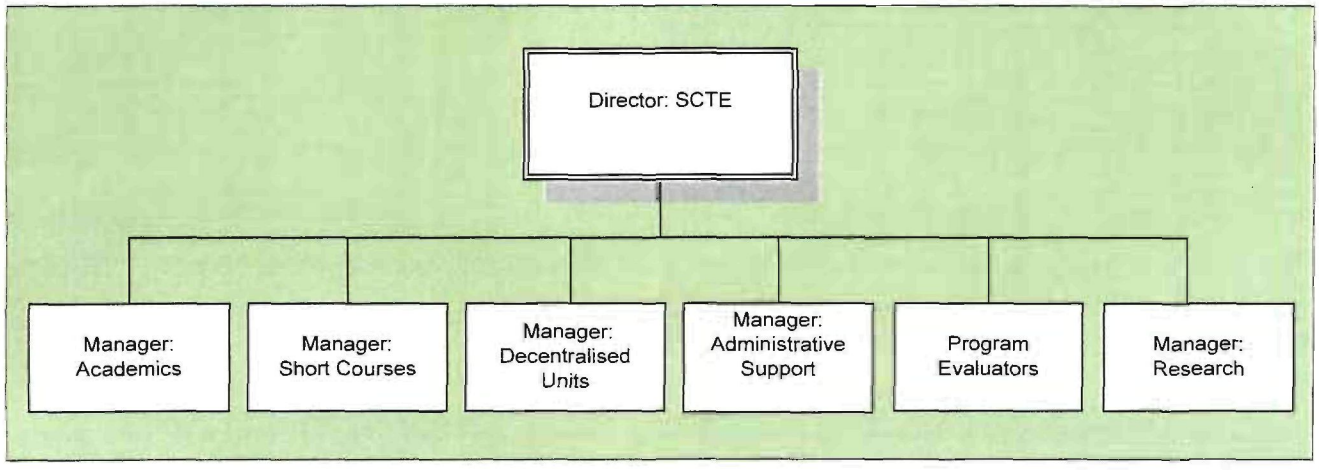
iii. Assessment practices for programmes: The outcomes of each module within each programme are formatively assessed by means of assignments to produce a participation mark which allows entry to the examination. A student is given appropriate cut-off dates and the school operates a strict turn-around rate of seven working days for assignments upon receipt. Students are able to attend examination sessions in more than ninety examination centres. Examination scripts are marked within five working days and the examination papers are scrutinised by external examiners.

iv. Student enrolment throughout the year.

v. Student Support Services (help desk), the collection of feedback and responses to student complaints or queries.

vi. Quality management, consisting of integrated quality management, program evaluation and external audits.

Figure 3-3: Organigram of SCTE



The Advanced Certificate of Education (ACE) is one of the most popular qualifications offered by SCTE. The management of the academic tuition of this course is therefore one of the most important but also most extensive and complex processes at SCTE. Furthermore, the successful implementation and improvement of this process will provide a blueprint for duplication of the process within other programs and faculties. It was selected as the process at the SCTE to be investigated and will be referred to as the ACE process. The ACE process is one of the main responsibilities of the Manager: Academics, in close alliance with the school director. The school director has also created a system for quality evaluation of programs, and a program evaluator has been appointed specifically for the ACE program.

3.2.2. The PEMM-based investigation

It was decided to use the PEMM framework as basis to explore its usability with respect to two goals:

i. To design a simplified version of the current PEMM questionnaire to measure process maturity and general process orientation levels within two selected departments.

ii. To determine whether organisational staff, who are not process experts, can be utilised to get useful maturity level results, based on the simplified instrument.

Questionnaire design and customisation, as well as the data collection and analysis methodology for PEMM-based investigation, are discussed in this section.

3.2.2.1. Questionnaire design

The first empirical investigation was guided by the PEMM framework (Hammer, 2007:113) as well as general guidelines for questionnaire development (Burgess, 2001:1-27). As discussed in section 2.6.4, the PEMM framework measures process maturity according to five characteristics, called process enablers, and the organisational environment supporting process implementation in terms of four characteristics called enterprise capabilities. PEMM addresses each enabler and capability with two to four components, totalling 26 components. Each component is measured according to four strength levels, which are indicative of maturity level.

Due to the limited scope of this investigation, a simplified version of the PEMM framework was constructed. The adapted model includes all five enablers and four capabilities, but reduces the number of components to **24**, and only **three** strength levels. A questionnaire was constructed and used in two separate surveys. The questionnaire consists of 24 questions, each relating to a component. The first twelve questions relate to process enablers while questions 13 to 24 relate to enterprise capabilities. Table 3-1 provides an overview of the enablers/capabilities, components and associated question numbers.

Table 3-1: Questionnaire 1: Process enablers, enterprise capabilities and components and associated question numbers

Group	Enabler/capability	Question no.	Component
PROCESS ENABLERS	Process design	1.	Purpose
		2.	Context knowledge
		3.	Documentation
	Process performers	4.	Knowledge
		5.	Skills
		6.	Behaviour
	Process owner	7.	Identity
		8.	Activities
		9.	Authority
	Infrastructure	10.	Information systems
	Metrics	11.	Definition
		12.	Uses
ENTERPRISE CAPABILITIES	Leadership	13.	Awareness
		14.	Alignment
		15.	Behaviour
		16.	Style
	Culture	17.	Teamwork
		18.	Customer focus
		19.	Responsibility
		20.	Attitude towards change
	Expertise	21.	People
		22.	Methodology
	Governance	23.	Process model
		24.	Integration

Source: Adapted from Hammer (2007:116,120).

All questions had a standard formulation to enhance understanding and improve accuracy of completion of the questionnaire, and all questions start with the words: *"Which statement best describes..."*. Three statements were provided that relate to different strength levels of the specific component, that is, *low*, *medium* and *high*. In

order to provide the respondent an opportunity to better express an opinion, a sliding scale response mechanism was constructed. This resulted in the following options being available for selection by the respondent:

1 = Statement A is true, relating to *low* strength

2 = Both statements A and B are true or somewhat true, relating to *low-medium* strength

3 = Statement B is true, relating to *medium* strength

4 = Both statements B and C are true or somewhat true, relating to *medium-high* strength

5 = Statement C is true, relating to *high* strength

Two options for "I do not know" and "No option applicable" were also provided. These were translated to a numeric value of zero for calculation purposes. The zero rating thus indicates an absence/zero strength level of the component.

The option statement sequence to following questions was inverted to ensure better response reliability: 1, 4, 7, 10, 13, 15, 17, 20, 21 and 23. Responses were correspondingly switched back before data analysis.

3.2.2.2. Customisation of PEMM Questionnaire

Two separate surveys were performed in two departments, as well as their customers, using the modified PEMM questionnaire. The questionnaire was adapted for each department to reflect their departmental terminology and process as described below. The term 'customers' was converted to 'end-users' to aid understanding by respondents in both cases.

- ***Human Resource Operations Department***

One version of the modified PEMM questionnaire was compiled to incorporate the terminology of the HR department and the HR-process of recruitment, selection and appointment (abbreviated as the R&A process). This questionnaire, referred to as the HR questionnaire, was translated to Afrikaans as many of the respondents' first language is Afrikaans. The detailed HR questionnaires, in English and Afrikaans, are presented Annexures A and B respectively.

- ***Finances Department***

A second version of the modified PEMM questionnaire was compiled to incorporate the terminology of the Finances department and the Budget process. This questionnaire, referred to as the Finances questionnaire, was translated into Afrikaans as many of the respondents' first language is Afrikaans. The detailed Finances questionnaires, in English and Afrikaans, are presented Annexures C and D respectively.

3.2.2.3. Survey participants and data collection

The survey was performed separately for the two departments and their respective processes on two separate population groups. Due to the nature of the investigation, both surveys were performed on the potential population and no sampling was done. The population of each survey will be referred to as the respondent groups for HR and Finances respectively.

Each respondent group contained three ***respondent types***:

i. The process owner, abbreviated by *PO*, who is responsible for the respective processes within HR and Finances.
ii. Process performers, shortly referred to as performers and abbreviated by *PE*, who are the employees within the respective HR and Finances departments, and are involved in executing the respective processes.
iii. Process customers, shortly referred to as customers and abbreviated by *CU.*

- ***HR Process Owner and Performers***

The process owner of the R&A process is the Director: HR. The director requested that all employees within HR be included as performers in the HR survey as he felt the need to determine their level of process orientation.

- ***Finances Process Owner and Performers***

Process ownership of the Budget process lies with the Manager: Management Accounting Services in close alliance with the Director: Finances. The division Management Accounting Services (MAS) within Finances consists of four employees (inclusive of the manager) and are responsible for execution of the main Budget process activities. Employees within the other Finances divisions of Systems Reporting and Management (SRM) and Financial Administration (FA) are involved in some activities of the Budget process or at least in related or interfacing activities.

After consultation with the Manager: FA it was decided to involve only senior FA staff in the survey, as other staff have no involvement in the Budget process. During consultation with the Manager: SRM, he felt that his processes were sorted out and could not see the value of participating in the survey. He refused to allow his staff of eight to participate in the survey. It is to be expected that the investigation results would be influenced by the non-participation of 20% of performers within the Finances department. This issue is discussed in more detail in section 3.3.2.

- ***Customers: HR and Finances***

Customers are heads of academic and support departments at various levels of seniority, including vice-rectors, deans, school directors and support unit managers. These heads of departments (HODs) play a managerial role in the organisation and as such have a responsibility within each of the R&A and Budget processes. It was therefore decided to include them as respondents to determine their level of process orientation.

To obtain a list of customers, the official list of all HODs was obtained from the HR department. In order to prevent noise in the data, HODs that were only in technical or specialist positions were eliminated. Technical or specialist managers usually have a small staff complement and often do not utilise the selected processes. As such they are not expected to have thorough knowledge of the selected processes. All acting and newly appointed managers were also eliminated for their possible

lack of experience of the selected processes. Potential duplicate responses from one manager acting in more than one position were also prevented by ensuring that these managers receive one questionnaire only. The end list resulted in 110 managers that could potentially form part of the survey as the customers of HR and Finances.

The 110 managers were then divided equally between the HR and Finances respondent groups.

- ***Data collection***

HR and Finances questionnaires were sent to the respective HR and Finances respondents (process owners, performers and customers) according to language preference. Questionnaires were accompanied by a cover letter which explained the purpose of the survey and ethical considerations such as respondent selection, basis of participation and assurance of anonymity. To ensure anonymity, addressed envelopes were included in which questionnaires could be returned to the researcher. An example of the cover letter is provided in Annexure G.

3.2.2.4. Data analysis methodology

The responses to each department and its selected process (HR and the R&A process; Finances and the Budget process) were treated as two separate data sets. The two data sets will be referred to as the *'HR'* and *'Finances'* data sets respectively.

Questionnaires of each data set were numbered on receipt, data entered into separate Microsoft Excel 2007 workbooks and data analysis conducted separately. Responses results and analyses are provided in Annexure H for HR and Annexure I for Finances. Data analyses were done on each data set, using Microsoft Excel 2007 with PHStat2-Version 7, according to the following procedure:

3.2.2.4.1. Process maturity

i. Detail analysis of individual process enabler component strengths (question) per respondent type:

For each of the 12 questions (question 1 to 12) that corresponds to a process enabler component, a two-way frequency table was constructed of the number of responses per respondent type (PO, PE and CU) at a given strength level (strength levels ranging from *'None'* to *'High'* - refer to section 3.2.2.1). A second table was constructed per process enabler component per respondent type representing these response frequencies in terms of percentages per strength level. A column graph was constructed for each component to assist with interpretation. The reader is referred to tables H-1a and H-1b for examples of two-way frequency and percentage tables, and figure H-1 for the associated graph for the R&A process component *"Process design (Purpose)"*.

ii. Detail analysis of average process enabler component strengths (question) per respondent type:

An average enabler component strength level, C, was calculated per respondent type by calculating the arithmetic average of all responses of a specific respondent type for a specific process enabler component as follows:

$$C_{i,j} = \left(\sum_{k=1}^{n_i} SL_{k,j}\right)/n_i,$$

Where:
$i \in \{"PO","PE","CU"\}$
$j \in \{1, 2, ..., 12\}$
n_i = *number of respondents of respondent type i*
$SL_{k,j}$ = *strength level rating by respondent k for enabler j*

This resulted in three strength levels per component, one for each respondent type. The strength levels for all 12 process enablers as well as 12 enterprise capability components (see section 3.2.2.4.2 below) for each respondent type were depicted as three series on one graph to compare the responses of the three respondent types. For further clarification, the reader is referred to table 3-6, column Q1 and figure 3-4. For example, the average strength levels for the R&A process component *"Process Design: Purpose"* are:

$C_{PO,1}$ = 4.0, that is, the average strength level for *"Process design (Purpose)"* for the process owner is 4.0

$C_{PE,1}$ = 2.2, that is, the average strength level for *"Process design (Purpose)"* for performers is 2.2.

$C_{CU,1}$ = 1.5, that is, the average strength level for *"Process design (Purpose)"* for customers is 1.5.

iii. Detail analysis of average process enabler strength per respondent type:

Each process enabler consists of one to three components (see table 3-1 in section 3.2.2.1). An average enabler strength level, EP, was calculated per respondent type by calculating the arithmetic average of all components of a specific enabler as follows:

$$EP_{i,1} = (C_{i,1} + C_{i,2} + C_{i,3})/3$$
$$EP_{i,2} = (C_{i,4} + C_{i,4} + C_{i,6})/3$$
$$EP_{i,3} = (C_{i,7} + C_{i,8} + C_{i,9})/3$$
$$EP_{i,4} = C_{i,10}$$
$$EP_{i,5} = (C_{i,10} + C_{i,11})/2$$

Where:
$i \in \{"PO", "PE", "CU"\}$
$C_{i,k}$ = *average strength level for enabler component k per respondent type i*

For further clarification, the reader is referred to table 3-7. For exarnple, the average strength level for the R&A process component *"Process Design"* are:

$ES_{PO,1}$ = 3.7, that is, the average strength level for process design for the process owner is 3.7.

$ES_{PE,1}$ = 2.5, that is, the average strength level for process design for performers is 2.5.

$ES_{CU,1}$, that is, the average strength level for process design for customers is 1.7.

iv. Summarised process maturity

Two calculations were made to arrive at a process maturity rating per respondent type. The first calculation involved that the number of responses per strength level was counted per respondent type for all process enabler components (questions 1

to 12). The results are graphically depicted as frequency percentages on one column graph. As an example, the reader is referred to the R&A process maturity graph in figure 3-5.

The second calculation was done with the PEMM reasoning, according to which process enabler strength levels indicate process maturity (refer to section 2.6.4). Process enablers are also interdependent. Process maturity is therefore at the level of the lowest enabler. Process maturity was calculated in this manner for each of the respondent types.

3.2.2.4.2. Enterprise capability analysis

i. Detail analysis of individual enterprise capability component strengths (question) per respondent type:

For each of the 12 questions (questions 13 to 24) that correspond to an enterprise component, a two-way frequency table was constructed of the number responses per respondent type (PO, PE and CU) at a given strength level (strength levels ranging from *'None'* to *'High'* - refer to section 3.2.2.1). A second table was constructed per component per respondent type representing these response frequencies in terms of percentages per strength level. A column graph was constructed for each component to assist with interpretation. The reader is referred to tables H-13a, H-13b and figure H-13c for an example of the above tables and the associated graph for the HR enterprise capability *"Leadership (Awareness)".*

ii. Detail analysis of average enterprise capability component strength levels per respondent type:

An average enterprise capability component strength level, C, was calculated per respondent type by calculating the arithmetic average of all responses of a specific respondent type for a specific enterprise capability component as follows:

$$C_{i,j} = \left(\sum_{k=1}^{n_i} SL_{k,j}\right)/n_i,$$

Where:

$i \in \{"PO", "PE", "CU"\}$

$j \in \{12, 13, ..., 24\}$

n_i = *number of respondents of respondent type i*

$SL_{k,j}$ = *strength level rating by respondent k for capability j*

This resulted in three strength levels per component, one for each respondent type. The strength levels for all 12 enterprise capabilities for each respondent type were depicted together with the process enabler components as three series on one graph to compare the responses of the three respondent types. For further clarification, the reader is referred to table 3-6, column Q13 and figure 3-4. For example, the average strength levels for the HR enterprise capability component *"Leadership (Awareness)"* are:

$C_{PO,13}$ = 4.0, that is, the average strength level for *"Process design (Purpose)"* for the process owner is 4.0.

$C_{PE,13}$ = 2.2, that is, the average strength level for *"Process design (Purpose)"* for performers is 2.2.

$C_{CU,13}$ = 1.5, that is, the average strength level for *"Process design (Purpose)"* for customers is 1.5.

iii. Detail analysis of average enterprise capability strength per respondent type:

Each enterprise capability consists of one to four components (see table 3-1 in section 3.2.2.1). An average enterprise capability strength, EC, was calculated per respondent type by calculating the arithmetic average of all components of a specific enterprise capability as follows:

$$EC_{i,1} = (C_{i,13} + C_{i,14} + C_{i,15} + C_{i,16})/4$$
$$EC_{i,2} = (C_{i,17} + C_{i,18} + C_{i,19} + C_{i,20})/4$$
$$EC_{i,3} = (C_{i,21} + C_{i,22})/2$$
$$EC_{i,4} = (C_{i,23} + C_{i,24})/2$$

Where:

$i \in \{"PO", "PE", "CU"\}$

C_{ij}= *average strength level for capability component j per respondent type i*

For further clarification, the reader is referred to table 3-7. For example, the average strength levels for the enterprise capability *"Leadership"* are:

$ES_{PO,1}$ = 3.5, that is, the average strength level for *Leadership* for the process owner is 3.5.

$ES_{PE,1}$ = 2.8, that is, the average strength level for *Leadership* for performers is 2.8.

$ES_{CU,1,}$ = 2.3, that is, the average strength level for *Leadership* for customers is 2.3.

iv. *Summarised enterprise capability maturity*

Two calculations were made to arrive at an overall enterprise capability rating per respondent type. The first calculation involved that the number of responses per strength level was counted per respondent type for all enterprise capability components (questions 13 to 24). The results are graphically depicted as frequency percentages on one column graph. As an example, the reader is referred to the HR enterprise capability graph in figure 3-6.

The second calculation was done with the PEMM reasoning, according to which enterprise capability strength levels indicate enterprise capability (refer to section 2.6.4). Enterprise capabilities are also interdependent. Enterprise capability maturity is therefore at the level of the lowest capability. Enterprise capability maturity was calculated in this manner for each of the respondent types.

3.2.2.4.3. Aggregated process orientation

The aggregated process orientation of each department is represented using two methods:

i. PEMM maturity calculation method 1: *Aggregated process orientation graph, per respondent type:*

For each respondent type, a process orientation was calculated by counting the number of responses per strength level per respondent type for all components (questions 1 to 24). The results were graphically depicted as frequency percentages on one column graph. As an example, the reader is referred to the HR aggregated process orientation graph in figure 3-7.

ii. PEMM maturity calculation method 2: *Aggregated process orientation level, per respondent type:*

As discussed in section 2.6.4, the strength of process enabler are indicative of overall process maturity, while enterprise capability strengths are in turn indicative of enterprise capability maturity to support the development of high-performance processes. Process enablers are interdependent, as are enterprise capabilities. This implies that all five process enablers must be at the same strength level for overall process maturity to be at a certain level – if one enabler is at a lower level, the process maturity will be at the lower level. The situation is similar with the four enterprise capabilities.

The analysis results for each data set are discussed in section 3.3.

3.2.3. The Reijers-based investigation

Questionnaire design and customisation, as well as the data collection and analysis methodology for the second investigation are discussed in this section.

3.2.3.1. Questionnaire design

The second investigation uses a questionnaire developed by Reijers (2006:405), which consists of eight questions. It is more general than the PEMM framework, is simpler to complete, but determines only a general process orientation. It has five focus points which is measured in terms of eight parameters (as discussed in section 2.6.5.) A tabular representation of the foci, parameters and question numbers are given in table 3-2 on page 77.

3.2.3.2. Customisation of Reijers Questionnaire

- *SCTE*

The Reijers questionnaire was modified to refer to the SCTE and its terminology. It was also translated into Afrikaans as many of the respondents' first language is Afrikaans. The detailed questionnaires, in English and Afrikaans, are presented Annexures E and F respectively.

Table 3-2: Questionnaire 2: Reijers parameters of process orientation and associated questions

Category	Parameter	Question No.	Question Description
Structure	Organisational structure	1.	Organisational structuring: Process or functional oriented.
Focus	Focus language	2.	Ernployees talk about work either in functional orientation or process orientation.
	Process documentation	3.	The extent to which processes are identified, described and maintained.
	Utilisation of process documentation	4.	The extent to which the process documentation is utilised.
	Information systems	5.	The extent to which information systems support the execution and control of tasks and processes.
Measure-ment	Type of performance measurement	6.	Performance measures used at lower levels of the organisation: Do these include process metrics?
Ownership	Process ownership	7.	To what extent is management based on processes and have process ownership been assigned?
Customers	Customer requirements	8.	To what degree are customer requirements understood and drive the organisation?

Source: Adapted from Reijers (2006:405).

3.2.3.3. Survey participants and data collection

The survey was performed within one division, namely the Academics Division of the SCTE. The Director: SCTE as well as the Program Quality Evaluator was also included at the request of the director.

The modified Reijers questionnaire was distributed to the following two ***respondent types***:

i. The process owners, consisting of the Director: SCTE, the Manager: Academics and the Program Quality Evaluator.
ii. The process performers, who are all academic staff (lecturers) within the Division: Academics.

The customers of this department are full-time teachers, who live in desolate rural areas around South Africa. Furthermore, it is not to be expected of them to understand the processes of the SCTE and hence a customer-respondent type survey was not undertaken.

- ***Data collection***

In order to do the survey, the director organised a meeting during which survey participants were informed of the purpose of the survey, ethical considerations, basis of selection and participation and instructions for questionnaire completion. All respondents completed the questionnaires, according to language preference, immediately after the information session.

3.2.3.4. Data analysis methodology

Questionnaires were numbered after receipt and data entered into Microsoft Excel 2007, which was also used for the rest of the data analysis. The responses are presented in table J in Annexure J. Each question response, an alphabetic option selected by the respondents, was converted to an arithmetic value according to table 3-3.

Table 3-3: Reijers questionnaire answer scores

Questions Response (QR)	Arithmetic answer score (AS)	
A	0	Lowest process orientation
B	1	
C	2	
D	3	
E	4	Highest process orientation

Source: Adapted from Reijers (2006:407).

3.2.3.4.1. Process maturity

The Reijers model does not provide for the calculation of a separate process maturity level as does the PEMM model.

3.2.3.4.2. Enterprise capability

The Reijers model does not provide for the calculation of a separate enterprise (or departmental) capability level as does the PEMM model.

3.2.3.4.3. Aggregated process-orientation

An aggregated process orientation percentage was calculated for each respondent according to the following steps:

i. For each respondent, eight question scores (QS_i, for i=1 to 8) were calculated according the following formula, using the category and question weights as presented in table 3-4.

$$R_iQS_j = QW_j * R_iAS_j$$

Where:

R_i = *Respondent i*
QS_j = *Question score j*
QW_j = *Question weight j*
AS_j = *Arithmetic answer score j*
$i = 1, \ldots, 22$
$j = 1, \ldots, 8$

Table 3-4: Reijers process orientation: Category and question weights

Category number	Category	Question number (Q)	Question weight (QW)	Maximum question weighted score (4*QW)
1	Structure	1	1	4
2	Focus	2	1	4
		3	1	4
		4	2	8
		5	2	8
3	Measurement	6	2	8
4	Ownership	7	2	8
5	Customers	8	2	8
Total maximum question weighted scores:				**52**

Source: Adapted from Reijers (2006:407).

ii. For each respondent, the process orientation score was calculated as a weighted average of a respondent's question scores, and then expressed as a percentage, using the following formula:

$$R_iP = \left(\sum_{j=1}^{8} R_iQS_j\right) / \left(\sum_{j=1}^{8} QW_j * 4\right) * 100\%$$

Where:

R_i = *Respondent i*

P = *Process orientation score*

QS_j = *Question score j*

QW_j = *Question weight j*

iii. Excel was used to construct column graphs to graphically depict frequency percentages to aid visual interpretation.

iv. Average process orientation percentages were calculated for each respondent type. Results were also analysed according to three ranges of process orientation, indicating critical levels of process orientation (Reijers, 2006:407): Red (0-20%), indicating a low level of process orientation, yellow (21-65%), indicating a medium level of process orientation and green (66-100%), indicating a high level of process orientation.

The results are discussed in section 3.3.

3.3. RESULTS AND DISCUSSION

The results of each set of questionnaires (HR, Finances and SCTE) are discussed separately.

3.3.1. Results: Human Resource Operations

The number of questionnaires that were distributed for HR, the number of responses and the responses percentages are listed per respondent category in table 3-5. The total response percentage is 31.7%. However, although the response of 41.2% by performers was satisfactory, the 21.2% response by customers was disappointing.

Table 3-5: Recruitment & Selection (R&A) response

Respondent category	Number of questionnaires distributed	Number of responses	Response %
Process Owner	1	1	100%
Process Performers	51	21	41.2%
Customers	52	11	21.2%
Total	**104**	**33**	**31.7%**

The results of the 33 respondents are presented in table H-0 (Annexure H). The data were analysed according to the procedure described in section 3.2.2.4. Tabular and graphical representations of the analysed results per component are provided in Annexure H and will be referred to in the next sections (3.3.1.1, 3.3.1.2 and 3.3.1.3).

3.3.1.1. Process Maturity

The results of the R&A process are now discussed. First, each process enabler and its associated components are discussed. Secondly, overall R&A process maturity is discussed.

3.3.1.1.1. Detail process enabler analysis

Detail R&A process enabler analyses were done according to steps (i), (ii) and (iii) described in section 3.2.2.4.1. R&A process enablers are discussed with reference to: (i) Individual process enabler component strengths (questions) per respondent type which are represented graphically in figures H-1 to H-12 in Annexure H; (ii) average process enabler component strength levels per respondent type, as presented in figure 3-4 on page 83 and table 3-6 on page 84, questions Q1 to Q12; and (iii) average process enabler strength level per respondent type, as presented in table 3-7 on page 84.

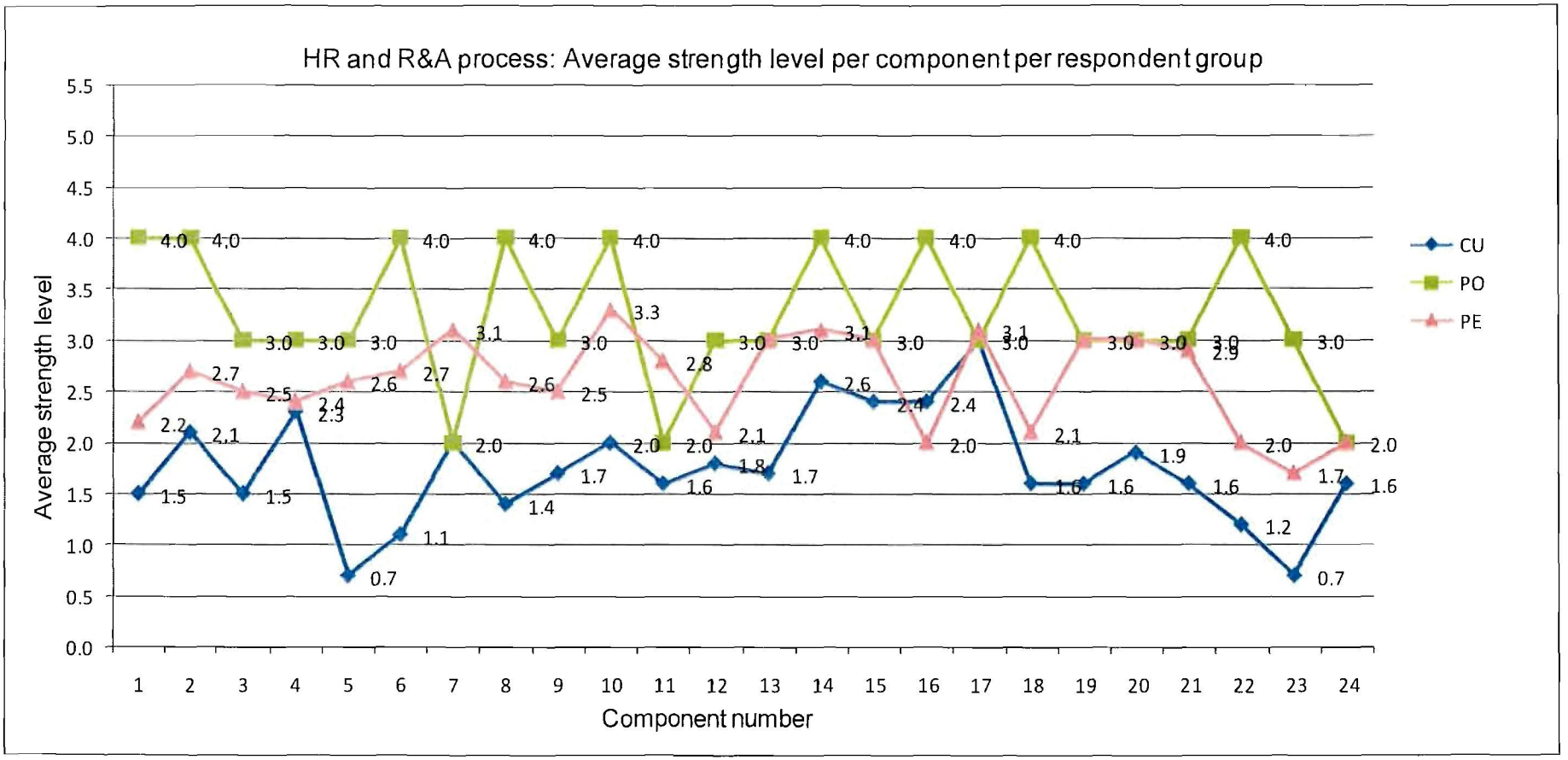
R&A Process Design: Purpose, Context Knowledge and Documentation (Questions 1, 2 and 3; Figures H-1, H-2 and H-3)

The process owner's (PO) average rating of the process design is *medium-high*. The average performer rating is *low-medium*, which is one level lower than the process owner. No sound conclusion can be made of performers' ratings of the process design component, context knowledge and documentation, as their ratings of these two components range from *none* to *high* (figures H-1, H-2 and H-3). However, a strong indicator is that 72% of performers rate process design purpose either *low* or *low-medium*. Customers' average rating of process design is *low*. Relatively strong indicators are that 55% of customers rate process design purpose as *low* (figure H-1) and 45% rate documentation as *low* (figure H-3).

Process Performers: Knowledge, Skills and Behaviour (Questions 4, 5 and 6; Figures H-4, H-5 and H-6)

The PO's average rating of performer strength is medium (table 3-7). Performers' average rating of this component is somewhat below medium, almost one level lower than that of the PO. However, performers' average rating is more than one level higher than that of the customers' average performer rating of *low* – compare these PO, PE and CU ratings on the graph in figure 3-4. No other conclusions can be made on any specific performer component. The only relatively strong indicator is that 55% of customers rate performer skills as *low* (figure H-5).

Figure 3-4: HR: Average numerical component strength per respondent type



Source: Table 3-7

Table 3-6: HR: Average numerical component strength per respondent type

	Process enablers												Enterprise capabilities											
	Process design			Performers			Owner			Infra struc ture	Metrics		Leadership				Culture				Expertise		Gover- nance	
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24
PO	2.0	3.0	2.0	2.0	4.0	4.0	4.0	4.0	3.0	0.0	4.0	4.0	2.0	4.0	1.0	3.0	4.0	4.0	5.0	4.0	2.0	1.0	2.0	1.0
PE	2.2	2.2	2.3	2.7	2.4	2.0	3.0	2.9	1.8	2.4	2.7	2.7	3.1	3.1	3.7	3.1	3.3	2.5	2.4	2.8	2.9	2.0	1.9	1.4
CU	2.5	1.7	2.3	3.0	1.5	3.1	1.9	2.5	1.9	2.7	2.3	2.2	1.6	3.1	2.6	1.9	2.1	2.5	2.1	2.2	2.1	1.3	1.7	2.3

Note: Q1, Q2, ...Q24 refer to questions relating to enabler/capability components

Table 3-7: HR: Average numerical enabler/capability strength per respondent type

	Process enablers					Enterprise capabilities			
	Process design	Performers	Owner	Infrastructure	Metrics	Leadership	Culture	Expertise	Governance
PO	2.3	3.3	3.7	0.0	4.0	2.5	4.3	1.5	1.5
PE	2.2	2.4	2.6	2.4	2.7	3.3	2.8	2.5	1.7
CU	2.2	2.5	2.1	2.7	2.3	2.3	2.2	1.7	2.0

Process Owner (PO): Identity, Activities and Authority (Questions 7, 8 and 9; Figures H-7, H-8 and H-9)

Although the average process owner and performer ratings of process ownership are similar at *medium* (table 3-7), ratings of individual components show contrasts. The process owner rates identity at *low-medium*, which is lower than performers at *medium* (table 3-7). The process owner rates activities *medium-high* and authority as *medium.* Performers' ratings of these components range from no rating to high, with no conclusion that can be made. The average customer rating of process ownership is *medium-low.* Nearly half of customers (45%) could not rate process owner identity or activities, while 36% could not rate process owner authority (figures H-7, H-8 and H-9).

Infrastructure: Information Systems (Question 10; Figure H-10)

With regard to infrastructure as provided by information systems (IS), the process owner rated supporting information systems as *medium-high.* Performers rated IS on average at *medium*, with 77% rating it from *medium* to *high* (figure H-10). The average customer rating is *low-medium.*

Metrics: Definition and Uses (Questions 11 and 12; Figures H-11 and H-12)

The process owner rates the strength levels of metrics definition and uses at *low-medium* and *medium* respectively. Performer's average ratings for definition and uses are *medium* and *low-medium* respectively. On average, the PO's and performers' metrics ratings are similar. Customers' average rating is below *low-medium.*

3.3.1.1.2. Summarised process maturity

The results in section 3.3.1.1.1 discussed each R&A process enabler's strength levels per respondent type.

The summarised process maturity levels for the R&A process were calculated according to two methods (see section 3.2.2.4.1):

i. PEMM maturity calculation method 1: The number of responses per strength level per respondent type for all process enabler components (questions 1 to 12) was counted and the results are graphically depicted as frequency percentages on a column graph in figure 3-5. According to figure 3-5, the process owner

rates R&A process maturity mostly at *medium* and *medium-high* maturity. Performers' R&A process maturity ratings are spread from *none* to *high* maturity levels, with the cumulative percentage of 47% of performers' rating below *medium*. Customers' ratings are generally *low,* with 31% at *no maturity,* 25% at *low maturity* and 19% at *low-medium* maturity, giving a cumulative total of 75% of customers below *medium.*

ii. PEMM maturity calculation method 2: The R&A process maturity rating is assigned the maturity level of the lowest process enabler. This resulted in the following R&A process maturity levels per respondent type:

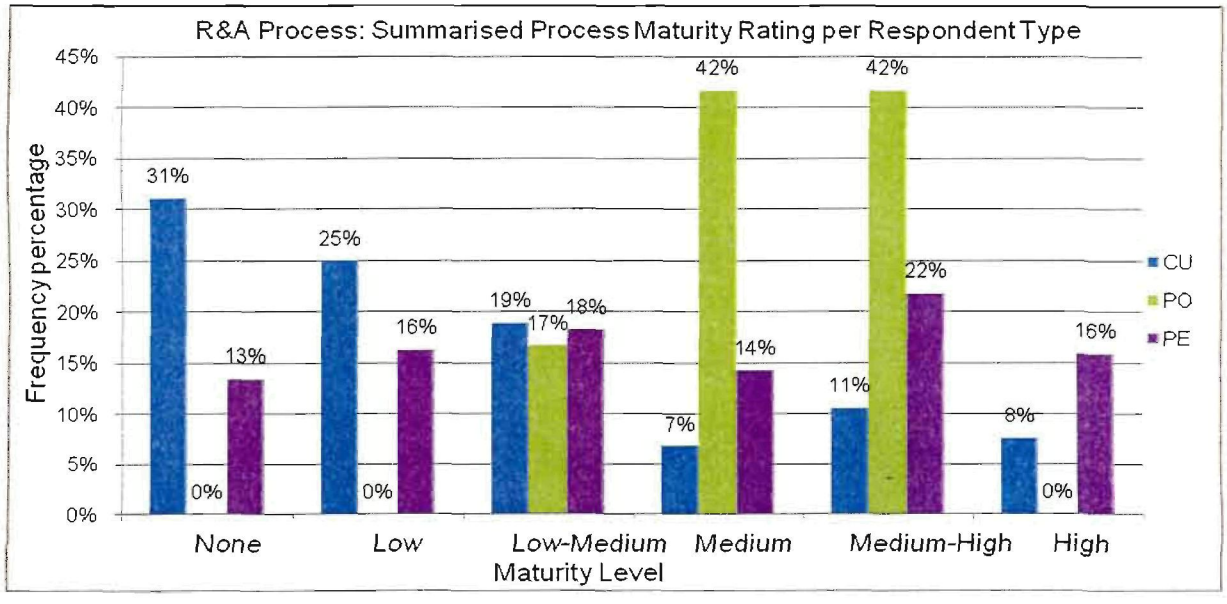
Process owner: *Low-medium*

Performers: *None*

Customers: *None*

The most important observation from these results is the difference in maturity ratings between the process owner and the other two respondent types. The difference between the process owner and the other two respondent groups according to the second PEMM maturity calculation method is two levels.

Figure 3-5: R&A Process: Summarised process maturity rating per respondent type



3.3.1.2. Enterprise capabilities

Detail HR enterprise capability analyses were done according to steps (i), (ii) and (iii) in section 3.2.2.4.2. HR enterprise capabilities are discussed with reference to: (i) Individual enterprise capability component strengths (question) per respondent type which are represented graphically in figures H-13 to H-24 in Annexure H; (ii) average enterprise capability component strength levels per respondent type, as presented in figure 3-4 on page 83 and table 3-6 on page 84, questions Q13 to Q24; and (iii) average enterprise capability strength level per respondent type, as presented in table 3-7 on page 84.

3.3.1.2.1. Detail enterprise capability analysis

Leadership: Awareness, Alignment, Behaviour and Style (Questions 13, 14, 15 and 16; Figures H-13, H-14, H-15 and H-16)

The average leadership rating by the process owner was *medium-high,* rating two components at *medium* and two at *medium-high* (tables 3-6 and 3-7). A relatively large percentage (38%) of performers rated leadership style *low* (figure H-16). The average leadership rating by performers is *medium.* No other conclusion can be made from performers' rating of any leadership component as ratings vary from *none* to *high*. The average customer rating for leadership is *low-medium.* No conclusion can be drawn from customers' rating of any leadership component, as ratings vary from *none* to *high.*

Culture: Teamwork, Customer Focus, Responsibility and Attitude towards Change (Questions 17, 18, 19 and 20; Figures H-17, H-18, H-19 and H-20)

The process owner rated culture on average at medium, with teamwork as *medium-high.* The ratings of performers on all 4 components provide no clear indication of trends or groupings. Performers' average rating on culture is *medium*, rating three components at *medium* and one at *medium-high.* Although customers' average rating of culture was *low-medium*, no conclusion can be made from their data. Two mentionable indicators are that 45% of customers rated teamwork *high*, and 45% rated attitude towards change *low-medium*.

Expertise: People and Methodology (Questions 21 and 22; Figures H-21 and H-22)

The process owner rated expertise of people *medium* and methodology *medium-high*. Performers' ratings on both components range widely from *low* to *high*, with an average of *medium*. However, the range of ratings provides no clear trend. Customers' average rating for expertise was *low* with 55% rating people expertise *low*.

Governance: Process model and Integration (Questions 23 and 24; Figures H-23 and H-24)

The process owner rated the process model *medium* and integration *low-medium*. Most performers rated the governance *low* to *low-medium*. Relatively large percentages of customers could not rate process model or integration (45% and 36% respectively), with the average rating of governance by customers as *low*.

3.3.1.2.2. Summarised enterprise capability maturity

The results in section 3.3.1.2.1 discussed each HR enterprise capability's strength levels per respondent type.

Overall HR enterprise capability levels were calculated according to two methods (see section 3.2.2.4.2):

i. PEMM maturity calculation method 1: The number of responses per strength level per respondent type for all enterprise capability components (questions 13 to 24) was counted and the results are graphically depicted as frequency percentages on a column graph in figure 3-6. According to figure 3-6, the process owner rates HR enterprise capability maturity mostly at *medium* to *medium-high* maturity. Performers' enterprise capability ratings are spread from the *none* to *high* maturity levels, with a cumulative percentage of 52% of performers' rating below *medium*. Customer ratings of HR enterprise maturity level show a tendency towards *lower* maturity, with 34% at *no* maturity, 17% at *low maturity* and 17% at *low-medium* maturity, giving a cumulative total of 68% customers below *medium*.
ii. PEMM maturity calculation method 2: The HR enterprise capability rating is assigned the maturity level of the lowest HR enterprise capability. This resulted in the following HR enterprise capability levels per respondent type:

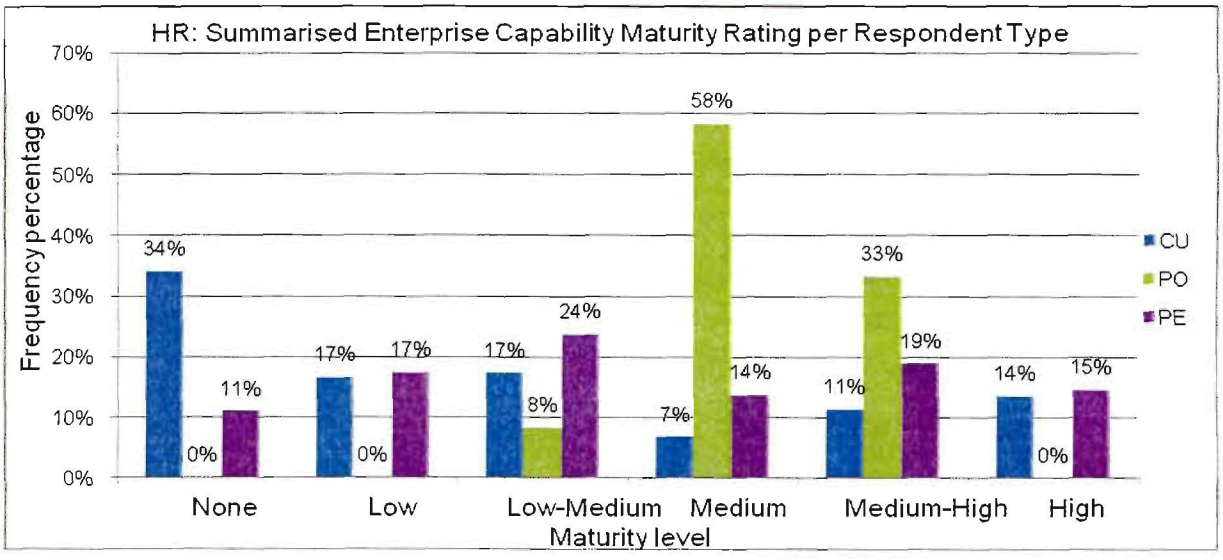
Process owner: *Low-medium*

Performers: *None*

Customers: *None*

The most important observation from these results is the difference in HR enterprise capability maturity ratings between the process owner and the other two respondent types. The difference between the process owner and the other two respondent groups according to the second PEMM maturity calculation method is two levels.

Figure 3-6: HR: Summarised enterprise capability maturity rating per respondent type



3.3.1.3. Aggregated process orientation

The results discussed in sections 3.3.1 and 3.3.2 refer to process enablers and enterprise capabilities as two separate groups. Aggregated HR process orientation was calculated according to two methods (see section 3.2.2.4.3):

i. PEMM maturity calculation method 1: The number of responses per strength level per respondent type for all HR components (questions 1 to 24) are represented graphically in figure 3-7. According to this graph, the PO's aggregated HR process orientation is *medium* to *medium-high*. Performers' aggregated HR process orientation is from *none* to *high* maturity levels, with a cumulative percentage of 50% of performers' rating below *medium*. Customers'

aggregated HR process orientation show a tendency towards *low* maturity, with 33% at *no maturity*, 21% at *low* and 18% at *low-medium* maturity levels, giving a cumulative total of 72% customers below *medium*.

ii. PEMM maturity calculation method 2: The aggregated HR process orientation is assigned the maturity level of the lowest HR process orientation rating. This resulted in the following aggregated HR process orientation levels per respondent type:

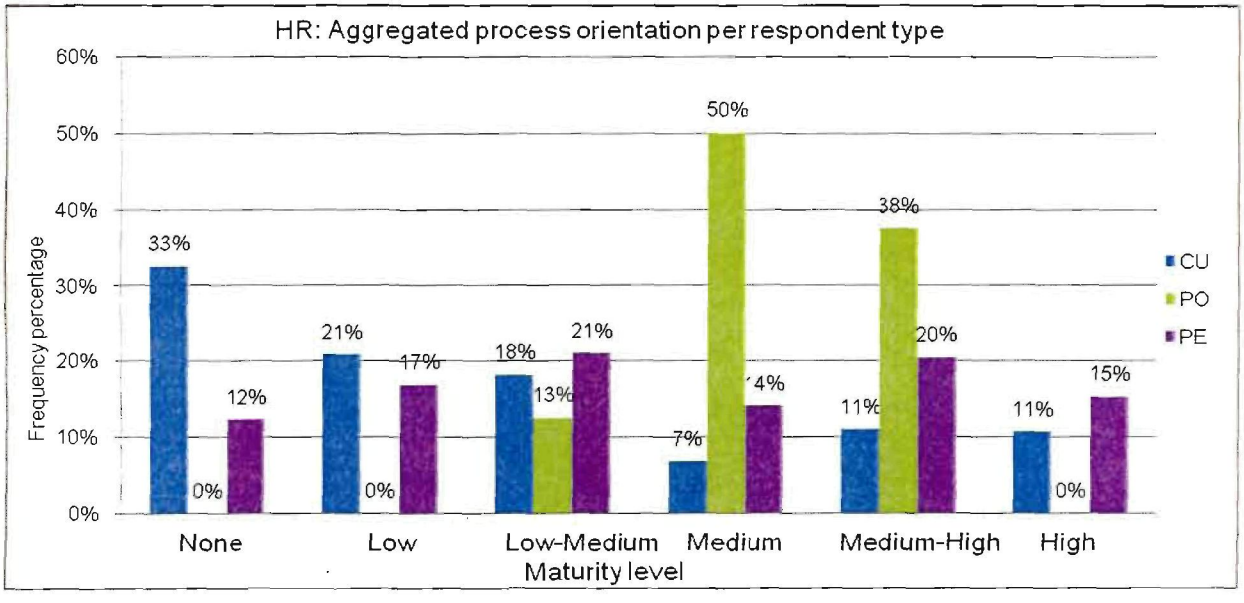
Process owner: *Low-medium*

Performers: *None*

Customers: *None*

The most important observation from these results is the difference in aggregated HR process orientation ratings between the process owner and the other two respondent types. The difference between the process owner and the other two respondent groups according to the second PEMM maturity calculation method is two levels.

Figure 3-7: HR: Aggregated process orientation per respondent type



3.3.2. Results: Finances

The number of questionnaires that were distributed for Finances, the number of responses and the responses percentages are listed per respondent category in table 3-8. The total response percentage was 33.3%. However, although the response of 43.5% by performers was satisfactory, it is unfortunate that one division in the department did not participate. This indicates resistance to change and, although not formally measured, it seems from the discussion with the manager of the division that little process knowledge exists with the manager (refer to section 3.2.2.3). Although the 27.8% response by customers was better than in the case of HR, it is still disappointing. As these customers are from the same population as the HR customers, the reasons for this poor response are probably the same as with HR customers as discussed in section 3.3.1.

Table 3-8: Budget process (Finances) response

Respondent category	Number of questionnaires distributed	Number of responses	Response %
Process Owner	1	1	100%
Process Performers	23	10	43.5%
Customers	54	15	27.8%
Total	**78**	**26**	**33.3%**

The results of the 26 respondents are presented in table I-0 (Annexure I). The data were analysed according to the procedure described in section 3.2.2.4. Tabular and graphical representations of the analysed results per component are provided in Annexure I and will be referred to in the next sections (3.3.2.1, 3.3.2.2 and 3.3.2.3).

3.3.2.1. Process maturity

The results of the Budget process are now discussed. First, each process enabler and its associated components are discussed. Secondly, overall Budget process maturity is discussed.

3.3.2.1.1. Detail process enabler analysis

Detail budget process enabler analyses were done according to steps (i), (ii) and (iii) described in section 3.2.2.4.1. R&A process enablers are discussed with reference to: (i) Individual process enabler component strengths (questions) per respondent type which are represented graphically in figures I-1 to I-12 in Annexure I; (ii) average process enabler component strength levels per respondent type, as presented in figure 3-8 on page 93 and table 3-9 on page 94, questions Q1 to Q12; and (iii) average process enabler strength level per respondent type, as presented in table 3-10 on page 94.

Process Design: Purpose, Context Knowledge and Documentation (Questions 1, 2 and 3; Figures I-1, I-2 and I-3)

The average ratings for process design by the process owner (PO), performers and customers are similar on *low-medium* (table 3-10). Considering the process design components separately, the process owner rates context knowledge higher than both performers and customers do (table 3-9 and figure I-2). However, the spread of both performer and customer ratings from *none* to *high* on all three components (figure I-1, I-2 and I-3) makes it impossible to draw plausible conclusions from their ratings.

Process Performers: Knowledge, Skills and Behaviour (Questions 4, 5 and 6; Figures I-4, I-5 and I-6)

The PO's average rating of performer strength is *medium* (figure 3-8 and table 3-10), while performers' and customers' average ratings are below *medium*. No conclusions can be made on any specific performer component.

Process Owner (PO): Identity, Activities and Authority (Questions 7, 8 and 9; Figures I-7, I-8 and I-9)

The PO's average rating of process ownership is *medium-high*, while performers' and customers' average ratings are below *medium* and *low-medium* respectively. A notable indicator is that the process owner ratings of identity and activities, both *medium-high,* are at least one level higher than the average ratings of these components by performers and customers (table 3-9).

Figure 3-8: Finances: Average numerical component strength per respondent type

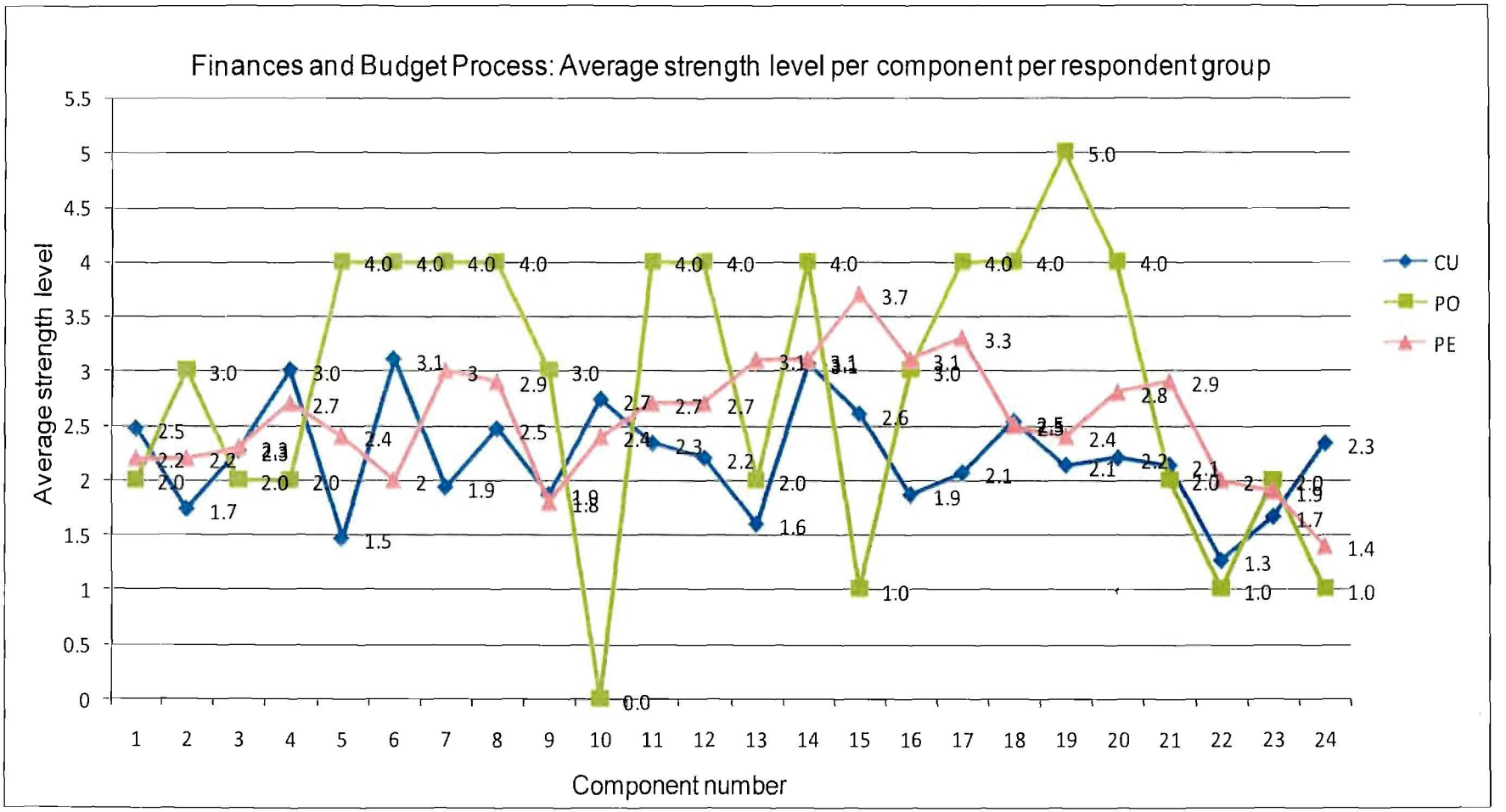


Table 3-9: Finances: Average numerical component strength per respondent type

	Process enablers												Enterprise capabilities											
	Process design			Performers			Owner			Infra struc ture	Metrics		Leadership				Culture				Expertise		Gover-nance	
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24
PO	2.0	3.0	2.0	2.0	4.0	4.0	4.0	4.0	3.0	0.0	4.0	4.0	2.0	4.0	1.0	3.0	4.0	4.0	5.0	4.0	2.0	1.0	2.0	1.0
PE	2.2	2.2	2.3	2.7	2.4	2.0	3.0	2.9	1.8	2.4	2.7	2.7	3.1	3.1	3.7	3.1	3.3	2.5	2.4	2.8	2.9	2.0	1.9	1.4
CU	2.5	1.7	2.3	3.0	1.5	3.1	1.9	2.5	1.9	2.7	2.3	2.2	1.6	3.1	2.6	1.9	2.1	2.5	2.1	2.2	2.1	1.3	1.7	2.3

Note: Q1, Q2, ...Q24 refers to questions relating to enabler/capability components

Table 3-10: Finances: Average numerical enabler/capability strength per respondent type

	Process enablers					Enterprise capabilities			
	Process design	Performers	Owner	Infrastructure	Metrics	Leadership	Culture	Expertise	Governance
PO	2.3	3.3	3.7	0.0	4.0	2.5	4.3	1.5	1.5
PE	2.2	2.4	2.6	2.4	2.7	3.3	2.8	2.5	1.7
CU	2.2	2.5	2.1	2.7	2.3	2.3	2.2	1.7	2.0

Infrastructure: Information Systems (Question 10; Figure I-10)

With regard to infrastructure as provided by information systems (IS), the process owner rated supporting information systems as *none*. Although the average ratings of performers and customers are low-*medium* and *medium* respectively, both performers' and customers' distributions are from *none* to *high* such that no definite conclusion is possible on either performers' of customers' ratings.

Metrics: Definition and Uses (Questions 11 and 12; Figures I-11 and I-12)

The process owner rates metrics *medium-high*. Although the average ratings of performers and customers are *medium* and low-*medium* respectively, both performers' and customers' distributions are from none to high such that no definite conclusion is possible on either performers' or customers' ratings.

3.3.2.1.2. Summarised process maturity

The results in section 3.3.2.1.1 discussed each Budget process enabler's strength levels per respondent type.

The summarised process maturity levels for the Budget process were calculated according to two methods (see section 3.2.2.4.1):

i. PEMM maturity calculation method 1: The number of responses per strength level per respondent type for all Budget process enabler components (questions 1 to 12) was counted and the results graphically depicted as frequency percentages on a column graph in figure 3-9. According to figure 3-9, the process owner generally rates Budget process maturity higher with 50% of the ratings at *medium-high* maturity level. Performers' Budget process maturity ratings are spread from the *none* to *high* maturity levels, with a cumulative percentage of 48% of performers' rating below *medium*. Customers' ratings tend to be *low* with 21% at *no maturity,* 22% at *low maturity and 12% and low-medium*, giving a cumulative total of 55% of customers below *medium.*

ii. PEMM maturity calculation method 2: The Budget process maturity rating is assigned the maturity level of the lowest Budget process enabler. This resulted in the following Budget process maturity levels per respondent type:

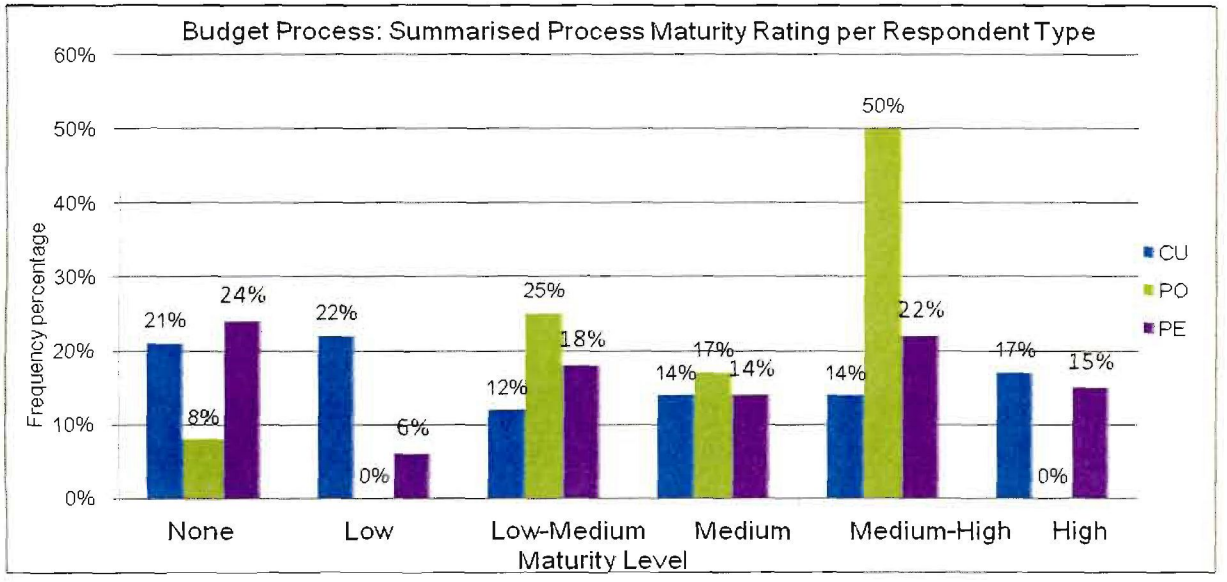
    Process owner: *None*

Performers: *None*

Customers: *None*

The most important observation from these results is that although there is a difference in Budget process maturity ratings according to the first calculation, the second calculation reveals no difference.

Figure 3-9: Budget Process: Summarised process maturity per respondent type



3.3.2.2. Enterprise capabilities

Detail Finance enterprise capability analyses were done according to steps (i), (ii) and (iii) in section 3.2.2.4.2. Finance enterprise capabilities are discussed with reference to: (i) Individual enterprise capability component strengths (questions) per respondent type which are represented graphically in figures I-13 to I-24 in Annexure I; (ii) average enterprise capability component strength levels per respondent type, as presented in figure 3-8 and table 3-9, questions Q13 to Q24; and (iii) average enterprise capability strength level per respondent type, as presented in table 3-10.

3.3.2.2.1. Detail enterprise capability analysis

Leadership: Awareness, Alignment, Behaviour and Style (Questions 13, 14, 15 and 16; Figures I-13, I-14, I-15 and I-16)

The average leadership rating by the process owner was *medium,* rating components from *low* to *medium-high* (tables 3-9 and 3-10). The average leadership rating by performers is *medium*. A relatively large percentage (40%) of performers rated leadership behaviour *high* (figure I-15), while the process owner rated this component *low*. No other conclusion can be made from performers' rating of any leadership component as ratings vary from *none* to *high*. The average customer rating for leadership is *low-medium*. With respect to customer rating, 47% of customers rated leadership awareness as *none* (figure I-13). No conclusion can be drawn from customers' rating of any leadership component, as ratings vary from *none* to *high*.

Culture: Teamwork, Customer Focus, Responsibility and Attitude towards Change (Questions 17, 18, 19 and 20; Figures I-17, I-18, I-19 and I-20)

The process owner rated culture on average at *medium-high*, with responsibility as *high (*figure I-19). The ratings of performers on all 4 components provide no clear indication of trends or groupings. Performers' average rating on culture at *medium* is much lower than that of the PO. Customers' average rating of culture was *low-medium*, with no other conclusion to be made from their data.

Expertise: People and Methodology (Questions 21 and 22; Figures I-21 and I-22)

The process owner rated expertise of people *low-medium* and methodology *low* (figures I-21 and I-22). Performers' ratings on both components range widely from *low* to *high*, with an average of *medium*. However, the range of ratings provides no clear trend. Customers' average rating for expertise was *medium-low*. However, with respect to people expertise the range is wide, with 53% rating *none* and 33% rating *high* (figure I-21). Another mentionable indicator is that 60% of customers rate methodology at *none* (figure I-22).

Governance: Process model and Integration (Questions 23 and 24; Figures I-23 and I-24)

The process owner rated the process model *low-medium* and integration *low*. Most performers (70%) rated process model from *zero* to low-*medium*, while 70% of performers rated integration at *low*. Although the average rating of governance by customers is *low-medium*, which is higher than both the process owner and PE, a relatively large percentage (47%) of customers rated governance at *none*. This could be ascribed to insufficient knowledge of these components, as was evident from comments made by customers on these two questions.

3.3.2.2.2. Summarised enterprise capability maturity

The results in section 3.3.2.2.1 discussed each Finances enterprise capability's strength levels per respondent type.

Overall Finances enterprise capability levels were calculated according to two methods (see section 3.2.2.4.2):

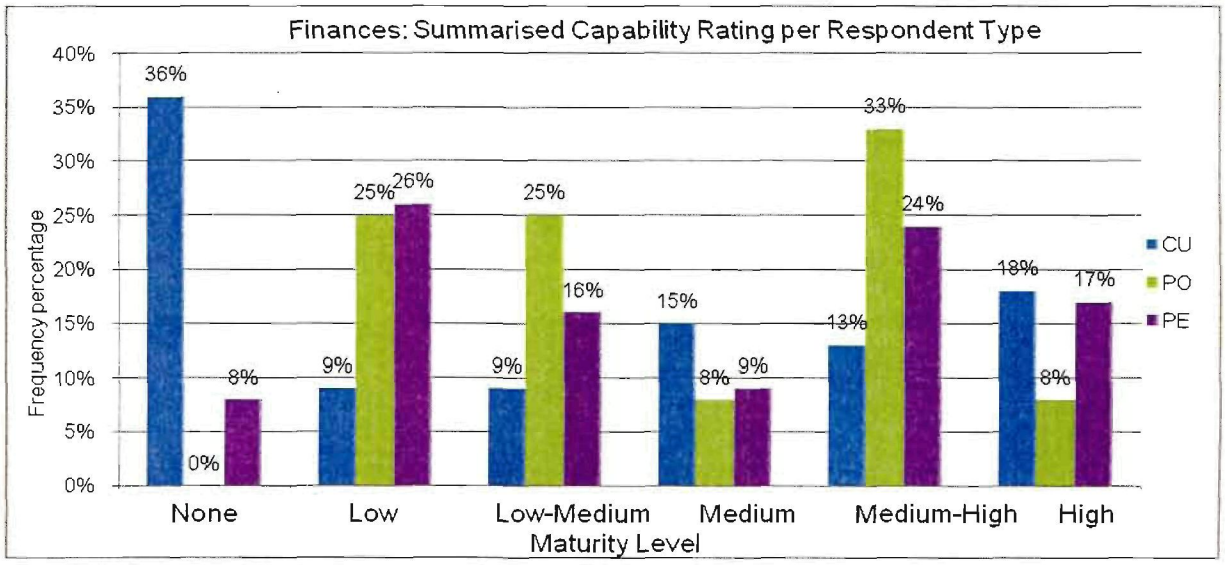
i. PEMM maturity calculation method 1: The number of responses per strength level per respondent type for all Finances enterprise capability components (questions 13 to 24) was counted and the results are graphically depicted as frequency percentages on a column graph in figure 3-10. According to figure 3-10, the process owner rates Finances enterprise capability from *low* to *medium-high* maturity. Performers' Finances enterprise capability ratings are spread from the *none* to *high* maturity levels, with a cumulative percentage of 50% of performers' rating below *medium*. Customer ratings of Finances enterprise capability are *low,* with 36% at *no maturity,* 9% at *low maturity* and 9% at *low-medium* maturity, giving a cumulative total of 54% customers below *medium.*

ii. PEMM maturity calculation method 2: The Finances enterprise capability rating is assigned the maturity level of the lowest Finances enterprise capability. This resulted in the following Finances enterprise capability levels per respondent type:

    Process owner: *Low*
    Performers: *None*
    Customers: *None*

There is a difference in Finances enterprise capability rating between the respondent groups according to both methods. The difference between the process owner and the other two respondent groups according to the second PEMM maturity calculation method is one level.

Figure 3-10: Finances: Summarised enterprise capabilities responses per respondent type



3.3.2.3. Aggregated process orientation

The results discussed in sections 3.3.2.1 and 3.3.2.2 refer to process enablers and enterprise capabilities as two separate groups. Aggregated Finances process orientation was calculated according to two methods (see section 3.2.2.4.3):

i. PEMM maturity calculation method 1: The number of responses per strength level per respondent type for all Finances components (questions 1 to 24) is represented graphically in figure 3-11. According to this graph, the PO's aggregated Finances process orientation ranges from *low-medium* to *medium-high* maturity levels. Performers' Finances aggregated process orientation ratings are spread from *none* to *high* maturity levels, with a cumulative percentage of 49% of performers' rating below *medium*. Customers' aggregated Finances process orientation show a tendency towards low maturity, with 29% at *no* maturity, 16% at *low* and 10% at *low-medium* maturity, giving a cumulative total of 55% customers below *medium*.

ii. PEMM maturity calculation method 2: The aggregated Finances process orientation is assigned the maturity level of the lowest Finances process orientation rating. This resulted in the following aggregated Finances process orientation levels per respondent type:

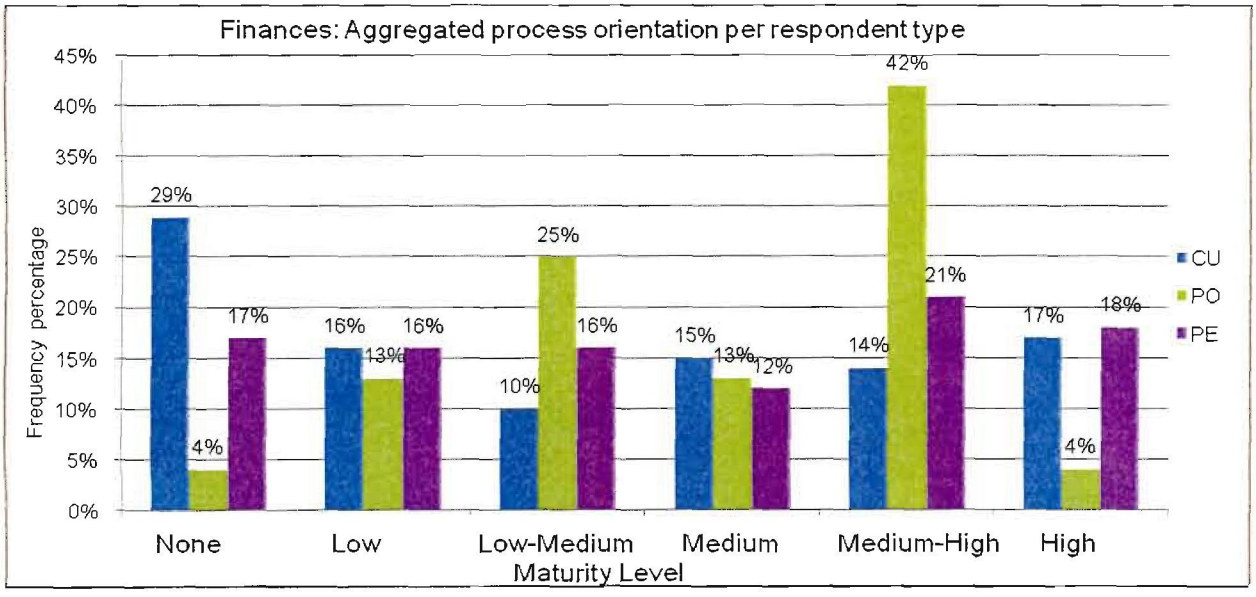
Process owner: *None*

Performers: *None*

Customers: *None*

An important observation here is that, although there is a difference in aggregated Finances process orientation rating between the respondent groups according to the first PEMM maturity calculation method, there is no difference according to the second PEMM maturity calculation method.

Figure 3-11: Finances: Aggregated process orientation maturity per respondent type



3.3.3. Results: School of Continuing Teachers' Education

The number of questionnaires that were distributed for SCTE, the number of responses and the responses percentage are listed per respondent category in table 3-11. The response percentage of 84.6% was very positive.

Table 3-11: SCTE response

Respondent category	Number of questionnaires distributed	Number of responses	Response %
Process Owners (School Director, Manager: Academics, Program Evaluator)	3	3	100%
Process Performers	23	19	82.6%
Total	**26**	**22**	**84.6%**

The results of the 22 respondents are presented in table J (Annexure J). The data were analysed according to the procedure described in section 3.2.3.4.

3.3.3.1. Process Maturity

The model does not explicitly provide a separate process enabler measurement instrument.

3.3.3.2. Enterprise Capabilities

The model does not explicitly provide a separate enterprise capability measurement instrument.

3.3.3.3. Aggregated Process Orientation

Alphabetic question responses were converted to arithmetic values, after which question scores were calculated. For each respondent, a process orientation score was calculated as a weighted average of a respondent's question scores, and expressed as a percentage (refer to section 3.2.3.4 for a detailed explanation of the calculations.)

The respondents' process orientation scores and percentages are given in table 3-12 below and graphically presented per respondent type in figure 3-12.

Table 3-12: SCTE respondents' process orientation scores and percentages

Resp #	Respondent Type	Total respondent score	Respondent percentage	Average
1	PO	50	96%	92%
2	PO	45	87%	
3	PO	48	92%	
4	PE	33	63%	49%
5	PE	28	54%	
6	PE	22	42%	
7	PE	20	38%	
8	PE	20	38%	
9	PE	14	27%	
10	PE	47	90%	
11	PE	42	81%	
12	PE	28	54%	
13	PE	19	37%	
14	PE	43	83%	
15	PE	24	46%	
16	PE	25	48%	
17	PE	24	46%	
18	PE	24	46%	
19	PE	12	23%	
20	PE	14	27%	
21	PE	10	19%	
22	PE	35	67%	

Three ranges of process orientation were defined (Reijers, 2006:407), indicating critical levels of process orientation: Red (0-20%), indicating a low level of process orientation, yellow (21-65%), indicating medium levels of process orientation and green (66-100%), indicating a high level of process orientation. The results were plotted in terms of these process orientation ranges in figure 3-13.

Only one performer's process orientation lies within the critically low (red) range, while the average process orientation of performers of 49% is positioned in the medium (yellow) range. The average process orientation of process owners of 92% is well within the high (green) range. The most important observation from these results is the difference between the average process orientation of the process owners and the average of the performers. If the average department process orientation is calculated as the average of these two averages, then the department's process orientation is 71%, which is within the green range.

Figure 3-12: SCTE: Process orientation percentages per respondent type

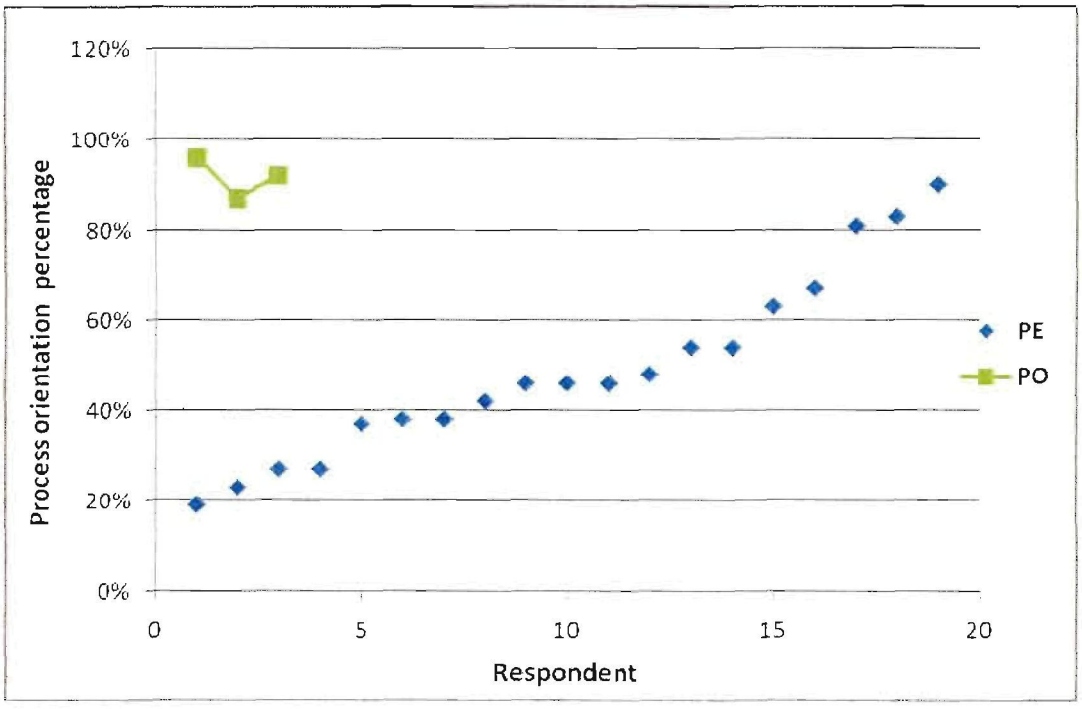
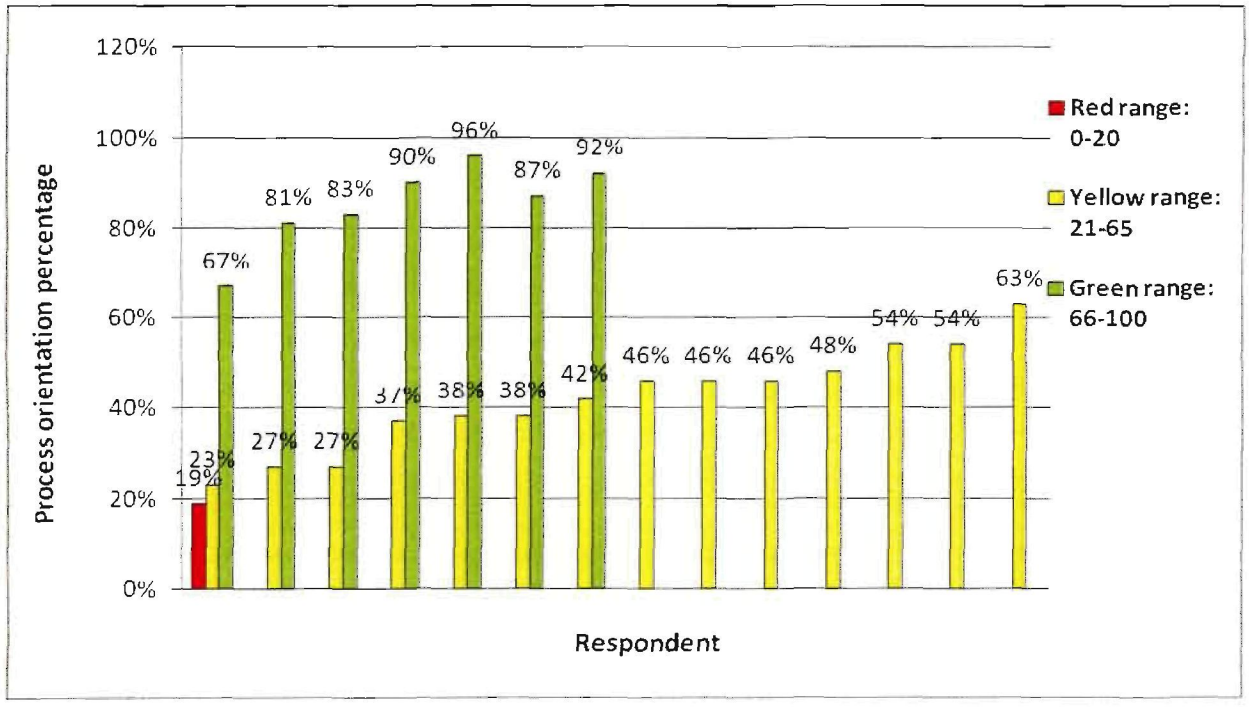


Figure 3-13: SCTE: Respondent results according to process orientation ranges



3.4. CHAPTER SUMMARY

The empirical investigation explored ways to: (i) determine process maturity of selected processes; (ii) determine the level of process orientation of selected departments of the NWU; and (iii) comment on the usability of the instruments that were utilised. Two investigations were performed using modified versions of the PEMM (Hammer, 2007:113) and Reijers models (Reijers, 2006:405).

The PEMM-based investigation was more detailed and investigated the three aspects, namely: *Process maturity* (of a selected process); *enterprise maturity* (of the selected department); and *aggregated process orientation*, which is a combination of process maturity and enterprise maturity. The existing PEMM questionnaire with 26 components and four maturity levels was modified to 24 components and three maturity levels. Process maturity is measured according to five process enablers, namely *'Process Design', 'Process Performers', 'Process Owner', 'Infrastructure'* and *'Metrics';* and enterprise maturity, according to four capabilities, namely *'Leadership', 'Culture', 'Expertise'* and *'Governance'.* The questionnaire consisted of 24 questions, with each question addressing a component of either an enabler or a capability. Aggregated

process orientation was calculated according to two calculation methods using the combined results of the enablers and capabilities.

The PEMM-based investigation was performed within two support departments, namely Human Resource Operations (HR) and the Finances Department (Finances). The HR process selected for investigation was the personnel recruitment, selection and appointment process. The Finances process selected for investigation was the budget process. Three respondent types completed the questionnaire per department, namely the process owner, process performers and customers.

The second investigation, based on the simpler Reijers model, investigated only one process-related aspect, namely process orientation. The existing Reijers questionnaire was used with minor modifications. It consisted of 8 questions, each addressing one aspect of process orientation. This investigation was performed at an academic department, namely the School of Continuing Teachers' Education (SCTE), at the Potchefstroom Campus of the NWU, and two respondent types completed the questionnaire, namely process owners and process performers.

Data were analysed using Microsoft Excel 2007 with PHStat2-Version 7 and results presented using two-way frequency tables and graphs.

CHAPTER 4
CONLUSIONS AND RECOMMENDATIONS

4.1. INTRODUCTION

Although business processes play a fundamental role in the improvement of quality of an organisation's services and products, the establishment of process thinking does not come naturally in many of today's functionally structured organisations. Process thinking is complicated by process characteristics such as cross-functionality and process ownership. In order to successfully implement processes, support by organisational leadership, infrastructure and governance mechanisms are essential. Business Process Management (BPM) aims to develop employees' process knowledge and skills, as well as the enterprise systems and capabilities to support an ongoing process approach.

The approach to BPM varies between organisations. Various factors need to be considered when planning BPM implementation, including the trigger of the project and the organisation's level of process maturity. Knowledge of an organisation's level of process maturity may contribute to the identification of roadblocks, proper implementation planning and monitoring of the progress of a BPM implementation project. This study performed an exploratory investigation of process maturity within three departments of the NWU. It must be noted that the investigation was not a process audit by process maturity experts and that the respondents do not necessarily have knowledge of maturity models. The conclusions are discussed in the next section.

4.2. CONCLUSIONS

The objectives of the study as stated in section 1.4 will now be evaluated.

4.2.1. Process maturity of selected processes

The modified PEMM instrument was used to determine the process maturity of two selected processes within two departments. Process maturity was rated by three

respondent types, namely the process owner, performers and customers and results assessed according to two calculation methods.

4.2.1.1. Recruitment, selection and appointment (R&A) process at HR

According to the first PEMM maturity calculation method, the R&A process owner rates the R&A process maturity mostly at *medium* to *medium-high*. R&A customers' ratings are generally *low,* with 75% of R&A customers rating the process below *medium*. The only conclusion on R&A performers' rating is that they generally rate the process lower than the R&A process owner, but higher than R&A customers. The difference between the R&A process owner and the other two respondent groups, according to the second PEMM maturity calculation method, is two levels.

The most important finding is the difference in maturity ratings between the R&A process owner and the other two respondent types. It is advisable that the difference between especially the process owner and performers is relatively small. The main difference between the R&A process owner and R&A performers are with the four process enablers: "*Process design*", "*Performers*", "*Process owner*" and "*Infrastructure*".

Although it is not normally expected that customers have the same level of process knowledge than the process owner and performers, the R&A process is of such importance to R&A customers, due to interaction with people outside the university, that they can be expected to show a higher level of process maturity. The R&A customers show lower levels on *all five process enablers* than both the R&A process owner and the R&A performers. A specific result to mention is that R&A customers rate the R&A process enabler *"Performers"* very low.

In management terms, these conclusions translate to the following practical suggestions to the Director: HR as process owner of the R&A process:

1. As performers executing the R&A process require adequate process skills and knowledge for optimal process performance, the following areas may need attention:
    - *Improve performers' R&A process skills and knowledge through increased communication and/or training*; and/or

- *Improve the R&A process design by reviewing process aspects such as design methodology, documentation and metrics.*
- *Improvement of performers' customer service orientation through training and mentoring* may improve process performance, as customers' rating of performers was low.

2. As the R&A process requires relatively high customer involvement, detailed knowledge of customer requirements is essential for optimal process performance. *Increased customer involvement to understand the process and capture customer requirements is therefore advised.*
3. The role and authority of the process owner must be clearly understood by performers and customers to ensure optimal process implementation. In this instance, performers and customers can benefit from improved knowledge of process owner identity and authority. *Increased process owner activities may contribute to the communication about the role and will improve process performance.*
4. Although supporting information systems exist, it does not fully integrate customer activities in the process. However, as discussed in section 2.5.3, ***change management should not start with automation.*** *It is strongly advised not to automate a process which has not yet been fully designed and which is not well known to performers.*
5. A better measure of customers' process maturity could be obtained using process performance measures (see recommendations for further research).

4.2.1.2. Budget process at Finances

According to the first PEMM maturity calculation method, the Budget process owner rates the Budget process maturity mostly at *medium-high* maturity level. Budget customers' ratings are generally *low,* with 55% of Budget customers rating the Budget process below *medium.* The only conclusion on Budget performers' rating is that they generally rate the Budget process lower than the Budget process owner, but slightly higher than Budget customers. However, there is no difference between the Budget process owner and the other two respondent groups, according to the second PEMM maturity calculation method.

The difference in ratings of process enablers between the Budget process owner, Budget performers and Budget customer are smaller than with the R&A process. Budget customers' and Budget process performers' ratings of process enablers are about the same, with differences between the Budget process owner and Budget customers mainly evident on "*Performers*", "*Process owner*" and "*Metrics*". An interesting observation is that the Budget process owner rates the enabler "*Infrastructure*" much *lower* than the other two respondent types.

In management terms, the above conclusions can be translated to the following practical steps that may be taken by the Director: Finances as process owner of the Budget process:

1. Both customers and performers' ratings of the performers are lower than that of the process owner. The reasons for this warrants further investigation. Performers executing a process need appropriate process skills and knowledge for optimal process performance. If it proves that performers' skills are lower than what the process owner suggests, *improvement of performers' Budget process skills and knowledge through increased communication and/or training is advised.*
2. Considering that the Budget process consists mainly of a number of standardised forms to be completed according to a strict time schedule by customers, customers need not have an in-depth knowledge of the Budget process. *However, in some cases customers indicated that they are unaware of their required involvement in the process, and this should be addressed.*
3. *Process ownership, which seems not well known to customers, can be established through communication.*
4. No integrated information system exists for the Budget process. The process owner was the only respondent to indicate this, which illustrates her well-developed level of process insight and high level of process orientation. However, it is advised that when a project is launched to integrate and/or automate the Budget process with existing information systems, *meticulous attention should be paid to the people and change management aspects* accompanying the technical side, as discussed in section 2.5.
5. A better measure of customers' process maturity could possibly be obtained using process performance measures (see recommendations for further research).

4.2.2. Process orientation of selected departments

The modified PEMM instrument was used to determine the process orientation at HR and Finances while the modified Reijers instrument was used to determine process orientation at the SCTE. Process orientation at HR and Finances was rated by three respondent types, namely the process owner, performers and customers; while two respondent types, namely the process owners and performers rated process orientation at SCTE.

4.2.2.1. Human Resources

According to the first PEMM maturity calculation method, the aggregated process orientation of the HR process owner is at *medium* to *medium-high*. HR customers' aggregated process orientation is generally *low,* with 72% of HR customers below *medium*. No conclusion can be made on HR performers' process orientation as it ranges from *none* to *high* maturity. According to the second PEMM maturity calculation method, the difference between the process owner and the other two respondent groups is two levels.

The most important observation is the different ratings between the process owner and performers, specifically on the enterprise capabilities of *'Leadership', 'Expertise'* and *'Governance'.*

In management terms, these conclusions can be translated to the following practical steps that may be taken by the Director: HR to create an environment that will support process thinking and process redesign projects:

1. The support of senior management is essential for successful implementation of process-based change projects. The low level of process orientation of customers, many of whom are senior managers, could also be indicative of low process orientation levels with other senior managers. *An investigation into the level of process orientation of senior management is advised.*
2. An organisation needs at least some expertise on process redesign and management. In view of the different ratings between the process owner and

performers on expertise, *it is advised to involve the necessary experts and raise process redesign knowledge before embarking on process redesign projects.*

3. Project and process governance mechanisms are essential when embarking on process based change projects, as these projects are complicated. *It is advised that formal project management methods and a formal process methodology be adopted for process based change projects.*

4.2.2.2. Finances

According to the first calculation method, the PO's aggregated Finances process orientation rating is medium, while performers' and customers' aggregated process orientation ratings are spread from *none* to *high* maturity levels. According to the second calculation method, all respondent types have a zero process orientation.

An important observation here is that, although there is a difference in aggregated Finances process orientation rating between the respondent groups according to the first PEMM maturity calculation method, there is no difference according to the second PEMM maturity calculation method. However, an important observation is that the process owner rates the enterprise capabilities of *'Expertise'* and *'Governance'* low.

In management terms, these conclusions can be translated to the following practical steps that may be taken by the Director: Finances to create an environment that will support process thinking and process redesign projects:

1. *It is advised to embark on a process-awareness program to involve the division which did not participate in the investigation.* As teamwork and willingness to change are necessary values to implement process-based projects, the negative attitude of this division's manager is a definite red flag.
2. An organisation needs at least some expertise on process redesign and management. In view of the low rating on *'Expertise'* by the process owner, *it seems necessary to raise process knowledge of performers.*
3. Project and process governance mechanisms are essential when embarking on process based change projects, as these projects are complicated. In view of the low rating on *'Governance'* by the process owner, *it is advised that a further*

investigation be performed on the formal process methodology and its suitability to the department and its processes.

4.2.2.3. School of Continuing Teachers' Education

The average process orientation of SCTE performers is 49% which is within the medium range and that of SCTE process owners is 92%, which is within the high range. The department's average is 71%, which is within the high range. The most important observation is again the difference between the process orientation of the process owner and the performers.

In management terms, these conclusions can be translated to the following practical steps that may be taken by the Director: SCTE to create an environment that will support process thinking and process redesign projects:

1. Although the average process orientation of the SCTE is high, the process orientation of performers may be improved. *A program for increasing performers' process knowledge is advised.*
2. *It is advised that a more detailed assessment of the SCTE's process maturity level is performed.* The outcome of such an assessment can serve as input to plan process management in the school and to identify action necessary for progression to the next process maturity level, as described in section 2.6.3.

4.2.3. Usability of instruments

4.2.3.1. Instrument 1: The PEMM-based questionnaire

Instrument 1 was a questionnaire based on the PEMM-framework. Although the PEMM model was simplified and much effort was expended to adapt the questionnaire to the subject language of each process and department, it still proved difficult for respondents to complete, as is apparent from respondents' written feedback (see Annexures K and L), verbal feedback to the author, as well as the disappointing response by customers.

Various issues seem to be creating problems, namely:

i. Lack of process thinking knowledge: Respondents need process knowledge for proper interpretation of questions, and therefore optimal completion of the questionnaire.
ii. Lack of knowledge of the departmental structure and internal work methods: Customers felt unable to complete the questions requiring knowledge of the specific department and its work methods.
iii. The format of the questionnaire was too complex: Although a detailed explanation with instructions for questionnaire completion was provided, respondents felts that question completion was not easy and intuitive. One respondent commented that he had to page back and forth to the instructions while completing the questionnaire.

The PEMM framework is comprehensive and can potentially provide better insight into the maturity status of process enablers and enterprise capabilities. However, it needs to be used with respondents that have a reasonable level of process knowledge. This could be achieved either involving process experts, or changing the format of feedback to either a structured interview or a workshop format. The latter approaches would possibly deliver more accurate and reliable results.

4.2.3.2. Instrument 2: Reijers

Instrument 2 was a questionnaire based on the Reijers model. It is much simpler than instrument 1, with respondents taking between 10 and 15 minutes to complete the questionnaire. Respondents also had fewer questions or comments. The value of the instrument lies in its simplicity and ease of use. Its ability to compute with relative ease a numerical value that can be used to determine different levels of process orientation is worthwhile. Such numerical values of process orientation can be used to indicate critical levels of process orientation, as well as a comparative measurement between respondents, departments and organisations.

Although it has only been applied within one department, the results of the investigation appear to be valuable. If repeated tests provide similar results, it could become a useful tool. As the focus at the NWU is to develop business process thinking, this can be a useful and easy-to-use tool to measure readiness and plan for process-based change. It could also be used to measure progress of process-thinking development.

4.2.4. Final conclusion toward possible approach for business process management at the North-West University

Implementation of business process management at the NWU should be structured in a series of smaller, manageable steps. It is advised that the "business case" approach is followed and priority processes be identified. Knowing the level of process maturity is important before embarking on implementation of business process management or process improvement projects. However, the instrument for measuring process maturity needs refinement. Business process implementation projects should be carefully planned and executed, taking into consideration the level of process maturity of relevant processes as well as the process orientation of the department involved.

4.3. RECOMMENDATIONS FOR FURTHER STUDY

Further research can be performed on the refinement of the two models, namely:

i. The adaptation of the PEMM instrument to simplify completion of the questionnaire.
ii. The adaptation of the PEMM instrument to be used during structured interviews.
iii. The development of quantitative comparative measurements for the PEMM instrument.
iv. The development of a generic process performance measurement instrument from a customer based viewpoint.
v. Refinement of the Reijers questionnaire to provide more detail on potential process thinking weaknesses.

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ANNEXURE A: PERSONNEL RECRUITMENT & APPOINTMENT QUESTIONNAIRE

A. *Definitions and abbreviations*

a. The recruitment and appointment procedure (R&A procedure) includes all steps in the process to create a new position, recruit candidates, make new appointments or transfer current staff members between departments. The appointment of permanent, fixed term and temporary NWU personnel is relevant.

b. The procedure is driven mainly by the department Human Resource Operations (HR Ops) at the Institutional Office (IO).

c. End-user(s) refer/s to all academic and support managers and their supporting staff within their faculty/school/department using the R&A procedure for their benefit to recruit and appoint personnel.

d. The HR Department refers to all staff of the department of the Executive Director: Human Capital Development, IO.

e. HR employees refer to all staff within HR Ops as well as other HR staff at IO and campus HR Departments.

f. HR management refers to the Executive Director: Human Capital Development, the Director HR Operations and functional managers within the HR Operations department.

g. Interfacing processes refer to related processes such as the staff budget and financial processes.

B. *Biographical Information*

a. Please mark applicable business unit:

Institutional Office	Mafikeng Campus	Potchefstroom Campus	Vaal Triangle Campus

b. Please complete:

Faculty/Division: .....

School/Department/Sub-department: .....

C. *Instructions for completion of the questionnaire:*

a. The questionnaire consists of 24 questions, some referring to a specific aspect of the R&A procedure, while others are more general.

b. It will take about 15 minutes to complete the questionnaire.

c. There are no right or wrong answers.

d. Read each question as well as the three statements provided. Then choose ONE statement that best describes the aspect or situation referred to in the question. If you think that more than one statement is applicable, you may combine two ADJACENT statements, but choose and mark only ONE option, e.g.:

   If both statements A and B are applicable or partly applicable, choose option 2; **OR**
   If both statements B and C are applicable or partly applicable, choose option 4.

e. If there is no appropriate statement for a question, choose option *"None applicable"*. Please provide a short explanation.

f. If you cannot answer the question, choose the option *"Don't know"*. Please use this option sparingly.

Example

Which statement best describes the usage frequency of the R&A procedure?

A: The procedure is seldom used.	B: The procedure is often used.	C: The procedure is always used.

If you think that statement A describes your situation best, choose option 1:

1	2	3	4	5

OR: If you think that both statements A and B are true, choose option 2:

1	2	3	4	5

OR: If you think that that statement C is true, choose option 3:

1	2	3	4	5

OR: If you think that that both statements A and B are true or somewhat true, choose option 4:

1	2	3	4	5

OR: If you think that statement C describes your situation best, choose option 5:

1	2	3	4	5

Please complete questions 1 to 24 in section D on pp. 3 to 10 now.

Confidentiality of your response is guaranteed.
Thank you for your time.

D. Questions

1. Which statement best describes the current design of the R&A procedure?

	The documented R&A procedure describes the activities of HR and end-users.		The documented R&A procedure describes the activities of HR, end users and related functions such as finances and IT.		Activities in the documented process include those of all role-players, related processes and improvement steps.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

2. Which statement best describes context knowledge about the R&A procedure?

	The needs of end-users and interfacing processes are incorporated in the R&A procedure and steps for improvement are described.		The needs of end users have been established and have been incorporated in the R&A procedure.		HR employees are knowledgeable of who end-users of the R&A procedure are and attempt to satisfy their relevant needs.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

3. Which statement best describes existing documentation for the R&A procedure?

	Forms exist for the activities that form part of the R&A procedure.		Integrated forms exist as part of a work-flow for the R&A procedure.		The R&A procedure, forms and interfacing processes are documented in formal process diagrams.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

4. Which statement best describes HR employees' knowledge?

	HR employees understand how the R&A procedure affect end-users, other processes and the university's effectiveness.		HR employees know the R&A procedure, its metrics and can describe how the R&A procedure affect end-users.		HR employees can describe the R&A procedure and know the key metrics of its performance.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

5. Which statement best describes HR employees' skills?

	HR employees are skilled in problem solving and know how to improve their functional areas.		HR employees are skilled at teamwork and self-management.		HR employees are skilled at business decision making and change management implementation.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

6. Which statement best describes the process orientation of HR employees?

	HR employees have allegiance to the R&A procedure. Their primary focus is on their function within HR, e.g. recruitment, benefits or salaries.		HR employees follow the R&A procedure and strive to ensure that the procedure deliver the results needed to achieve the end-user goals.		HR employees look for signs that the R&A procedure should change and propose the necessary improvements.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

7. Which statement best describes ownership for the R&A procedure?

	The Director: HR Operations is busy with an initiative to improve the R&A procedure.		A project approach is followed to improve the R&A procedure.		Every HR employee tries to improve the R&A procedure wherever he/she can.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

8. Which statement best describes relevant activities undertaken by the Director: HR Operations?

	The Director: HR Operations documents and communicates the R&A procedure to all the HR employees, and sponsors small-scale change projects.		The Director: HR Operations communicates the R&A procedure's performance goals, and initiates and implements improvements to the procedure.		The Director: HR Operations works with other managers to integrate the R&A procedure with other processes to achieve university goals.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

9. Which statement best describes the authority of the Director: HR Operations?

	The Director: HR Operations lobbies for the R&A procedure and encourages functional HR managers to make changes.		The Director: HR Operations convenes a design team that redesigns and implements the new procedure design.		The Director: HR Operations controls the IT systems and budgets that support the process, and can implement redesigned processes using his/her discretion.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

10. Which statement best describes information technology (IT) systems supporting the R&A procedure?

	An integrated IT system supports both the R&A procedure and interfacing processes.	An IT system constructed from functional components supports the R&A procedure.	Legacy IT systems and processes are adapted to support the R&A procedure.			
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

11. Which statement best describes existing R&A procedure metrics?

	The R&A procedure have some basic cost and quality metrics defined.	The R&A procedure have cost and quality metrics derived from end-user requirements.	Metrics for the R&A procedure and interfacing process exist and have been derived from the university goals.			
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

12. Which statement best describes the use of R&A procedure metrics?

	HR management uses the R&A procedure's metrics to drive functional improvements.	HR management uses the R&A procedure's metrics to compare its performance to end-user needs and benchmarks.	HR management uses metrics for process management and improvement, and uses it in strategic planning.			
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

13. Which statement best describes HR management's process awareness?

	HR management uses an established integrated process approach for managing the operations of the department.		HR management knows how to improve processes and procedures and how to implement improvement.		HR management recognises the need to improve the performance of the HR department's operations.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

14. Which statement best describes ownership of the R&A procedure?

	HR employees are the owners of the R&A procedure.		The Director: HR Operations is the owner of the R&A procedure.		A network of people in the university are the co-owners of the R&A procedure.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

15. Which statement best describes HR management's endorsement of process thinking?

	HR management uses an established and documented process management approach.		HR management sets process goals and removes roadblocks to achieve those goals.		HR management encourages functional improvement of each subdivision.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

16. Which statement best describes the HR management style?

	The management style is hierarchical and top-down.		The management style is collaborative.		HR management has delegated authority to process performers.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

17. Which statement best describes team work within HR Operations?

	Various teams are used among HR employees as well as with end-users.		Cross-functional HR teams are used for projects.		Employees work individually to foster independence and skills development.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

18. Which statement best describes HR employees' attitude towards responsibility for the R&A process?

	The Director: HR Operations is accountable for results of the R&A procedure.		HR employees feel accountable for results of the R&A procedure.		HR employees feel end-user service is their duty and professionally serve end-users.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

19. Which statement best describes HR employees' attitude towards change?

	There is growing acceptance in HR about the need to make small changes.		HR employees are prepared for significant change in how work is performed.		HR employees regard change as a regular phenomenon.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

20. Which statement best describes expertise within the HR department?

	HR employees can facilitate large-scale change management in the university.		Some HR employees are able to redesign and implement the R&A procedure.		Some HR employees appreciate the value of redesigning the R&A procedure.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

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21. Which statement best describes process methodologies within the HR Operations?

	HR Operations has developed and standardized a formal procedure for process redesign.		Process redesign teams have access to a basic methodology for R&A process redesign.		HR employees use informal methods for solving operational problems and making small improvements to the R&A procedure.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

22. Which statement best describes process model development within HR Operations?

	HR Operations has a formal documented list of its main business functions.		HR Operations has developed and documented a complete process model.		The HR Operations process model is used to drive projects improving the HR processes on a continuous basis.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

23. Which statement best describes accountability within HR Operations?

	An HR process steering group exists to initiate and monitor process management and improvement.		Process owners have nominated accountability for individual processes.		Functional managers within HR Ops are accountable for the performance of their functions/sub-departments.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

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24. Which statement best describes process integration within HR Operations?

	Sub-departments of HR Operations initiate improvements to functions and procedures whenever they see the need to do so.		An informal coordinating team drives ad-hoc process management and resources are assigned on a project basis for improvements.		A formal steering team manages integrated improvement projects according to a formal established process approach.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

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~-~-~-~-~-~-~-~-~-~-~- End ~-~-~-~-~-~-~-~-~-~-~-

ANNEXURE B: PERSONEELWERWING- EN AANSTELLINGSVRAELYS

A. *Definisies en afkortings*

a. Die werwing- en aanstellingsprosedure (W&A prosedure) sluit alle stappe in die proses van die skep van 'n posisie, die advertensie t.o.v. werwing van kandidate, aanstelling van nuwe personeel asook die skuif van huidige personeel tussen departemente in. Aanstellings sluit permanente, vaste-termyn en tydelike aanstellings in.

b. Die prosedure word hoofsaaklik deur die Menslike Hulpbronne Bedryfsdepartement (MHB Ops) by die Institusionele Kantoor (IK)-bestuur.

c. Eindgebruikers verwys na alle akademiese- en ondersteuningsbestuurders asook personeel in hul fakulteit/skool/departement wat die W&A prosedure tot hul voordeel gebruik om personeel te werf en aan te stel.

d. Die MHB-departement verwys na die Menslike Hulpbronne Bedryfsdepartement sowel as kampus MHB-departemente.

e. MHB-werknemers verwys na alle personeel van die MHB Bedryfsdepartement sowel as ander MHB-personeel werksaam op kampus MHB-departemente.

f. MHB-Bestuur verwys na die Uitvoerende Direkteur: Menslike Kapitaal Ontwikkeling (IK), die Direkteur: MHB Ops asook funksionele bestuurders binne die MHB -departement.

g. Koppelvlakprosesse verwys na verwante prosesse soos die personeelbegrotingsproses en finansiële prosesse.

B. *Biografiese inligting*

a. Dui asseblief u besigheidseenheid aan:

Institusionele Kantoor	Mafikengkampus	Potchefstroomkampus	Vaaldriehoekkampus

b. Voltooi asseblief:

Fakulteit/Divisie: .....

Skool/Departement/Sub-departement: .....

C. *Instruksies vir voltooiing van die vraelys:*

a. Die vraelys bestaan uit 24 vrae, waarvan sommige op 'n spesifieke aspek van die prosedure fokus, terwyl ander meer algemeen is.

b. Dit sal ongeveer 15 minute neem om die vraelys te voltooi.

c. Daar is geen regte of verkeerde antwoorde nie.

d. Lees elke vraag sowel as die drie stellings wat verskaf word. Besluit watter stelling volgens u mening die aspek waarna die vraag verwys, die beste beskryf. Kies dan EEN opsie. Indien u van mening is dat meer as een stelling van toepassing is, mag u twee AANGRENSENDE stellings kombineer, maar steeds net EEN opsie kies en merk; dus:

   As beide stellings A en B volledig of gedeeltelik van toepassing is, kies opsie 2; **OF**

   As beide stellings B en C volledig of gedeeltelik van toepassing is, kies opsie 4.

e. Indien geen stelling 'n gepaste beskrywing is nie, merk asseblief die opsie *'Geen opsie'*. Gee asseblief ook 'n kort verduideliking.

f. Indien u werklik nie weet wat om te antwoord nie, merk die opsie *'Weet nie'*. Probeer dié opsie asseblief so min moontlik gebruik.

Voorbeeld:

Watter stelling beskryf die gebruiksfrekwensie van die W&A prosedure die beste?

A: Die prosedure word selde gebruik.	B: Die prosedure word dikwels gebruik.	C: Die prosedure word altyd gebruik.

Indien u van mening is dat stelling A die situasie ten beste beskryf, kies opsie 1:

~~1~~	2	3	4	5

OF: Indien u van mening is dat beide stellings A en B waar is, kies opsie 2:

1	~~2~~	3	4	5

OF: Indien u van mening is dat stelling C waar is, kies opsie 3:

1	2	~~3~~	4	5

OF: Indien u van mening is dat beide stellings B en C waar of gedeeltelik waar is, kies opsie 4:

1	2	3	~~4~~	5

OF: Indien u van mening is dat stelling C die situasie ten beste beskryf, kies opsie 5:

1	2	3	4	~~5~~

Voltooi nou asseblief vrae 1 tot 24 in afdeling D op pp. 3 tot 10.

Alle response sal as vertroulik hanteer word.
Baie dankie vir u tyd.

D. Vrae

1. Watter stelling beskryf die huidige ontwerp van die W&A-prosedure die beste?

	Die gedokumenteerde W&A-prosedure beskryf die aktiwiteite van MHB- en eindgebruikers.		Die gedokumenteerde W&A-prosedure beskryf die aktiwiteite van MHB, eindgebruikers en verwante prosesse soos finansies.		Die gedokumenteerde W&A-prosedure beskryf die aktiwiteite van alle rolspelers en verwante prosesse asook verbeterende stappe.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

2. Watter stelling beskryf die kontekstuele kennis van die W&A-prosedure die beste?

	Eindgebruiker- en koppelvlakbehoeftes word in die W&A-prosedure-dokument vervat. Stappe ter prosesverbetering word beskryf.		Eindgebruiker-behoeftes is uitgeklaar en is in die W&A-prosedure geïnkorporeer.		MHB-werknemers weet wie die eindgebruikers van die W&A-prosedure is en probeer aan hul relevante behoeftes voldoen.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

3. Watter stelling beskryf die bestaande dokumentasie van die W&A-prosedure die beste?

	Vorms bestaan vir aktiwiteite wat deel vorm van die W&A-prosedure.		Geïntegreerde vorms bestaan as deel van 'n werksvloei vir die W&A-prosedure.		Die W&A-prosedure, vorms en koppelvlakprosesse is gedokumenteer in formele prosesdiagramme.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

4. Watter stelling beskryf die MHB-werknemers se kennis die beste?

	MHB-werknemers verstaan die invloed van die W&A-prosedure op eindgebruikers, koppelvlakprosesse en organisasie-effektiwiteit.		MHB-werknemers ken die W&A-prosedure, prestasiemaatstawwe en kan die invloed daarvan op eindgebruikers beskryf.		MHB-werknemers kan die W&A-prosedure beskryf en weet wat die belangrikste prosedure-maatstawwe is.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

5. Watter stelling beskryf die MHB-werknemers se vaardighede die beste?

	MHB-werknemers is vaardig met probleemoplossing en weet hoe om hul funksionele areas te verbeter.		MHB-werknemers is vaardig met spanwerk en selfbestuur.		MHB-werknemers is vaardig met besigheidsbesluitneming en kan verandering implementeer.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

6. Watter stelling beskryf die MHB-werknemers se proses-oriëntasie die beste?

	MHB-werknemers het lojaliteit teenoor die W&A-prosedure. Hul primêre fokus is op afdelingsfunksies soos werwing, voordele en salarisse.		MHB-werknemers volg die W&A-prosedure en streef daarna dat prosedures die nodige resultate lewer om eindgebruiker doelwitte te bereik.		MHB-werknemers sien raak waar die W&A-prosedure verbeter kan word en maak gepaste voorstelle ter verbetering.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

7. Watter stelling beskryf eienaarskap vir die W&A-prosedure die beste?

	Die Direkteur: MHB-Ops is besig met 'n inisiatief om die W&A-prosedure te verbeter.		'n Projekbenadering word gevolg ter verbetering van die W&A-prosedure.		Elke MHB-personeellid probeer die W&A-prosedure verbeter waar hy/sy kan.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

8. Watter stelling beskryf relevante aktiwiteite wat deur die Direkteur: MHB-Ops onderneem word, die beste?

	Die Direkteur: MHB-Ops dokumenteer en kommunikeer die W&A-prosedure aan alle MHB-werknemers, en onderneem klein veranderings-bestuurprojekte.		Die Direkteur: MHB-Ops kommunikeer die prestasiedoelwitte van die W&A-prosedure en inisieer en implementeer verbeterings aan die prosedure.		Die Direkteur: MHB-Ops werk saam met ander bestuurders om die W&A-prosedure met ander prosesse te integreer ter bereiking van universiteitsdoelwitte.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

9. Watter stelling beskryf die outoriteit van die Direkteur: MHB-Ops die beste?

	Die Direkteur: MHB-Ops bemark die W&A prosedure en moedig funksionele MHB-bestuurders aan om veranderinge aan te bring.		Die Direkteur: MHB-Ops is die sameroeper van 'n span wat die prosedure hersien en die herontwerpte prosedure implementeer.		Die Direkteur: MHB-Ops beheer IT stelsels en die begroting wat die proses ondersteun en kan proseshersienings implementeer na goeddunke.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

10. Watter stelling beskryf die inligtingstegnologie (IT)-stelsels wat die W&A-prosedure ondersteun die beste?

	'n Geïntegreerde IT-stelsel ondersteun die W&A-prosedure sowel as koppelvlakprosesse.		'n IT-stelsel saamgestel uit funksionele komponente ondersteun die W&A-prosedure.		Verouderde IT-stelsels en -prosesse word aangepas om die W&A-prosedure te ondersteun.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

11. Watter stelling beskryf die bestaande maatstawwe vir die W&A-prosedure die beste?

	Enkele basiese koste- en kwaliteitsmaatstawwe bestaan vir die W&A-prosedure.		Kostemaatstawwe en kwaliteitmaatstawwe, afgelei van eindgebruikerbehoeftes, bestaan vir die W&A-prosedure.		Koste- en kwaliteitmaatstawwe, afgelei van universiteitsdoelwitte, bestaan vir die W&A-prosedure.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

12. Watter stelling beskryf die gebruik van die W&A-prosedure maatstawwe die beste?

	MHB-Bestuur gebruik maatstawwe om funksionele verbeterings aan te bring.		MHB-Bestuur gebruik maatstawwe om die W&A-prosedure aan eindgebruikerbehoeftes en eweknie-prosedures ("benchmarks") te meet.		MHB-Bestuur gebruik maatstawwe vir W&A-prosedurebestuur en -verbetering asook vir strategiese beplanning.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

13. Watter stelling beskryf prosesbewustheid van MHB-Bestuur die beste?

	Die MHB-Bestuur gebruik 'n geïntegreerde, gevestigde proses-benadering om dag-tot-dag take van die departement te bestuur.		Die MHB-Bestuur verstaan hoe om prosesse en prosedures te verbeter en hoe om verbeterings te implementeer.		Die MHB-Bestuur verstaan die noodsaak om die prestasie en funksionaliteit van die MHB-departement te verbeter.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

14. Watter stelling beskryf eienaarskap van die W&A-prosedure die beste?

	MHB-werknemers is die eienaars van die W&A-prosedure.		Die Direkteur: MHB-Ops is die eienaar van die W&A-prosedure.		'n Netwerk van personeel van die universiteit is mede-eienaars van die W&A-prosedure.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

15. Watter stelling beskryf MHB-Bestuur se prosesbestuursbenadering die beste?

	MHB-Bestuur volg 'n gedokumenteerde, gevestigde proses bestuurs-benadering.		MHB-Bestuur stel prosesdoelwitte en verwyder struikelblokke in die bereiking van die doelwitte.		MHB-Bestuur bevorder die verbetering van die funksies van elke MHB-Ops-afdeling.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

16. Watter stelling beskryf die bestuurstyl van MHB-Bestuur die beste?

	Die bestuurstyl is hiërargies en "top-down".		Die bestuurstyl is samewerkend van aard ("collaborative").		MHB-Bestuur het gesag aan proses-eienaars gedelegeer.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

17. Watter stelling beskryf die spanwerk binne MHB-Ops?

	Verskeie spanne bestaan tussen MHB-werknemers onderling en saam met eindgebruikers.		Kruis-funksionele MHB-spanne word gebruik vir projekte.		MHB-werknemers werk individueel om onafhanklikheid en vaardigheids-ontwikkeling te bevorder.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

18. Watter stelling beskryf MHB-werknemers se houding jeens verantwoordelikheid vir die W&A-proses die beste?

	Die Direkteur: MHB-Ops is aanspreeklik vir die W&A-prosedure.		MHB-werknemers voel verantwoordelik vir die resultate van die W&A-prosedure.		MHB-werknemers het 'n gevoel van trots in die bediening van eind-gebruikers van die W&A-prosedure.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

19. Watter stelling beskryf die MHB-werknemers se hantering van verandering die beste?

	Daar is groeiende aanvaarding onder MHB-werknemers dat kleiner veranderings noodsaaklik is.		MHB-werknemers is bereid om omvattende veranderings aan te bring in die wyse hoe hul daaglikse werk verrig word.		MHB-werknemers aanvaar die beginsel van deurlopende verandering as alledaags.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

20. Watter stelling beskryf die kundigheid van MHB-werknemers die beste?

	MHB-werknemers kan omvattende veranderings by die universiteit fasiliteer en implementeer.		Sommige MHB-werknemers kan self die W&A-prosedure herontwerp en implementeer.		Sommige MHB-werknemers het waardering vir die nut van 'n herontwerpte W&A-prosedure.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

21. Watter stelling beskryf die prosesmetodologieë binne MHB-Ops die beste?

	MHB-Ops het 'n gestandaardiseerde, formele metodologie vir proses-ontwerp en -hersiening.		Prosesherontwerpspanne beskik oor 'n basiese metodologie om die W&A-prosedure te hersien.		MHB-Ops gebruik informele metodes om operasionele probleme op te los en klein verbeterings aan te bring.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

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22. Watter stelling beskryf die prosesmodel-ontwikkeling binne MHB-Ops die beste?

	MHB-Ops beskik oor 'n formele, gedokumenteerde lys van die belangrikste funksies van die afdeling.		'n Volledige prosesmodel is deur MHB-Ops ontwikkel en gedokumenteer.		Die MHB-Ops prosesmodel word gebruik om deurlopende proses-verbeteringsprojekte te bestuur.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

23. Watter stelling beskryf die proses-aanspreeklikheid binne MHB-Ops die beste?

	'n MHB-proses-stuurgroep ("steering group") bestaan om prosesbestuur en -verbetering te inisieer en te monitor.		Proses-eienaars het aangewese aanspreeklikheid vir individuele prosesse.		MHB-afdelingsbestuurders is aanspreeklik vir die prestasie van hulle funksies/afdelings.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

24. Watter stelling beskryf die proses-integrasie binne MHB-Ops die beste?

	MHB-afdelings inisieer verbeterings van hul funksies en/of prosedures wanneer hul moontlikhede raaksien.		'n Informele koördineringspan doen ad-hoc prosesbestuur, en hulpbronne word op projekbasis vir verbeteringsaksies toegeken.		'n Formele stuurkomitee doen geïntegreerde verbeteringsprojekte aan die hand van 'n formele, gevestigde prosesbenadering.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

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ANNEXURE C: BUDGET PROCESS QUESTIONNAIRE

A. *Definitions and abbreviations*

a. The annual budget process includes all steps in the process to create the annual budget, starting in May and ending with Council approval in November.

b. The FIN Department refers to all staff of the department of the Director: Finances (IO).

c. The process is driven mainly by the department Management Accounting Services (MAS), which forms part of the FIN department, at Institutional Office (IO).

d. FIN employees refer to all personnel within the MAS as well as other financial staff at IO and campus centralised financial departments. (Financial managers and administrative staff in faculties/schools/other support departments are not included.)

e. FIN management refers to the Director: Finances (IO), the Manager: MAS and other managers reporting to the Director: Finances (IO).

f. End-users refer to all academic and support managers and their supporting staff within their faculty/school/department that use the budget process.

g. Interfacing processes refer to related processes such as the staff budget and human resources processes.

B. *Biographical Information*

a. Please mark applicable business unit:

Institutional Office	Mafikeng Campus	Potchefstroom Campus	Vaal Triangle Campus

b. Please complete:

Faculty/Division: .....

School/Department/Sub-department: .....

C. ***Instructions for completion of the questionnaire:***

a. The questionnaire consists of 24 questions, some referring to a specific aspect of the budget process, while others are more general.

b. It will take about 15 minutes to complete the questionnaire.

c. There are no right or wrong answers.

d. Read each question as well as the three statements provided. Then choose ONE statement that best describes the aspect or situation referred to in the question. If you feel that more than one statement is applicable, you may combine two ADJACENT statements, but choose and mark only ONE option, e.g.:

   If both statements A and B are applicable or partly applicable, choose option 2; **OR**
   If both statements B and C are applicable or partly applicable, choose option 4.

e. If there is no appropriate statement for a question, choose option "*None applicable*". Please provide a short explanation.

f. If you cannot answer the question, choose the option "*Don't know*". Please use this option sparingly.

Example

Which statement best describes the usage frequency of the budget process?

A: The process is seldom used.	B: The process is often used.	C: The process is always used.

If you think that statement A describes your situation best, choose option 1:

1	2	3	4	5

OR: If you think that both statements A and B are true, choose option 2:

1	2	3	4	5

OR: If you think that that statement C is true, choose option 3:

1	2	3	4	5

OR: If you think that that both statements A and B are true or somewhat true, choose option 4:

1	2	3	4	5

OR: If you think that statement C describes your situation best, choose option 5:

1	2	3	4	5

Please complete questions 1 to 24 in section D on pp. 3 to 10 now.

Confidentiality of your response is guaranteed.
Thank you for your time.

D. *Questions*

1. Which statement best describes the current design of the budget process?

	The documented budget process describes the activities of MAS and end-users.		The documented budget process describes the activities of MAS, end users and related functions such as financial reporting and staff budget.		Activities in the documented process include those of all role players, related processes and improvement steps.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

2. Which statement best describes context knowledge about the budget process?

	The needs of end-user and interfacing processes are incorporated in the budget process and steps for improvement are described.		The needs of end-users have been established and have been incorporated in the budget process.		MAS employees are knowledgeable of who end-users of the budget process are and attempt to satisfy their relevant needs.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

3. Which statement best describes existing documentation for the budget process?

	Forms exist for the activities that form part of the budget process.		Integrated forms exist as part of a work-flow for the budget process.		The budget process, forms and interfacing processes are documented in formal process diagrams.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

4. Which statement best describes MAS employees' knowledge?

	MAS employees understand how the budget process affects end-users, other processes and the university's effectiveness.		MAS employees know the budget process, its metrics and can describe how the budget process affects end-users.		MAS employees can describe the budget process and know the key metrics of its performance.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

5. Which statement best describes MAS employees' skills?

	MAS employees are skilled in problem solving and know how to improve their functional areas.		MAS employees are skilled at teamwork and self-management.		MAS employees are skilled at business decision-making and change management implementation.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

6. Which statement best describes the process orientation of MAS employees?

	MAS employees have allegiance to the budget process. Their primary focus is on the achievement of functional goals.		MAS employees follow the budget process and strive to ensure that the procedure delivers the results needed to achieve the end-user goals.		MAS employees look for signs that the budget process should change and propose the necessary improvements.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

7. Which statement best describes ownership for the budget process?

	The Manager: MAS is busy with an initiative to improve the budget process.		A project approach is followed to improve the budget process.		Every MAS employee tries to improve the budget process wherever he/she can.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

8. Which statement best describes relevant activities undertaken by the Manager MAS?

	The Manager: MAS documents and communicates the budget process to all the MAS employees, and sponsors small-scale change projects.		The Manager: MAS communicates the budget process's performance goals, initiates and implements improvements to the process.		The Manager: MAS works with other managers to integrate the budget process with other processes to achieve university goals.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

9. Which statement best describes the authority of the Manager MAS?

	The Manager: MAS lobbies for the budget process and encourages functional FIN managers to make changes.		The Manager: MAS convenes a design team that redesigns and implements the new process design.		The Manager: MAS controls the IT systems and budgets that support the process, and can implement redesigned processes using his/her discretion.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

10. Which statement best describes information technology (IT) systems supporting the budget process?

	An integrated IT system supports both the budget process and interfacing processes.		An IT system constructed from functional components supports the budget process.		Legacy IT systems and processes are adapted to support the budget process.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

11. Which statement best describes existing budget process metrics?

	The budget process has some basic cost and quality metrics defined.		The budget process has cost and quality metrics derived from end-user requirements.		Metrics for the budget process and interfacing process exist and have been derived from the university goals.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

12. Which statement best describes the use of budget process metrics?

	FIN management uses the budget process's metrics to drive functional improvements.		FIN management uses the budget process's metrics to compare its performance to end-user needs and benchmarks.		FIN management uses metrics for process management and improvement, and uses it in strategic planning.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

13. Which statement best describes FIN management's process awareness?

	FIN management uses an established integrated process approach for managing the operations of the FIN department.	FIN management knows how to improve processes and procedures and how to implement improvement.	FIN management recognises the need to improve the performance of the FIN department's operations.			
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

14. Which statement best describes ownership of the budget process?

	FIN employees are the owners of the budget process.	The Director: FIN is owner of the budget process.	A network of people in the university is the co-owners of the budget process.			
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

15. Which statement best describes FIN management's endorsement of process thinking?

	FIN management uses an established and documented process management approach.	FIN management sets process goals and removes roadblocks to achieve those goals.	FIN management encourages functional improvement of each subdivision.			
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

16. Which statement best describes the FIN management style?

	The management style is hierarchical and top-down.		The management style is collaborative.		FIN management has delegated authority to process performers.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

17. Which statement best describes team work within the FIN Department?

	Various teams are used among FIN employees as well as with end-users.		Cross-functional FIN teams are used for projects.		Employees work individually to foster independence and skills development.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

18. Which statement best describes FIN employees' attitude towards responsibility for the budget process?

	The Director: FIN is accountable for results of the budget process.		FIN employees feel accountable for results of the budget process.		FIN employees feel end-user service is their duty and professionally serve end-users.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

19. Which statement best describes FIN employees' attitude towards change?

	There is growing acceptance in FIN about the need to make small changes.		FIN employees are prepared for significant change in how work is performed.		FIN employees regard change as a regular phenomenon.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

20. Which statement best describes the expertise of FIN employees?

	FIN employees can facilitate large-scale change management in the university.		Some FIN employees are able to redesign and implement the budget process.		Some FIN employees appreciate the value of redesigning the budget process.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

21. Which statement best describes process methodologies within the FIN department?

	The FIN department has developed and standardized a formal procedure for process redesign.		Process redesign teams have access to a basic methodology for budget process redesign.		FIN employees use informal methods for solving operational problems and making small improvements to the budget process.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

22. Which statement best describes process model development within the FIN department?

	The FIN department has a formal documented list of its main business functions.		The FIN department has developed and documented a complete process model.		The FIN department's process model is used to drive projects improving the FIN processes on a continuous basis.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

23. Which statement best describes process accountability within the FIN department?

	A FIN process steering group exists to initiate and monitor process management and improvement.		Process owners have nominated accountability for individual processes.		Functional managers within FIN department are accountable for the performance of their functions/sub-departments.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

24. Which statement best describes process integration within the FIN department?

	Sub-departments of the FIN department initiate improvements to functions and procedures whenever they see the need to do so.		An informal coordinating team drives ad-hoc process management and resources are assigned on a project basis for improvements.		A formal steering team manages integrated improvement projects according to a formal established process approach.	
Don't know	1	2	3	4	5	None applicable

Comment: .....

.....

~--~--~--~--~--~--~-- End ~--~--~--~--~--~--~--~-

ANNEXURE D: BEGROTINGSPROSESVRAELYS

A. *Definisies en afkortings*

a. Die begrotingsproses sluit alle stappe in die proses van die opstel van die jaarlikse begroting in. Dit begin gewoonlik in Mei en sluit af met die Raadsgoedkeuring in November.

b. Die FIN-departement verwys na die divisie van die Direkteur: Finansies (Institusionele Kantoor).

c. Die proses word hoofsaaklik deur die departement Bestuursrekenmeesterdienste (BRD), wat deel van die FIN-departement vorm, by die Institusionele Kantoor (IK) bestuur.

d. FIN-werknemers verwys na alle personeel van die FIN-departement sowel as ander Finansies-personeel werksaam te kampusfinansies departemente.

e. FIN-bestuur verwys na die Direkteur: Finansies (IK), die Bestuurder: BRD asook funksionele bestuurders binne die FIN-departement.

f. Eindgebruikers verwys na alle akademiese- en ondersteuningsbestuurders asook personeel in hul fakulteit/skool/departement wat die begrotingsproses tot hul voordeel gebruik.

g. Koppelvlakprosesse verwys na verwante prosesse binne die FIN-departement soos algemene finansiële verslaggewing en afwykingsverslae.

B. *Biografiese inligting*

a. Dui asseblief u besigheidseenheid aan:

Institusionele Kantoor	Mafikengkampus	Potchefstroomkampus	Vaaldriehoekkampus

b. Voltooi asseblief:

Fakulteit/Divisie: .....

Skool/Departement/Sub-departement: .....

C. ***Instruksies vir voltooiing van die vraelys:***

a. Die vraelys bestaan uit 24 vrae, waarvan sommige op 'n spesifieke aspek van die prosedure fokus, terwyl ander meer algemeen is.

b. Dit sal ongeveer 15 minute neem om die vraelys te voltooi.

c. Daar is geen regte of verkeerde antwoorde nie.

d. Lees elke vraag sowel as die drie stellings wat verskaf word. Besluit watter stelling volgens u mening die aspek waarna die vraag verwys, die beste beskryf. Kies dan EEN opsie. Indien u van mening is dat meer as een stelling van toepassing is, mag u twee AANGRENSENDE stellings kombineer, maar steeds net EEN opsie kies en merk, dus:

   As beide stellings A en B volledig of gedeeltelik van toepassing is, kies opsie 2; **OF**

   As beide stellings B en C volledig of gedeeltelik van toepassing is, kies opsie 4.

e. Indien geen stelling 'n gepaste beskrywing is nie, merk asseblief die opsie *'Geen opsie'*. Gee asseblief ook 'n kort verduideliking.

f. Indien u werklik nie weet wat om te antwoord nie, merk die opsie *'Weet nie'*. Probeer dié opsie asseblief so min moontlik gebruik.

Voorbeeld:

Watter stelling beskryf die gebruiksfrekwensie van die begrotingsproses die beste?

A: Die prosedure word selde gebruik.	B: Die prosedure word dikwels gebruik.	C: Die prosedure word altyd gebruik.

Indien u van mening is dat stelling A die situasie ten beste beskryf, kies opsie 1:

1	2	3	4	5

OF: Indien u van mening is dat beide stellings A en B waar is, kies opsie 2:

1	2	3	4	5

OF: Indien u van mening is dat stelling C waar is, kies opsie 3:

1	2	3	4	5

OF: Indien u van mening is dat beide stellings B en C waar of gedeeltelik waar is, kies opsie 4:

1	2	3	4	5

OF: Indien u van mening is dat stelling C die situasie ten beste beskryf, kies opsie 5:

1	2	3	4	5

Voltooi nou asseblief vrae 1 tot 24 in afdeling D op pp. 3 tot 10.

Alle response sal as vertroulik hanteer word.
Baie dankie vir u tyd.

D. Vrae

1. Watter stelling beskryf die huidige ontwerp van die begrotingsproses die beste?

	Die gedokumenteerde begrotingsproses beskryf die begrotingsproses-aktiwiteite van BRD en eindgebruikers.		Die gedokumenteerde begrotingsproses beskryf die aktiwiteite van BRD, eindgebruikers en verwante prosesse soos finansiële verslaggewing en personeelbegroting.		Die gedokumenteerde begrotingsproses beskryf die aktiwiteite van alle rolspelers en verwante prosesse asook verbeterende stappe.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

2. Watter stelling beskryf die kontekstuele kennis van die begrotingsproses die beste?

	Eindgebruiker- en koppelvlak-behoeftes word in die begrotingsprosesdokument vervat. Stappe ter prosesverbetering word beskryf.		Eindgebruiker-behoeftes is uitgeklaar en is in die begrotingsproses geïnkorporeer.		BRD-werknemers weet wie die eindgebruikers van die begrotingsproses is en probeer aan hul relevante behoeftes voldoen.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

3. Watter stelling beskryf die bestaande dokumentasie van die begrotingsproses die beste?

	Vorms bestaan vir aktiwiteite wat deel vorm van die begrotingsproses.		Geïntegreerde vorms bestaan as deel van 'n werksvloei vir die begrotingsproses.		Die begrotingsproses, vorms en koppelvlakprosesse is gedokumenteer in formele prosesdiagramme.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

4. Watter stelling beskryf die BRD-werknemers se kennis die beste?

	BRD-werknemers verstaan die invloed van die begrotingsproses op eindgebruikers, koppelvlakprosesse en organisasie-effektiwiteit.		BRD-werknemers ken die begrotingsproses, prestasiemaatstawwe en kan die invloed daarvan op eindgebruikers beskryf.		BRD-werknemers kan die begrotings-proses beskryf en weet wat die belangrikste prestasiemaatstawwe is.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

5. Watter stelling beskryf die BRD-werknemers se vaardighede die beste?

	BRD-werknemers is vaardig met probleemoplossing en weet hoe om hul *funksionele areas te verbeter.*		BRD-werknemers is vaardig met spanwerk en selfbestuur.		BRD-werknemers is vaardig met besigheidsbesluitneming en kan verandering implementeer.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

6. Watter stelling beskryf die BRD-werknemers se proses-oriëntasie die beste?

	BRD-werknemers het lojaliteit teenoor die *begrotingsproses. Hul primêre* fokus is op die bereiking van funksionele doelwitte.		BRD-werknemers volg die begrotingsproses en *streef daarna dat prosedures die nodige* resultate lewer om eindgebruiker-doelwitte te bereik.		BRD-werknemers sien raak waar die *begrotingsproses verbeter kan word en* maak gepaste voorstelle ter verbetering.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

7. Watter stelling beskryf eienaarskap vir die begrotingsproses die beste?

	Die Bestuurder: BRD is besig met 'n inisiatief om die begrotingsproses te verbeter.		'n Projekbenadering word gevolg ter verbetering van die begrotingsproses.		Elke BRD-personeellid probeer die begrotingsproses verbeter waar hy/sy kan.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

8. Watter stelling beskryf relevante aktiwiteite wat deur die Bestuurder: BRD onderneem word, die beste?

	Die Bestuurder: BRD dokumenteer en kommunikeer die begrotingsproses aan alle BRD werknemers, en onderneem klein veranderingsbestuur-projekte.		Die Bestuurder: BRD kommunikeer die prestasiedoelwitte van die begrotingsproses en inisieer en implementeer verbeterings aan die prosedure.		Die Bestuurder: BRD werk saam met ander bestuurders om die begrotings-proses met ander prosesse te integreer ter bereiking van universiteitsdoelwitte.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

9. Watter stelling beskryf die outoriteit van die Bestuurder: BRD die beste?

	Die Bestuurder: BRD bemark die begrotingsproses en moedig funksionele BRD-bestuurders aan om veranderinge aan te bring.		Die Bestuurder: BRD is die sameroeper van 'n span wat die prosedure hersien en die herontwerpte prosedure implementeer.		Die Bestuurder: BRD beheer IT-stelsels en die begroting wat die proses ondersteun en kan proseshersienings na goeddunke implementeer.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

10. Watter stelling beskryf die inligtingstegnologie (IT)-stelsels wat die begrotingsproses ondersteun die beste?

	'n Geïntegreerde IT-stelsel ondersteun die begrotingsproses sowel as koppelvlakprosesse.		'n IT-stelsel saamgestel uit funksionele komponente ondersteun die begrotingsproses.		Verouderde IT-stelsels en -prosesse word aangepas om die begrotings-proses te ondersteun.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

11. Watter stelling beskryf die bestaande maatstawwe vir die begrotingsproses die beste?

	Enkele basiese koste- en kwaliteit-maatstawwe bestaan vir die begro-tingsproses.		Koste- en kwaliteitmaatstawwe, afgelei van eindgebruiker-behoeftes, bestaan vir die begrotingsproses.		Koste- en kwaliteitmaatstawwe, afgelei van universiteitsdoelwitte, bestaan vir die begrotingsproses.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

12. Watter stelling beskryf die gebruik van die begrotingsprosesmaatstawwe die beste?

	FIN-Bestuur gebruik maatstawwe om funksionele verbeterings aan te bring.		FIN-Bestuur gebruik maatstawwe om die begrotingsproses aan eindgebruiker behoeftes en eweknie-prosesse ("benchmarks") te meet.		FIN-Bestuur gebruik maatstawwe vir begrotingsprosesbestuur en -verbetering asook vir strategiese beplanning.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

13. Watter stelling beskryf prosesbewustheid van FIN-Bestuur die beste?

	Die FIN-bestuur gebruik 'n geïntegreerde, gevestigde proses-benadering om operasies van die divisie te bestuur.		Die FIN-bestuur verstaan hoe om prosesse en prosedures te verbeter en hoe om verbeterings te implementeer.		Die FIN-bestuur verstaan die noodsaak om die prestasie en funksionaliteit van die FIN-departement te verbeter.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

14. Watter stelling beskryf eienaarskap van die begrotingsproses die beste?

	FIN-werknemers is die eienaars van die begrotingsproses.		Die Direkteur: FIN is die eienaar van die begrotingsproses.		'n Netwerk van personeel van die universiteit is mede-eienaars van die begrotingsproses.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

15. Watter stelling beskryf FIN-Bestuur se prosesbestuursbenadering die beste?

	FIN-bestuur volg 'n gedokumenteerde, gevestigde prosesbestuursbenadering.		FIN-bestuur stel prosesdoelwitte en verwyder struikelblokke in die bereiking van die doelwitte.		FIN-bestuur bevorder die verbetering van die funksies van elke afdeling binne die FIN-divisie.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

16. Watter stelling beskryf die bestuurstyl van FIN-bestuur die beste?

	Die bestuurstyl is hiërargies en "top-down".		Die bestuurstyl is samewerkend van aard ("collaborative").		FIN-bestuur het gesag aan proses-eienaars gedelegeer.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

17. Watter stelling beskryf die spanwerk binne die FIN-departement die beste?

	Verskeie spanne bestaan tussen FIN-werknemers onderling en saam met eindgebruikers.		Kruis-funksionele FIN-spanne word gebruik vir projekte.		FIN-werknemers werk individueel om onafhanklikheid en vaardigheids-ontwikkeling te bevorder.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

18. Watter stelling beskryf FIN-werknemers se houding jeens verantwoordelikheid vir die begrotingsproses die beste?

	Die Direkteur: FIN is aanspreeklik vir die begrotingsproses.		FIN-werknemers voel verantwoordelik vir die resultate van die begrotingsproses.		FIN-werknemers het 'n gevoel van trots in die bediening van eind-gebruikers van die begrotingsproses.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

19. Watter stelling beskryf die FIN-werknemers se hantering van verandering die beste?

	Daar is groeiende aanvaarding onder FIN-werknemers dat kleiner veranderings noodsaaklik is.		FIN-werknemers is bereid om omvattende veranderings aan te bring in die wyse hoe hul daaglikse werk verrig word.		FIN-werknemers aanvaar die beginsel van deurlopende verandering as alledaags.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

20. Watter stelling beskryf die kundigheid van FIN-werknemers die beste?

	FIN-werknemers kan omvattende verandering by die universiteit fasiliteer en implementeer.		Sommige FIN-werknemers kan self die begrotingsproses herontwerp en implementeer.		Sommige FIN-werknemers het waardering vir die nut van 'n herontwerpte begrotingsproses.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

21. Watter stelling beskryf die prosesmetodologieë binne die FIN-departement die beste?

	Die FIN-departement het 'n gestandaardiseerde formele metodologie vir prosesontwerp en -hersiening.		Prosesherontwerpspanne beskik oor 'n basiese metodologie om die begrotingsproses te hersien.		Die FIN-departement gebruik informele metodes om operasionele probleme op te los en klein verbeterings aan te bring.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

22. Watter stelling beskryf die prosesmodel-ontwikkeling binne die FIN-departement die beste?

	Die FIN-departement beskik oor 'n formele gedokumenteerde lys van die belangrikste funksies van die afdeling.		'n Volledige prosesmodel is deur die FIN-departement ontwikkel en gedokumenteer.		Die FIN-departement prosesmodel word gebruik om deurlopende FIN-prosesverbeteringsprojekte te bestuur.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

23. Watter stelling beskryf die proses-aanspreeklikheid binne die FIN-departement die beste?

	'n FIN proses-stuurgroep ("steering group") bestaan om prosesbestuur en -verbetering te inisieer en te monitor.		Proses-eienaars het aangewese aanspreeklikheid vir individuele prosesse.		FIN afdelingsbestuurders is aan-spreeklik vir die prestasie van hulle funksies/afdelings.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

24. Watter stelling beskryf die proses-integrasie binne die FIN-departement die beste?

	FIN-afdelings inisieer verbeterings van hul funksies en/of prosedures wanneer hul moontlikhede raaksien.		'n Informele koördineringspan doen ad-hoc prosesbestuur en hulpbronne word op projekbasis vir verbeteringsaksies toegeken.		'n Formele stuurkomitee doen geïntegreerde verbeteringsprojekte aan die hand van 'n formele, gevestigde prosesbenadering.	
Weet nie	1	2	3	4	5	Geen opsie

Kommentaar: .....

.....

~--~--~--~--~--~--~-- Einde ~--~--~--~--~--~--~--~--~--

ANNEXURE E: SCHOOL OF CONTINUING TEACHERS' EDUCATION: PROCESS ORIENTATION QUESTIONNAIRE

A. *Definitions and abbreviations*

a. SCTE is the School of Continuing Teachers' Education within the Faculty of Education, North-West University, Potchefstroom Campus.

b. Employees refer to all SCTE academic and support staff.

c. Management refers to the Director: SCTE, the Manager: Academics and divisional managers within SCTE.

d. Customers refer to all teachers who are enrolled as students for ACE programmes.

B. *Biographical Information of respondent:*

Please mark applicable position of respondent:

Director: SCTE	Manager: Academics	Lecturer	Program evaluator	Divisional Manager

C. *Instructions for completion of the questionnaire:*

a. The questionnaire consists of 8 questions.

b. It will take about 15 minutes to complete the questionnaire.

c. There are no right or wrong answers.

d. Read each question as well as the five statements provided. Then choose ONE statement that best describes the situation with respect to your work situation.

e. Note: In some instances, the statement refers to the SCTE.

PLEASE TICK ONLY ONE ANSWER AT EACH QUESTION

Confidentiality of your response is guaranteed.

Thank you for your time.

1. **SCTE structure:** Which answer best describes how the SCTE is organised?

A. The SCTE is characterised by functional departments.	
B. The SCTE has functional departments. Some cross-functional activities are executed by teams (e.g. new product development).	
C. The SCTE has functional departments, but employees regularly participate in cross-functional teams.	
D. Nearly all activities are executed by cross-functional teams, to which employees are being assigned.	
E. The SCTE structure can best be illustrated as a collection of processes. Functionally based "centres of excellence" support them.	

Comments:

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2. **Focus Language:** What terms do employees use when talking about their work or when communicating with each other?

A. Employees talk about their own function and tasks.	
B. Employees talk about the functions and activities of their department.	
C. Terms like gaining input, and delivering output, are being used in conversations.	
D. Employees talk in terms of them being a part in a process, together creating a product.	
E. Employees on all levels of the SCTE talk in terms of processes, customers, teams, process performance, etc.	

Comments:

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3. **Documentation:** To what extent are processes described and to what extent are these descriptions maintained?

A. No processes have been identified.	
B. The main processes are identified and named.	
C. Several processes have been documented to some level of detail.	
D. Processes are mostly documented, into several levels of detail, using text documents and/or graphical illustrations. The documentation is occasionally updated.	
E. All processes are fully documented, using text documents, graphical models and/or dedicated software. Documentation is periodically updated.	

Comments:

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4. **Utilisation:** To what extent is process documentation actually utilised?

A. Processes are primarily being executed on an ad hoc basis.	
B. Processes execution is carried out according to "business routine".	
C. The actual way of working is based on the process descriptions, but frequently tasks are executed differently from the process descriptions.	
D. Processes are executed according to the process descriptions.	
E. Processes are executed according to the process descriptions. If occasionally a process cannot be executed according to its description, this is a reason for reviewing the process description.	

Comments:

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5. **Information systems:** To what extent do information systems support the execution and control of tasks and processes in your work situation?

A. No or few tasks are supported by information systems.	
B. Many tasks are individually supported by information systems.	
C. All tasks are supported using information systems that are or can be integrated with each other.	
D. Most information systems used are integrated with each other.	
E. (Integrated) information systems support entire processes, controlled by a central system.	

Comments:

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6. **Performance measurement:** Please indicate which type of performance measures are commonly used at the SCTE?

A. Performance measures are only related to employees.	
B. Task related measures, like task-associated costs, processing time.	
C. Product related measures, e.g. throughput time, product costs.	
D. All main processes are measured using key performance indicators on a frequent basis.	
E. Key performance indicators are used for continuous monitoring and optimizing performance of all main processes.	

Comments:

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7. **Management:** To what extent is management based on processes?

A. There are no process owners (process managers) within the SCTE.	
B. Owners have been appointed for the main processes.	
C. There are process managers with full responsibility, for several processes.	
D. There are process managers with full responsibility and authority for all main processes.	
E. There is a clear and strong ownership of all processes at any level in the SCTE.	

Comments:

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8. **Customer requirements:** To what degree are customer requirements understood and do they drive the SCTE?

A. Customer requirements/satisfaction is only considered in terms of external complaints.	
B. Measures of customer requirements/ satisfaction are available from surveys.	
C. There is a customer care policy that is widely published.	
D. Continuous research on identifying and meeting individual customer needs is embedded in the SCTE.	
E. Customer satisfaction information is fed back into the SCTE in a structural manner (to be used as management information for process improvement).	

Comments:

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ANNEXURE F: SKOOL VIR VOORTGESETTE ONDERWYSERSOPLEIDING: PROSESORIËNTERINGSVRAELYS

A. *Definisies en afkortings*

a. SVOO is die Skool vir Voortgesette Onderwysersopleiding, Fakulteit Opvoedkunde, Potchefstroomkampus, Noordwes-Universiteit.

b. Werknemers verwys na alle SVOO akademiese en ondersteuningspersoneel.

c. Bestuur verwys na die Direkteur: SVOO, en alle afdelingsbestuurders binne SVOO wat aan die Direkteur rapporteer.

d. Kliënte verwys na alle onderwysers wat as studente vir die Gevorderde Onderwys Sertifikaat (GOS) by die SVOO ingeskryf is.

B. *Biografiese inligting*

Dui asseblief u posisie binne die SVOO met 'n kruisie aan:

Direkteur: SVOO	Bestuurder: Akademie	Lektor	Program evalueerder	Afdelings-bestuurder

C. *Instruksies vir voltooiing van die vraelys:*

a. Die vraelys bestaan uit 8 vrae.

b. Dit sal ongeveer 15 minute neem om die vraelys te voltooi.

c. Daar is geen regte of verkeerde antwoorde nie.

d. Lees elke vraag sowel as die vyf stellings wat verskaf word. Kies een stelling wat u werksituasie die beste beskryf en merk dit met 'n kruisie.

e. Let wel: In sommige gevalle verwys die vraag na die SVOO departement, en nie net na u eie werksituasie nie.

MERK ASSEBLIEF NET EEN STELLING BY ELKE VRAAG MET 'N KRUISIE.

Alle response sal as vertroulik hanteer word.
Baie dankie vir u tyd.

1. **SVOO struktuur:** Watter stelling beskryf die organisasiestruktuur van SVOO die beste?

A. Die SVOO is in funksionele departemente georganiseer.	
B. Die SVOO het funksionele departemente. Sommige kruis-funksionele aktiwiteite word deur spanne uitgevoer (bv. nuwe produkontwikkeling).	
C. Die SVOO het funksionele departemente, maar werknemers vorm op gereelde basis deel van kruis-funksionele spanne.	
D. Byna alle aktiwiteite word deur kruis-funksionele spanne uitgevoer. Werknemers word aan hierdie spanne toegedeel.	
E. Die SVOO strukture kan ten beste beskryf word as 'n struktuur bestaande uit 'n versameling prosesse, wat deur funksionele sentra van uitnemendheid ondersteun word.	

Kommentaar:

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2. **Fokustaal:** Watter terminologie word deur werknemers gebruik wanneer hulle oor hul werk praat, of wanneer hulle met mekaar kommunikeer?

A. Werknemers praat oor hulle eie funksies en take.	
B. Werknemers praat oor die funksies en take van hul eie departement.	
C. Terme soos die verbetering van invoer en verbeterde uitvoer/resultate word tydens gesprekke gebruik.	
D. Werknemers praat dat hulle deel vorm van 'n proses, met die oog op die gesamentlike daarstelling van 'n produk.	
E. Werknemers op alle vlakke van SVOO praat in terme van prosesse, kliënte, spanne, prosesprestasie, ens.	

Kommentaar:

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3. **Dokumentasie:** Tot watter mate word prosesse beskryf en word hierdie beskrywings op datum gehou?

A. Geen prosesse is geïdentifiseer nie.	
B. Die hoofprosesse is geïdentifiseer en benoem.	
C. Verskeie prosesse is gedokumenteer tot redelike vlakke van detail.	
D. Prosesse is meestal gedokumenteer, tot redelike vlakke van detail, deur gebruikmaking van teks en/of grafiese illustrasies. Die dokumentasie word soms opgedateer.	
E. Alle prosesse is ten volle gedokumenteer, deur teks dokumente, grafiese metodologieë en/of grafiese programmatuur. Dokumentasie word op gereelde basis opgedateer.	

Kommentaar:

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4. **Benutting:** Tot watter mate word die proses dokumentasie in praktyk gebruik/aangewend?

A. Prosesse word primêr op ad-hoc basis uitgevoer.	
B. Prosesuitvoering is volgens "besigheidsroetine".	
C. Die werklike werkswyses is gebaseer op prosesbeskrywings, maar take word dikwels anders as die prosesbeskrywings uitgevoer.	
D. Prosesse word volgens prosesbeskrywings uitgevoer.	
E. Prosesse word volgens prosesbeskrywings uitgevoer. Indien 'n proses soms nie volgens die gedokumenteerde beskrywing uitgevoer kan word nie, word dit gebruik as rede vir hersiening van die proses en -beskrywing.	

Kommentaar:

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5. **Inligtingstelsels:** Tot watter mate ondersteun inligtingstelsels die uitvoering en beheer van take en prosesse in u werksituasie?

A. Geen of min take word deur inligtingstelsels ondersteun.	
B. Heelwat take word deur afsonderlike inligtingstelsels ondersteun.	
C. Alle take word deur inligtingstelsels ondersteun. Hierdie stelsels is òf reeds met mekaar geïntegreer, òf het potensiaal om met mekaar geïntegreer te word.	
D. Alle inligtingstelsels is met mekaar geïntegreer.	
E. Geïntegreerde inligtingstelsels, wat beheer word deur 'n sentrale stelsel, ondersteun volledige prosesse.	

Kommentaar:

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6. **Prestasie meting:** Dui asseblief aan watter tipes prestasie maatstawwe word gewoonlik by die SVOO gebruik?

A. Prestasiemaatstawwe word slegs op werknemers toegepas.	
B. Taak-verwante maatstawwe, soos taakkoste en verwerkingstyd word gebruik.	
C. Produk-verwante maatstawwe, soos deurvoer en produkkoste word gebruik.	
D. Alle hoofprosesse word op gereelde basis deur sleutelprestasie-indikatore gemeet.	
E. Sleutelprestasie-indikatore word vir deurlopende monitering en optimisering van alle hoofprosesse gebruik.	

Kommentaar:

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7. **Bestuur:** Tot watter mate is bestuur gebaseer op prosesse?

A. Daar is geen proseseienaars (prosesbestuurders) binne die SVOO nie.	
B. Eienaars is aangewys vir die belangrikste prosesse.	
C. Daar is proseseienaars met volle verantwoordelikheid vir verskeie prosesse.	
D. Daar is proseseienaars met volle verantwoordelikheid en gesag vir verskeie prosesse.	
E. Daar is duidelike en sterk eienaarskap van alle prosesse op alle vlakke in die SVOO.	

Kommentaar:

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8. **Kliënt-behoeftes:** Tot watter mate word kliënt-behoeftes verstaan en rig dit die SVOO?

A. Kliënt-behoeftes word slegs aangespreek indien eksterne klagtes ontvang word.	
B. Kliënt-behoeftes en -bevrediging word bekom vanaf opnames.	
C. 'n Kliënt-versorgingsbeleid bestaan en word wyd gepubliseer.	
D. Gereelde navorsing word gedoen om individuele kliënt-behoeftes te bepaal. Die voldoening aan kliënt-behoeftes is 'n hoë prioriteit van die SVOO.	
E. Kliënte tevredenheid word op gestruktureerde basis teruggevoer na SVOO en as bestuursinligting gebruik vir prosesverbetering.	

Kommentaar:

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ANNEXURE G: SAMPLE COVER LETTER FOR QUESTIONNAIRES

Mr .....
Vaal Triangle Campus Operational Management

Mr .....

The development of business process management at the North-West University, since the merger in 2004, is currently the subject of an MBA dissertation under my leadership. It is envisaged that the results of this study will contribute towards improvement of quality, efficiency and effectiveness at NWU.

The Human Resource Operations Department has agreed to participate in the study. One specific process, the staff recruitment and appointment procedure, which affects many academic and support department managers, will form part of the study. Henceforth, a questionnaire was compiled to gain information on this process.

Members of NWU management have been selected on a random basis to assist with this investigation and are you kindly requested to complete the attached questionnaire. It will require about 15 minutes of your time. All responses will be treated as strictly confidential. Will you kindly submit the completed questionnaire to Ms Ria Nel via internal box 612 in the envelope provided, as soon as possible, but at the latest by 20 July 2009? Participation in the study is voluntary. If you prefer not to participate, please return the uncompleted questionnaire.

Your involvement and time set aside to contribute to quality improvement at the NWU is highly appreciated. The results of the study will be made available to you on request.

If you need any assistance, please contact Ria at X4601 or Ria.Nel@nwu.ac.sa. Please note that the questionnaire is available in Afrikaans on request.

Yours sincerely

Mr. Johan Coetzee
Supervisor: MBA

ANNEXURE H: RESULTS: HUMAN RESOURCE OPERATIONS DEPARTMENT

Table H-0: Data Results: Human Resource Operations Department

Respondent	Response on questions (Q) relating to components																							
Type	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24
CU	4	2	1	4	1	2	5	1	2	0	1	4	2	4	2	5	5	4	2	2	1	5	1	4
CU	1	2	1	4	1	2	4	0	5	4	4	4	4	2	2	2	4	1	4	2	4	1	0	4
CU	2	3	1	1	0	1	5	2	5	3	1	1	1	3	4	1	4	3	1	2	0	1	1	1
CU	1	0	1	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0	0
CU	1	5	2	1	1	1	0	1	1	0	2	1	0	1	5	1	5	2	1	5	0	0	0	1
CU	2	5	3	4	1	2	4	4	2	4	3	2	4	3	5	3	5	2	2	5	5	2	2	5
CU	1	3	1	4	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CU	1	2	2	2	1	2	1	2	1	3	2	3	3	4	4	3	0	5	2	2	2	2	2	2
CU	1	0	2	0	0	1	0	0	0	2	0	0	4	2	0	5	0	0	4	2	0	0	1	0
CU	2	1	2	5	0	1	3	5	3	4	5	5	1	5	3	3	5	1	1	1	5	2	1	1
CU	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0	0
PE	2	5	2	4	1	2	2	5	4	0	4	1	5	2	1	1	5	5	2	1	3	1	5	5
PE	1	2	4	2	4	3	5	4	3	2	4	4	4	2	4	2	5	1	5	1	3	1	1	5
PE	1	5	1	3	2	1	5	1	1	5	3	1	3	0	0	3	2	0	0	3	0	4	1	0
PE	5	1	3	4	2	3	1	2	5	3	0	0	5	1	5	1	5	2	3	5	5	2	1	1
PE	2	4	2	2	4	4	4	4	4	4	4	2	2	4	4	2	2	2	2	2	2	2	2	4
PE	5	1	3	2	2	3	1	0	3	3	5	3	1	5	1	5	3	3	3	3	5	0	0	0
PE	2	5	2	4	1	2	5	5	0	5	0	1	4	2	4	1	2	2	4	4	4	0	2	0
PE	2	3	5	2	3	3	0	1	1	4	2	2	4	4	3	2	3	3	3	2	3	2	3	3
PE	5	3	3	4	3	3	5	5	3	3	3	4	3	5	2	3	4	5	4	4	3	3	2	2
PE	2	4	2	5	2	4	4	4	2	0	4	0	4	1	2	3	4	4	4	4	2	4	2	3
PE	1	0	2	1	0	5	2	0	0	5	0	2	1	4	5	1	5	0	1	3	5	3	1	2
PE	3	2	3	4	3	3	4	3	4	2	2	3	0	3	4	1	2	2	2	3	4	2	2	2
PE	1	1	1	1	1	2	1	5	5	5	5	5	1	5	1	1	1	2	5	5	1	1	1	1
PE	2	4	4	2	4	4	4	2	4	4	0	0	4	5	2	4	4	5	4	1	2	2	1	4
PE	2	2	0	4	4	4	4	3	4	4	4	4	4	5	2	4	4	2	0	2	4	4	4	2
PE	2	4	3	1	3	2	5	5	3	5	5	5	1	4	2	2	4	3	3	4	4	2	2	2
PE	4	4	4	2	4	4	5	3	2	4	4	4	2	5	2	4	1	0	3	2	2	4	1	4
PE	1	1	1	3	4	1	1	0	0	4	5	1	5	2	5	1	4	2	5	4	2	3	1	1
PE	2	5	2	1	1	2	5	0	0	5	0	1	4	2	5	1	2	2	3	4	4	0	2	0
PE	0	0	0	0	1	0	0	0	0	0	0	0	5	0	5	0	0	0	1	0	0	0	0	0
PE	1	1	5	0	5	1	1	3	5	3	5	1	1	5	3	0	3	0	5	5	3	1	1	1
PO	4	4	3	3	3	4	2	4	3	4	2	3	3	4	3	4	3	4	3	3	3	4	3	2

Table H-1a: R&A Process Design (Purpose): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	1	6	3	0	1	0	11
PE	1	6	9	1	1	3	21
CU	0	0	*0*	0	1	0	1
Total	2	12	12	1	3	3	33

Note: SL = Strength level

Table H-1b: R&A Process Design (Purpose): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	100%	100%
PE	5%	29%	43%	5%	5%	5%	100%
CU	9%	55%	27%	0%	9%	9%	100%

Note: SL = Strength level

Figure H-1: R&A Process Design (Purpose): Rating percentage per respondent type

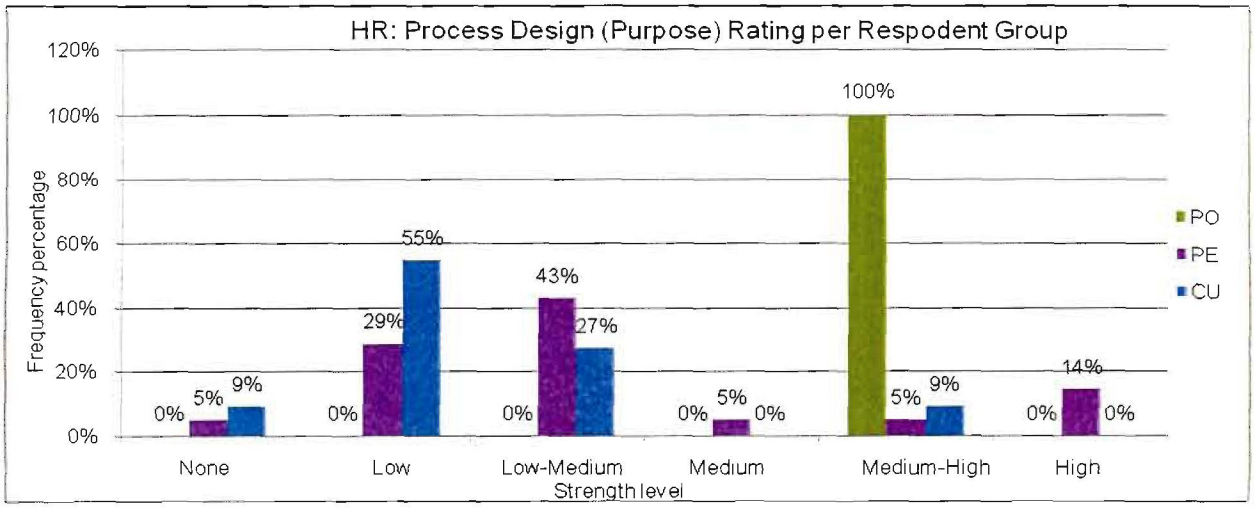


Table H-2a: R&A Process Design (Context Knowledge): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	1	3	2	0	2	11
PE	2	5	3	2	5	4	21
CU	0	0	0	0	1	0	1
Total	5	6	6	4	6	6	33

Note: SL = Strength level

Table H-2b: R&A Process Design (Context Knowledge): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	10%	24%	14%	10%	24%	19%	100%
CU	27%	9%	27%	18%	0%	18%	100%

Note: SL = Strength level

Figure H-2: R&A Process Design (Context Knowledge): Rating percentage per respondent type

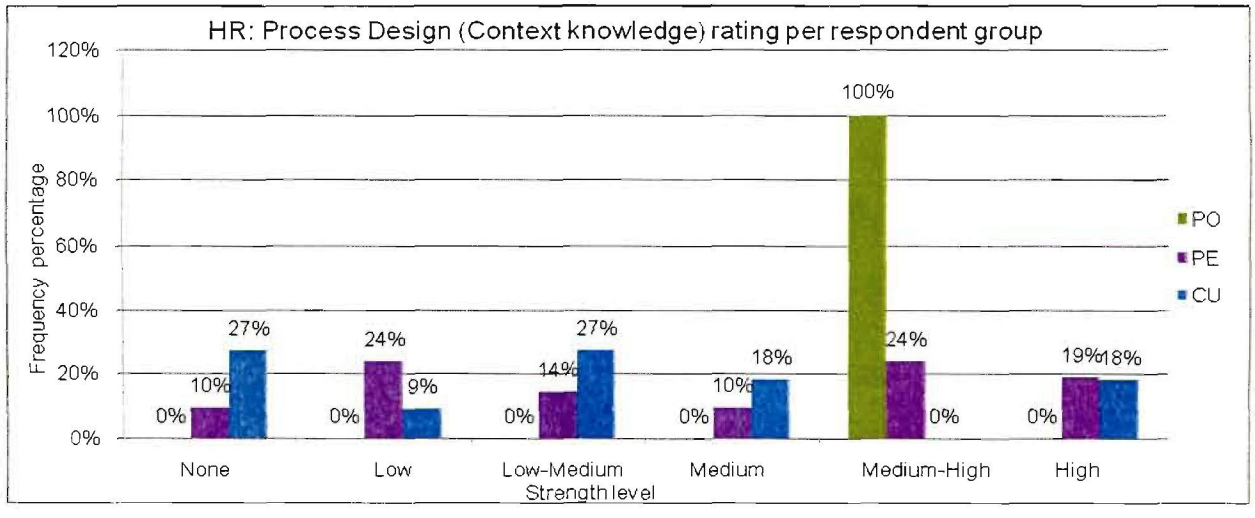


Table H-3a: R&A Process Design (Documentation): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	1	5	4	1	0	0	11
PE	2	3	6	5	3	2	21
CU	0	0	0	1	0	0	1
Total	3	8	10	7	3	2	33

Note: SL = Strength level

Table H-3b: R&A Process Design (Documentation): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	100%	0%	100%
PE	10%	24%	52%	76%	90%	10%	100%
CU	9%	55%	91%	100%	100%	9%	100%

Note: SL = Strength level

Figure H-3: R&A Process Design (Documentation): Rating percentage per respondent type

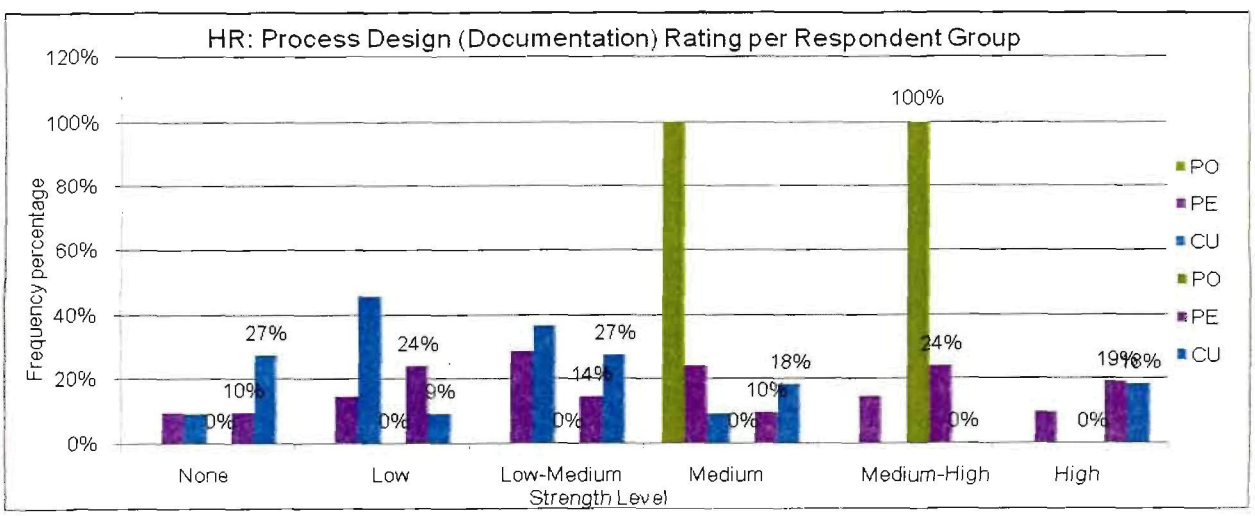


Table H-4a: R&A Process Performers (Knowledge): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	2	1	0	4	1	11
PE	2	4	6	2	6	1	21
CU	0	0	0	1	0	0	1
Total	5	6	7	3	10	2	33

Note: SL = Strength level

Table H-4b: R&A Process Performers (Knowledge): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	10%	19%	29%	10%	29%	5%	100%
CU	27%	18%	9%	0%	36%	9%	100%

Note: SL = Strength level

Figure H-4: R&A Process Performers (Knowledge): Rating percentage per respondent type

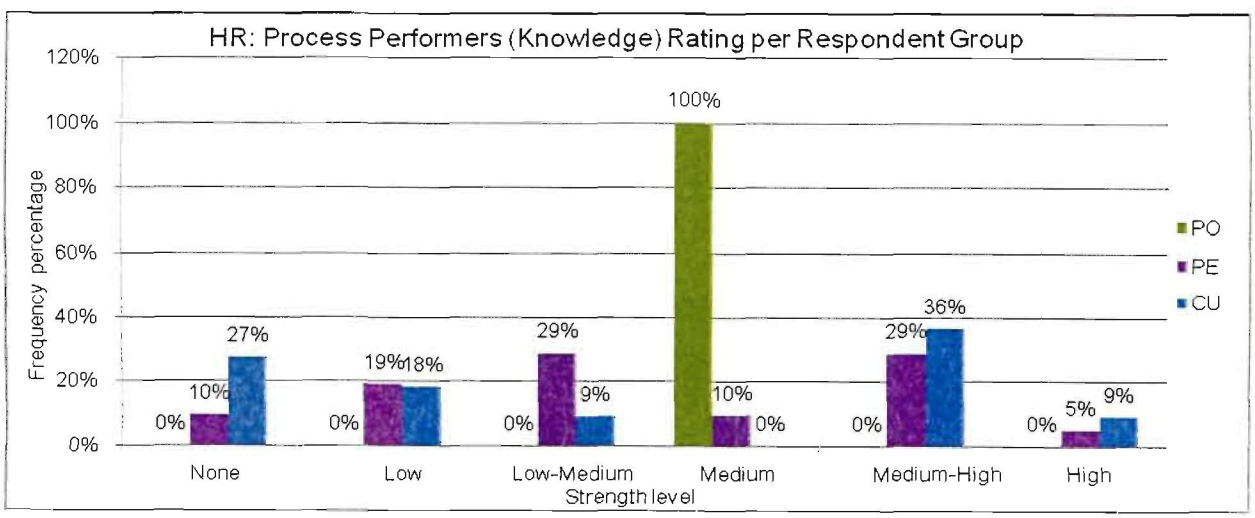


Table H-5a: R&A Process Performers (Skills): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	6	1	0	0	0	11
PE	1	5	4	4	6	1	21
CU	0	0	0	1	0	0	1
Total	5	11	5	5	6	1	33

Note: SL = Strength level

Table H-5b: R&A Process Performers (Skills): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	5%	24%	19%	19%	29%	5%	100%
CU	36%	55%	9%	0%	0%	0%	100%

Note: SL = Strength level

Figure H-5: R&A Process Performers (Skills): Rating percentage per respondent type

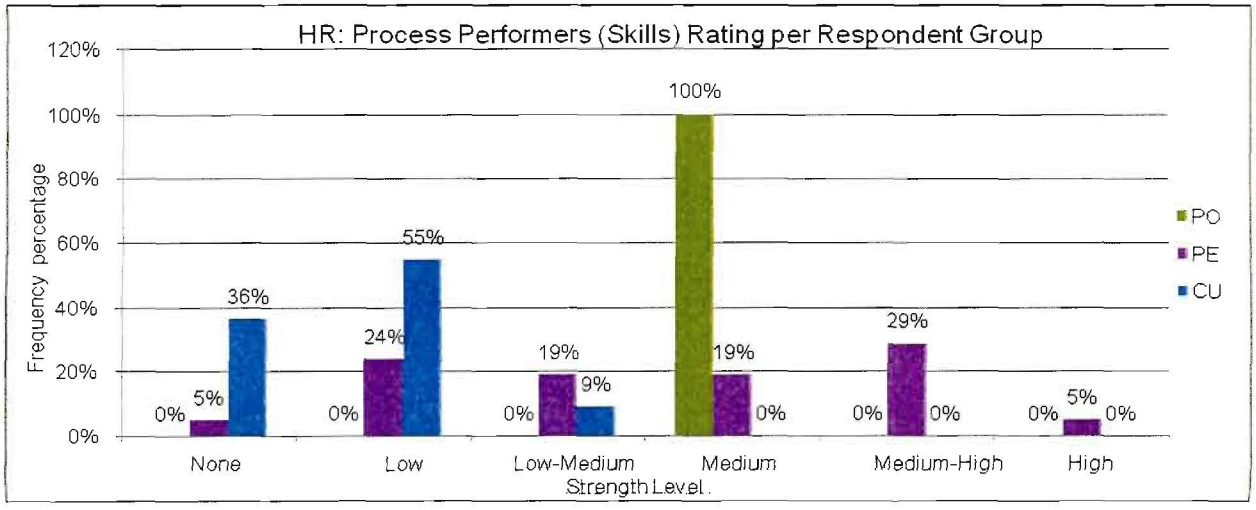


Table H-6a: R&A Process Performers (Behaviour): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	4	4	0	0	0	11
PE	1	3	5	6	5	1	21
CU	0	0	0	0	1	0	1
Total	4	7	9	6	6	1	33

Note: SL = Strength level

Table H-6b: R&A Process Performers (Behaviour): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	5%	14%	24%	29%	24%	5%	100%
CU	27%	36%	36%	0%	0%	0%	100%

Note: SL = Strength level

Figure H-6: R&A Process Performers (Behaviour): Rating percentage per respondent type

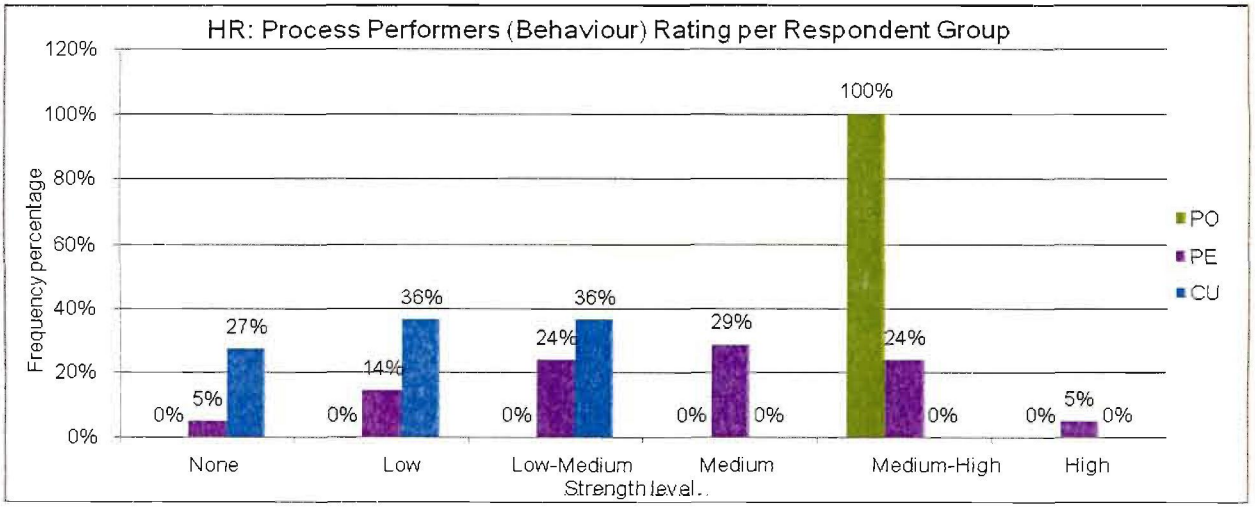


Table H-7a: R&A Process Owner (Identity): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	5	1	0	1	2	2	11
PE	2	5	2	0	5	7	21
CU	0	0	1	0	0	0	1
Total	7	6	3	1	7	9	33

Note: SL = Strength level

Table H-7b: R&A Process Owner (Identity): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	100%	0%	0%	0%	100%
PE	10%	24%	10%	0%	24%	33%	100%
CU	45%	9%	0%	9%	18%	18%	100%

Note: SL = Strength level

Figure H-7: R&A Process Owner (Identity): Rating percentage per respondent type

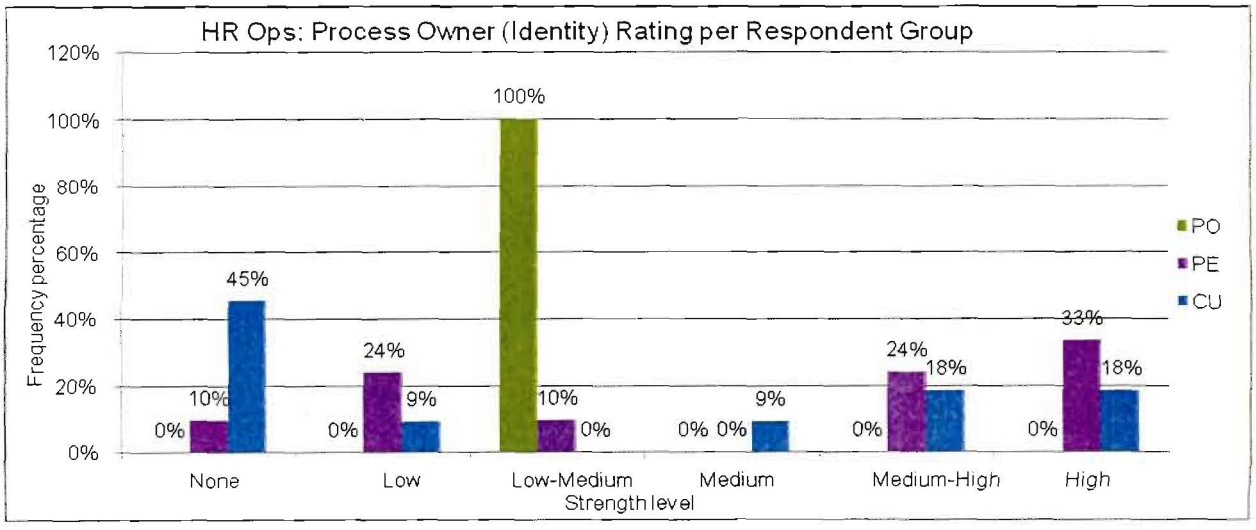


Table H-8a: R&A Process Owner (Activities): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	5	2	2	0	1	1	11
PE	5	2	2	4	3	5	21
CU	0	0	0	0	1	0	1
Total	10	4	4	4	5	6	33

Note: SL = Strength level

Table H-8b: R&A Process Owner (Activities): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	24%	10%	10%	19%	14%	24%	100%
CU	45%	18%	18%	0%	9%	9%	100%

Note: SL = Strength level

Figure H-8: R&A Process Owner (Activities): Rating percentage per respondent type

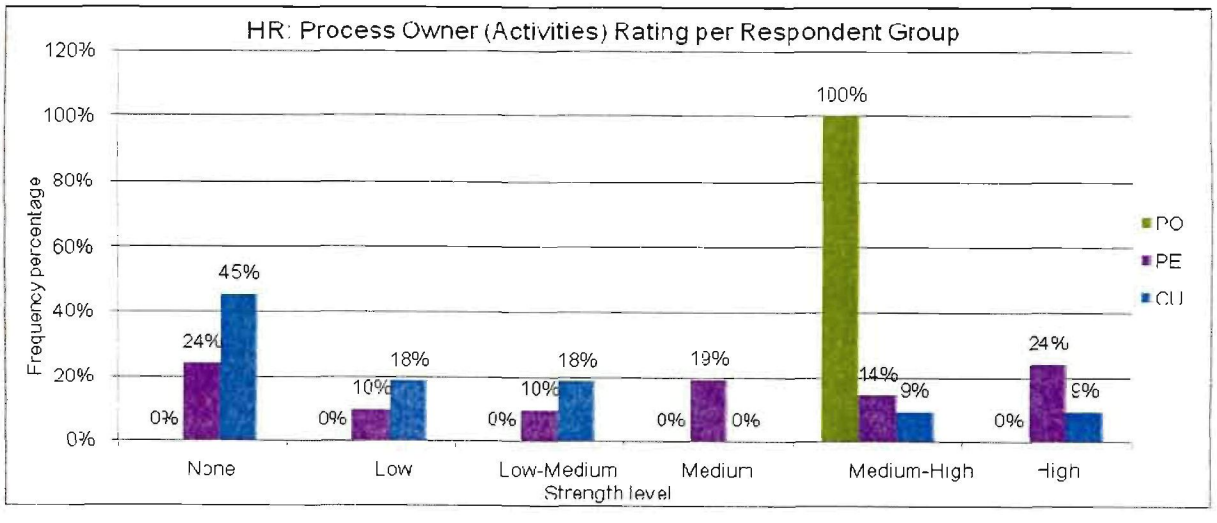


Table H-9a: R&A Process Owner (Authority): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	2	2	1	0	2	11
PE	5	2	2	4	5	3	21
CU	0	0	0	1	0	0	1
Total	9	4	4	6	5	5	33

Note: SL = Strength level

Table H-9b: R&A Process Owner (Authority): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	24%	10%	10%	19%	24%	14%	100%
CU	36%	18%	18%	9%	0%	18%	100%

Note: SL = Strength level

Figure H-9: R&A Process Owner (Authority): Rating percentage per respondent type

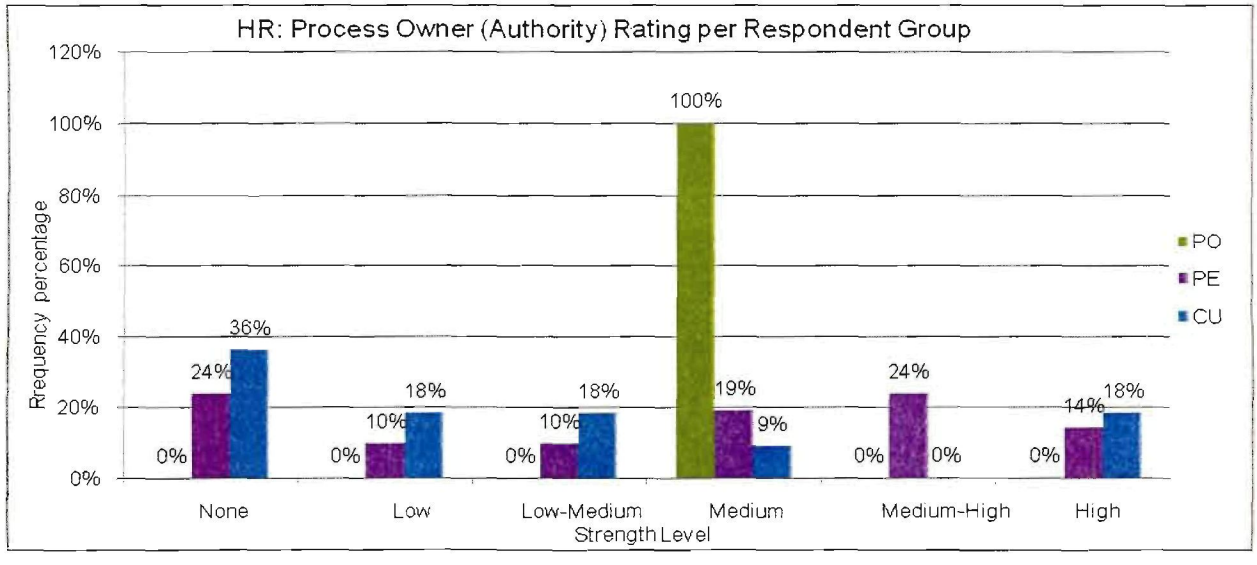


Table H-10a: R&A Process Infrastructure (Information Systems): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	2	2	3	0	4	11
PE	3	2	4	6	6	3	21
CU	0	0	0	1	0	0	1
Total	7	4	6	10	6	7	33

Note: SL = Strength level

Table H-10b: R&A Process Infrastructure (Information Systems): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	14%	0%	10%	19%	29%	29%	100%
CU	36%	0%	18%	18%	27%	0%	100%

Note: SL = Strength level

Figure H-10: R&A Process Infrastructure (Information Systems): Rating percentage per respondent type

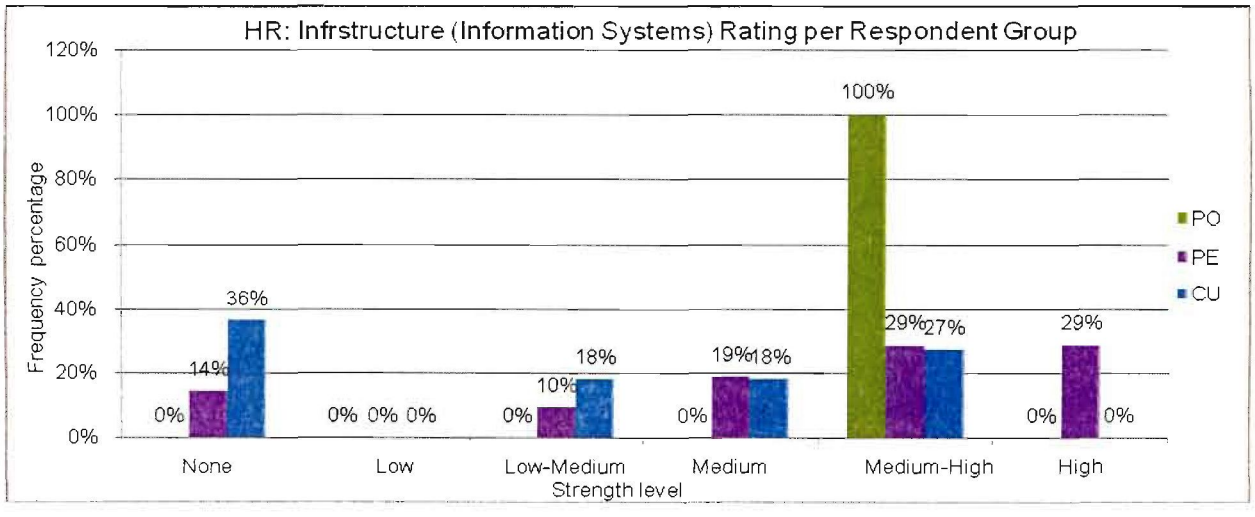


Table H-11a: R&A Process Metrics (Definition): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	2	2	1	1	1	11
PE	6	0	2	2	6	5	21
CU	0	0	1	0	0	0	1
Total	10	2	5	3	7	6	33

Note: SL = Strength level

Table H-11b: R&A Process Metrics (Definition): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	100%	0%	0%	0%	100%
PE	29%	0%	10%	10%	29%	24%	100%
CU	36%	18%	18%	9%	9%	9%	100%

Note: SL = Strength level

Figure H-11: R&A Process Metrics (Definition): Rating percentage per respondent type

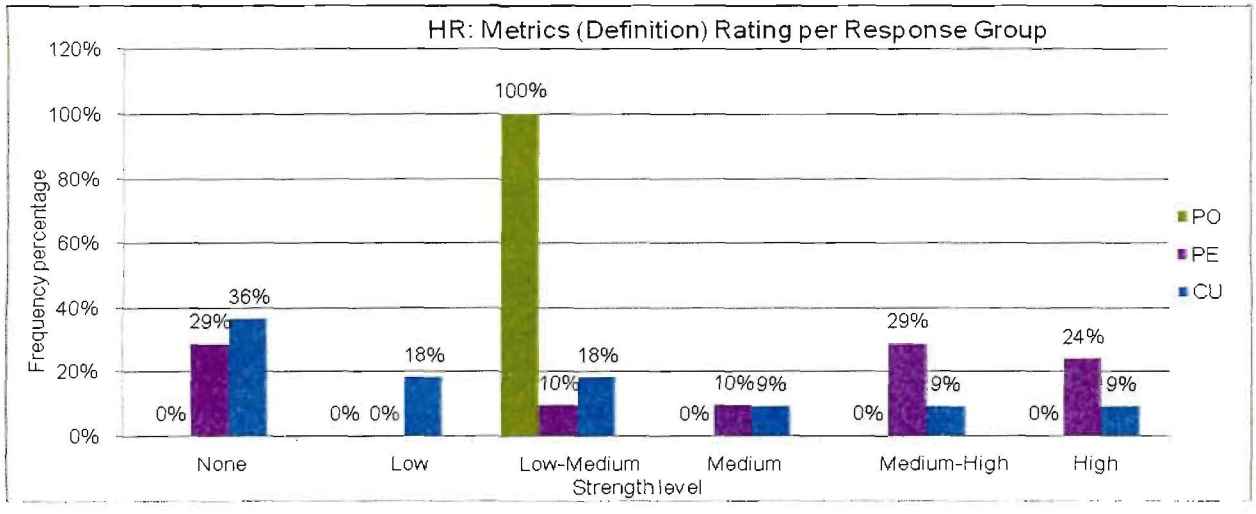


Table H-12a: R&A Process Metrics (Uses): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	2	1	1	2	1	11
PE	4	6	3	2	4	2	21
CU	0	0	0	1	0	0	1
Total	8	8	4	4	6	3	33

Note: SL = Strength level

Table H-12b: R&A Process Metrics (Uses): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	19%	29%	14%	10%	19%	10%	100%
CU	36%	18%	9%	9%	18%	9%	100%

Note: SL = Strength level

Figure H-12: R&A Process Metrics (Uses): Rating percentage per respondent type

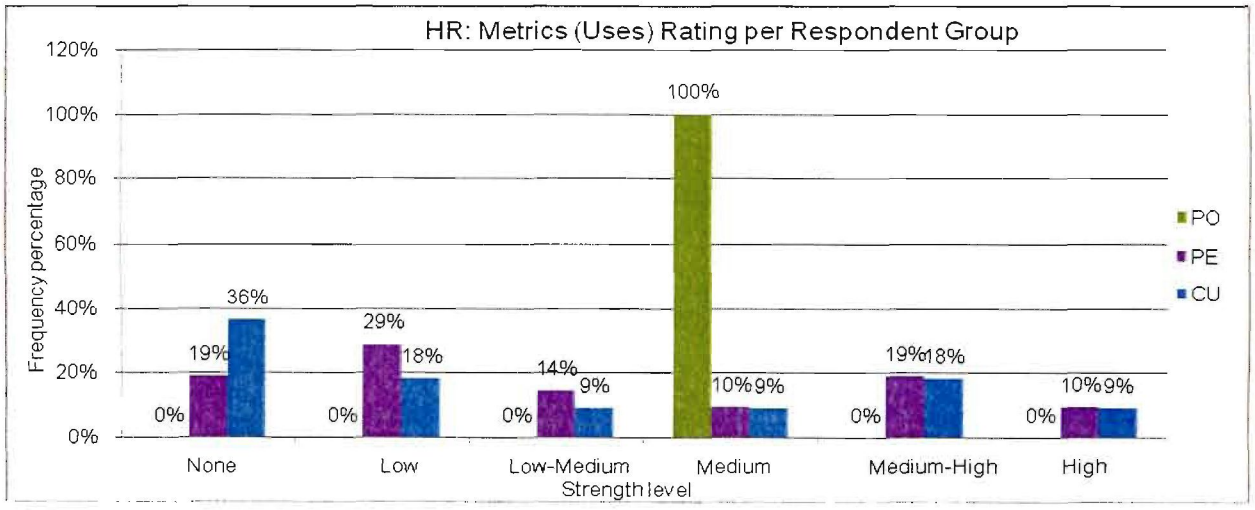


Table H-13a: HR Leadership (Awareness): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	2	1	1	3	0	11
PE	1	5	2	2	7	4	21
CU	0	0	0	1	0	0	1
Total	5	7	3	4	10	4	33

Note: SL = Strength level

Table H-13b: HR Leadership (Awareness): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	5%	24%	10%	10%	33%	19%	100%
CU	36%	18%	9%	9%	27%	0%	100%

Note: SL = Strength level

Figure H-13: HR Leadership (Awareness): Rating percentage per respondent type

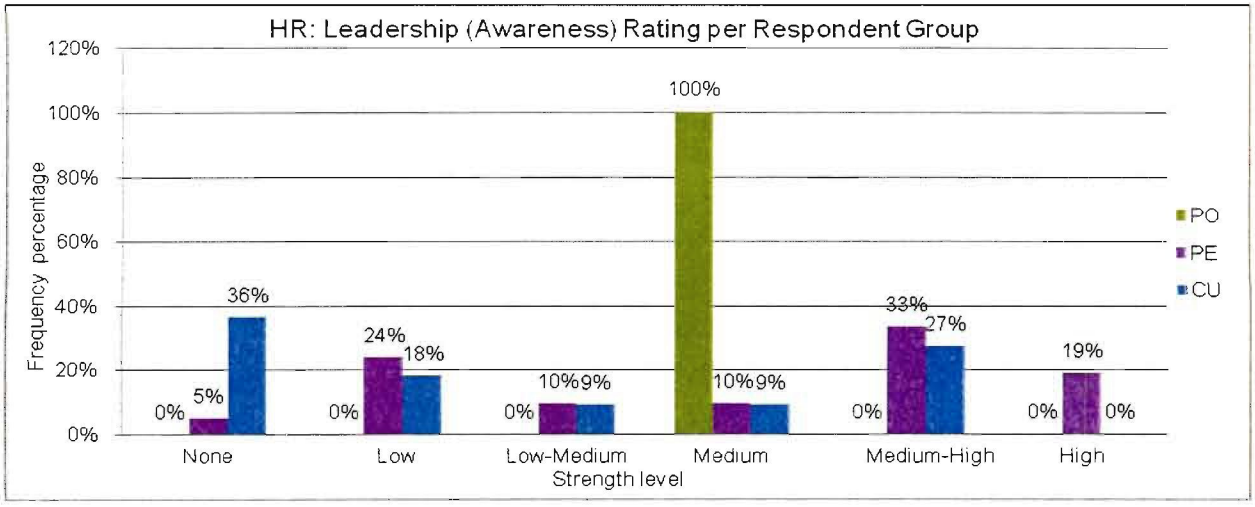


Table H-14a: HR Leadership (Alignment): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	2	1	2	2	2	2	11
PE	2	2	5	1	4	7	21
CU	0	0	0	0	1	0	1
Total	4	3	7	3	7	9	33

Note: SL = Strength level

Table H-14b: HR Leadership (Alignment): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	10%	10%	24%	5%	19%	33%	100%
CU	18%	9%	18%	18%	18%	18%	100%

Note: SL = Strength level

Figure H-14: HR Leadership (Alignment): Rating percentage per respondent type

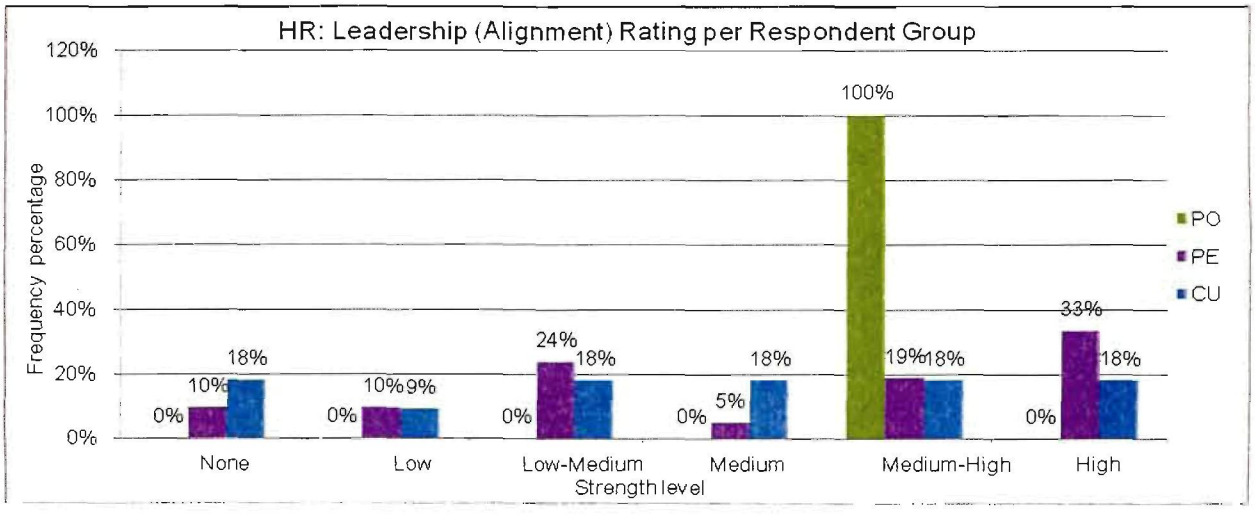


Table H-15a: HR Leadership (Behaviour): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	1	2	1	2	2	11
PE	1	3	6	2	4	5	21
CU	0	0	0	1	0	0	1
Total	4	4	8	4	6	7	33

Note: SL = Strength level

Table H-15b: HR Leadership (Behaviour): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	5%	14%	29%	10%	19%	24%	100%
CU	27%	9%	18%	9%	18%	18%	100%

Note: SL = Strength level

Figure H-15: HR Leadership (Behaviour): Rating percentage per respondent type

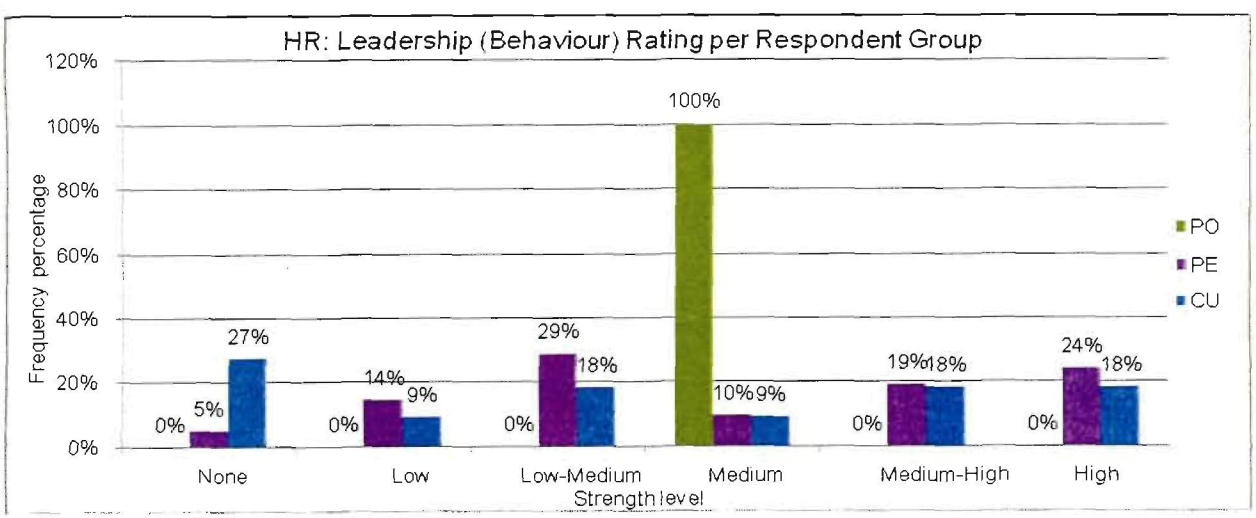


Table H-16a: HR Leadership (Style): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	2	2	1	4	0	2	11
PE	2	8	4	3	3	1	21
CU	0	0	0	0	1	0	1
Total	4	10	5	7	4	3	33

Note: SL = Strength level

Table H-16b: HR Leadership (Style): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	10%	38%	19%	14%	14%	5%	100%
CU	18%	18%	9%	36%	0%	18%	100%

Note: SL = Strength level

Figure H-16: HR Leadership (Style): Rating percentage per respondent type

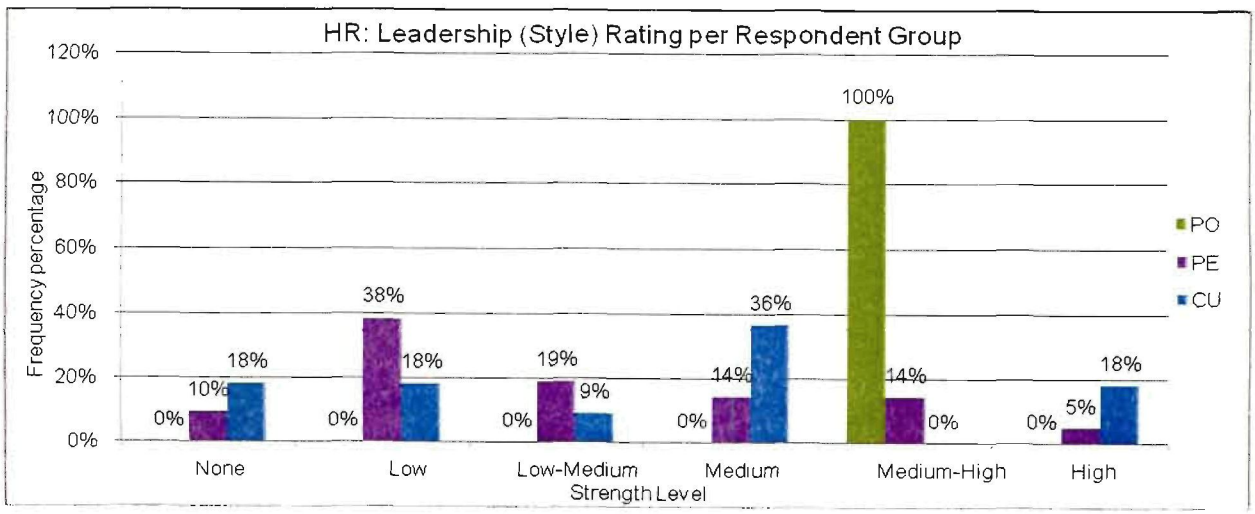


Table H-17a: HR Culture (Teamwork): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	0	0	0	2	5	11
PE	1	2	5	3	6	4	21
CU	0	0	0	1	0	0	1
Total	5	2	5	4	8	9	33

Note: SL = Strength level

Table H-17b: HR Culture (Teamwork): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	5%	10%	24%	14%	29%	19%	100%
CU	36%	0%	0%	0%	18%	45%	100%

Note: SL = Strength level

Figure H-17: HR Culture (Teamwork): Rating percentage per respondent type

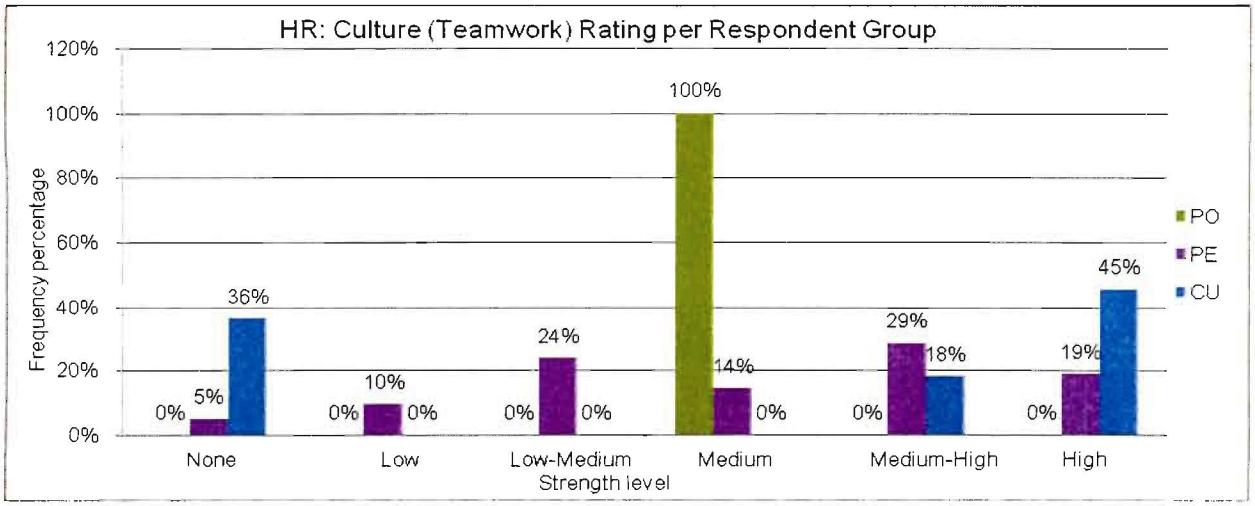


Table H-18a: HR Culture (Customer Focus): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	2	2	1	1	1	11
PE	5	1	8	3	1	3	21
CU	0	0	0	0	1	0	1
Total	9	3	10	4	3	4	33

Note: SL = Strength level

Table H-18b: HR Culture (Customer Focus): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	24%	5%	38%	14%	5%	14%	100%
CU	36%	18%	18%	9%	9%	9%	100%

Note: SL = Strength level

Figure H-18: HR Culture (Customer Focus): Rating percentage per respondent type

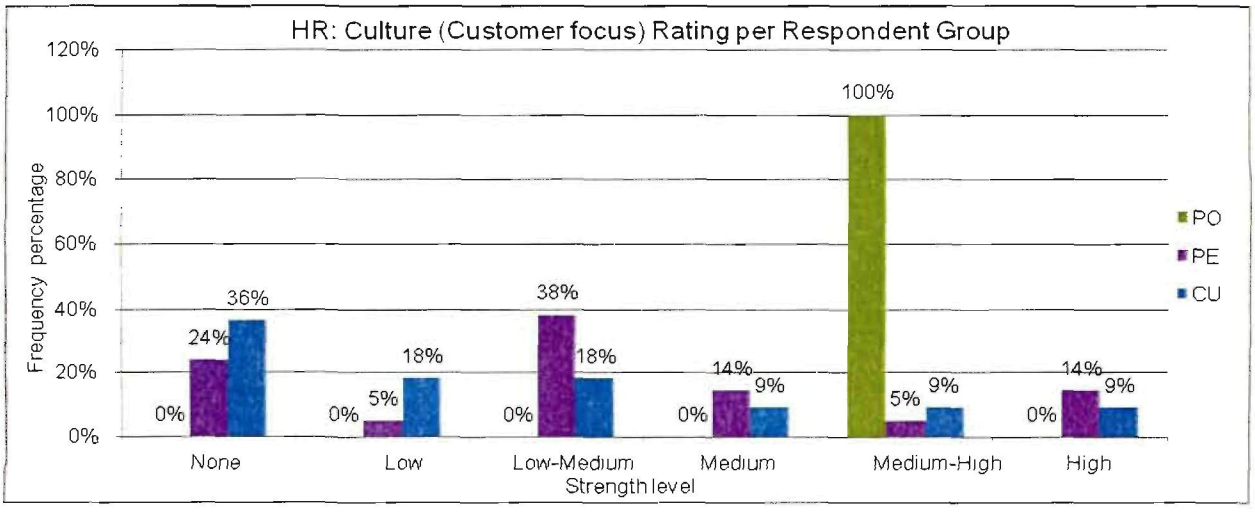


Table H-19a: HR Culture (Responsibility): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	3	3	0	2	0	11
PE	2	2	3	6	4	4	21
CU	0	0	0	1	0	0	1
Total	5	5	6	7	6	4	33

Note: SL = Strength level

Table H-19b: HR Culture (Responsibility): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	10%	10%	14%	29%	19%	19%	100%
CU	27%	27%	27%	0%	18%	0%	100%

Note: SL = Strength level

Figure H-19: HR Culture (Responsibility): Rating percentage per respondent type

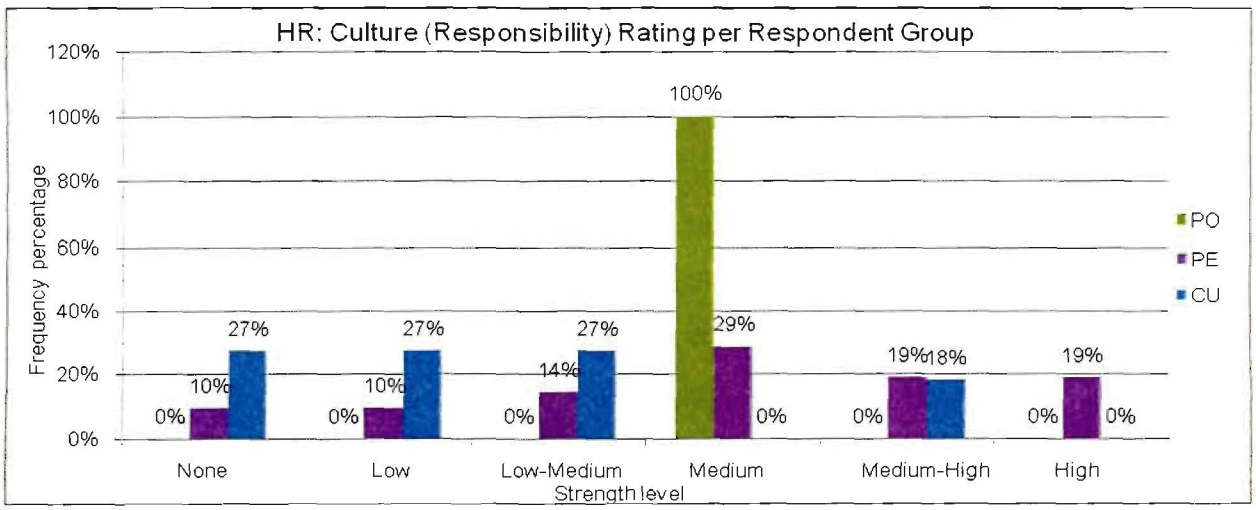


Table H-20a: HR Culture (Attitude towards Change): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	1	5	0	0	2	11
PE	1	3	4	4	6	3	21
CU	0	0	0	1	0	0	1
Total	4	4	9	5	6	5	33

Note: SL = Strength level

Table H-20b: HR Culture (Attitude towards Change): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	5%	14%	19%	19%	29%	14%	100%
CU	27%	9%	45%	0%	0%	18%	100%

Note: SL = Strength level

Figure H-20: HR Culture (Attitude towards Change): Rating percentage per respondent type

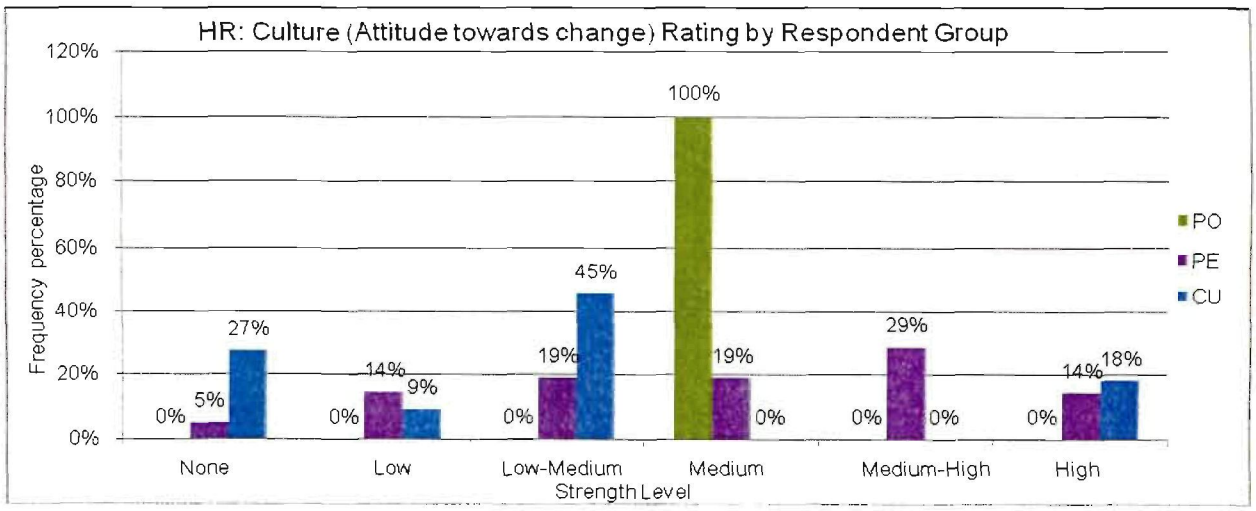


Table H-21a: HR Expertise (People): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	6	1	1	0	1	2	11
PE	2	1	5	5	5	3	21
CU	0	0	0	1	0	0	1
Total	8	2	6	6	6	5	33

Note: SL = Strength level

Table H-21b: HR Expertise (People): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	10%	5%	24%	24%	24%	14%	100%
CU	55%	9%	9%	0%	9%	18%	100%

Note: SL = Strength level

Figure H-21: HR Expertise (People): Rating percentage per respondent type

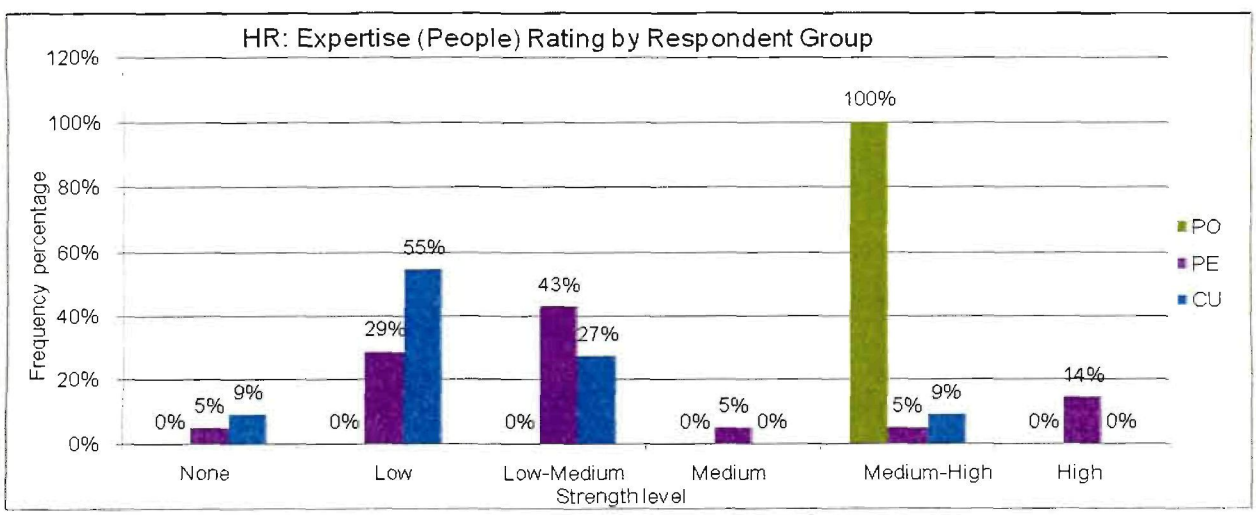


Table H-22a: HR Expertise (Methodology): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	5	2	3	0	0	1	11
PE	4	4	6	3	4	0	21
CU	0	0	0	0	1	0	1
Total	9	6	9	3	5	1	33

Note: SL = Strength level

Table H-22b: HR Expertise (Methodology): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	19%	19%	29%	14%	19%	0%	100%
CU	45%	18%	27%	0%	0%	9%	100%

Note: SL = Strength level

Figure H-22: HR Expertise (Methodology): Rating percentage per respondent type

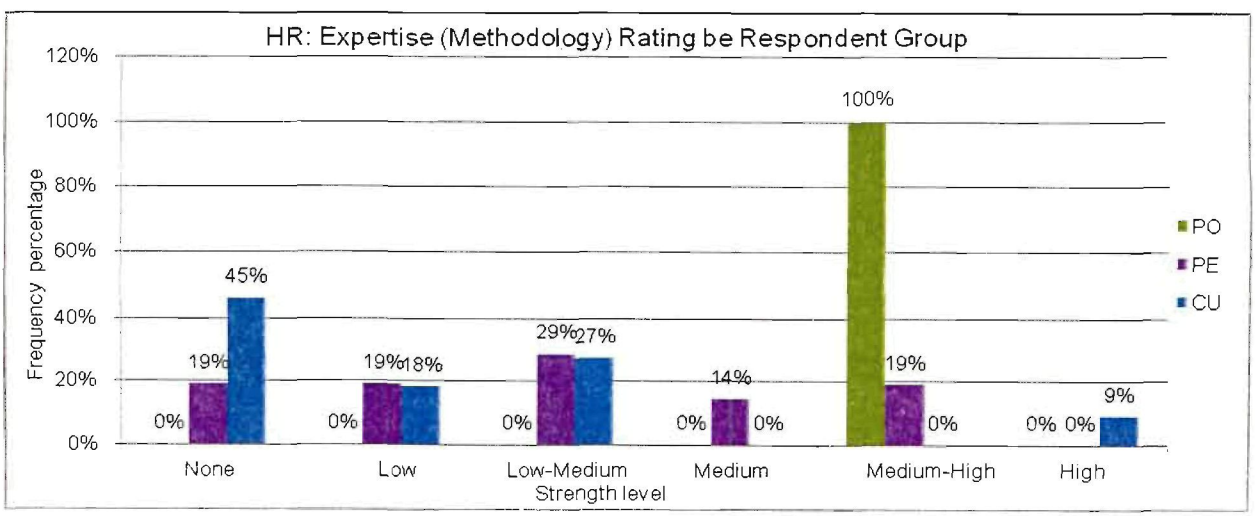


Table H-23a: HR Governance (Process model): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	5	4	2	0	0	0	11
PE	2	9	7	1	1	1	21
CU	0	0	0	1	0	0	1
Total	7	13	9	2	1	1	33

Note: SL = Strength level

Table H-23b: HR Governance (Process model): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	10%	43%	33%	5%	5%	5%	100%
CU	45%	36%	18%	0%	0%	0%	100%

Note: SL = Strength level

Figure H-23: HR Governance (Process model): Rating percentage per respondent type

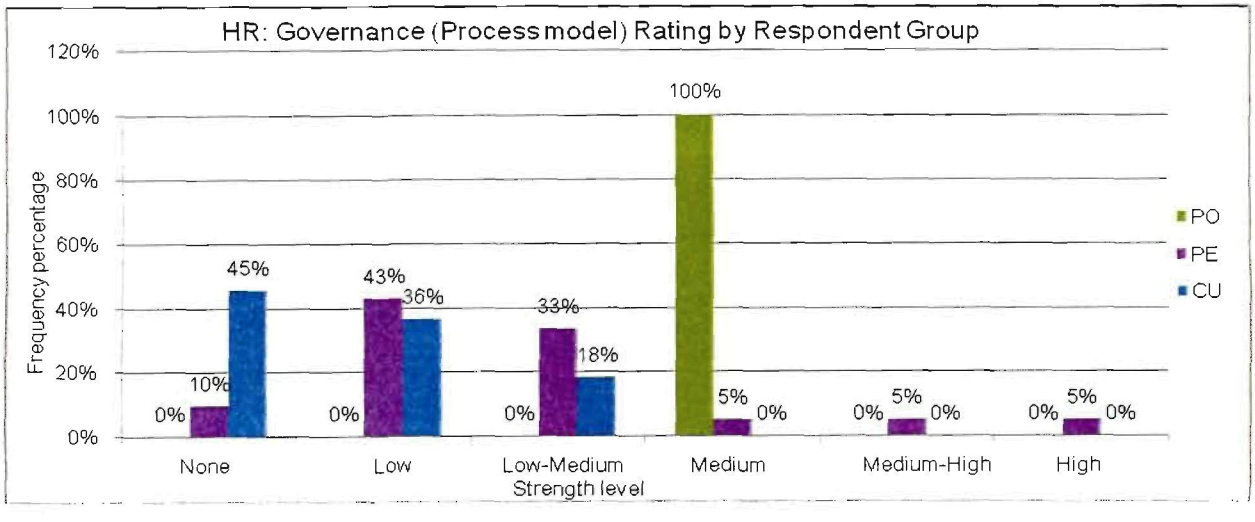


Table H-24a: HR Governance (Integration): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	3	1	0	2	1	11
PE	5	4	5	2	3	2	21
CU	0	0	1	0	0	0	1
Total	9	7	7	2	5	3	33

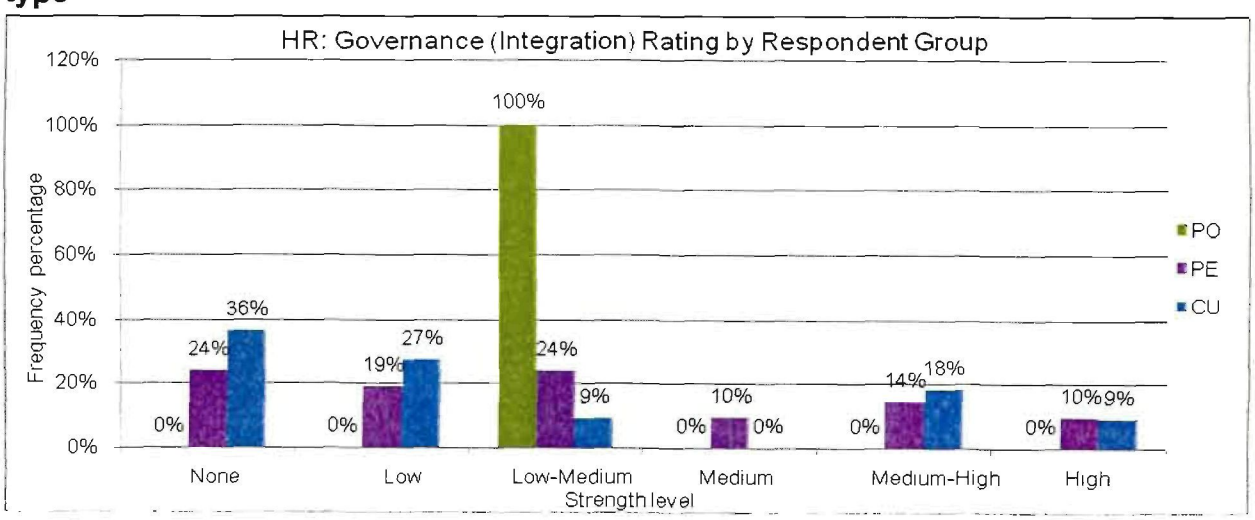
Note: SL = Strength level

Table H-24b: HR Governance (Integration): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	100%	0%	0%	0%	100%
PE	24%	19%	24%	10%	14%	10%	100%
CU	36%	27%	9%	0%	18%	9%	100%

Note: SL = Strength level

Figure H-24: HR Governance (Integration): Rating percentage per respondent type



ANNEXURE I: RESULTS: FINANCES DEPARTMENT

Table I-0: Data Results: Finances Department

Respondent	Response on questions (Q) relating to components																							
Type	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24
CU	0	0	1	4	0	4	0	4	0	4	0	0	0	2	4	4	3	1	2	3	0	0	0	0
CU	4	3	5	4	0	4	4	3	2	2	3	4	2	3	4	3	0	4	2	2	0	0	4	3
CU	0	1	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CU	1	0	1	4	0	2	0	2	0	5	1	2	0	5	5	2	5	3	1	3	0	0	0	0
CU	1	3	3	0	0	3	5	1	3	3	1	1	0	5	0	1	0	1	0	0	0	0	0	0
CU	3	2	1	1	2	4	1	3	5	1	1	0	0	2	4	1	1	2	0	0	5	0	0	0
CU	1	4	1	4	1	1	3	1	4	1	2	2	3	3	4	1	3	2	3	4	5	2	4	3
CU	5	1	5	1	3	3	1	5	3	3	5	5	3	5	5	3	3	4	4	3	3	3	1	5
CU	4	2	2	1	1	2	1	1	0	1	2	5	4	1	4	1	4	5	5	5	5	0	0	4
CU	5	3	1	5	5	5	5	5	3	5	3	5	5	5	5	5	5	5	5	1	5	5	5	5
CU	5	1	3	5	4	2	0	5	3	5	4	0	0	0	0	0	0	4	0	3	0	0	0	0
CU	1	1	5	4	2	4	5	5	1	5	3	4	1	5	1	4	4	4	4	5	5	5	1	5
CU	2	0	1	0	0	4	2	0	0	0	1	1	4	4	0	1	0	0	0	0	0	1	5	0
CU	1	1	3	5	0	5	0	0	0	3	5	0	0	3	1	0	0	0	3	2	0	0	3	5
CU	4	4	2	2	3	3	2	2	4	3	4	4	2	3	2	2	3	3	3	2	4	3	2	5
PE	2	0	2	5	5	4	2	4	2	5	4	5	2	1	4	4	5	4	2	5	4	1	2	1
PE	3	2	4	4	4	4	2	4	3	3	2	3	2	5	1	4	4	4	4	4	4	2	2	1
PE	3	2	4	5	4	4	2	4	3	3	2	3	2	5	5	4	4	4	4	4	4	2	3	1
PE	1	5	2	3	2	3	5	3	3	1	5	2	4	3	3	1	3	1	1	1	4	5	1	1
PE	0	0	0	0	0	0	0	0	0	0	0	0	4	4	3	2	4	4	4	0	0	0	0	0
PE	0	0	0	0	0	0	0	0	0	0	0	0	5	2	5	5	0	1	1	1	1	2	4	3
PE	2	5	1	4	1	1	5	3	2	4	5	5	5	2	5	1	5	3	2	5	5	2	5	1
PE	4	4	3	2	3	3	4	2	4	3	4	4	1	3	4	2	3	1	4	1	2	4	1	1
PE	5	2	5	0	0	0	5	4	0	0	4	5	5	5	2	5	5	0	1	2	5	1	1	1
PE	2	2	2	4	5	1	5	5	1	5	1	0	1	1	5	3	0	3	1	5	0	1	0	4
PO	2	3	2	2	4	4	4	4	3	0	4	4	2	4	1	3	4	4	5	4	2	1	2	1

Table I-1a: Budget Process Design (Purpose): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	2	5	1	1	3	3	15
PE	2	1	3	2	1	1	10
CU	0	0	1	0	0	0	1
Total	4	6	5	3	4	4	26

Note: SL = Strength level

Table I-1b: Budget Process Design (Purpose): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	100%	0%	0%	0%	100%
PE	20%	10%	30%	20%	10%	10%	100%
CU	13%	33%	7%	7%	20%	20%	100%

Note: SL = Strength level

Figure I-1: Budget Process Design (Purpose): Rating percentage per respondent type

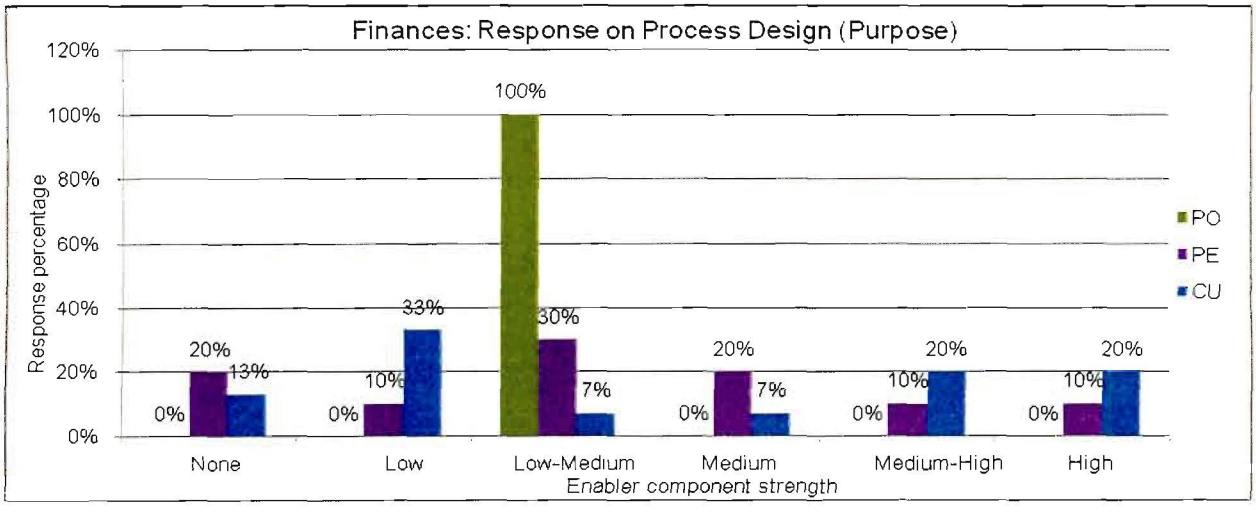


Table I-2a: Budget Process Design (Context Knowledge): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	5	2	3	2	0	15
PE	3	0	4	0	1	2	10
CU	0	0	0	1	0	0	1
Total	6	5	6	4	3	2	26

Note: SL = Strength level

Table I-2b: Budget Process Design (Context Knowledge): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	30%	0%	40%	0%	10%	20%	100%
CU	20%	33%	13%	20%	13%	0%	100%

Note: SL = Strength level

Figure I-2: Budget Process Design (Context Knowledge): Rating percentage per respondent type

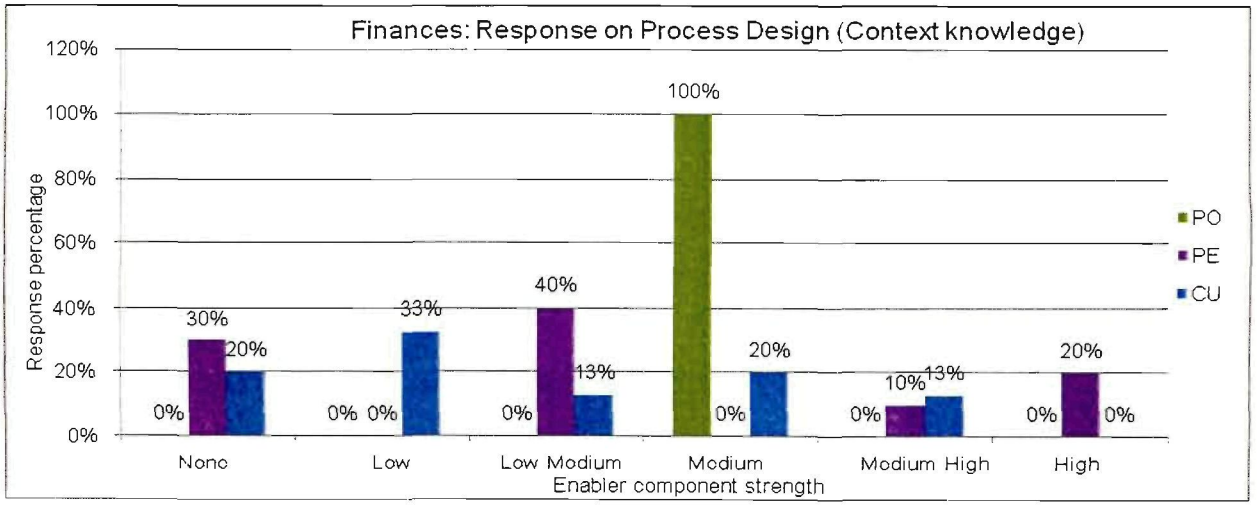


Table I-3a: Budget Process Design (Documentation): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	1	6	2	3	0	3	15
PE	2	1	3	1	2	1	10
CU	0	0	1	0	0	0	1
Total	3	7	6	4	2	4	26

Note: SL = Strength level

Table I-3b: Budget Process Design (Documentation): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	100%	0%	0%	0%	100%
PE	20%	10%	30%	10%	20%	10%	100%
CU	7%	40%	13%	20%	0%	20%	100%

Note: SL = Strength level

Figure I-3: Budget Process Design (Documentation): Rating percentage per respondent type

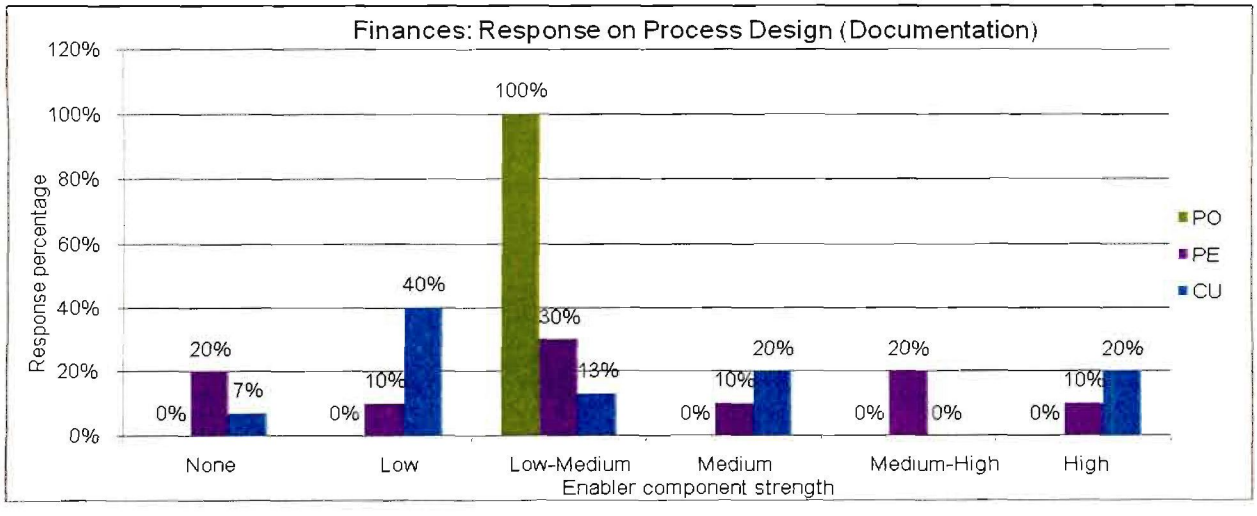


Table I-4a: Budget Process Performers (Knowledge): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	2	3	1	0	5	4	15
PE	3	0	1	1	3	2	10
CU	0	0	1	0	0	0	1
Total	5	3	3	1	8	6	26

Note: SL = Strength level

Table I-4b: Budget Process Performers (Knowledge): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	100%	0%	0%	0%	100%
PE	30%	0%	10%	10%	30%	20%	100%
CU	13%	20%	7%	0%	33%	27%	100%

Note: SL = Strength level

Figure I-4: Budget Process Performers (Knowledge): Rating percentage per respondent type

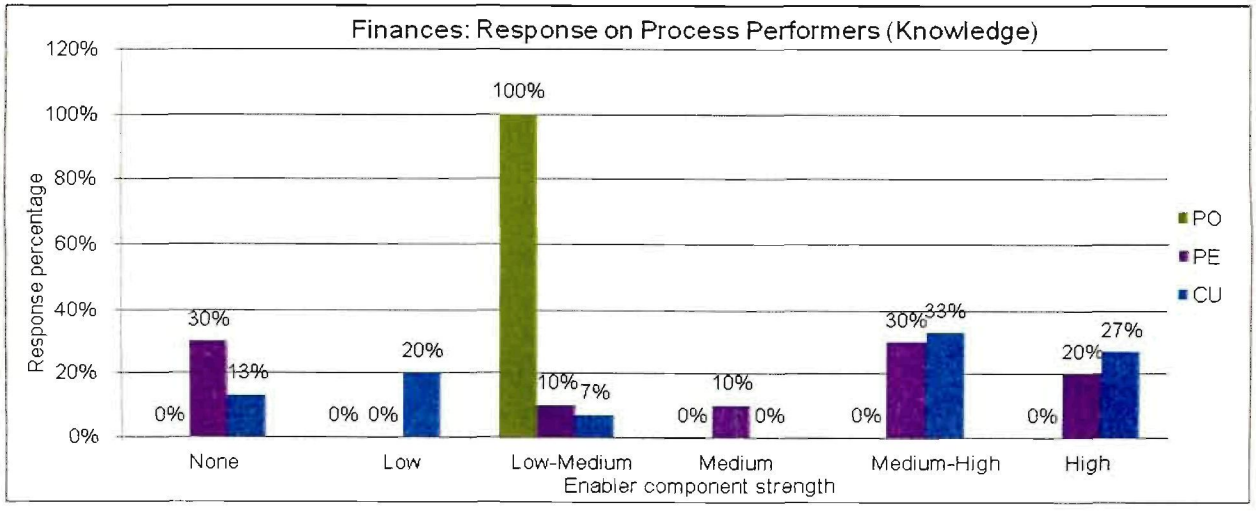


Table I-5a: Budget Process Performers (Skills): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	6	3	2	2	1	1	15
PE	3	1	1	1	2	2	10
CU	0	0	0	0	1	0	1
Total	9	4	3	3	4	3	26

Note: SL = Strength level

Table I-5b: Budget Process Performers (Skills): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	30%	10%	10%	10%	20%	20%	100%
CU	40%	20%	13%	13%	7%	7%	100%

Note: SL = Strength level

Figure I-5: Budget Process Performers (Skills): Rating percentage per respondent type

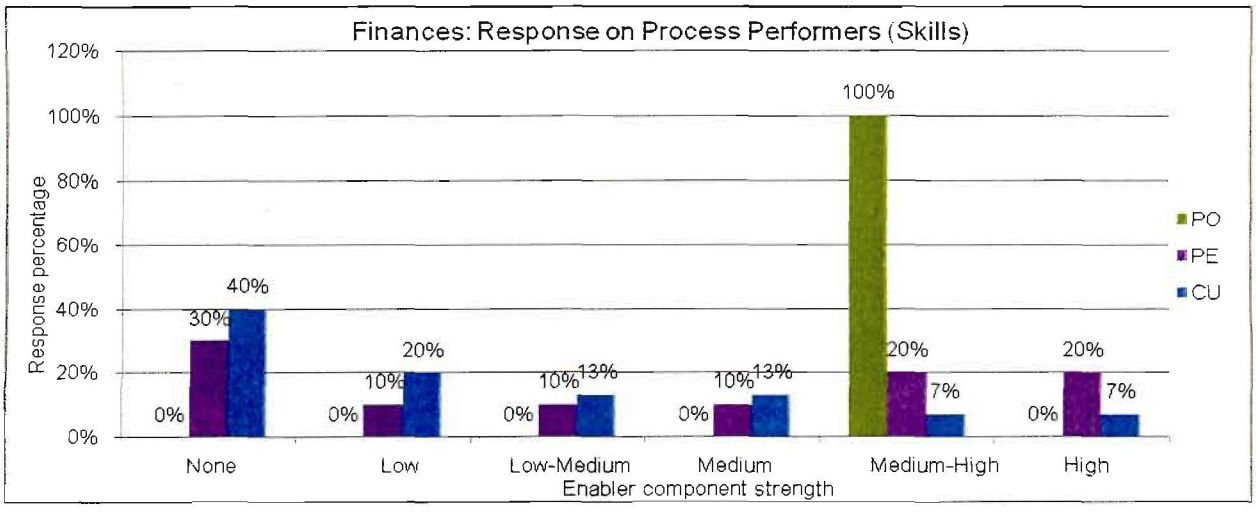


Table I-6a: Budget Process Performers (Behaviour): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	1	1	3	3	5	2	15
PE	3	2	0	2	3	0	10
CU	0	0	0	0	1	0	1
Total	4	3	3	5	9	2	26

Note: SL = Strength level

Table I-6b: Budget Process Performers (Behaviour): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	30%	20%	0%	20%	30%	0%	100%
CU	7%	7%	20%	20%	33%	13%	100%

Note: SL = Strength level

Figure I-6: Budget Process Performers (Behaviour): Rating percentage per respondent type

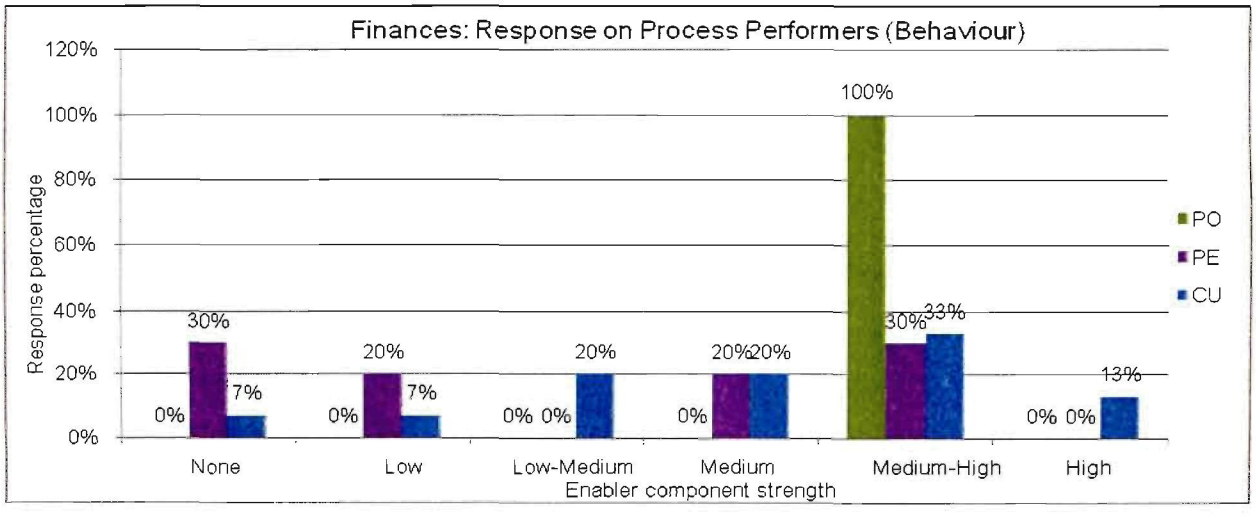


Table I-7a: Budget Process Owner (Identity): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	5	3	2	1	1	3	15
PE	2	0	3	0	1	4	10
CU	0	0	0	0	1	0	1
Total	7	3	5	1	3	7	26

Note: SL = Strength level

Table I-7b: Budget Process Owner (Identity): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	20%	0%	30%	0%	10%	40%	100%
CU	33%	20%	13%	7%	7%	20%	100%

Note: SL = Strength level

Figure I-7: Budget Process Owner (Identity): Rating percentage per respondent type

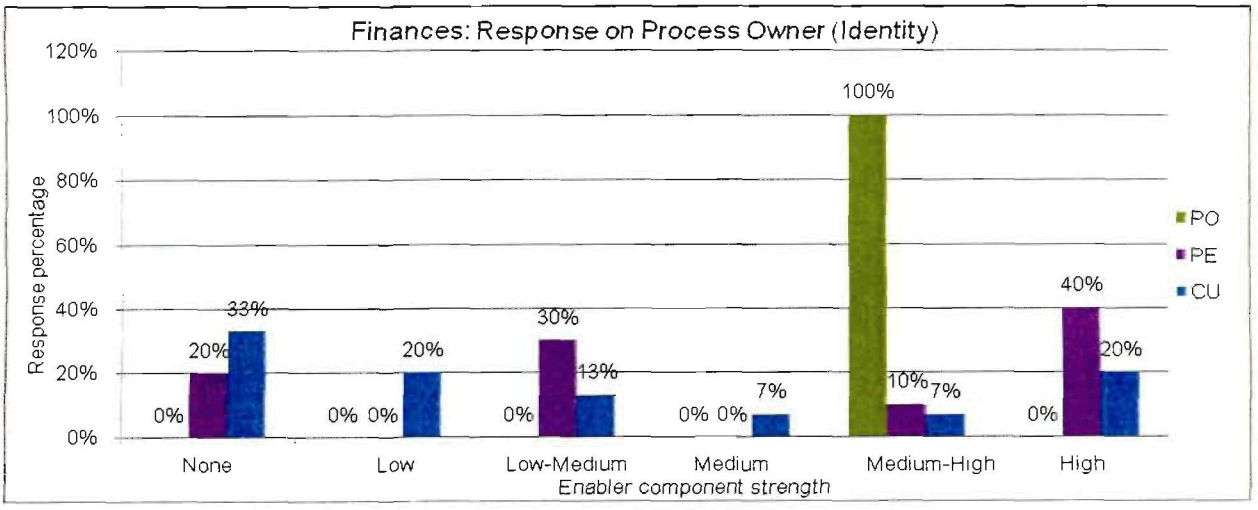


Table I-8a: Budget Process Owner (Activities): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	3	2	2	1	4	15
PE	2	0	1	2	4	1	10
CU	0	0	0	0	1	0	1
Total	5	3	3	4	6	5	26

Note: SL = Strength level

Table I-8b: Budget Process Owner (Activities): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	20%	0%	10%	20%	40%	10%	100%
CU	20%	20%	13%	13%	7%	27%	100%

Note: SL = Strength level

Figure I-8: Budget Process Owner (Activities): Rating percentage per respondent type

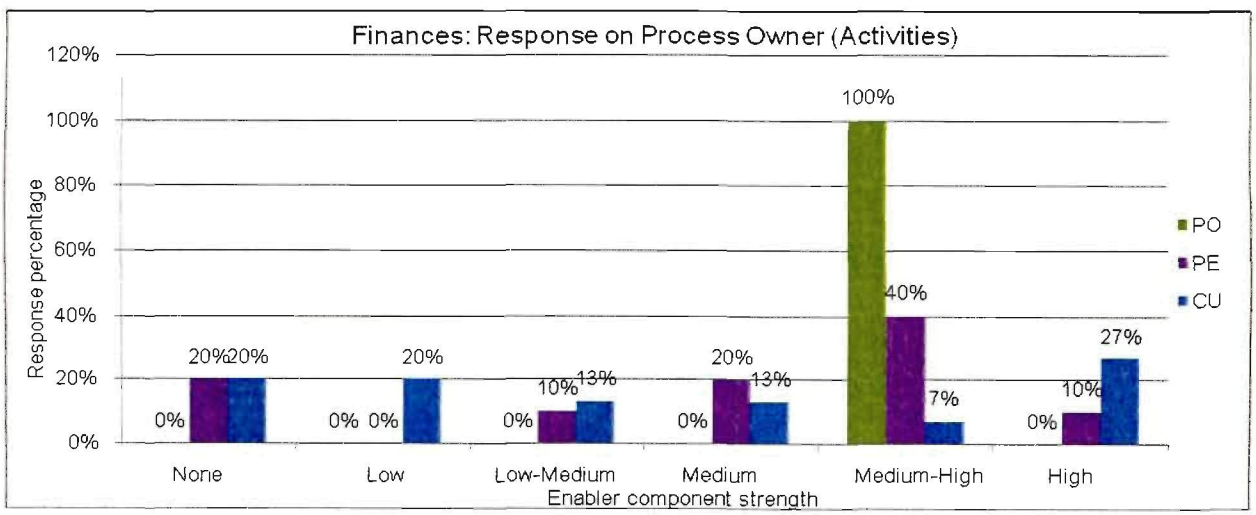


Table I-9a: Budget Process Owner (Authority): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	6	1	1	4	2	1	15
PE	3	1	2	3	1	0	10
CU	0	0	0	1	0	0	1
Total	9	2	3	8	3	1	26

Note: SL = Strength level

Table I-9b: Budget Process Owner (Authority): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	30%	10%	20%	30%	10%	0%	100%
CU	40%	7%	7%	27%	13%	7%	100%

Note: SL = Strength level

Figure I-9: Budget Process Owner (Authority): Rating percentage per respondent type

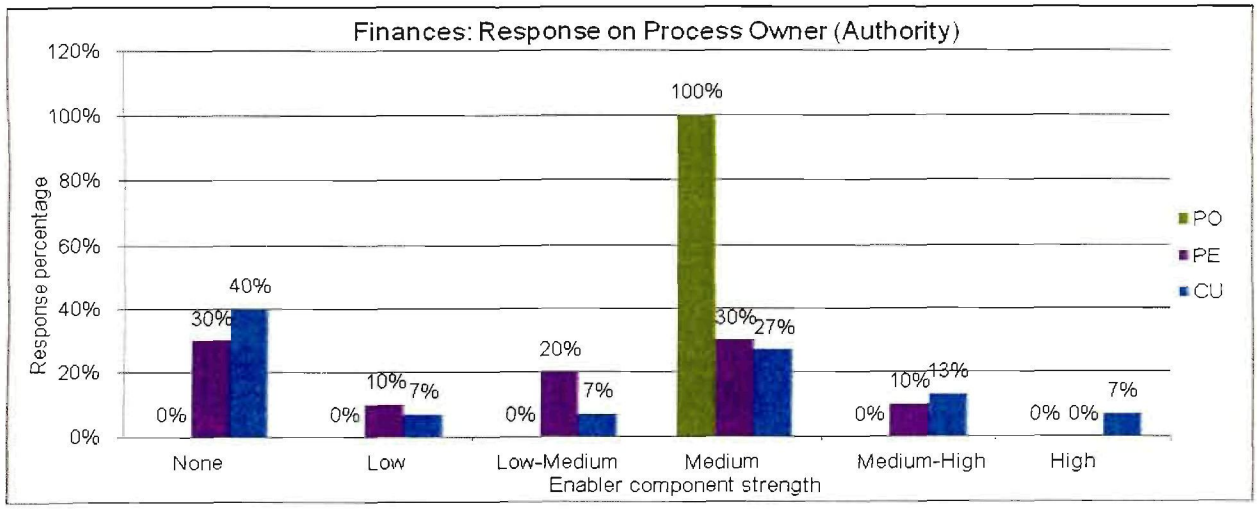


Table I-10a: Budget Process Infrastructure (Information Systems): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	2	3	1	4	1	4	15
PE	3	1	0	3	1	2	10
CU	1	0	0	0	0	0	1
Total	6	4	1	7	2	6	26

Note: SL = Strength level

Table I-10b: Budget Process Infrastructure (Information Systems): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	100%	0%	0%	0%	0%	0%	100%
PE	30%	10%	0%	30%	10%	20%	100%
CU	13%	20%	7%	27%	7%	27%	100%

Note: SL = Strength level

Figure I-10: Budget Process Infrastructure (Information Systems): Rating percentage per respondent type

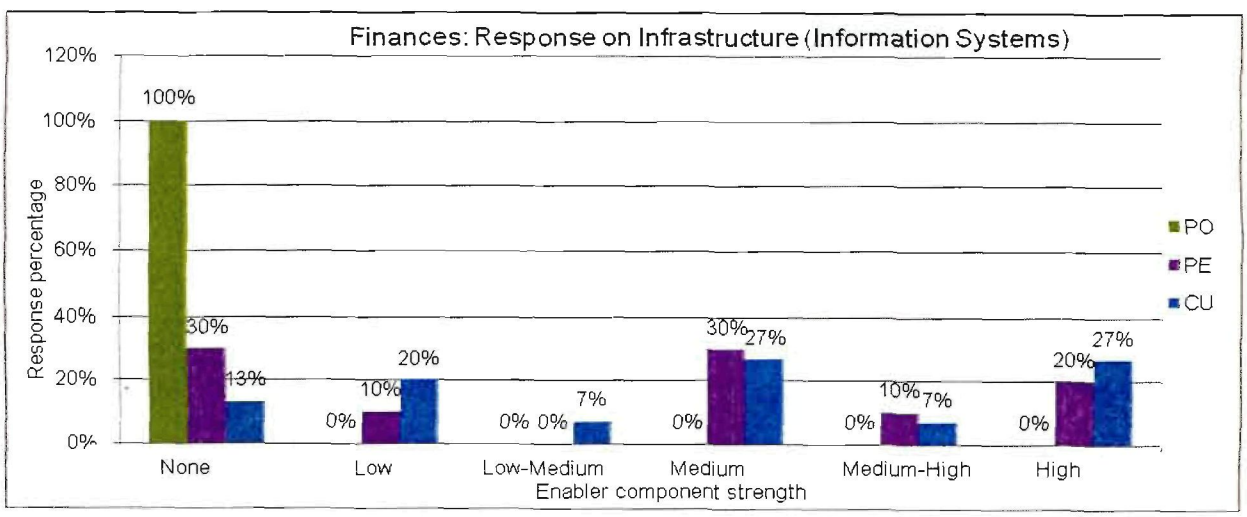


Table I-11a: Budget Process Metrics (Definition): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	2	4	2	3	2	2	15
PE	2	1	2	0	3	2	10
CU	0	0	0	0	1	0	1
Total	4	5	4	3	6	4	26

Note: SL = Strength level

Table I-11b: Budget Process Metrics (Definition): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	20%	10%	20%	0%	30%	20%	100%
CU	13%	27%	13%	20%	13%	13%	100%

Note: SL = Strength level

Figure I-11: Budget Process Metrics (Definition): Rating percentage per respondent type

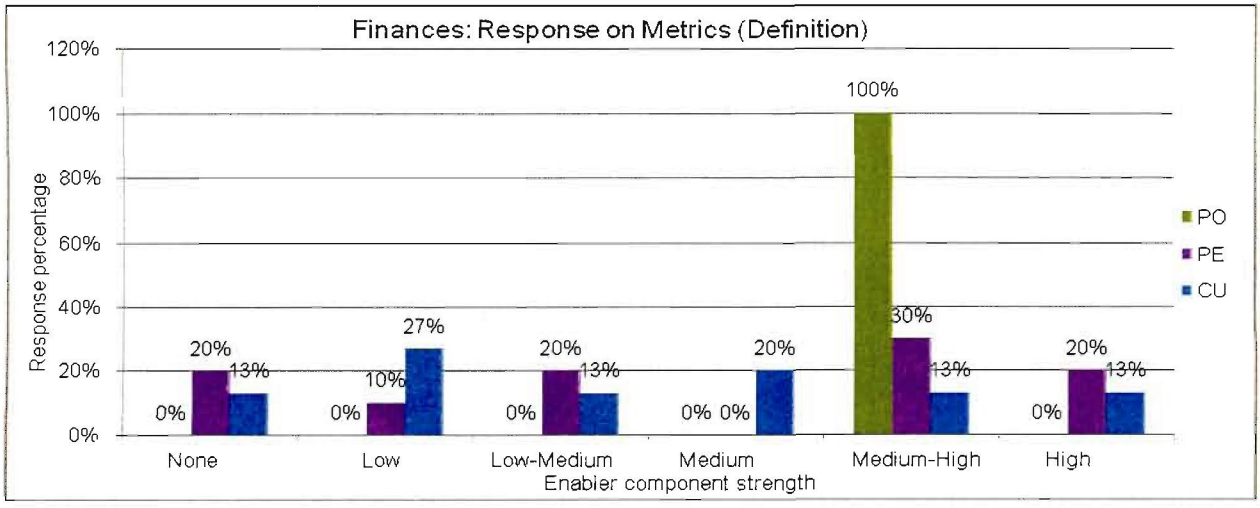


Table I-12a: Budget Process Metrics (Uses): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	5	2	2	0	3	3	15
PE	3	0	1	2	1	3	10
CU	0	0	0	0	1	0	1
Total	8	2	3	2	5	6	26

Note: SL = Strength level

Table I-12b: Budget Process Metrics (Uses): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	30%	0%	10%	20%	10%	30%	100%
CU	33%	13%	13%	0%	20%	20%	100%

Note: SL = Strength level

Figure I-12: Budget Process Metrics (Uses): Rating percentage per respondent type

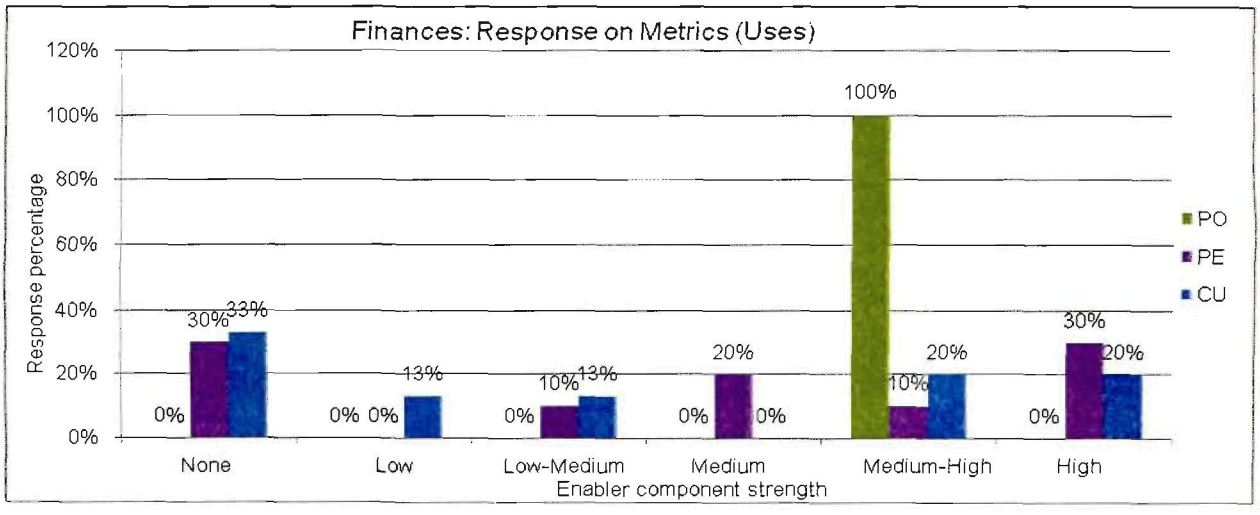


Table I-13a: Finances Leadership (Awareness): Number of responses per respondent types

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	7	1	2	2	2	1	15
PE	0	2	3	0	2	3	10
CU	0	0	1	0	0	0	1
Total	7	3	6	2	4	4	26

Note: SL = Strength level

Table I-13b: Finances Leadership (Awareness): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	100%	0%	0%	0%	100%
PE	0%	20%	30%	0%	20%	30%	100%
CU	47%	7%	13%	13%	13%	7%	100%

Note: SL = Strength level

Figure I-13: Finances Leadership (Awareness): Rating percentage per respondent type

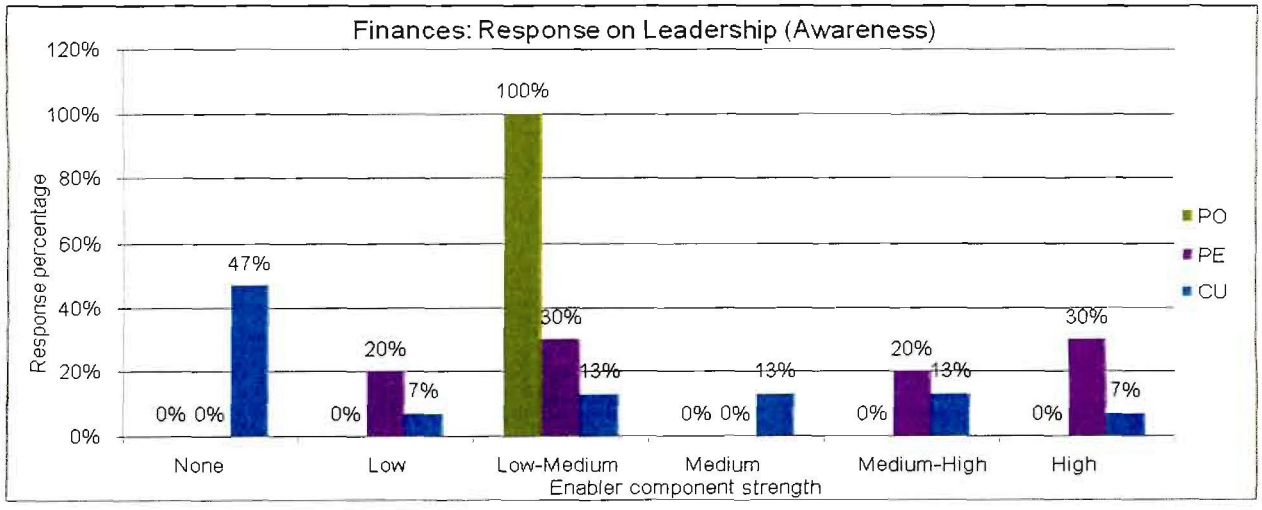


Table I-14a: Finances Leadership (Alignment): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	2	1	2	4	1	5	15
PE	0	2	2	2	1	3	10
CU	0	0	0	0	1	0	1
Total	2	3	4	6	3	8	26

Note: SL = Strength level

Table I-14b: Finances Leadership (Alignment): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	0%	20%	20%	20%	10%	30%	100%
CU	13%	7%	13%	27%	7%	33%	100%

Note: SL = Strength level

Figure I-14: Finances Leadership (Alignment): Rating percentage per respondent type

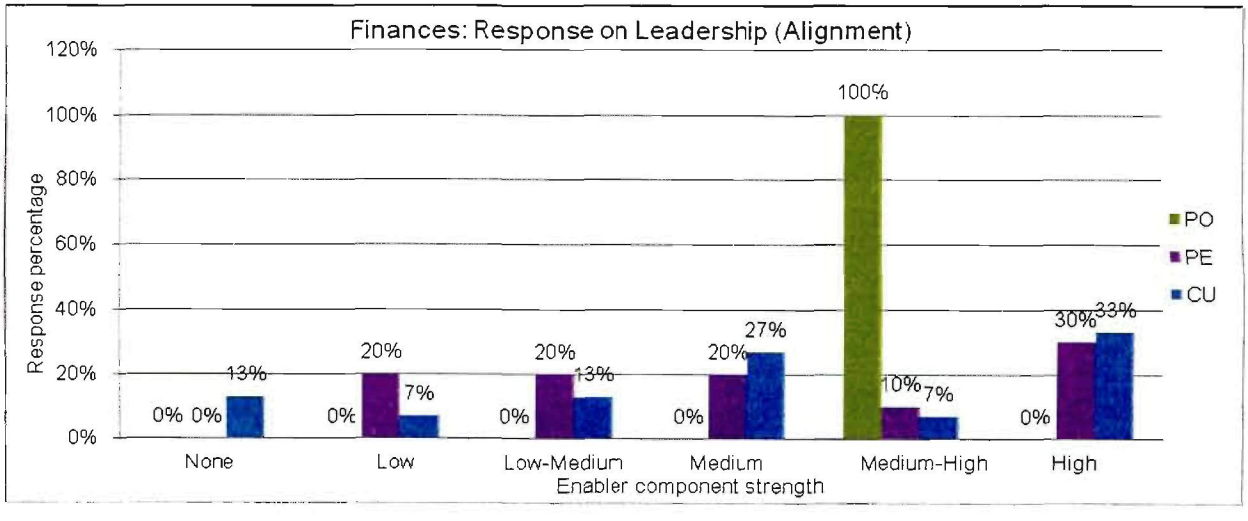


Table I-15a: Finances Leadership (Behaviour): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	2	1	0	5	3	15
PE	0	1	1	2	2	4	10
CU	0	1	0	0	0	0	1
Total	4	4	2	2	7	7	26

Note: SL = Strength level

Table I-15b: Finances Leadership (Behaviour): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	100%	0%	0%	0%	0%	100%
PE	0%	10%	10%	20%	20%	40%	100%
CU	27%	13%	7%	0%	33%	20%	100%

Note: SL = Strength level

Figure I-15: Finances Leadership (Behaviour): Rating percentage per respondent type

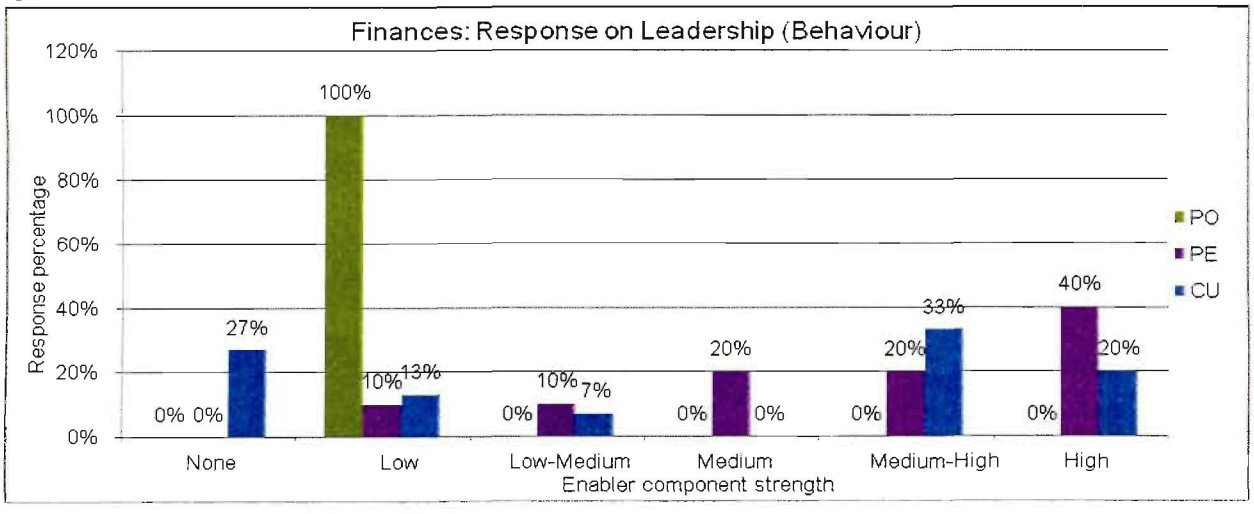


Table I-16a: Finances Leadership (Style): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	5	2	2	2	1	15
PE	0	2	2	1	3	2	10
CU	0	0	0	1	0	0	1
Total	3	7	4	4	5	3	26

Note: SL = Strength level

Table I-16b: Finances Leadership (Style): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	100%	0%	0%	100%
PE	0%	20%	20%	10%	30%	20%	100%
CU	20%	33%	13%	13%	13%	7%	100%

Note: SL = Strength level

Figure I-16: Finances Leadership (Style): Rating percentage per respondent type

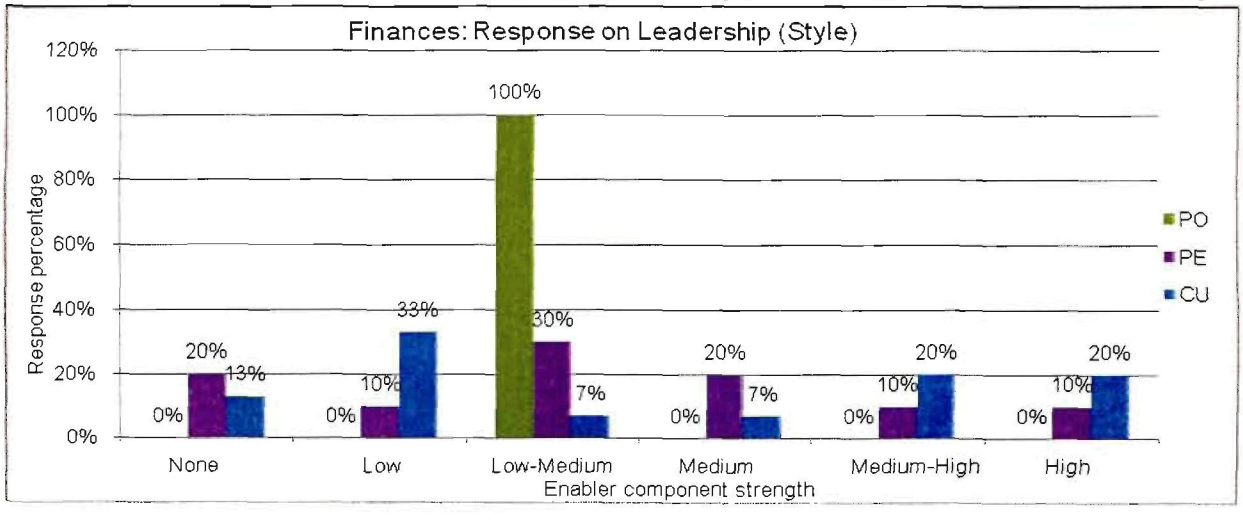


Table I-17a: Finances Culture (Teamwork): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	6	1	0	4	2	2	15
PE	2	0	0	2	3	3	10
CU	0	0	0	0	1	0	1
Total	8	1	0	6	6	5	26

Note: SL = Strength level

Table I-17b: Finances Culture (Teamwork): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	20%	0%	0%	20%	30%	30%	100%
CU	40%	7%	0%	27%	13%	13%	100%

Note: SL = Strength level

Figure I-17: Finances Culture (Teamwork): Rating percentage per respondent type

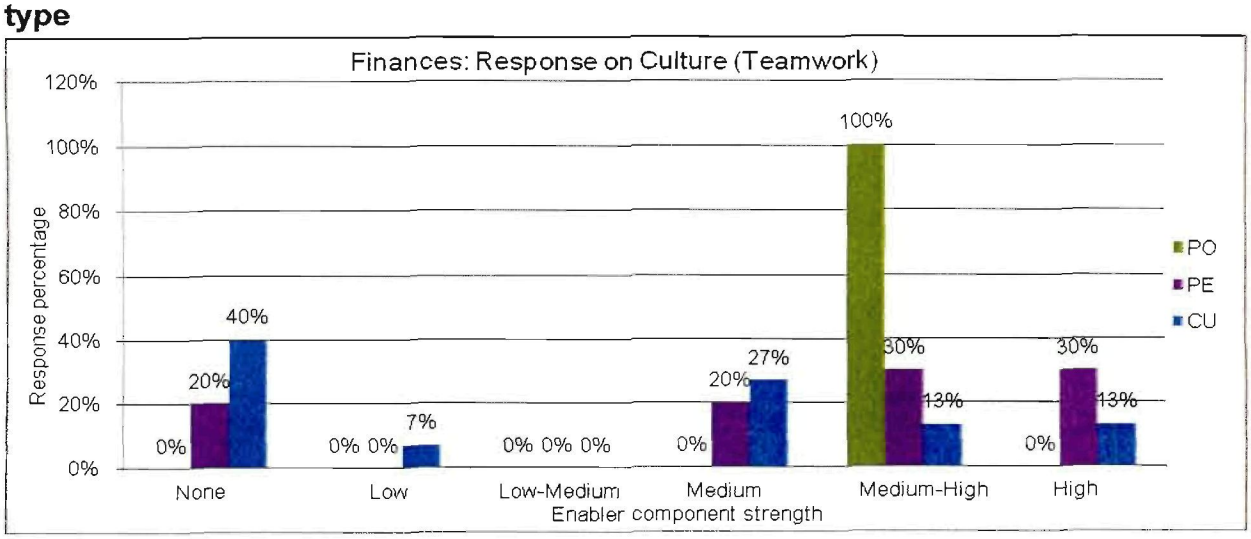


Table I-18a: Finances Culture (Customer Focus): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	3	2	2	2	4	2	15
PE	1	3	0	2	4	0	10
CU	0	0	0	0	1	0	1
Total	4	5	2	4	9	2	26

Note: SL = Strength level

Table I-18b: Finances Culture (Customer Focus): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	10%	30%	0%	20%	40%	0%	100%
CU	20%	13%	13%	13%	27%	13%	100%

Note: SL = Strength level

Figure I-18: Finances Culture (Customer Focus): Rating percentage per respondent type

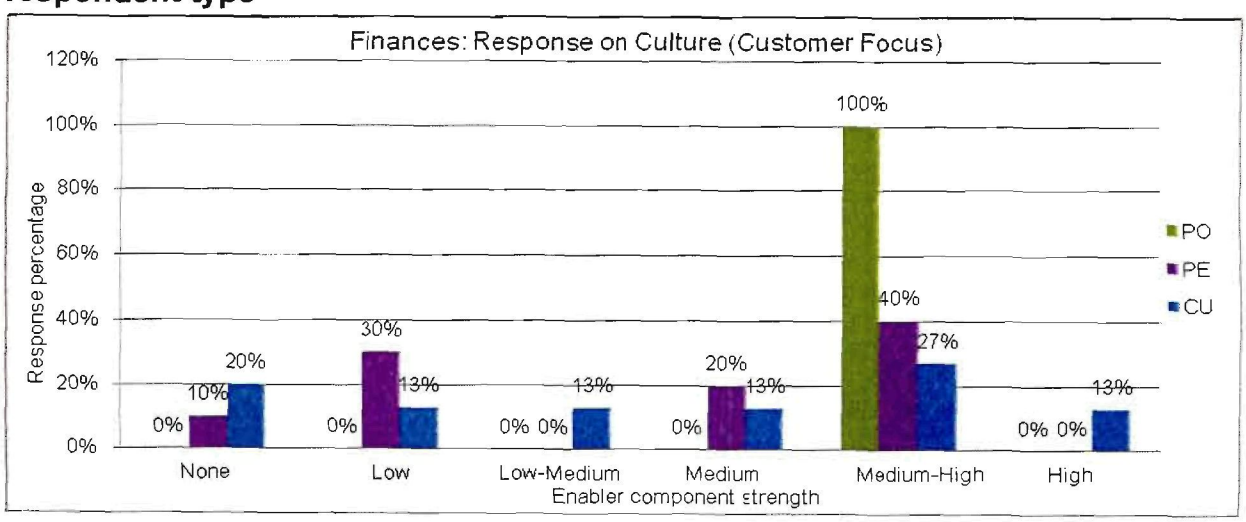


Table I-19a: Finances Culture (Responsibility): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	5	1	2	3	2	2	15
PE	0	4	2	0	4	0	10
CU	0	0	0	0	0	1	1
Total	5	5	4	3	6	3	26

Note: SL = Strength level

Table I-19b: Finances Culture (Responsibility): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	0%	100%	100%
PE	0%	40%	20%	0%	40%	0%	100%
CU	33%	7%	13%	20%	13%	13%	100%

Note: SL = Strength level

Figure I-19: Finances Culture (Responsibility): Rating percentage per respondent type

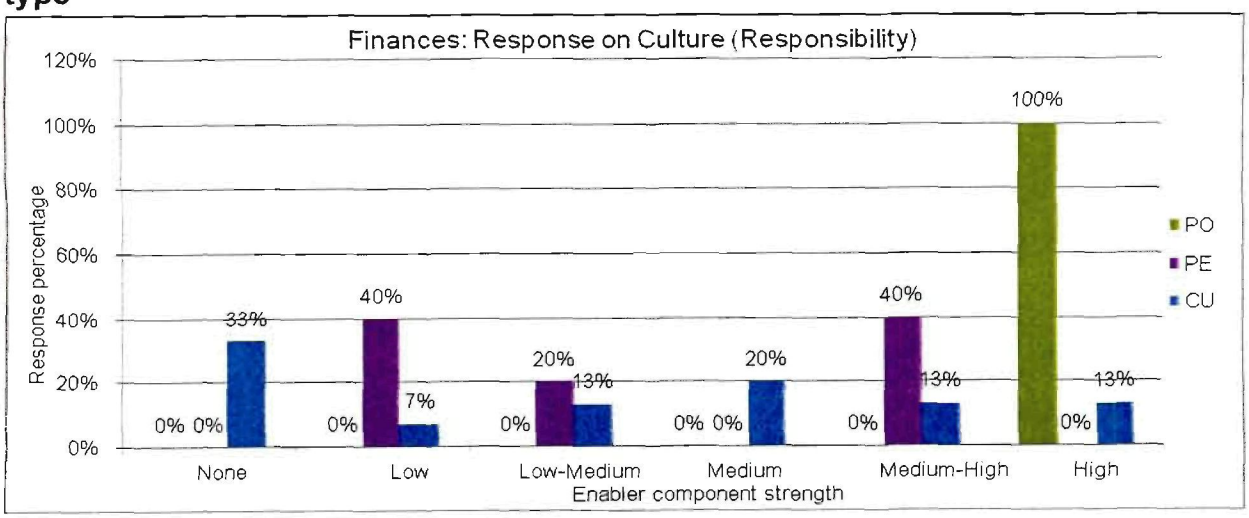


Table I-20a: Finances Culture (Attitude towards Change): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	4	1	3	4	1	2	15
PE	1	3	1	0	2	3	10
CU	0	0	0	0	1	0	1
Total	5	4	4	4	4	5	26

Note: SL = Strength level

Table I-20b: Finances Culture (Attitude towards Change): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	0%	0%	100%	0%	100%
PE	10%	30%	10%	0%	20%	30%	100%
CU	27%	7%	20%	27%	7%	13%	100%

Note: SL = Strength level

Figure I-20: Finances Culture (Attitude towards Change): Rating percentage per respondent type

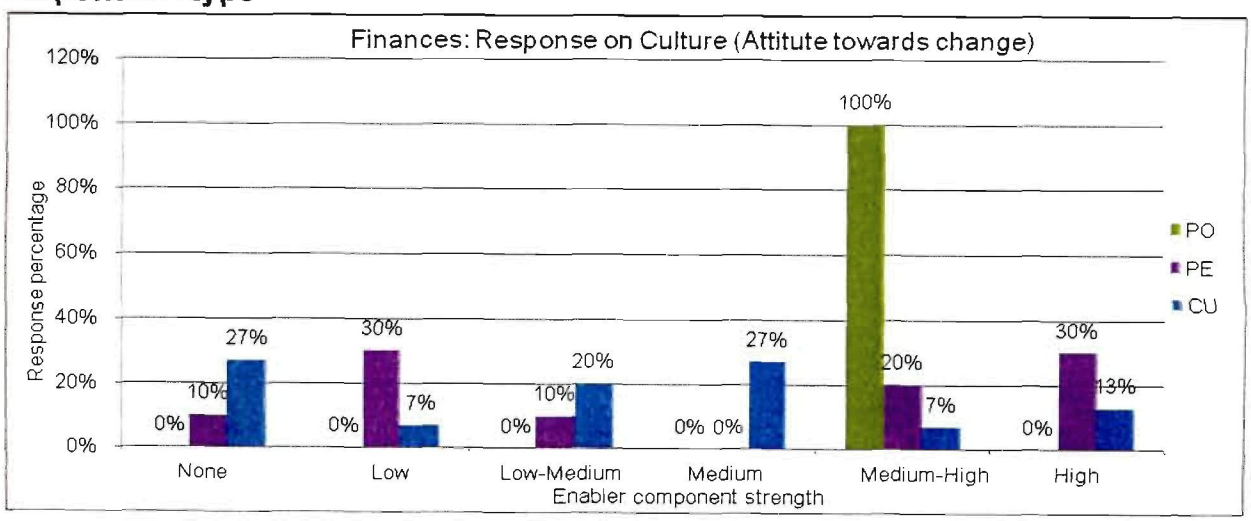


Table I-21a: Finances Expertise (People): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	8	0	0	1	1	5	15
PE	2	1	1	0	4	2	10
CU	0	0	1	0	0	0	1
Total	10	1	2	1	5	7	26

Note: SL = Strength level

Table I-21b: Finances Expertise (People): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	100%	0%	0%	0%	100%
PE	20%	10%	10%	0%	40%	20%	100%
CU	53%	0%	0%	7%	7%	33%	100%

Note: SL = Strength level

Figure I-21: Finances Expertise (People): Rating percentage per respondent type

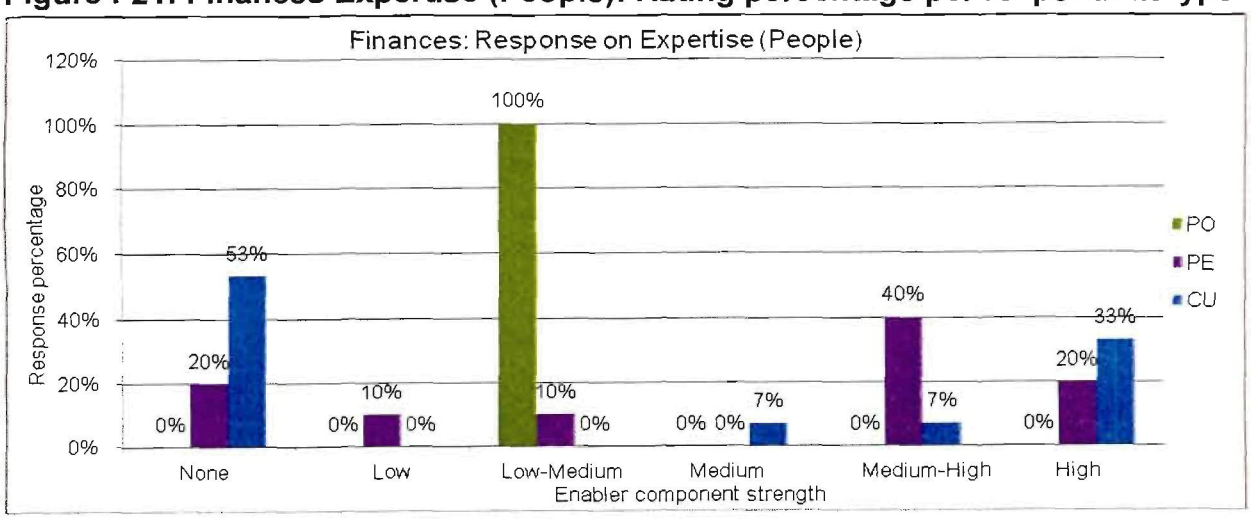


Table I-22a: Finances Expertise (Methodology): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	9	1	1	2	0	2	15
PE	1	3	4	0	1	1	10
CU	0	1	0	0	0	0	1
Total	10	5	5	2	1	3	26

Note: SL = Strength level

Table I-22b: Finances Expertise (Methodology): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	100%	0%	0%	0%	0%	100%
PE	10%	30%	40%	0%	10%	10%	100%
CU	60%	7%	7%	13%	0%	13%	100%

Note: SL = Strength level

Figure I-22: Finances Expertise (Methodology): Rating percentage per respondent type

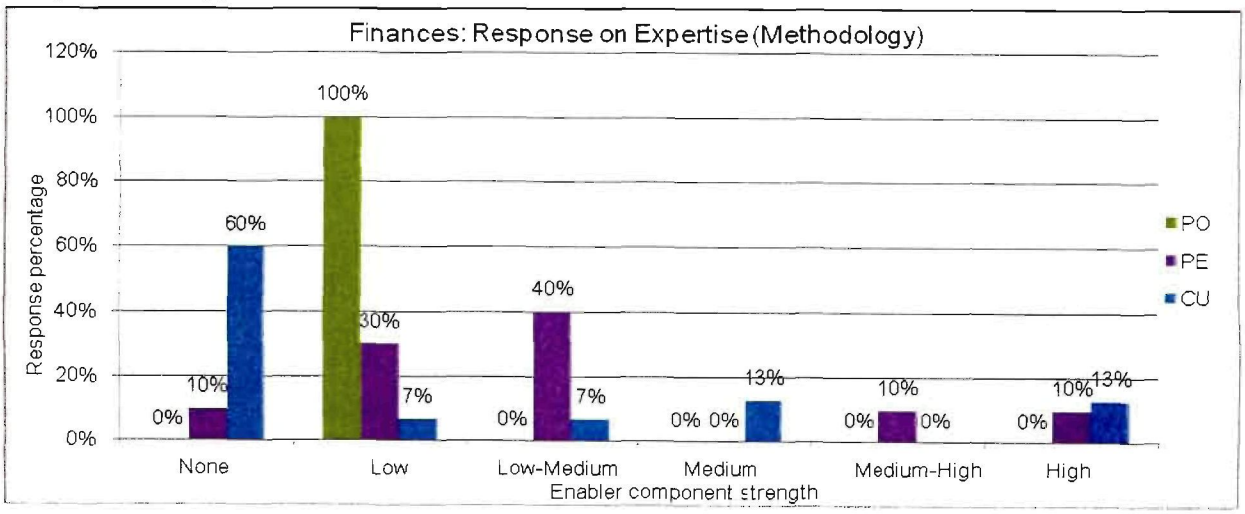


Table I-23a: Finances Governance (Process model): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	7	2	1	1	2	2	15
PE	2	3	2	1	1	1	10
CU	0	0	1	0	0	0	1
Total	9	5	4	2	3	3	26

Note: SL = Strength level

Table I-23b: Finances Governance (Process model): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	0%	100%	0%	0%	0%	100%
PE	20%	30%	20%	10%	10%	10%	100%
CU	47%	13%	7%	7%	13%	13%	100%

Note: SL = Strength level

Figure I-23: Finances Governance (Process model): Rating percentage per respondent type

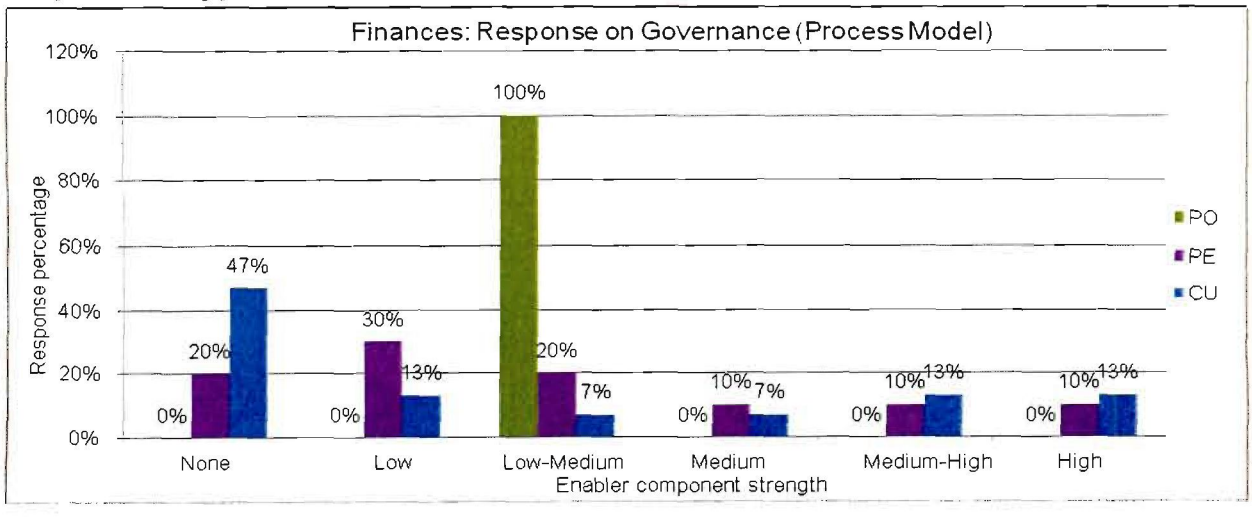


Table I-24a: Finances Governance (Integration): Number of responses per respondent type

Respondent type	Number of responses per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	7	0	0	2	1	5	15
PE	1	7	0	1	1	0	10
CU	0	1	0	0	0	0	1
Total	8	8	0	3	2	5	26

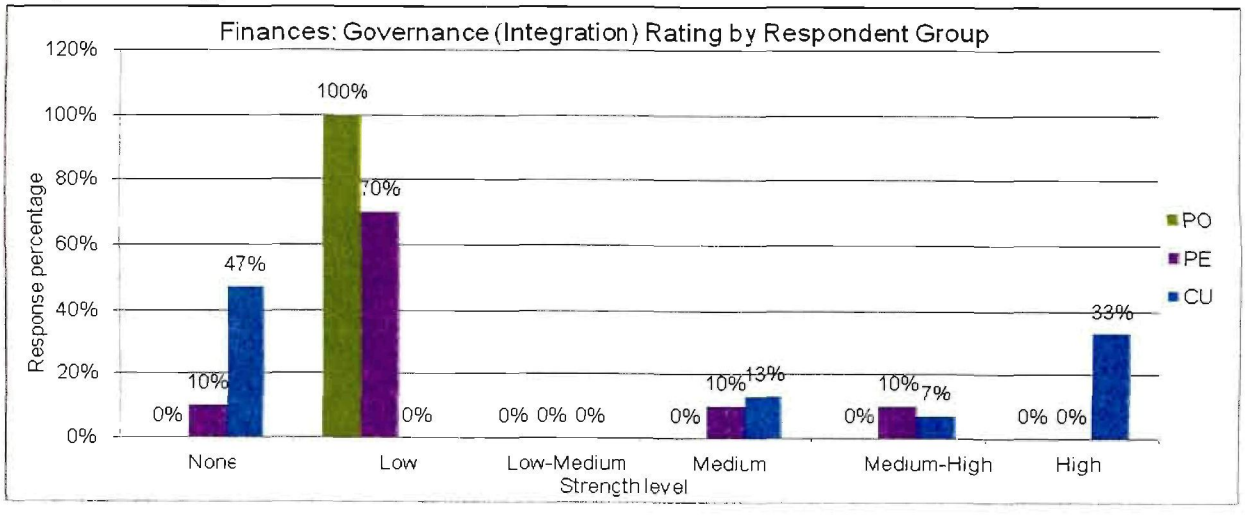
Note: SL = Strength level

Table I-24b: Finances Governance (Integration): Rating percentage per respondent type

Respondent type	Response percentage per strength level						Total
	SL-0	***SL-1***	***SL-2***	***SL-3***	***SL-4***	***SL-5***	
PO	0%	100%	0%	0%	0%	0%	100%
PE	10%	70%	0%	10%	10%	10%	100%
CU	47%	0%	0%	13%	7%	47%	100%

Note: SL = Strength level

Figure I-24: Finances Governance (Integration): Rating percentage per respondent type



ANNEXURE J:

RESULTS: SCHOOL OF CONTINUING TEACHERS' EDUCATION

Table J: Data Results: School of Continuing Teachers' Education

		Response to questions (Q)										
Resp #	Respondent Type	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Total respondent score	Respondent percentage	Average
1	PO	E	E	E	E	E	E	E	D	50	96%	92%
4	PO	D	E	E	E	B	E	E	E	45	87%	
2	PO	E	E	E	E	E	D	E	D	48	92%	
3	PE	B	A	E	B	D	E	D	D	33	63%	49%
5	PE	B	B	C	E	C	B	C	D	28	54%	
6	PE	C	C	E	C	C	A	C	B	22	42%	
7	PE	C	A	E	C	A	C	C	B	20	38%	
8	PE	B	B	C	C	C	C	B	B	20	38%	
9	PE	B	A	B	C	B	C	B	A	14	27%	
10	PE	E	E	D	E	C	E	E	E	47	90%	
11	PE	E	E	E	D	C	E	C	E	42	81%	
12	PE	C	C	C	C	B	D	E	B	28	54%	
13	PE	D	D	B	B	A	A	B	E	19	37%	
14	PE	C	E	D	E	C	E	E	D	43	83%	
15	PE	C	B	D	B	C	B	C	D	24	46%	
16	PE	D	B	B	B	C	B	D	D	25	48%	
17	PE	A	B	B	C	A	D	C	E	24	46%	
18	PE	D	B	C	C	B	B	B	E	24	46%	
19	PE	D	B	A	D	A	A	B	A	12	23%	
20	PE	B	A	D	B	A	B	D	A	14	27%	
21	PE	B	A	B	B	C	A	A	B	10	19%	
22	PE	C	C	D	E	C	D	B	E	35	67%	

ANNEXURE K: COMMENTS: HR RESPONDENTS

GENERAL COMMENTS

1. Customer: An apology from my side with respect to the attached questionnaire. I am afraid that I cannot make any contribution to the study: Firstly because I have no knowledge of the inside working of the HR department or the work descriptions of their employees. Secondly, because the requested response is so unusual that I have to refer back to the instructions frequently – this is quite frustrating. Once again my apology.
2. Customer: I have now restarted three times with your questionnaire and must confess: It is too difficult. My impression is that it is primarily compiled for internal HR staff that report to the HR manager, as it contains many questions regarding processes, procedures and documentation which are used within their department. I could succeed in recognising the interface to the different managers that use their services, and to react on that. Please excuse that I cannot complete the questionnaire.
3. Performer: Employee from Salaries: I realise that I actually know nothing about the R&A process, their work procedure and who is responsible for what procedures.

COMMENTS ON SPECIFIC QUESTIONS

PROCESS ENABLERS

Enabler	No	Component	Comment
Process design	1.	Purpose	Customer: Option 1: The financial aspect is not emphasised so that option 2 can be considered.
	2.	Context knowledge	*No comments.*
	3.	Documentation	Customer: Option 2: Information is duplicated in various forms.
Process performers	4.	Knowledge	Customer: Option 5: I do not get the impression that they always understand the effect on the end-users.
	5.	Skills	Customer: Option: N: I have not yet seen any evidence of any of the answers. I have not seen them improving their functional areas. I have experienced being given contradictory information – a sign of poor teamwork. Customer: Option N: There still is a general skills shortage.
	6.	Behaviour	Customer: Option 1: Tends not to look at the bigger picture. Functions only within existing procedures, while there may be situations in which approved deviations are necessary. Performer: Option N: More work needs to be done to improve HR employees skills as well as their team player skills. This can be done through skills development and team building outreaches. Performer: Option 5: It is not always the case that the HR employees (e.g. HR practitioners) are given the opportunity to propose necessary changes and improvements

Enabler	No	Component	Comment
Process owner	7.	Identity	*No comments.*
	8.	Activities	Customer: Option D: I am not aware of any initiative. Customer: Option D: Who is the HR director? Customer: Option 1: I do not agree with the communication process. Mostly reactive. Customer: Option 2: I cannot comment on the internal communication within HR – so it is purely speculative. Performer: Option N: This has not been done ever since I worked in HR (since 2007).
	9.	Authority	Customer: Option 1: I am not in a position that I am aware of marketing or lobbying.
Infrastructure	10.	Information systems	Customer: Option D: I am not aware of the IT system. I complete forms and then depend on HR for further support.
Metrics	11.	Definition	Performer: Option 2: But not effectively.
	12.	Uses	*No comments.*

ENTERPRISE CAPABILITIES

Capability	No	Component	
Leadership	13.	Awareness	Customer: Option D: I do not know what happens at HR, so I cannot give an opinion on their processes. Customer: Option D: I am not aware of any. Performer: Option 2: None.

Capability	No	Component	
	14.	Alignment	Customer: Option 5: I work with {worker's name} and she is fantastic to work with. I do not know anything of the rest. Customer: Option 2: I have not seen any evidence of a process thinking approach, but then I may not be aware of processes going on in the division. Performer: Option 2: It is important for HR management to give the employee a chance of think independently more especially when regard to interpreting of the policies.
	15.	Behaviour	*No comments.*
	16.	Style	Customer: Option 1: They are prepared to deviate if they can be convinced that another process is as good or better. Performer: Option 2: It is very important for the management and the employee to collaborate. So that is wise both of them to achieve the common goal by knowing each other better.
Culture	17.	Teamwork	Performer: Option 1: Team work needs to be developed for the purpose of good communication within and to offer best services to our client (NWU staff members).
	18.	Customer focus	*No comments.*
	19.	Responsibility	*No comments.*
	20.	Attitude towards change	Customer: Option 1: I may be wrong, but I have not received any invitation to provide input as an end-user. I have highlighted several problems that I experienced and have not received any feedback.

Capability	No	Component	
Expertise	21.	People	Customer: Option 1: However, must still be approved by director. Customer: Option 4: I cannot really comment on expertise – this is only my perception.
	22.	Methodology	Customer: Option D: I am not aware of it. .
Governance	23.	Process model	Customer: Option D: I am not aware of it.
	24.	Integration	Customer: The client is not always consulted.

ANNEXURE L: COMMENTS: FINANCES RESPONDENTS

General

i. After I had a look at the request and the questionnaire, I came to the conclusion that my role in the budget process is of such a small nature that I cannot provide any knowledgeable answers on any of the questions. *(Note from the author: This comment is from a school director who is supposed to manage his school's finances, but the school finances are managed from the dean's office.)*

ii. As school director I am not involved in the budget process, as it is administered centrally by the dean. I can therefore not complete the questionnaire.

iii. I (manager of a support department) do not know the budget process well enough to complete the questionnaire.

iv. I (manager of a support department) have difficulty in completing the questionnaire as I find it too difficult.

COMMENTS ON SPECIFIC QUESTIONS

PROCESS ENABLERS

Enabler	No	Component	Comment
Process design	1.	Purpose	Customer: Option N: If a budget process document does exist, I do not where to find it – I have looked on the intranet but could not find anything under Finances or MAS. PE: Option N: I do not work with the budget process.
	2.	Context knowledge	Customer: Option N: If a budget process document does exist, I do not where to find it – I have looked on the intranet but could not find anything under Finances or MAS.
	3.	Documentation	*No comments.*

Enabler	No	Component	Comment
Process performers	4.	Knowledge	Customer: Option N: Too little knowledge of performers' knowledge.
	5.	Skills	Customer: Option N: Too little knowledge of performers' skills. Customer: Option N: I have too little contact with them to express an opinion.
	6.	Behaviour	*No comments.*
Process owner	7.	Identity	*No comments.*
	8.	Activities	*No comments.*
	9.	Authority	Customer: Option N: I have too little contact with her to express an opinion.
Infrastructure	10.	Information systems	*No comments.*
Metrics	11.	Definition	*No comments.*
	12.	Uses	Customer: Option D: I have no contact with them and cannot give an opinion

ENTERPRISE CAPABILITIES

Capability	No	Component	
Leadership	13.	Awareness	Customer: Option N: I have too little contact with her to express an opinion on management's Awareness. Customer: Option D: I have no contact with them and cannot give an opinion
	14.	Alignment	Customer: Option 2: It looks so from the outside.
	15.	Behaviour	Customer: Option N: I have too little contact with them and cannot give an opinion.
	16.	Style	*No comments.*
Culture	17.	Teamwork	Customer: Option N: I have too little knowledge of their team work.
	18.	Customer focus	*No comments.*

Capability	No	Component	
	19.	Responsibility	Customer: PE: Option 1 & 5: I would say 1&5 because more often, the director is the one who usually picks up obvious & silly mistakes which slipped through the budget process & could have or are expected to have been picked up by fin employees
	20.	Attitude towards change	Customer: Option N: I have too little contact with them to express an opinion. Customer: Option N: Have no insight into their work procedures and ways of doing.
Expertise	21.	People	Customer: Option N: I have too little contact with them to express an opinion. Customer: Option N: I have too little contact with Fin employees to express an opinion.
	22.	Methodology	*No comments.*
Governance	23.	Process model	Customer: Option N: I have too little contact with them to express an opinion. Customer: Option D: I do not know whether they have a model, therefore I cannot express an opinion.
	24.	Integration	Customer: Option D: I do not know whether they have that, therefore I cannot express an opinion.