

A deductive exploration of value-added management in higher education: A job-demand resources perspective

**P Greeff
20823428**

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

Supervisor: Dr CN Lombard

September 2014



**Proverbs 20:28 [MSG] – Love and truth form a good leader;
sound leadership is founded on loving integrity.**

Note

The reader should keep in mind:

- The editorial style and the references referred to in this mini-dissertation follow the **Harvard reference** format prescribed by the **NWU Reference Guide 2012**. This is compliant with the policy of the Programme in Master in Business Administration at the North-West University (Potchefstroom Campus).
- Chapter 2 is submitted in the format of a research article.

Preface

I would like to express my sincere gratitude to the following people, without whom this research would not have been possible:

- to my heavenly Father, God Almighty: To You belong all the might, honour, glory, victory and majesty. You are Ruler over all;
- to my supervisor, Dr Chris Lombard: Thank you for taking me on as your student. Thank you for your personal commitment, effort and consistent interest. Thank you for all the precious time, support, guidance and hard work in helping me with this study. Thank you for your expertise and for always being available for advice and motivation. You are a real Champion!;
- to Proff RA Lotriet, CJ Botha and CA Bisschoff for the extra guidance and advice during the submission of this work;
- to my parents, Peter and Magda Greeff, for your patience, love and support. Thank you for barring with my continual studying;
- Mr VL Mothobi for giving me permission to access the data for my study;
- Dr I Rothman, Manager: Afriforté, and Mr Ian Rothman for your assistance to me;
- Dr M van Reenen from the NWU Statistical Services for helping with the statistics;
- to the Potchefstroom Business School of the North-West University's Potchefstroom Campus for giving me this life-changing opportunity;
- the rest of my MBA confederates for keeping me motivated and for forging wonderful and fulfilling friendships and support;
- thank you to Prof QM Temane for your advice and guidance throughout my studies;
- thank you to Dr SA Williams for your faith in me, support and motivation. Thank you for your consistent interest in my studies. Thank

you for giving me the scope to implement and share what I had learned within the work environment;

- thank you Mr P Du Toit for your support and motivation throughout my studies; and
- Ms C van Zyl for the language editing.

Abstract

Subject: A deductive exploration of value-added management in higher education: a job-demand resource perspective

Key terms: Value-Added Management, Job-Demands Resource Model, Organisational Human Factor Benchmark, Managerial dimensions, resource optimisation

The operational environment of Higher Education Institutions (HEIs) has changed rigorously over the past few years in order to stay competitive within its primary, as well as extended sectors. HEIs are experiencing increased pressure to move from traditional not-for-profit entities to a self-funded for-profit business model due to reduced government support and increased competition. The impact of these competitive changes in the educational service industry has raised the strategic importance of service quality (e.g. 'better product') and the optimal utilisation of resources. With this in mind, value-added management (VAM) has become a major investigative area in order to enhance service delivery and the integration of optimal resource utilisation.

Therefore, a sustainable advantage can be gained when organisations have a better understanding of how to optimally utilise its resources. Furthermore, it is postulated that efficiently produced value-added services are created by satisfied, loyal and productive employees.

Employees are therefore significant and inseparable role-players in the creation and delivery of value-adding services that maximise organisational performance and profitability. It is therefore required of HEI management to understand its service-profit chain, including its organisational culture and how academic and support staff are valued and managed.

The objective of this study was to explore the importance of value-added management (VAM) of academic and support staff groupings from a Job-Demand Resource (J-DR) perspective. An empirical research design was employed using data obtained from the Organisational Human Factor Benchmark (OHFB) instrument.

The research population (n) consisted of 240 participants, which represented an 80.5% population participation rate. Participants included permanent and fixed-termed employees at an HEI in the North West Province. Contingency tables were employed to present the descriptive data. Inferential analyses were used to show the statistical and practical significance of the between-group data results. MANOVA and Cohen's *d* tests were used as the basis of analysis. The postulated seven VAM dimensions explored included 1) *Employee role clarity*, 2) *Performance management*, 3) *Managerial style*, 4) *Supervisory support*, 5) *Collegial support*, 6) *Effective communication* and 7) *Growth and development opportunities*.

The juxtaposed results confirmed that academic staff have an overall advantage over support staff across all dimensions. Statistically meaningful differences were only observed for job resource variables *Relationship with colleagues* and *Growth and development opportunities*. However, except for *Managerial style*, small but pertinent practically meaningful results were observed across all job demand and job resource variables.

Limitations of the study are identified and recommendations for future research are presented.

Table of contents

Abstract	iv
List of figures	ix
List of tables.....	x
List of abbreviations	xi
Chapter 1	1
Introduction	1
1.1 Problem statement	1
1.2 Literature review	2
1.2.1 Sustainable business practices and the value chain	2
1.2.2 Value creation and its relationship to profitability	4
1.2.3 Collaborative production of services.....	5
1.2.4 Human capital	7
1.2.5 Employee vs. organisational performance	8
1.2.6 Job-demands resource model.....	9
1.2.7 Purpose of study	12
1.3 Research objectives	12
1.3.1 General objectives.....	12
1.3.2 Specific objectives.....	12
1.4 Method of investigation.....	13
1.4.1 Research method	13
1.4.2 Design	13
1.4.3 Methodology.....	13
1.4.4 Research context	14
1.4.5 Sampling	14
1.4.6 Data collection.....	14
1.4.7 Data analysis.....	15
1.5 Research procedure	15
1.6 Division of chapters	16
1.7 Chapter summary	16
Reference list.....	17
Chapter 2	23

Abstract	23
2 Literature review	23
2.1 Sustainable business practices and the value chain	23
2.2 Value creation and its relationship to profitability	25
2.3 Collaborative production of services	26
2.4 Human capital	27
2.5 Organisational performance and the employee	28
2.6 Job-demands resource model	29
2.7 Purpose of study	32
3 Hypotheses	32
3.1 Inferential hypotheses	33
3.2 Effect size hypotheses	34
4 Method of investigation	35
4.1 Research method	35
4.2 Design	35
4.3 Methodology	35
4.4 Research context	36
4.5 Sampling	36
4.6 Data collection	36
4.7 Data analysis	37
5 Results	37
5.1 Participants	37
5.2 Data findings	39
6 Discussion	46
7 Conclusion	53
8 Limitations and recommendations	55
Reference list	56
Chapter 3	62
Conclusion, limitations and recommendations	62
3.1 Conclusions	62
3.2 Limitations	65
3.3 Recommendations	66
Reference list	69

Annexure A	72
Proof of language editing	72

List of figures

Figure 1: Basic elements of organisational process sequence	4
Figure 2: Service-profit chain model	5
Figure 3: Job-demands resource model	10
Figure 4: Basic elements of organisational process sequence	25
Figure 5: Service-profit chain model	26
Figure 6: Job-demands resource model	30
Figure 7: Histogram of age group frequencies	39

List of tables

Table 1: General operational practices and resources.....	3
Table 2: Intangible characteristics of services	6
Table 3: Intangible asset family grouping.....	7
Table 4: Seven managerial competencies aligned with JD-R model perspective	11
Table 5: General operational practices and resources.....	24
Table 6: Intangible asset family grouping.....	27
Table 7: Seven managerial competencies aligned with JD-R model perspective	32
Table 8: Frequency table of descriptive results.....	38
Table 9: Distribution values of dependable variables compared to industry norm.....	40
Table 10: Levene's test of equality of error variances.....	41
Table 11: Multivariate test results	41
Table 12: Tests of between-subject effects.....	42
Table 13: Cohen's d strength of association results.....	43
Table 14: Comparison of hypotheses, statistical significance and practical significance	45

List of abbreviations

Abbreviation	Description
HC	Human Capital
HEI	Higher Education Institution
HEIs	Higher Education Institutions
HR	Human Resources
JD-R	Job-Demand Resource
JD-RM	Job-Demand Resource Model
MANOVA	Multivariate analysis of variance
OHFB	Organisational Human Factor Benchmark
PM	Performance Management
SPC	Service-profit chain
VAM	Value-Added Management

Chapter 1

Introduction

This mini-dissertation focuses on comparing two sets of secondary data obtained from the Organisational Human Factor Benchmark (OHFB) instrument in order to ascertain whether value-added management (VAM) can be achieved through applying seven (7) fundamental managerial dimensions. These VAM dimensions are derived from the Job-Demands Resource Model (JD-RM). It will be argued that VAM is a result of optimal resource utilisation, specifically human capital (HC), within an educational service environment. Data was collected from academic and support staff at an HEI. The scientific interest in these differences was pursued to obtain insight into the construct of resource utilisation and its postulated impact on an organisation's service-profit chain (SPC).

1.1 Problem statement

From a macro-economic perspective, it can be inferred that South African Higher Education Institutions (HEIs), similar to private enterprises, are exposed to ever-increasing business challenges. As a result, on national television during a South African Broadcasting Corporation's (SABC) news programme, it was reported the South African Minister of Higher Education and Training stated that HEIs need to access and educate more students without reference to the provision of additional resources. HEIs therefore need to train more students, while simultaneously having to manage limited resources more efficiently. As a result, HEIs are forced to move from the traditional not-for-profit service model to a self-funded for-profit business model (Goldsworthy, 2008:23; Pathak & Pathak, 2010:166).

Subsequently, from a micro-economic perspective, it is the organisation's ability to find the most efficient method of operation while managing the external and internal business pressures that will determine its success (LesKar Organisational Management, 2013:1). Here, efficiency refers to "the quality of doing something well with no waste of time or money" (Oxford Advanced Learner's Dictionary, 2010:469).

When the aforementioned is considered, it becomes salient that HEI managers have managerial competencies that produce optimal resource utilisation, efficiency and sustainability (Thompson *et al.*, 2012:363). Here, management refers to "*interlocking functions of creating corporate policy and organising, planning, controlling and directing an organisation's resources in order to achieve the objectives of that policy*" (BusinessDictionary.com, 2013). However, an alternative, more concise definition is, "*The ability to achieve desired results through people and efficient resource utilisation.*" (PCS, 2014).

This study will explore the VAM competencies from a Job-Demand Resource (JD-R) perspective to optimise resource utilisation. Since HEIs are considered service organisations, particular focus will be placed on human capital (HC) as a resource. For the purpose of this research, the perceptions of academic and support staff will be compared. In order to achieve this research objective, specific VAM dimensions were selected from studied literature and the Organisational Human Factor Benchmark (OHFB) instrument as designed by Afriforté (Pty) Ltd. The OHFB is based on the JD-RM. The differences in perceptions of how academic and support staff at an HEI are managed, in order to achieve optimal resource utilisation to produce value-adding services, will be explored.

1.2 Literature review

1.2.1 Sustainable business practices and the value chain

Due to current unfavourable macro- and micro-economic pressures on HEIs, operational sustainability is of paramount concern (Hancock & Nuttman,

2014:62). HEIs are forced to manage *all* their resources in a manner that reflects continuous optimal resource utilisation. Sustainable operational practices consist of a multitude of actions to the disposal of organisational management to meet its present needs without compromising its future needs (Chase & Jacobs, 2011:42; Thompson *et al.*, 2012:363). These operational practices may include planning, sourcing, producing and delivering processes, while resources may include capital and/or labour (Carbaugh, 2007:16; Chase & Jacobs, 2011:44). Table 1 represents a summary of these general operational processes and required resources (Carbaugh, 2007:16; Chase & Jacobs, 2011:44).

Table 1: General operational practices and resources

Processes	Resources
<ul style="list-style-type: none"> • Planning • Sourcing • Producing • Delivering 	<ul style="list-style-type: none"> • Capital • Labour

From an operational perspective, an institution’s value chain can therefore be described as “*the primary activities that create customer value and the related support activities*” (Thompson *et al.*, 2012:157). Heskett *et al.* (2008:2) have a more employee-centred perspective and propose that value is created by satisfied, loyal and productive employees. Heskett *et al.* (2008:5) also argue, in reference to service organisations, that the real costs of loss of productivity are signified by diminished revenue potential. It could therefore be argued that the sub-optimal utilisation of labour and capital resources contributes to diminished revenue potential.

Consequently, VAM, based on the positions of Heskett *et al.* (2008:5) and Thompson *et al.* (2012:157), focuses on the creation of a work environment where employees feel satisfied with the manner they are managed and utilised; showing loyalty to their organisation and finding themselves in an environment where they can work efficiently. Therefore, it is significant that an institution’s management team has a comprehensive understanding of all the factors that influence the various performance operations and how these

influencing factors shape organisational performance (Sorensen & Ing, 2007:3). Thompson *et al.* (2012:157) add to the argument that organisational operations consist of primary activities that create value, and support activities that facilitate the improvement of primary activity performance. Within the HE environment, it is generally accepted that academic staff fulfil the primary (core) activities and support functions as the secondary activities.

Due to the specific characteristics of services and the collaborative process of value creation, it is not that simple to formulate the specific boundaries between primary and support activities. This matter will be addressed later on in this document. Figure 1, a visual representation of the above-mentioned elements, shows that every operational process requires primary and support activities to sustain it (Baltzan & Phillips, 2010:21; Thompson *et al.*, 2012:157).

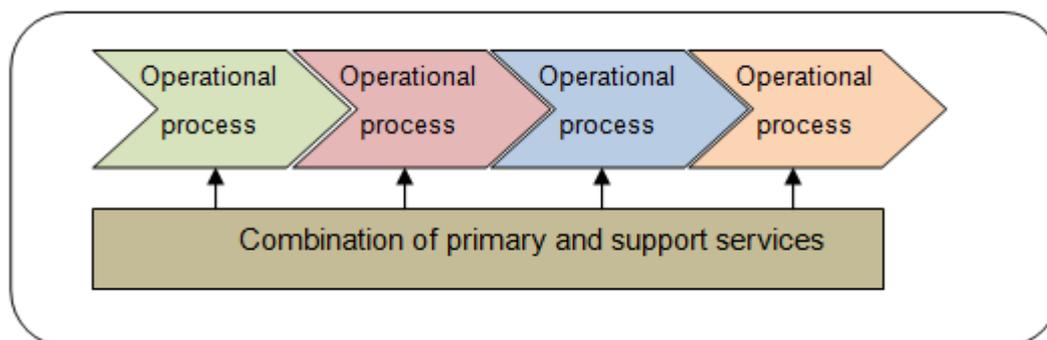


Figure 1: Basic elements of organisational process sequence

Baltacioğlu *et al.* (2007:106) suggest that the efficient management of value-adding processes leads to value-added services.

1.2.2 Value creation and its relationship to profitability

According to Navarro *et al.* (2014:814) and Vargo *et al.* (2008:145), value creation is a *co-produced* result between the various entities, resources and activities. Correspondingly, Bergström *et al.* (2007:22) argue that value creation can only be obtained through the improvement of an organisation's

operating performance to maximise profitability within an organisation's SPC (Heskett *et al.*, 2008:8).

Similarly, added value is realised through cost reductions, optimal resource utilisation or superior benefits to the end-user (Baltzan & Phillips, 2010:22; Chase & Jacobs, 2011:394). Heskett *et al.*'s (2008:4) proposed SPC model is presented in Figure 2 below.

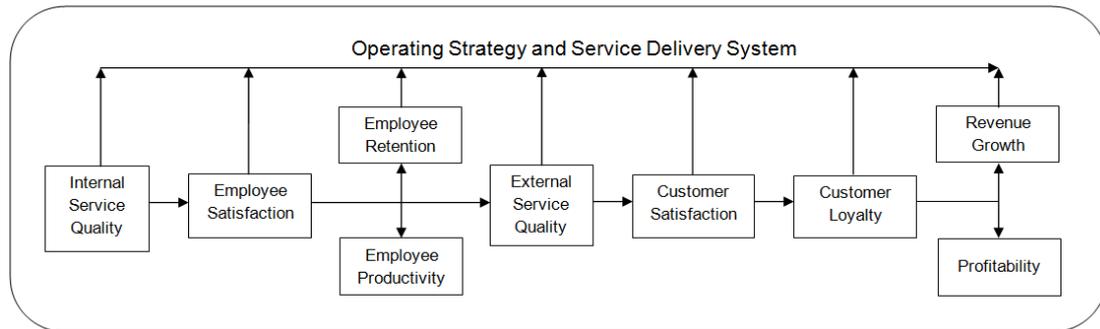


Figure 2: Service-profit chain model

The abovementioned SPC represents the link between organisational profitability, customer loyalty, employee satisfaction, and productivity. What the model does not show are the operations *service development* and *service offering* prior the *external service value* operation in order to provide a more comprehensive taxonomy. The addition of these additional operations provides a clearer picture of the importance of optimal employee resource utilisation than what currently is implied by *Employee productivity*.

1.2.3 Collaborative production of services

The efficient management (little to no waste of time and resources) of co-created operations to optimise resource utilisation and efficiency has an impact on how value-adding services contribute across sequential operations. The management processes, as stated in Table 1, impact on how information (communication), capacity, performance and capital utilisation are optimised throughout, as part of the co-creation relationship. According to Hong *et al.* (2013:240), organisational leaders, who understand the intricacies of their

SPC, create and maintain an organisational culture that attempts to balance service quality and employee value.

Nevertheless, the nature of services gives rise to their differences from homogenous products. This leads us to the unique characteristics of a service. These are presented in Table 2 (Baltacioğlu *et al.*, 2007:109; Gabriel, 2006:5; Hong *et al.*, 2013:237; Sengupta *et al.*, 2006:5; Zomerdijs & de Vries, 2007:108).

Table 2: Intangible characteristics of services

<i>Simultaneity/Inseparability/Bidirectional</i>	The simultaneous production and consumption of the service. This highlights a major distinguishing characteristic of the service value chain, which is the amount of customer contact involved. Also referred to as the <i>Customer-supplier duality</i> .
<i>Short value chain</i>	Due to the nature of simultaneity and customer-supplier duality of a service chain, such a value chain is normally relatively <i>short</i> .
<i>Perishability</i>	Services cannot be warehoused.
<i>Heterogeneity</i>	Due to the nature of the service provider-customer contact, services are customised and therefore not standardised.
<i>Difficult to account for value added (make a valuation of)</i>	The production of an intangible is not reduced after a service has been provided, but the same delivery capacity continues <i>after the fact</i> .
<i>Difficulty in identifying the actual source of the value added</i>	I.e. who is actually contributing the value and at what stage of the process?

From the above, it is clear that services are rendered and used simultaneously. Value is created by both the service creator and user. It could therefore be argued that every person involved in the co-creation process contributes to the creation of value (Gabriel, 2006:8). Subsequently, if value is created through a collaborative process involving people, as well as the efficient management of people, human resources (HR) are a very important aspect of the service delivery process at HEIs. Consequently, the concept of HC requires closer attention.

1.2.4 Human capital

Walker and Forbes (2014:17) state that the valuation of HC is essential to business growth and sustainability. HC performs a critical role in the majority of systems and processes that contribute to the SPC (Walker & Forbes, 2014:15). HC is therefore a significant role-player in ensuring the production and delivery of value-adding services that maximise organisational performance and profitability (Cardus, 2013:28; Sveiby, 2011:1). Bhimani and Langfield-Smith (2007:4) emphasise the importance of financial and non-financial indicators with regard to organisational performance. Subsequently, organisational performance could seriously be jeopardised due to the significant opportunity cost associated with non-financial indicators (Chow & Van der Stede, 2006:2). Sveiby (2011:1) refers to this as the 'invisible' component or intangible assets of an organisation's balance sheet. These intangible assets can be grouped into three families, as presented in Table 3 below (Sveiby, 2011:1).

Table 3: Intangible asset family grouping

		Family descriptor		
		Internal structure	External structure	Competence
Asset types		<ul style="list-style-type: none"> • Patents, • Concepts, • Model, • Computer & administrative systems 	<ul style="list-style-type: none"> • Relationship with customers and suppliers, • Brand names, • Trademarks & • Reputation 	Staff's: <ul style="list-style-type: none"> • Skills, • Education, • Experience, • Values & • Social skills

Internal structure refers to assets that were created or bought by an organisation, while external structure encompasses the value perception of customers and competitors. Competence incorporates the aspects that are only owned by the employees who possess them. This is important to understand since employees are voluntary members of an organisation (Sveiby, 2011:1). It is therefore salient for an organisation to capture its *competencies* in order to secure its intangible assets (Sveiby, 2001:1; Sveiby, 2011:1). Competence management is therefore critical in organisational value creation and performance (Gabriel, 2006:16; Sveiby, 2001:1).

1.2.5 Employee vs. organisational performance

Bakker and Schaufeli (2008:151) similarly present researched links between employee behaviour and organisational performance (internal efficiency), including the influence of employee role clarity, empowerment and accountability (Chen *et al.*, 2007:332; Lang *et al.*, 2007:116).

Panaccio and Vandenberghe (2011:1456) report that many employees suffer from a lack of role clarity. This refers to the concept that employees are not aware of all the expected behaviours associated with a position and that they might feel disempowered (Griffin *et al.*, 2007:333). Kreitner and Kinicki (2008:284) refer to this as role ambiguity. Role ambiguity, consequently, leads to a decrease in motivation and job satisfaction levels, which leads to a decrease in personal effectiveness, which results in work disengagement, then in a reduction in individual performance and ultimately to a decrease in organisational performance and business success (Bakker & Schaufeli, 2008:147). Therefore, if employees are uncertain about what is expected of them in their respective positions, it creates uncertainty in terms of their contribution towards achieving the organisational vision and mission, as well as uncertainty in the application of their competencies (Griffin *et al.*, 2007:333).

It was also found that leadership is a very important factor in employee performance (Walumbwa & Hartnell, 2011:153). A manager's leadership style is reflected in his/her actions and decisions, which represent his/her management style (Thau *et al.*, 2009:80). Management style also influences employees' relationship with their supervisors. Hong *et al.* (2013:240) argue that an employee's immediate supervisor is the most important and tangible representative of management actions, policies and procedures. The nature and quality of supervisory support are salient in forming employee perceptions. It could therefore be inferred that management style has a major impact on the SPC.

From the aforementioned, it is inferred that the efficient management of employees as a resources and their competencies, academic and support staff, is salient in achieving a productive primary or secondary workforce, as well as the creation of a VAM environment. It can therefore be argued that primary and support staff functions should require equitable managerial consideration.

This can be achieved by considering the fundamental dimensions of personnel management, which includes role clarity, performance management (PM), management style, supervisory and collegial relationships, communication and growth and development opportunities (Rothman, 2013). In the next section, closer attention will be given to the JD-RM as a theoretical foundation for the management and creation of a healthy work environment. Seven VAM dimensions of the Organisational Human Factor Benchmark (OHFB), developed by Afriforté (Pty) Ltd, were explored in this study.

1.2.6 Job-demands resource model

While the JD-RM was originally developed to explain the onset of burnout among employees, the researcher is of the opinion that this model's focus can accommodate the concept of VAM. As a result, this study will further contribute to the field of knowledge concerning a healthy and efficient work environment (Bakker *et al.*, 2007:275).

The JD-RM postulates that excessive job demands lead to exhaustion, while inadequate job resources lead to withdrawal behaviour and work disengagement. Both aspects lead to a reduction in productivity (Bakker & Demerouti, 2007:313; De Beer *et al.*, 2012:528). Furthermore, De Beer *et al.* (2012:528) state, in reference to the original work of Demerouti *et al.* (2001:501), that job demands constitute all the various physical, psychological, social or organisational aspects to sustain physical and psychological engagement at a job. Examples of these aspects include workload, role clarity, role conflict and stressful events. Job resources refer to

those job aspects that aid task achievement and the reduction of job demands. Examples of these aspects include supervisory and colleague social support, job enhancement opportunities such as increased control and autonomy, collaborative decision-making, recognition and advancement opportunities. The JD-RM is illustrated in Figure 3 (Bakker & Demerouti, 2007:313; Ditsela, 2012:34).

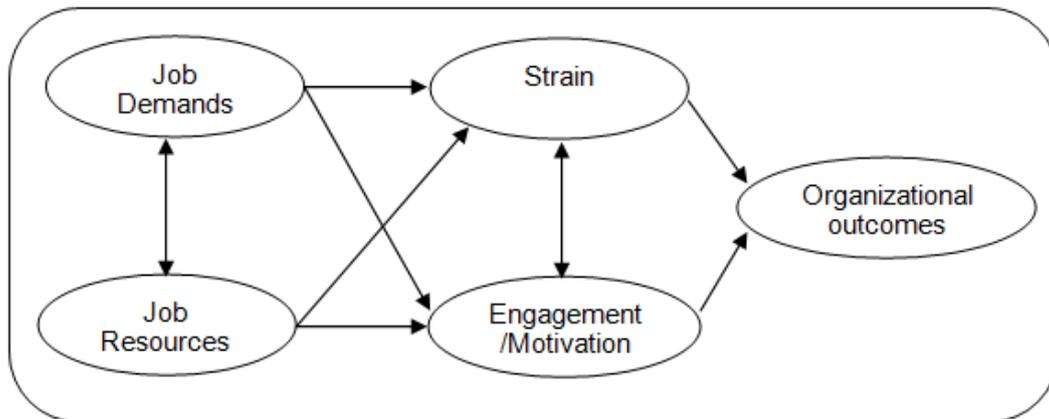


Figure 3: Job-demands resource model

Bakker *et al.* (2007:274) used the JD-RM to further explore the concept of work engagement. Work engagement is defined as a “positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption.” Vigour refers to high levels of cognitive resilience and energy during work; to persist through difficult circumstances and a willingness to invest one’s skills and knowledge into one’s work. Dedication pertains to a sense of enthusiasm, pride, being inspired, feelings of significance and being challenged. Absorption is characterised by being happily engaged in one’s work, able to fully concentrate on the task at hand and the experience that time passed quickly.

In summary, the discussed literature suggests that an HEI’s internal operations determine how its employee resources, primary and supportive, are utilised to produce desirable value-added services. At an HEI, it is generally accepted that academic staff fulfil the primary activity of education and development, while support staff fulfil the secondary activities of

administrative and logistical support. Primary activities foremost create value and support activities facilitate the betterment of primary activity performance and together they create an SPC.

Institutional management is therefore required to understand its SPC and how all the various performance processes (operations) within impact on organisational performance. Efficient management (little or no waste of money and resources) is therefore salient to optimise operations and ultimately organisational performance. However, due to specific characteristics, value creation with regard to services seems to be a co-produced/co-created activity. Subsequently, organisational culture is affected, since service quality and the deemed value of employees are influenced by the value co-creation process.

Employees are significant role-players in ensuring the creation and delivery of value-adding services that maximise organisational performance and profitability. Employees (HC) are also an organisational resource that needs to be managed efficiently to contribute to effectively produced services (Carbaugh, 2007:16; Chase & Jacobs, 2011:44). From a JD-R perspective, job demands refer to the ‘What’ aspects of the work environment that influence employee productivity, while job resources refer to the ‘support’ aspects that empower employees to achieve organisational objectives. These aspects are grouped in Table 4 (Demerouti *et al.*, 2001:501).

Table 4: Seven managerial competencies aligned with JD-R model perspective

Job demands	Job resources
<ul style="list-style-type: none"> • Role clarity • Performance management • Management style 	<ul style="list-style-type: none"> • Relationship with supervisor • Relationship with colleagues • Effectiveness of communication • Growth and development opportunities

The JD-RM should therefore be appropriate to use as a theoretical foundation to explore the concept of VAM.

This study will endeavour to answer the question, “Is there a difference between academic and support staff members’ perceptions about how they are managed through the application of envisioned VAM dimensions?”

1.2.7 Purpose of study

Academic and support staff are both collaborators to an HEI’s SPC. Furthermore, since the production and utilisation of services happen at the same time, the optimisation of operations, particularly the HC resource, can therefore only be achieved if both employee groups are equitably managed. The purpose of the study was to analyse secondary data collected during a quantitative survey in 2012 (Afriforté, 2013a). It was done by comparing information on academic and support staff employees’ perceptions about managerial dimensions that ultimately add value to an HEI collaboratively produced SPC.

1.3 Research objectives

The research objectives are divided into general objectives and specific objectives.

1.3.1 General objectives

The universal objective of this study is to determine whether literature-based VAM competencies, from a JD-R perspective, could contribute to the more efficient utilisation of primary and secondary staff as a resource at an HEI.

1.3.2 Specific objectives

The specific objectives of this study are:

- to juxtapose the perceptions of academic and support staff on how they are managed within a collaborative SPC;

- to indirectly explore how the perceptual differences impact the stated VAM competencies of managers; and
- to argue that the working relationship between academic and support staff, as a human capital resource, is a collaborative relationship that can only be optimised when VAM principles are applied to both staff groups on an equitable basis.

1.4 Method of investigation

1.4.1 Research method

A deductive study was conducted that explored specific VAM dimensions obtained from secondary data (Afriforté, 2013a; Huff, 2009:41; Maree & Van der Westhuizen, 2007:37; Zikmund *et al.*, 2010:44). Exploratory research is used to study a research area of which little is known (Kumar, 2014:13). For the purposes of this research, a quantitative research method was applied. Quantitative research is a formal, objective, systematic process in which numerical data are utilised to obtain data from a particular context (Maree & Pietersen, 2007:145; Zikmund *et al.*, 2010:134). Secondary data was employed in this study as obtained from a secondary source (Kumar, 2014:172).

1.4.2 Design

An exploratory hypothesis-testing quantitative design was employed and applied to secondary data (Afriforté, 2013a; Kumar, 2014:13; Zikmund *et al.*, 2010:509). This design was selected to assess the current status of perceptions of a known population by means of available data (Afriforté, 2013a; Maree & Pietersen, 2007:155).

1.4.3 Methodology

Exploratory research, as an overall approach, was employed as research method (Collins & Hussey, 2014:10; Kumar, 2014:13), inclusive of the use of

secondary data (Kumar, 2014:172). This approach utilises hypothesis testing (Zikmund *et al.*, 2010:509). The research method incorporated a literature review and an empirical study.

1.4.4 Research context

The work environment of HEIs is highly service orientated with a broad spectrum of academic and support staff functions. HEIs also differ substantially from one institution to the next. At an HEI in the North West Province, a matrix management system is employed. However, this matrix system is embedded into a larger traditional managerial approach. The HEI consists of an Institutional Office (centralised corporate services) and three campuses (business units), of which one is located in Gauteng. The employee base of the institution is representative of male and female gender groups, multiple age groups, academic and support staff, as well as multiple ethnic groups across 19 different job levels.

1.4.5 Sampling

Non-probability (convenience) sampling was employed to select the complete staff compliment of permanent and fixed-term employees at three faculty-level departments (two academic and one corporate service) (Brink, 2009:132; Zikmund *et al.*, 2010:395). Academic and support staff participated on a voluntary basis in the original study.

1.4.6 Data collection

Quantitative data was originally collected using an electronic survey instrument termed the Organisational Human Factor Benchmark (OHFB) (Afriforté, 2013a). The OHFB is a scientific-based organisational diagnostic instrument. It is based on multiple scientific theories, norms, benchmarks and psychometric assessments that provide real-time workplace analytic reporting on, but not limited to, managerial outcomes (Afriforté, 2013b). Results are

benchmarked against a norm obtained from 100,000 multi-industry measurements.

Data on seven dimensions of the South African validated OHFB instrument was obtained and used in this study (Rothman, 2013). The seven VAM dimensions studied are (Afriforté, 2013a):

1. *Employee role clarity,*
2. *Performance management,*
3. *Managerial style,*
4. *Supervisory support,*
5. *Collegial support,*
6. *Effective communication and,*
7. *Job enhancement opportunities.*

1.4.7 Data analysis

Data was consolidated into categorical and continuous data groups. The data obtained was analysed quantitatively by means of appropriate descriptive and comparative techniques (Berkman & Reise, 2012:6; Pallant, 2010:51). Multivariate analysis of variance (MANOVA) was employed based on the expected interrelatedness of the variables studied (Berkman & Reise, 2012:163; Pallant, 2010:106; Zikmund *et al.*, 2010:589). To limit the risk of a Type 1 error, Bonferroni's adjustment was employed (Gravetter & Wallnau, 2005:188; Pallant, 2010:209). Additionally, Levene's test was employed to ensure that the data does not violate the assumption of equality of covariance (Pallant, 2010:206). Wilks's Lambda (λ) was calculated as a measure of overall significance. Finally, Cohen's *d* statistic was employed as a measure for effect sizes or practical significance, which indicates the strength of difference between groups (Pallant, 2010:209).

1.5 Research procedure

Secondary data was obtained based on the data collected by the electronic OHFB instrument. Participants consisted of academic and support staff at an

HEI in the North West Province. All responses were used for data and inferential analysis. Hypotheses were tested and conclusions were drawn.

1.6 Division of chapters

Chapter 1: Introduction, problem statement, literature review and objectives

Chapter 2: Research article

Chapter 3: Conclusion, limitations and recommendations

1.7 Chapter summary

This chapter discussed the problem statement and research objectives. The research design and method used were discussed and explained. A brief overview of the chapters followed.

Reference list

Please note that the Harvard style of referencing is applicable

Afriforté. 2013a. Work climate and promoting the work-related wellbeing of staff. (Unpublished).

Afriforté, 2013b. Metrics that matter: the organisational human factor benchmark. <http://www.afriforte.co.za/ohfb.php> Date of access: 29 Sep. 2013.

Bakker, A.B. & Demerouti, E. 2007. The job demand-resources model: state of the art. *Journal of Managerial Psychology*, 22(3):309-328.

Bakker, A.B., Hakanen, J.J., Demerouti, E., & Xanthopoulou, D. 2007. Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99(2):274-284.

Bakker, A.B. & Schaufeli, W.B. 2008. Positive organizational behaviour: engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29:147-154.

Baltacioğlu, T., Ada, E., Kaplan, M.D., Yurt, O. & Kaplan, Y.C. 2007. A new framework for service supply chains. *The Service Industries Journal*, 27:105-124.

Baltzan, P. & Phillips, A. 2010. Business Driven Technology. New York, NY: McGraw-Hill Irwin.

Bergström, C., Grubb, M. & Jonsson, S. 2007. The operating impact of buyouts in Sweden: a study of value creation. *The journal of private equity*: 22-39.

Berkman, E.T. & Reise, S.P. 2012. A conceptual guide to statistics using SPSS. Thousand Oaks, CA: Sage Publications.

Bhimani, A. & Langfield-Smith, K. 2007. Structure, formality and the importance of financial and non-financial information in strategy development and implementation. *Management Accounting Research*, 13(1):3-31.

Brink, H. 2009. Fundamentals of research methodology for health care professionals. 2nd ed. Cape Town: Juta.

BusinessDictionary.com. 2013. Management.

<http://www.businessdictionary.com/definition/management.html> Date of access: 27 May. 2013.

Carbaugh, R.J. 2007. An application approach to contemporary economics. 4th ed. Mason, OH: Thompson.

Cardus, M. 2013. The five levers of employee engagement. *Harvard Business Review*, Jul.:28-31.

Chase, R.B. & Jacobs, F.R. 2011. Operations and Supply Chain Management. New York, NY: McGraw-Hill Irwin.

Chen, G., Kirkman, B.L., Kanfer, R. & Allen, D. 2007. A multilevel study of leadership, empowerment, and performance in teams. *Journal of Applied Psychology*, 92(2):331-346.

Chow, C.W. & Van der Stede, W.A. 2006. The use and usefulness of nonfinancial performance measures. *Management Accounting Quarterly*, 7(3):1-8.

Collins, J. & Hussey, R. 2014. Business research: a practical guide for undergraduate and postgraduate students. 4th ed. New York, NY: Palgrave Macmillan.

De Beer, L., Rothmann Jr., S. & Pienaar, J. 2012. A confirmatory investigation of a job demands-resources model using a categorical estimator. *Psychological Reports: Human Resources & Marketing*, 111(2):528-544.

Demerouti, E., Bakker, A.B., Nachreiner, F. & Schaufeli, W.B. 2001. The job demands-resources model of burnout. *Journal of Applied Psychology*, 86:499-512.

Ditsela, N.J. 2012. Factors involved in subjective career success of soldiers in the South African National Defence Force: an exploratory study. Stellenbosch: US. (Thesis – MCom).

Gabriel, E. 2006. Value chain for services: a new dimension of “Porter’s value chain”. (Unpublished).

Goldsworthy, J. 2008. Research grant mania. *Australian Universities’ Review*, 50(2):17-24.

Gravetter, F.J. & Wallnau, L.B. 2005. Essentials of statistics for the behavioral sciences. Belmont, CA: Wadsworth/Thomson Learning.

Griffin, M.A., Neal, A. & Parker, S.K. 2007. A new model of work role performance: positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50(2):327-347.

Hancock, L. & Nuttman, S. 2014. Engaging higher education institutions in the challenge of sustainability: sustainability transport as a catalyst for action. *Journal of Cleaner Production*, 62:62-71.

Heskett, J.L., Jones, T.O., Loveman, G.W., Sasser, W.E. & Schlesinger, L.A. 2008. Putting the service-profit chain to work. *Harvard Business Review*, Mar./Apr.:1-13.

Hong, Y., Liao, H., Hu, J. & Jiang, K. 2013. Missing link in the service profit chain: A meta-analytic review of the antecedents, consequences, and moderators of service climate. *Journal of Applied Psychology*, 98(2):237-267.

Huff, A.S. 2009. Designing research for publication. London, UK: Sage Publications.

Kreitner, R. & Kinicki, A. 2008. Organizational Behavior. 8th ed. New York, NY: McGraw-Hill Irwin.

Kumar, R. 2014. Research methodology: a step-by-step guide for beginners. 4th ed. London: Sage.

Lang, J., Thomas, J.L., Bliese, P.D. & Adler, A.B. 2007. Job demands and job performance: the mediating effect of psychological and physical strain and the moderating effect of role clarity. *Journal of Occupational Health*, 12(2):116-124.

LesKar Organisational Management. 2013. Defining organisational sustainability'. <http://organizational sustainability.com/> Date of access: 27 May. 2013.

Maree, K. & Pietersen, J. 2007. The quantitative research process. (In K. Maree., ed. First steps in research. Pretoria: Van Schaik. p. 144-153).

Maree K., & Van der Westhuizen, C. 2007. Planning a research proposal. (In K. Maree., ed. First steps in research. Pretoria: Van Schaik. p. 23-45).

Navarro, S., Andreu, L. & Cervera, A. 2014. Value co-creation among hotels and disabled customers: an exploratory study. *Journal of Business Research*, 67:813-818.

Oxford Advanced Learner's Dictionary. 2010. Oxford, UK: Oxford University Press.

Pallant, J. 2010. SPSS survival manual. 4th ed. Berkshire: Open University.

Panaccio, A. & Vandenberghe, C. 2011. The relationship role clarity and organization-based self-esteem to commitment to supervisors and organizations and turnover intentions. *Journal of Applied Social Psychology*, 41(6):1455-1485.

Pathak, V. & Pathak, K. 2010. Reconfiguring the higher education value chain. *Management in Education*, 24:166-171.

PCS (People Capacity Solutions). 2014. Practical leadership. <http://www.peoplecapacity.co.za/default.php?ipkCat=44&sid=44> Date of access: 12 Mar. 2014.

Rothman, I. 2013. Personnel management [personal interview]. 9 Jul., Potchefstroom.

Sengupta, K., Heiser, D.R. & Cook, L.S. 2006. Manufacturing and service supply chain performance: A comparative analysis. *The Journal of Supply Chain Management: A Global Review of Purchasing and Supply*:4-15.

Sorensen, P. & Ing, B. 2007. Balancing investment in people, process and technology and building the capacity to do so in developing economies. *The International Council of Management Consulting*

Sveiby, K.E. 2001. Towards a knowledge-based theory of the firm. *Journal of Intellectual Capital*, 2(4):1.
www.sveiby.com/articles/knowledgetheoryoffirm.html Date of access: 22 Jul. 2013.

Sveiby, K.E. 2011. The “invisible” balance sheet.
www.sveiby.com/articles/InvisibleBalance.html Date of access: 22 Jul. 2013.

Thau, S., Bennett, R.J., Mitchell, M.S. & Marrs, M.B. 2009. How management style moderates the relationship between abusive supervision and workplace deviance: an uncertainty management theory perspective. *Organizational Behavior and Human Decision Processes*, 108:79-92.

Thompson, A.A., Peteraf, M.A., Gamble, J.E. & Strickland III, A.J. 2012. *Crafting executing strategy: concepts and cases*. 8th ed. New York, NY: McGraw-Hill Irwin.

Vargo, S.L., Maglio, P.P. & Akaka, M.A. 2008. On value and value co-creation: a service systems and service logic perspective. *European Management Journal*, 26:145-152.

Walker, L.J. & Forbes, M.C. 2014. Human capital and the succession conversation. *Practice Management Solutions*:14-17.

Walumbwa, F.O. & Hartnell, C.A. 2011. Understanding transformational leadership-employee performance links: the role of relational identification and self-efficacy. *Journal of Occupational and Organizational Psychology*, 84:153-172.

Zikmund, G.Z., Babin, B.J., Carr, J.C. & Griffin, M. 2010. *Business research methods*. 8th ed. Mason, OH: South-Western Cengage Learning.

Zomerdijk, L.G. & de Vries, J. 2007. Structuring front office and back office work in service delivery systems. *International Journal of Operations & Production Management*, 27(1):108-131.

Chapter 2

A deductive exploration of value-added management in higher education: A Job-Demand Resource perspective

Abstract

Reduced government support forces High Education Institutions (HEIs) to move from a traditional not-for-profit to a self-funded for-profit business model. Therefore, the most critical competency of management is the ability to achieve desired results through people and efficient resource utilisation. Applying the Job-Demand Resource Model (JD-RM), seven managerial dimensions, which support Value-Added Management (VAM) principles were identified and explored. These dimensions included role clarity, performance management, management style, supervisor relationship, collegial relationship, effective communication, and growth and development opportunities. Statistically and practically meaningful results were observed. Academic staff scored better than support staff across all dimensions. The studied HEI faces real risks concerning reduced productivity and performance potential due to diminished VAM.

2 Literature review

2.1 Sustainable business practices and the value chain

Current macro- and micro-economic pressures compel Higher Education Institution (HEI) management to constantly review their operational sustainability (Hancock & Nuttman, 2014:62). As a result, HEIs are forced to move from traditional not-for-profit service model to a self-funded for-profit business model (Goldsworthy, 2008:23; Pathak & Pathak, 2010:166). This is of particular significance since Higher Education Institutions (HEIs) are forced to manage *all* their resources in a manner that ensure sustainability, while

having to continually accommodate reduced governmental support. Sustainable operational practices are those actions taken by an organisation to meet its present needs without compromising its future needs (Chase & Jacobs, 2011:42; Thompson *et al.*, 2012:363). These operational practices may include planning, sourcing, producing and delivering processes, while resources may include capital and/or labour (Carbaugh, 2007:16; Chase & Jacobs, 2011:44). Table 5 represents a summary of these general operational processes and required resources (Carbaugh, 2007:16; Chase & Jacobs, 2011:44).

Table 5: General operational practices and resources

Processes	Resources
<ul style="list-style-type: none"> • Planning • Sourcing • Producing • Delivering 	<ul style="list-style-type: none"> • Capital • Labour

From an operational perspective, an institution's value chain can therefore be described as “*the primary activities that create customer value and the related support activities*” (Thompson *et al.*, 2012:157). However, Heskett *et al.* (2008:2) suggest that value is created by satisfied, loyal and productive employees. Heskett *et al.* (2008:5) further suggest, particularly with regard to the service industry, that to understand the real costs of loss of productivity needs to be conceptualised in terms of an organisation's diminished revenue potential. It is therefore postulated that the sub-optimal utilisation of human capital (HC) as a resource contributes to diminished revenue potential.

As a result, value-added management (VAM) can be obtained within a work environment where employee satisfaction is high, employees are optimally managed and utilised, and their managers enable them to be effective and efficient (Heskett *et al.*, 2008:5; Thompson *et al.*, 2012:157). Similarly, Baltacioğlu *et al.* (2007:106) assert that the efficient management of the service rendering processes through value-adding operations leads to value-adding services. It is therefore salient for an institution's management team to have a comprehensive understanding of all the various influences on

operational performance, as well as how these impact on the organisation's and individual's performance (Sorensen & Ing, 2007:3).

Thompson *et al.* (2012:157) state that organisations consist of primary and secondary activities. Primary activities create value and are also referred to as the core business, while support activities facilitate the improvement of primary activity performance. At an HEI, it is generally accepted that academic staff perform primary activities and support staff secondary activities. Both primary and secondary activities contribute to the overall customer satisfaction and the perceived quality of the total service experience. Nonetheless, due to specific service characteristics, the collaborative nature of value creation and the difficulty to distinguish the operational boundaries between primary and support activities make the equitable management of these activities very important. These matters will be elaborated on later in this document. Figure 4 is a visual representation of the above-mentioned elements (Baltzan & Phillips, 2010:21; Thompson *et al.*, 2012:157).

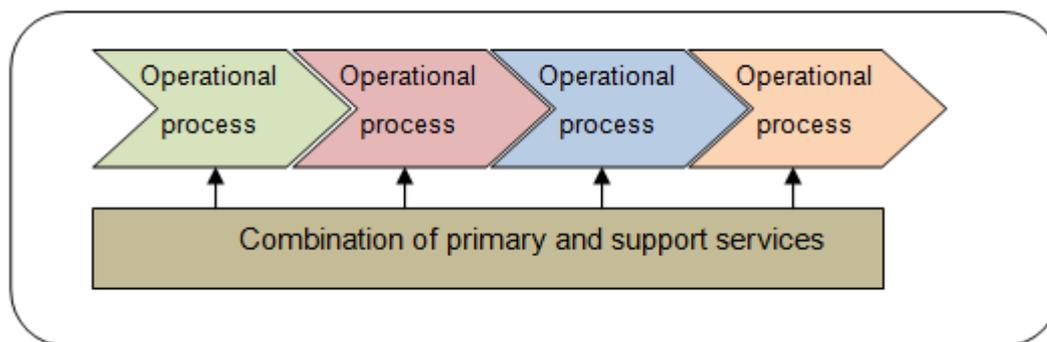


Figure 4: Basic elements of organisational process sequence

2.2 Value creation and its relationship to profitability

According to Vargo *et al.* (2008:145), value creation is a *co-produced* result between the various entities, resources and activities. Correspondingly, Bergström *et al.* (2007:22) argue that value creation can only be obtained through the improvement of an organisation's operating performance to

maximise profitability within an organisation's service-profit chain (SPC) (Heskett *et al.*, 2008:8). Heskett *et al.*'s (2008:4) proposed SPC model is presented in Figure 5.

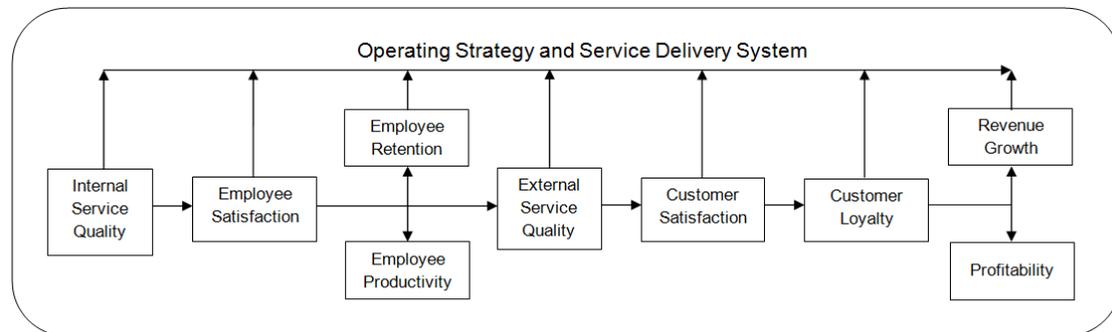


Figure 5: Service-profit chain model

The SPC represents the link between organisational profitability, customer loyalty, employee satisfaction, loyalty and productivity (Heskett *et al.*, 2008:4). What the abovementioned SPC model does not show are the operations of *service development* and *service offering* before the *external service value* operation.

2.3 Collaborative production of services

Management at any level has a salient managerial responsibility over co-created operations in order to optimise efficiency, since such services contribute across sequential operations and processes. The management processes, as stated in Table 5, impact on how information (communication), capacity, performance and funds utilisation are optimised throughout, as part of the value co-creation relationship. According to Hong *et al.* (2013:240), organisational leaders who understand the service-profit value chain, create and maintain an organisational culture that attempts to balance service quality and employee value. Nevertheless, the nature of services distinguishes it from homogenous products. These include *simultaneity* or *inseparability*, *shortened value-chain*, *perishability*, *heterogeneity*, *difficulty to value* and *difficulty to identity actual value source* (Baltacioğlu *et al.*, 2007:109; Gabriel, 2006:5; Hong *et al.*, 2013:237; Sengupta *et al.*, 2006:5; Zomerdijk & de Vries, 2007:108).

From the above, it is evident that services are rendered and used simultaneously. Value is therefore created simultaneously by both the service creator and user. Consequently, every person involved with the value co-creation process is an important role-player in the perceived value of the service (Gabriel, 2006:8). It is therefore argued that the effective management of human capital (HC) and the effective utilisation of resources to enhance their efforts are salient aspects of SPC at HEIs.

2.4 Human capital

Walker and Forbes (2014:17) state that the valuation of HC is essential to business growth and sustainability. HC performs a critical role in the majority of systems and processes to achieve strategic objectives (Cravens & Oliver, 2006:295; Walker & Forbes, 2014:15). Employees are therefore significant role-players in ensuring the creation and delivery of value-adding services that maximise organisational performance and profitability (Cravens & Oliver, 2006:295; Walker & Forbes, 2014:15; Sveiby, 2011:1). Bhimani and Langfield-Smith (2007:4) emphasise the importance of financial and non-financial indicators with regard to organisational performance. Subsequently, organisational performance could seriously be jeopardised due to the significant opportunity cost associated with non-financial indicators (Chow & Van der Stede, 2006:2). Sveiby (2011:1) refers to this as the '*invisible*' component (intangible assets) of an organisation's balance sheet. These intangible asset groupings are presented in Table 6 (Sveiby, 2011:1).

Table 6: Intangible asset family grouping

		Family descriptor		
		Internal structure	External structure	Competence
Asset types	<ul style="list-style-type: none"> • Patents, • Concepts, • Model, • Computer & administrative systems 	<ul style="list-style-type: none"> • Relationship with customers and suppliers, • Brand names, • Trademarks & • Reputation 	Staff's: <ul style="list-style-type: none"> • Skills, • Education, • Experience, • Values & • Social skills 	

Internal structure refers to assets that were created or bought, while *external structure* encompasses the value perception of customers and competitors. *Competence* incorporates the aspects that are uniquely owned by employees. It is salient for management to understand the extent of *competence*, since employees are voluntary members of an organisation (Sveiby, 2011:1). It is therefore significant for an organisation to secure and retain its *competencies* in order to protect its intangible assets (Gabriel, 2006:1; Sveiby, 2011:1). It could therefore be argued that the effective deployment and management of HC competencies is one of the most important focus areas in organisational value creation and performance.

2.5 Organisational performance and the employee

Bakker and Schaufeli (2008:151) present a researched link between employee behaviour and organisational performance (internal efficiency), including the influence of employee role clarity, empowerment and accountability (Chen *et al.*, 2007:332; Lang *et al.*, 2007:116). In literature, role ambiguity also refers to role clarity (Kreitner & Kinicki, 2008:284). For the purposes of this research, the term role clarity will be used.

An increase in role clarity leads to an increase in motivation and job satisfaction levels, increases personal effectiveness and results in increased work engagement. Reduced work engagement often results in a reduction in individual performance, which contributes to a decrease in organisational performance and business success (Bakker & Schaufeli, 2008:147).

Therefore, employees that are certain about what is expected of them and how their efforts contribute to the achievement of the organisational vision and mission will present higher levels of work engagement and higher productivity (Griffin *et al.*, 2007:333; Taleo Research White Paper, 2009:1). Forbes.com (2013) states that organisations with engaged employees experienced 2.5 times better growth than equivalent companies with disengaged employees.

Leadership was also found as a salient factor in employee performance (Walumbwa & Hartnell, 2011:153). A manager's leadership style is reflected in his/her actions and decisions, which reflects his/her management style (Thau *et al.*, 2009:80). Management style also has an influence on supervisory relationships. Hong *et al.* (2013:240) argue that an employee's immediate supervisor is the most important and tangible representative of management actions, policies and procedures. The nature and quality of supervisory support are salient in forming employee perceptions. It could therefore be inferred that management style has a major impact on the SPC.

It is postulated that efficient management of HR (labour) competencies is salient in achieving a productive primary or secondary workforce, as well as the creation of a VAM environment. It is therefore argued that primary and support staff functions should require equitable managerial consideration. Consequently, the VAM dimensions of personnel management, which include role clarity, performance management (PM), management style, supervisory and collegial relationships, communication and growth and development opportunities make salient contributions to an organisation's SPC (Rothman, 2013). In the next section, closer attention will be given to the Job-Demands Resource model (JD-RM) and it is theorised that this model contributes to the concept of VAM.

2.6 Job-demands resource model

The JD-RM was originally developed to explain the onset of burnout under employees. However, the researcher is of the opinion that this model's focus can accommodate the concept of VAM as a means to achieve optimal labour utilisation, and engaged productive and loyal employees. The perspective of the research also further contributes to the field of knowledge concerning a healthy and efficient work environment (Bakker *et al.*, 2007:275).

The JD-RM postulates that excessive job demands lead to exhaustion, while inadequate job resources lead to withdrawal behaviour and work disengagement. Both aspects lead to a reduction in productivity (Bakker & Demerouti, 2007:313; De Beer *et al.*, 2012:528). In reference to the original work of Demerouti *et al.* (2001:501), De Beer *et al.* (2012:528) proposed that job demands constitute all the multiple physical, psychological, social or organisational aspects that affect job engagement. Examples include workload, role clarity, role conflict and stressful events. Job resources are those job aspects that enable task achievement and reduce the pressures created by job demands. Examples of job demand include supervisory and colleague relationships, control and autonomy, collaborative decision-making, recognition and advancement opportunities. The JD-RM is illustrated in Figure 6 (Bakker & Demerouti, 2007:313; Ditsela, 2012:34).

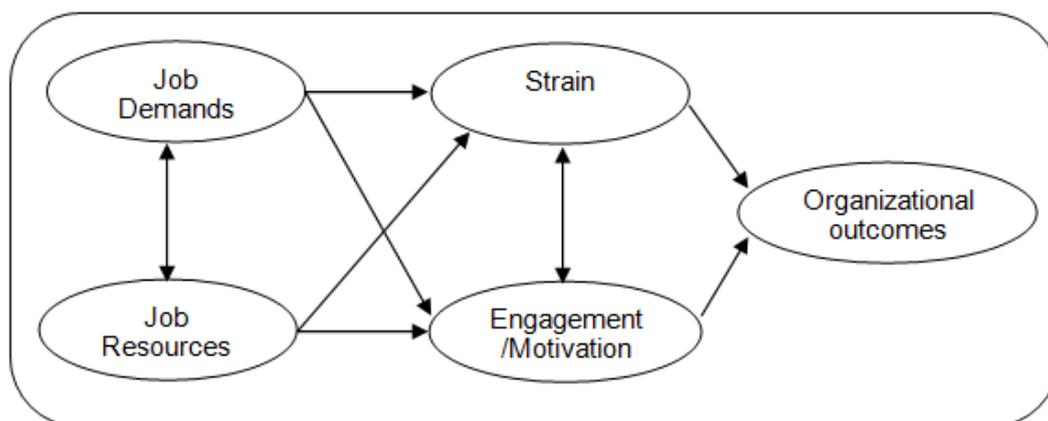


Figure 6: Job-demands resource model

Bakker *et al.* (2007:274) explored the construct work engagement through the application of the JD-RM. Work engagement refers to a “positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption.” *Vigour* encapsulates high levels of cognitive resilience and energy during work; to persist through difficult circumstances and a willingness to invest one’s skills and knowledge into one’s work. *Dedication* is the sense of enthusiasm, pride, being inspired, feelings of significance and being challenged. *Absorption* refers to being happily engaged in one’s work,

able to fully concentrate at the task at hand and the experience that time passed quickly.

To review, the discussed literature suggests that the management of an HEI's internal operations determine how effectively it utilises its resources, primary and supportive, which then determines the effective production of desirable value-added services, which ultimately contributes to its SPC. At HEIs, it is generally accepted that academic staff fulfil the primary activity of education and development, while support staff fulfil the secondary activities of administrative and logistical support. Primary activities foremost create value and support activities facilitate the betterment of primary activity performance and together they create an SPC. VAM refers therefore to the equitable and optimal management of the collaborative relationship of primary and secondary services.

Understanding its SPC puts an HEI's management in a strong position to manage all the various performance influences (operations) that impact on organisational performance. Efficient management strategies (with little or no waste of money and resources) are therefore salient to optimise operations and ultimately organisational performance. However, due to specific characteristics, value creation with regard to services seems to be a co-produced/co-created activity. Subsequently, organisational culture is affected, since service quality and the deemed value of employees are influenced by the value co-creation process. Employees are significant role-players in ensuring the creation and delivery of value-adding services that maximise organisational performance and profitability. Employees are a crucial organisational resource that needs to be managed efficiently to contribute to effectively produced services (Carbaugh, 2007:16; Chase & Jacobs, 2011:44). From a JD-RM perspective, job demands refer to the 'What' aspects of the work environment that influence employee productivity, while job resources refer to the 'support' aspects that empower employees to achieve organisational objectives. These aspects are grouped in Table 7 (Demerouti *et al.*, 2001:501).

Table 7: Seven managerial competencies aligned with JD-R model perspective

Job demands	Job resources
<ul style="list-style-type: none"> • Role clarity • Performance management • Management style 	<ul style="list-style-type: none"> • Relationship with supervisor • Relationship with colleagues • Effectiveness of communication • Growth and development opportunities

The JD-RM should therefore be appropriate to use as a theoretical foundation to explore the equitable management of primary and secondary staff sectors. This study will endeavour to answer the question, “Is there a difference between academic and support staff members’ perceptions about how they are managed through the application of envisioned VAM dimensions?”

2.7 Purpose of study

The joint efforts of academic and support staff contribute to the perceived quality of the HEI’s SPC. Since the service delivery is a function of the co-produced efforts of primary and secondary functions in HEI environments, the optimal utilisation of HC in both these functions is significant in securing service excellence. HC should therefore be managed optimally in both these areas of the SPC. The purpose of the study was to analyse secondary data collected during a quantitative survey in 2012 (Afriforté, 2013a). It was done by comparing information about the perceptions of academic and support staff employees’ perceptions about managerial dimensions from the JD-RM that contribute to an HEI’s SPC.

3 Hypotheses

The argument was presented that VAM at an HEI consists of the efficient, optimal and equitable management of academic and support staff services. The challenge existed to present a theoretical position that will aid managers

in understanding how academic and support staff employees' perceptions differ with regard to VAM competencies.

3.1 Inferential hypotheses

In this study, the following statistical hypotheses were tested:

H_1 = A significant statistical difference exists between academic and support staff employees' perceptions of role clarity,

H_2 = A significant statistical difference exists between academic and support staff employees' perceptions of performance management,

H_3 = A significant statistical difference exists between academic and support staff employees' perceptions of managerial style,

H_4 = A significant statistical difference exists between academic and support staff employees' perceptions of the importance of relationship with supervisor,

H_5 = A significant statistical difference exists between academic and support staff employees' perceptions of the importance of relationship with colleagues,

H_6 = A significant statistical difference exists between academic and support staff employees' perceptions of the importance of effectiveness of communication, and

H_7 = A significant statistical difference exists between academic and support staff employees' perceptions of the importance of growth and development opportunities.

3.2 Effect size hypotheses

In this study, the following effect size hypotheses were tested:

H₈ = A practical difference exists between academic and support staff employees' perceptions of role clarity,

H₉ = A practical difference exists between academic and support staff employees' perceptions of performance management,

H₁₀ = A practical difference exists between academic and support staff employees' perceptions of managerial style,

H₁₁ = A practical difference exists between academic and support staff employees' perceptions of the importance of relationship with supervisor,

H₁₂ = A practical difference exists between academic and support staff employees' perceptions of the importance of relationship with colleagues,

H₁₃ = A practical difference exists between academic and support staff employees' perceptions of the importance of effectiveness of communication, and

H₁₄ = A practical difference exists between academic and support staff employees' perceptions of the importance of growth and development opportunities.

4 Method of investigation

4.1 Research method

A deductive study was conducted that explored specific value-adding managerial dimensions obtained from secondary data (Afriforté, 2013a; Huff, 2009:41; Maree & Van der Westhuizen, 2007:37; Zikmund *et al.*, 2010:44). Exploratory research is used to study a research area of which little is known (Kumar, 2014:13). For the purposes of this research, a quantitative research method was applied. Quantitative research is a formal, objective, systematic process in which numerical data are utilised to obtain data from a particular context (Maree & Pietersen, 2007:145; Zikmund *et al.*, 2010:134). Secondary data was employed in this study as obtained from a secondary source (Kumar, 2014:172).

4.2 Design

An exploratory hypothesis-testing quantitative design was employed and applied on secondary data obtained (Afriforté, 2013a; Zikmund *et al.*, 2010:509). This design was employed to explore the perception differences of a known population by means of inferential analysis (Ariforté. 2013a; Maree & Pietersen, 2007:155).

4.3 Methodology

Exploratory research, as an overall approach, was employed as research method (Collins & Hussey, 2014:10; Kumar, 2014:13), inclusive of the use of secondary data (Kumar, 2014:172). This approach utilises hypothesis testing (Zikmund *et al.*, 2010:509). The research method incorporated a literature review and an empirical study.

4.4 Research context

The work environment of HEIs is highly service orientated, supported by a broad spectrum of academic and support staff. The studied HEI in the North West Province utilises a blended (traditional-matrix) management system. The HEI consists of an Institutional Office (centralised corporate services) and three campuses (business units), of which one is located in Gauteng. The employee base consists of male and female staff, multiple age groups, academic and support staff, as well as multiple ethnic groups across 19 different job levels.

4.5 Sampling

Self-selection sampling was utilised to compile the sample of permanent and fixed-term employees at three faculty level departments (two academic and one corporate service) (Brink, 2009:132; Zikmund *et al.*, 2010:395). Academic and support staff participated on a voluntary basis in the original study.

4.6 Data collection

Quantitative data was originally collected in 2012 by means of the OHFB electronic survey instrument as part of a staff assessment programme (Afriforté, 2013a). The OHFB is a South African validated, scientific-based organisational diagnostic instrument. It was developed from multiple scientific theories, norms, benchmarks and psychometric assessments to provide real-time workplace analytic reporting, including the measurement of managerial outcomes (Afriforté, 2013b). Results are benchmarked against a norm obtained from 100,000 multi-industry measurements. Items from the questionnaire were completed electronically by academic and support staff employees of an HEI on a voluntary basis.

Data on seven (7) dimensions of the OHFB instrument were obtained in this study (Rothman, 2013). The explored dimensions were, 1) *Employee role clarity*, 2) *Performance management*, 3) *Managerial style*, 4) *Supervisory*

support, 5) *Collegial support*, 6) *Effective communication* and 7) *Job enhancement opportunities* (Afriforté, 2013a). These dimensions were selected since each dimension represents a managerial aspect of managers that can be independently evaluated.

4.7 Data analysis

Data were consolidated into categorical and continuous data groups. The data obtained were analysed quantitatively by means of appropriate descriptive and comparative techniques (Berkman & Reise, 2012:6; Pallant, 2010:51). Multivariate analysis of variance (MANOVA) was employed based on the expected interrelatedness of the variables studied (Berkman & Reise, 2012:163; Pallant, 2010:106; Zikmund *et al.*, 2010:589). To limit the risk of a Type 1 error, Bonferroni's adjustment was employed (Gravetter & Wallnau, 2005:188; Pallant, 2010:209). Additionally, Levene's test was employed to ensure that the data does not violate the assumption of equality of covariance (Pallant, 2010:206). Wilks's Lambda (λ) was calculated as a measure of overall significance. Finally, Cohen's *d* statistic was employed as a measure for effect sizes or practical significance (Pallant, 2010:209).

5 Results

5.1 Participants

Results were obtained from a sample size (*n*) of 240 participants from a possible 298. This *n* represented a population participation rate of 80.5% of all permanent and fixed-term employees in the participating departments. The sample is therefore considered as representative of the relevant population and complies with the assumption of normality (Pallant, 2010:206).

Table 8, a frequency table of descriptive results, indicates that 64.2% (*n*=154) of the sample consisted of academic staff and 35.8% (*n*=86) of support staff members. The sample was dominated by female participants, with 76.7% (*n*=184) and 23.3% (*n*=56) male participants.

Table 8: Frequency table of descriptive results

		Freq.	Valid percentage (%)	Cumulative percentage (%)
Environment	Academic	154	64.2	64.2
	Support	86	35.8	100.0
Gender	Female	184	76.7	76.7
	Male	56	23.3	100.0
Race	Black	17	7.1	7.1
	Coloured	18	7.5	14.6
	Indian	4	1.7	16.3
	Other	2	0.8	17.1
	White	199	82.9	100.0
Home language	Afrikaans	209	87.1	87.1
	English	14	5.8	92.9
	isiZulu	1	0.4	93.8
	Other	1	0.4	93.7
	Sepedi	2	0.8	94.5
	Sesotho	2	0.8	95.4
	Setswana	11	4.6	100.0
Age	20-24	11	4.6	4.6
	25-29	33	13.8	18.3
	30-34	46	19.2	37.5
	35-39	43	17.9	55.4
	40-44	24	10.0	65.4
	45-49	27	11.3	76.7
	50-54	21	8.8	85.4
	55-59	22	9.2	94.6
	60-64	12	5.0	99.6
	65+	1	0.4	100.0

The sample consisted of black (7.1%, n=17), coloured (7.5%, n=18), Indian (1.7%, n=4), 'other' race grouping (0.8%, n=2), and white (82.9%, n=199) staff members. The majority of the sample consisted of white participants.

According to home language, the sample consisted of Afrikaans-speaking (87.1%, n=209), English-speaking (5.8%, n=14), isiZulu-speaking (0.4%, n=1), Sepedi-speaking (0.8%, n=2), Sesotho-speaking (0.8%, n=2), Setswana-speaking (4.6%, n=11) and 0.4% (n=1) of 'other' language-speaking participants.

The age range of the participants was 20 to 65 years of age. The average age of the participants was 40.2 years, with the most participants with an age of 33 years and the median age of 38 years. Figure 7 below, indicates that the sample was skewed to the left with more participants in their early to middle career phase than participants in their later career phase. The skewness of this sample towards the early and middle career phases suggests that managers have access to these employees for sufficient time to make a significant contribution towards the productivity in their areas of responsibility.

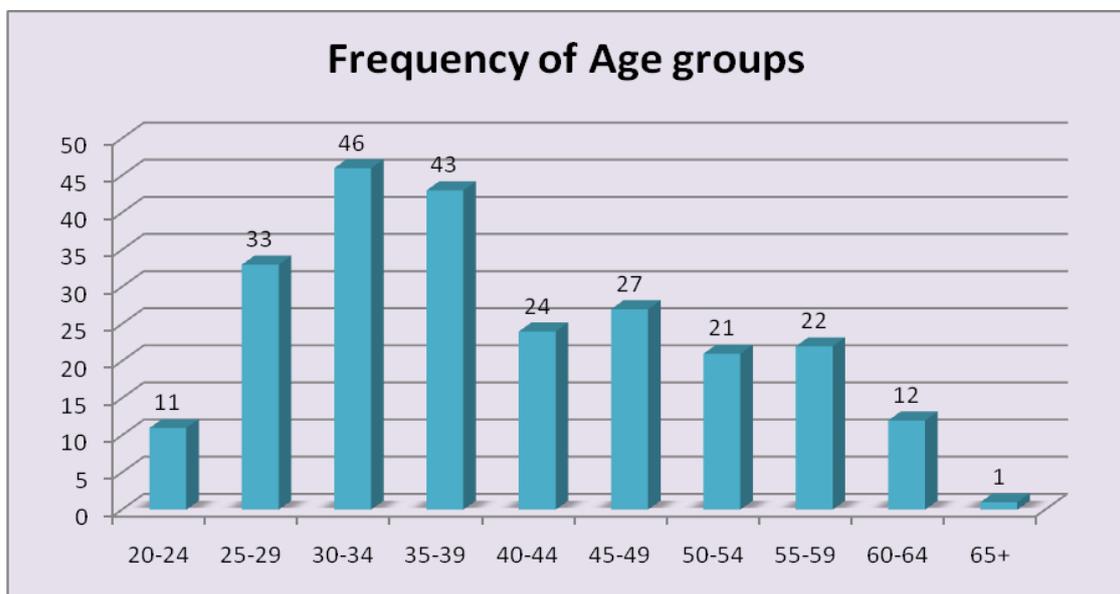


Figure 7: Histogram of age group frequencies

5.2 Data findings

The combined academic and support staff results were grouped according to reported response percentages. Response percentages were either below and on, or above the industry norm for the dependent variables. Table 9 below shows the results of the findings.

Table 9: Distribution values of dependable variables compared to industry norm

Dependent variable	Below norm		On par or above norm	
	Freq.	%	Freq.	%
Role clarity	101	42.1	139	57.9
Performance management	111	46.3	129	53.8
Management style	98	40.8	142	59.2
Communication	102	42.5	138	57.5
Supervisory relationship	105	43.8	135	56.3
Collegial relationship	83	34.6	157	65.4
Growth and development opportunities	92	38.3	148	61.7
Average scores (\bar{x})		41.2		58.8

On average, 41.2% of participants reported that they perceived their experiences across all the dependent variables below the industry norm, while 58.8% perceived their experiences as *on par* or better than the industry norm. The possibility exists that the dependant variables have inter-related characteristics and for this reason a MANOVA was conducted. MANOVA was used and all the organisational variables were used as dependent variables in a single MANOVA. The group type (support/academic) was used as the fixed factor. MANOVA analysis provides the univariate results for each dependent variable individually (Pallant, 2010:283).

According to Pallant (2010:283), the risk of a Type 1 error (rejecting the H_0 when it is true) can be managed by using the Bonferroni adjustment. This is done by dividing the normal alpha value (typically $p < .05$) with the number of dependent variables. For this study, the Bonferroni adjusted alpha value of $p < .007$ ($.05/7$) was used as the measure of significance to reject or accept the H_0 .

Table 10 presents the results for the Levene's test of equality of covariance matrices. This test is done to ascertain whether the data does not violate the assumption of equality of covariance (Pallant, 2010:209).

Table 10: Levene's test of equality of error variances

	F	df1	df2	Sig.
Role clarity	1.457	1	238	.229
Performance management	.814	1	238	.368
Management style	.542	1	238	.462
Relationship with supervisor	.125	1	238	.724
Relationships with colleagues	2.778	1	238	.060
Effectiveness of communication	.053	1	238	.819
Growth and development	.088	1	238	.767

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

From Table 10, it is evident that no significant differences were obtained; therefore, the assumption of homogeneity of variances for the whole dataset is upheld. It can therefore be assumed that equal variances apply across the entire dataset. In the next section, a multivariate test was employed to assess the presence of significant difference between the various dependent variables.

Table 11 shows the multivariate test results for Wilks's Lambda as a measure of overall significant difference present in the data.

Table 11: Multivariate test results

	Value	F	Hypothesis df	Sig.	Partial eta squared
<i>Wilks's Lambda</i>	.91	3.19	7	.003	.09

From Table 11, it is determined that a significant result was obtained on the multivariate test of significance. This compelled further investigation into the interrelatedness of the dependent variables. Tests of between-subject effects were conducted and the results are presented in Table 12.

Table 12: Tests of between-subject effects

Dependent var.	Error df	Df	F	Sig.	Partial eta squared
<i>Role clarity</i>	238	1	2.71	.101	.01
<i>Performance management</i>	238	1	6.51	.011*	.03
<i>Management style</i>	238	1	1.63	.203	.01
<i>Supervisory relationship</i>	238	1	6.43	.012*	.03
<i>Collegial relationship</i>	238	1	12.08	.001†	.05
<i>Effectiveness of communication</i>	238	1	2.11	.148	.01
<i>Growth and development</i>	238	1	8.69	.004†	.04

* Significance level; $p < .05$

† Significance level; $p < .007$ (adjusted Bonferroni)

Based on academic and support staff perceptions, only *Management style* and *Effectiveness of communication* show no statistically significant differences ($p < 0.05$) between the two groups' mean scores. When the Bonferroni adjusted level of statistical significance is applied, academic and support staff perceptions only differ significantly for the dependent variables *Relationships with colleagues* and *Growth and development opportunities*.

However, statistical significance does not provide an indication of the strength of association or importance of the results (Pallant, 2010:125). Effect sizes or practical significance need to be calculated to obtain a more meaningful result.

Cohen's *d* effect size statistic, which represents the difference between standard deviation of the dependent variables for the academic and support staff groups, is presented in Table 13.

Table 13: Cohen's d strength of association results

Dependent variables	Cohen's <i>d</i>	Description	Better score
Role clarity	.22	Small practically significant effect	Academic
Performance management	.34	Small practically significant effect	Academic
<i>Management style</i>	.17	<i>No practically significant effect</i>	Academic
Relationship with supervisor	.33	Small practically significant effect	Academic
Relationships with colleagues	.43	Small practically significant effect	Academic
Communication	.20	Small practically significant effect	Academic
Growth and development	.39	Small practically significant effect	Academic

Effect sizes present in above table were evaluated against the guidelines set out by the Cohen. These are:

- For a small practically important effect size Cohen's $d > 0.2$;
- For a medium practically significant effect size, the strength value needs to be > 0.5 and for a large practically important effect size, the strength of association value needs to exceed 0.8 (Pallant, 2008:295).

Based on the suggested guidelines, small practically important associations of strength exist for the dependant variables *Role clarity*, *Performance management*, *Relationship with supervisors*, *Relationship with colleagues*, *Effectiveness of communication* and *Growth and development opportunities*. The importance of these associations of strengths indicates that academic staff perceive themselves better managed with regard of these variables. This highlights a managerial risk with regard to support staff's utilisation. However, practically significant strength associations appear to be absent from the dependent variable *Management style*. Management style, as an expression of leadership, therefore seems not to be a factor of difference between academic and support staff perceptions.

A one-way between-group multivariate analysis of variance was conducted to explore perception differences with regard VAM competencies. Preliminary assumption testing was conducted to check for covariance matrices and multi-collinearity. No significant violations were observed. There were statistically significant differences between academic and support staff groups on the

combined dependent variables, $F(7, 232) = 3.19, p = .003$; Wilks's Lambda = .91; partial eta squared = .09. When the results for the dependent variables were considered separately, the only differences to reach statistical significance, using a Bonferroni adjusted alpha level of .07, were *Relationships with colleagues*, $F(1, 238) = 12.08, p = .001$, partial eta squared = .05 and *Growth and development opportunities*, $F(1, 238) = 8.69, p = .004$, partial eta squared = .04.

However, observed effect sizes calculated with Cohen's d suggested small, but irrefutable, practically important associations of strength ($.2 < d < .5$) for the differences of standard deviations for the dependant variable *Role clarity*, *Performance management*, *Relationship with supervisors*, *Relationship with colleagues*, *Effectiveness of communication* and *Growth and development opportunities*. All dependent variables showed that academic staff more positive perceptions of these dimensions than support staff do.

Observed results show that *Relationship with colleagues* and *Growth and development opportunities* show both statistically and practically significant differences, while *Role clarity*, *Performance management*, *Relationship with supervisor* and *Effectiveness of communication* show only practically significant differences.

Table 14 shows how the results obtained compared with the study's hypotheses. Each corresponding inferential hypothesis is presented along with its corresponding effect size hypotheses in order to simplify interpretation.

Table 14: Comparison of hypotheses, statistical significance and practical significance

Hypothesis	Statistical sig. (p < .007)	Accept or reject H ₀	Cohen's <i>d</i>	Practical sig. (.2 < <i>d</i> < .5)	Accept or reject H ₀
H ₀₁ = No significant statistical difference exists between academic and support staff's perceptions that could have happened by change					
H ₀₂ = No significant practical difference exists between academic and support staff's perceptions that could have happened by change					
H ₁ = A significant statistical difference exists between academic and support staff's perceptions of role clarity	.101	Accept H ₀₁ ; Reject H ₁			
H ₈ = A significant practical difference exists between academic and support staff's perceptions of role clarity			.22	Small	Reject H ₀₂ ; Accept H ₈
H ₂ = A significant statistical difference exists between academic and support staff's perceptions of performance management	.011	Accept H ₀₁ ; Reject H ₂			
H ₉ = A significant practical difference exists between academic and support staff's perceptions of performance management			.34	Small	Reject H ₀₂ ; Accept H ₉
H ₃ = A significant statistical difference exists between academic and support staff's perceptions of managerial style	.203	Accept H ₀₁ ; Reject H ₃			
H ₁₀ = A significant practical difference exists between academic and support staff's perceptions of managerial style			.17	None	Accept H ₀₂ ; Reject H ₁₀
H ₄ = A significant statistical difference exists between academic and support staff's perceptions of the importance of the relationship with supervisors	.012	Accept H ₀₁ ; Reject H ₄			
H ₁₁ = A significant practical difference exists between academic and support staff's perceptions of the importance of the relationship with supervisors			.33	Small	Reject H ₀₂ ; Accept H ₁₁
H ₅ = A significant statistical difference exists between academic and support staff's perceptions of the importance of relationship with colleagues	.001	Reject H ₀₁ ; Accept H ₅			
H ₁₂ = A significant practical difference exists between academic and support staff's perceptions of the importance of relationship with colleagues			.43	Small	Reject H ₀₂ ; Accept H ₁₂

Hypothesis	Statistical sig. (p < .007)	Accept or reject H ₀	Cohen's d	Practical sig. (.2 < d < .5)	Accept or reject H ₀
H ₆ = A significant statistical difference exists between academic and support staff's perceptions of the importance of effectiveness of communication	.148	Accept H ₀₁ ; Reject H ₆			
H ₁₃ = A significant practical difference exists between academic and support staff's perceptions of the importance of effectiveness of communication			.20	Small	Reject H ₀₂ ; Accept H ₁₃
H ₇ = A significant statistical difference exists between academic and support staff's perceptions of the importance of growth and development opportunities	.004	Reject H ₀₁ ; Accept H ₇			
H ₁₄ = A significant practical difference exists between academic and support staff's perceptions of the importance of growth and development opportunities			.39	Small	Reject H ₀₂ ; Accept H ₁₄

Below follows a discussion of the findings from the information presented in Table 14.

6 Discussion

The researcher presented an argument that attempted to explore VAM at an HEI from a JD-RM perspective. The argument was derived from the integration of various intellectual resources. The researcher argues that VAM is a product of the effective implementation of seven managerial dimensions, which leads to the efficient utilisation of organisational resources, including that of HC competencies (Carbaugh, 2007:16; Chase & Jacobs, 2011:42; Cravens & Oliver, 2006:295; Heskett *et al.*, 2008:4; Thompson *et al.*, 2012:363). This view is in support of LesKar Organisational Management (2013:1), which argues that organisational success is determined by an organisation's ability to find the most efficient method of resource utilisation, including labour (Hancock & Nuttman, 2014:62). In the HE environment, the labour resource is represented by academic (primary) and support (secondary) staff (Thompson *et al.*, 2012:157).

Consequently, an HEI is considered a service-producing entity and the collaborative service creation and utilisation process is of crucial importance

from a managerial perspective (Hong *et al.*, 2013:240; Sengupta *et al.*, 2006:5; Vargo *et al.*, 2008:145). Since services are in the majority of situations rendered by people, effective competence management further underscores the importance of managing all staff contributions effectively within the SPC (Cravens & Oliver, 2006:295; Gabriel, 2006:16; Sveiby, 2001:1; Walker & Forbes, 2014:15); particularly, since the opportunity cost not to do so can have a major impact on profitability (Bhimani & Langfield-Smith, 2007:4; Cardus, 2013:28; Chow & Van der Stede, 2006:2; Sveiby, 2011:1). Organisational leaders, who understand the SPC, therefore create and maintain an organisational culture that attempts to balance service quality and employee value (Heskett *et al.*, 2008:3). The optimal application of managerial competencies was argued to raise the efficiency of staff members' competency contributions, which leads to more effectively managed resources (Heskett *et al.*, 2008:3).

In reference to Table 9, distribution values of dependable variables compared to industry norm, it was found that, on average, 41.2 percent of the sample participants reported scores below the general norm across all variables. What makes this finding valuable is that it implies that 41.2 percent, almost half of the sample population, perceive that the VAM competencies in their respective areas are applied below the industry norm. This result does not only have far-reaching implications with regard to the manner in which value-added services are produced and how effectively employees, as a critical resources, are managed, but also highlights the perceived inability of managers to apply VAM competencies in their areas of responsibility.

Based on the summary representation of Table 7, the job demand variables will be discussed first, followed by the job resources variables measured. Job demands lead to exhaustion, while a lack of job resources leads to poor work engagement. Both ultimately lead to absenteeism, poor work performance and reduced productivity (Bakker & Demerouti, 2007:313; Bakker *et al.*, 2007:275; De Beer *et al.*, 2012:528). It is also stated in the literature that the

relationship between job demand and job resource has a negative correlation (Bakker *et al.*, 2007:275).

Hypotheses 1 & 8: Role clarity

The first research hypothesis showed no statistically significant difference between academic and support staff scores ($p > .007$). H_{01} was accepted and H_1 rejected.

However, a **minor practically significant difference** was observed between academic and support staff's scores when a Cohen's d was calculated ($d = .22$), with academic staff reporting a more positive perception of role clarity than support staff. H_{02} was rejected and H_8 accepted.

The lack of a statistically significant difference infers that, in general, academic and support staff do not differ significantly in how they perceive role clarity in their respective environments. However, there is a minor, but definite difference from a practical significance perspective. Academic staff have more clarity concerning their employment roles. This leads the researcher to the conclusion that support staff, having less role clarity, represent a strategic risk to the HEI (Cravens & Oliver, 2006:295; Walker & Forbes, 2014:15). This risk is expressed by literature with its links to reduced organisational productivity and increased opportunity costs (Bakker & Schaufeli, 2008:147; Bhimani & Langfield-Smith, 2007:4; Sorensen & Ing, 2007:3; Sveiby, 2011:1; Walker & Forbes, 2014:15). It is stated that a lack of role clarity leaves employees feeling disempowered; experiencing a reduction in motivation and personal effectiveness, and ultimately a loss of work engagement and productivity. It also leaves employees with reduced levels of vigour, dedication and work absorption (Bakker *et al.*, 2007:274). This leads ultimately to a decrease in organisational performance and profitability.

Role clarity is therefore a salient aspect that requires particular attention from a VAM point of view. Role clarity also impacts on competence management, since employees will only apply their competencies and skills in an

environment where they have clarity about what is expected of them and those aspects that they know will be measured to determine their performance effectiveness (Chen *et al.*, 2007:332; Gabriel, 2006:16; Lang *et al.*, 2007:116; Sveiby, 2001:1). Role clarity holds further implications for PM.

PM is a basic line-management responsibility and could be applied as a tool to measure the manifestation of role clarity in the workplace. This dimension is addressed below.

Hypotheses 2 & 9: Performance management

The following research hypotheses tested addressed the sample differences in perception concerning PM (performance feedback) as a VAM competency.

No statistically significant difference was observed between academic and support staff. Therefore, H₀₁ was accepted and H₂ rejected.

Nevertheless, a **minor practically significant difference** was observed with academic staff reporting a more advantageous position. H₀₂ was rejected and H₉ accepted.

This finding has VAM implications not just for the improvement of job resources, but also for identifying the cause-and-effect relationship of employee performance with organisational performance (Bakker & Schaufeli, 2008:151; Demerouti *et al.*, 2001:501). Effective PM also aids managers with the identification of employee work engagement aspects of vigour, dedication and absorption (Bakker *et al.*, 2007:274; Griffin *et al.*, 2007:333; Taleo Research White Paper, 2009:1). The practical difference observed also holds further implications for competence management, since employees can be considered voluntary members of an organisation (Sveiby, 2011:1).

The third research hypothesis tested for this value-adding managerial competence.

Hypotheses 3 & 10: Management style

Applying Bonferroni's adjusted value of significance, no statistically meaningful difference was observed between the academic and support staff groups with regard to their perceptions of managerial style. H_{01} was accepted and H_3 rejected.

Similarly, no practically meaningful difference was observed, even though the data indicated again that academic staff presented a more positive position. Therefore, H_{02} was accepted and H_{10} rejected.

According to Walumbwa and Hartnell (2011:153), Thau *et al.* (2009:80) and Sveiby (2001:1), managerial style has a major impact on the SPC. However, since neither academic nor support staff experienced a meaningful difference, the researcher postulates that the academic and support staff have similar perceptions of management style(s) and experiences of managerial leadership in their respective areas of responsibility. This leads to the conclusion that the manner in which academic and support staff are managed impacts similarly on the HEI's SPC. This finding could therefore not validate or oppose the view of Walumbwa and Hartnell (2011:153) that leadership is an important factor of employee performance.

The next section's hypotheses will report on job resource results.

Hypotheses 4 & 11: Relationship with supervisor

Hypothesis 4 showed no statistically meaningful difference between academic and support staff scores ($p > .007$). H_{01} was accepted and H_4 rejected.

A minor practically significant difference was observed between academic and support staff's perception scores when a Cohen's d was calculated ($d = .33$). H_{02} was rejected and H_{11} accepted.

This suggests that academic staff have a slightly more positive perception of relationships with their supervisors than support staff do. This is important,

since Bakker *et al.* (2007:275) argue that access to, and allocation of resources are influenced by the quality of the relationship with supervisors. The 'can do' orientations of support staff could therefore be slightly lower than academic staff due to their perceptions of relationships with their supervisors. This finding also might have a link with the PM finding, since performance management is done by supervisors. An employee's immediate supervisor is also the most important and tangible representative of management actions, policies and procedures (Hong *et al.*, 2013:240).

Similarly, according to literature, the quality of relationship that colleagues have with peers, as a job resource, buffers job demands (Bakker *et al.*, 2007:276).

Hypotheses 5 & 12: Relationship with colleagues

Hypothesis 5 tested for a statistically significant difference in perception concerning the quality of collegial relationships as a job resource that acts as a buffer against job demands.

A **statistically significant difference** was observed between academic and support staff. This result leads to the rejection of H_{01} and the acceptance of H_5 .

Similarly, a **minor practically significant difference** was observed with academic staff reporting a more advantageous position. This result leads to the rejection of H_{02} and the acceptance of H_{12} .

Both results highlight that academic staff experience the quality of relationships with their colleagues more positively than support staff do. What makes this finding of value is that it has been found that collegial support is most likely the best known situational variable to buffer job stress (Bakker *et al.*, 2007:276). Bakker and Demerouti (2007:314) postulate that social supportive relationships, e.g. relationships with supervisors and colleagues,

are extrinsic motivators that promote a willingness to dedicate one's efforts to one's work objectives.

Communication effectiveness, as a job resource, is discussed below.

Hypotheses 6 & 13: Effectiveness of communication

Results for Hypothesis 6 showed no statistically meaningful difference between the perceptions of academic and support staff when compared to the adjusted Bonferroni value to increase the robustness of the measurement ($P > .007$). Therefore, H_{01} was accepted and H_6 rejected.

A **minor, but important practically significant difference** was observed between academic and support staff's perception scores when a Cohen's d was calculated ($d = .20$) with the former finding themselves in a more favourable position than the latter. Therefore, H_{02} was rejected and H_{13} accepted.

This finding interestingly corresponds with the results of Hypotheses 4, 5, 11 and 12 where academic staff experience more favourable relationships with supervisors and colleagues. Bakker *et al.* (2007:275) suggest that a chronic lack of reciprocating conditions could lead to a reduction in emotional resources, which may lead to burnout, physical health concerns and impaired work performance. This finding also holds implications for the findings of Hypotheses 1 and 8 with regard to employees' perception of their role clarity. Role clarity is not possible without clear communication from line-managers.

Hypotheses 7 & 14: Growth and development opportunities

Growth and development opportunities are classified as a job resource as they enable employees to gain skills and knowledge in order to be more efficient in their work and to manage their job demands more proactively.

A **significant statistical difference** was observed between academic and support staff's perceptions concerning growth and development opportunities.

Therefore, H_{01} was rejected and H_7 accepted. This result shows that the difference observed was not by chance.

A **minor but important practically meaningful difference** was similarly observed between academic and support staff's perception scores when a Cohen's d was calculated ($d = .39$). H_{02} was rejected and H_{14} accepted.

Once again, academic staff members reported a more positive outcome than support staff did. Academic staff and support staff have access to formal development opportunities as part of the HEI's strategy to attract talent, but academic staff are more encouraged to pursue these opportunities. This finding may also have links with the results obtained from PM and effective communication. Aspects of PM include the identification of growth areas, the available developmental opportunities and the effective communication of growth areas and opportunities in preparation of the next PM meeting.

Therefore, the data show that academic staff members experience a more favourable work environment with regard to VAM competencies, which include performance feedback, managerial style, relationship with supervisor, and relationship with colleagues, effectiveness of communication, and growth and development opportunities.

7 Conclusion

HEIs, like all other enterprises, are experiencing challenging macro- and micro-economic influences. Moreover, HEIs are pressured to achieve more with less due to declining government support. Therefore, it is up to HEIs' management to assess, monitor and control their ability to efficiently utilise own resources, particularly that of human capital as employees form an integral and inseparable part of all services. This is what the definition requires – achieve results through and with people and effective resource utilisation.

The aim of this study was to explore what VAM competencies contribute to the organisational SPC. Furthermore, the study utilised the JD-RM as a theoretical perspective to evaluate the application of these competencies within an HEI environment among academic and support staff members. From the literature, it was concluded that VAM competencies consist of role clarity, performance management, managerial style, and quality of the relationship with the supervisor and colleagues, effective communication and growth and development opportunities.

In the sample population, the only statistically meaningful differences observed comprised *Relationship with colleagues* and *Growth and development opportunities* variables. However, practically meaningful results were observed across all job demand and job resource variables, except for *Managerial style*. In all cases, academic staff were favoured by the results.

When considering the responses of the target population and the comparison of this to the industry norm, it could be argued that value-adding managerial competencies are not applied efficiently in the specific HEI. The ability of managers in the HEI environment could therefore contribute significantly to the achievement of the perceived quality of outputs in the SPC.

As a service delivery organisation, it was found that the studied HEI might be subject to real value-adding and performance challenges and potential risks, since services are produced in a *co-produced* environment (Vargo *et al.*, 2008:145). The potential loss of organisational productivity and revenue capacity is directly affected by these mentioned non-financial indicators (Bhimani & Langfield-Smith, 2007:4; Chow & Van der Stede, 2006:2; Heskett *et al.*, 2008:2).

The studied HEI faces real risks concerning reduced productivity and performance potential due to a lack of VAM. These risks may lead to a gravely diminished revenue potential as a result of the insufficient utilisation of resources and the application of VAM competencies to both academic and

support staff segments. Similarly, the organisation may indirectly contribute to its own micro-economic pressures by not addressing these risks.

8 Limitations and recommendations

The results of this study have salient implications for the management of job demands and job resources in order to secure an optimal and efficient working environment for both academic and support staff employees; particularly since both contribute ultimately to the SPC of the institution.

The particular sample size and composition were a limiting factor. Further research with a bigger, more randomly selected group may prove more beneficial.

It is also recommended that additional independent variables such as age, race and gender be further explored in order to provide a more comprehensive picture. This is recommended in line with Heskett *et al.*'s (2008:3) argument that leaders, who understand their SPC and have a handle on the contained operations, create and maintain a work environment that balances service quality and employee value through effective competence management (Gabriel, 2006:16; Sorensen & Ing, 2007:3; Sveiby, 2001:1).

Reference list

Please note that the Harvard style of referencing is applicable

Afriforté. 2013a. Work climate and promoting the work-related wellbeing of staff. (Unpublished).

Afriforté, 2013b. Metrics that matter: the organisational human factor benchmark. <http://www.afriforte.co.za/ohfb.php> Date of access: 29 Sep. 2013.

Bakker, A.B. & Demerouti, E. 2007. The job demand-resources model: state of the art. *Journal of Managerial Psychology*, 22(3):309-328.

Bakker, A.B., Hakanen, J.J., Demerouti, E. & Xanthopoulou, D. 2007. Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99(2):274-284.

Bakker, A.B. & Schaufeli, W.B. 2008. Positive organizational behaviour: engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29:147-154.

Baltacioğlu, T., Ada, E., Kaplan, M.D., Yurt, O. & Kaplan, Y.C. 2007. A new framework for service supply chains. *The Service Industries Journal*, 27:105-124.

Baltzan, P. & Phillips, A. 2010. Business Driven Technology. New York, NY: McGraw-Hill Irwin.

Bergström, C., Grubb, M., & Jonsson, S. 2007. The operating impact of buyouts in Sweden: a study of value creation. *The journal of private equity*: 22-39.

Berkman, E.T. & Reise, S.P. 2012. A conceptual guide to statistics using SPSS. Thousand Oaks, CA: Sage Publications.

Bhimani, A., & Langfield-Smith, K. 2007. Structure, formality and the importance of financial and non-financial information in strategy development and implementation. *Management Accounting Research*, 13(1):3-31.

Brink, H. 2009. Fundamentals of research methodology for health care professionals. 2nd ed. Cape Town: Juta.

Carbaugh, R.J. 2007. An application approach to contemporary economics. 4th ed. Mason, OH: Thompson.

Cardus, M. 2013. The five levers of employee engagement. *Harvard Business Review*, Jul.:28-31.

Chase, R.B. & Jacobs, F.R. 2011. Operations and Supply Chain Management. New York, NY: McGraw-Hill Irwin.

Chen, G., Kirkman, B.L., Kanfer, R., & Allen, D. 2007. A multilevel study of leadership, empowerment, and performance in teams. *Journal of Applied Psychology*, 92(2):331-346.

Chow, C.W., & Van der Stede, W.A. 2006. The use and usefulness of nonfinancial performance measures. *Management Accounting Quarterly*, 7(3):1-8.

Collins, J., & Hussey, R. 2014. Business research: a practical guide for undergraduate and postgraduate students. 4th ed. New York, NY: Palgrave Macmillan.

Cravens, K.S. & Oliver, E.G. 2006. Employees: the key link to corporate reputation management. *Business Horizons*, 49:293-302.

De Beer, L., Rothmann Jr., S. & Pienaar, J. 2012. A confirmatory investigation of a job demands-resources model using a categorical estimator. *Psychological Reports: Human Resources & Marketing*, 111(2):528-544.

Demerouti, E., Bakker, A.B., Nachreiner, F. & Schaufeli, W.B. 2001. The job demands-resources model of burnout. *Journal of Applied Psychology*, 86:499-512.

Ditsela, N.J. 2012. Factors involved in subjective career success of soldiers in the South African National Defence Force: an exploratory study. Stellenbosch: US. (Thesis – MCom).

Forbes.com. 2013. The vital link between resilience & your bottom line. <http://www.forbes.com/sites/janbruce/2013/09/17/the-vital-link-between-resilience-your-bottom-line/> Date of access: 17 Sep. 2013.

Gabriel, E. 2006. Value chain for services: a new dimension of “Porter’s value chain”. (Unpublished).

Gravetter, F.J., & Wallnau, L.B. 2005. Essentials of statistics for the behavioral sciences. Belmont, CA: Wadsworth/Thomson Learning.

Griffin, M.A., Neal, A., & Parker, S.K. 2007. A new model of work role performance: positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50(2):327-347.

Goldsworthy, J. 2008. Research grant mania. *Australian Universities’ Review*, 50(2):17-24.

Hancock, L., & Nuttman, S. 2014. Engaging higher education institutions in the challenge of sustainability: sustainability transport as a catalyst for action. *Journal of Cleaner Production*, 62:62-71.

Heskett, J.L., Jones, T.O., Loveman, G.W., Sasser, W.E. & Schlesinger, L.A. 2008. Putting the service-profit chain to work. *Harvard Business Review*, Mar./Apr.:1-13.

Hong, Y., Liao, H., Hu, J., & Jiang, K. 2013. Missing link in the service profit chain: a meta-analytic review of the antecedents, consequences, and moderators of service climate. *Journal of Applied Psychology*, 98(2):237-267.

Huff, A.S. 2009. Designing research for publication. London, UK: Sage Publications.

Kreitner, R. & Kinicki, A. 2008. Organizational Behavior. 8th ed. Boston, MA: McGraw-Hill Irwin.

Kumar, R. 2014. Research methodology: a step-by-step guide for beginners. Fourth Edition. London: Sage.

Lang, J., Thomas, J.L., Bliese, P.D., & Adler, A.B. 2007. Job demands and job performance: the mediating effect of psychological and physical strain and the moderating effect of role clarity. *Journal of Occupational Health*, 12(2):116-124.

LesKar Organisational Management. 2013. Defining organisational sustainability'. <http://organizational sustainability.com/> Date of access: 27 May. 2013.

Maree, K. & Pietersen, J. 2007. The quantitative research process. (In K. Maree., ed. First steps in research. Pretoria: Van Schaik. p. 144-153).

Maree K. & Van der Westhuizen, C. 2007. Planning a research proposal. (In K. Maree., ed. First steps in research. Pretoria: Van Schaik. p. 23-45).

Pallant, J. 2010. SPSS survival manual. 4th ed. Berkshire: Open University.

Pathak, V. & Pathak, K. 2010. Reconfiguring the higher education value chain. *Management in Education*, 24:166-171.

Rothman, I. 2013. Personnel management [personal interview]. 9 Jul., Potchefstroom.

Sengupta, K., Heiser, D.R., & Cook, L.S. 2006. Manufacturing and service supply chain performance: a comparative analysis. *The Journal of Supply Chain Management: A Global Review of Purchasing and Supply*:4-15.

Sorensen, P. & Ing, B. 2007. Balancing investment in people, process and technology and building the capacity to do so in developing economies. *The International Council of Management Consulting Institutes (ICMCI)*.
http://unctad.org/Sections/dite_dir/docs/dite_pcbb_stdev0031_en.pdf Date of access: 27 May. 2013.

Sveiby, K.E. 2001. Towards a knowledge-based theory of the firm. *Journal of Intellectual Capital*, 2(4):1.
www.sveiby.com/articles/knowledgetheoryoffirm.html Date of access: 22 Jul. 2013.

Sveiby, K.E. 2011. The “invisible” balance sheet.
www.sveiby.com/articles/InvisibleBalance.html Date of access: 22 Jul. 2013.

Taleo Research White Paper. 2009. Alignment drivers employee engagement and productivity. Taleo Research.

Thau, S., Bennett, R.J., Mitchell, M.S., & Marrs, M.B. 2009. How management style moderates the relationship between abusive supervision and workplace deviance: an uncertainty management theory perspective. *Organizational Behavior and Human Decision Processes*, 108:79-92.

Thompson, A.A., Peteraf, M.A., Gamble, J.E. & Strickland III, A.J. 2012. *Crafting executing strategy: concepts and cases*. 8th ed. New York, NY: McGraw-Hill Irwin.

Vargo, S.L., Maglio, P.P. & Akaka, M.A. 2008. On value and value co-creation: a service systems and service logic perspective. *European Management Journal*, 26:145-152.

Walker, L.J., & Forbes, M.C. 2014. Human capital and the succession conversation. *Practice Management Solutions*:14-17.

Walumbwa, F.O., & Hartnell, C.A. 2011. Understanding transformational leadership-employee performance links: the role of relational identification and self-efficacy. *Journal of Occupational and Organizational Psychology*, 84:153-172.

Zikmund, G.Z., Babin, B.J., Carr, J.C. & Griffin, M. 2010. *Business research methods*. 8th ed. Mason, OH: South-Western Cengage Learning.

Zomerdijk, L.G. & de Vries, J. 2007. Structuring front office and back office work in service delivery systems. *International Journal of Operations & Production Management*, 27(1):108-131.

Chapter 3

Conclusion, limitations and recommendations

This chapter consists of conclusions regarding the literature review and the empirical findings according to the specific objectives that were identified. The limitations of the research are discussed, followed by recommendations for the research problem in the organisation.

3.1 Conclusions

Higher Education Institutions (HEIs), like all other enterprises, are experiencing challenging macro- and micro-economic influences. Moreover, HEIs are pressured to achieve more with less due to declining government support. HEIs, as a result, have to start operating more like business-funded entities, rather than government-funded entities (Goldsworthy, 2008:23; LesKar Organisational Management, 2013:1; Pathak & Pathak, 2010:166). Therefore, it is up to HEIs' management to assess, monitor and control their ability to efficiently utilise own resources, particularly that of human capital (HC), since employees form an integral and inseparable part of all services (Thompson *et al.*, 2012:363). This is what the definition requires – achieve results through and with people and effective resource utilisation (PCS, 2014). This study also argued that optimal labour resource utilisation included the equitable management of primary and secondary staff groups. This argument is founded on literature than explains the collaborative nature of services.

The aim of this study was to explore whether literature-based value-adding management (VAM) competencies can aid managers with the optimal utilisation of HC (primary and secondary staff). The intellectual position in this study was that VAM refers to the concept that value is created through satisfied, loyal and productive employees (Heskett *et al.*, 2008:2). Emphasis was placed on what VAM competencies may aid to increase productivity

among employees, which ultimately influences the service-profit chain (SPC). The study utilised the Job-Demand Resource Model (JD-RM) as a theoretical perspective to evaluate the application of these VAM competencies within a Higher Education Institution (HEI) environment among academic and support staff members.

The general objective of this study was to explore whether literature-based VAM competencies, from a Job-Demand Resource (JD-R) perspective, could contribute to the more efficient utilisation of primary and secondary staff as a labour resource at an HEI.

Seven VAM competencies were identified, and data collected and analysed. Inferential analyses were done on data collected with the aid of the electronic Organisational Human Factor Benchmark (OHFB) instrument (Rothman, 2013). Few VAM dependent variables showed statistical significance (2/7), while the majority (6/7) showed practical significance. The observed discrepancies came to the fore as the perspectives of academic and support personnel were compared. On reflection of these discrepancies and the supporting literature, it was inferred that the efficient utilisation of primary and secondary staff shows opportunity for improvement. It is therefore the opinion of the researcher that this study achieved its general objective.

The first of the specific objectives envisioned the juxtaposition of academic and support staff perceptions on how they are managed within a collaborative SPC. From the literature, it was concluded that the fundamental VAM competencies comprise role clarity, performance management (PM), managerial style, and quality of the relationship with the supervisor and colleagues, effective communication and growth and development opportunities.

Statistically meaningful differences were only observed with regard to *Relationship with colleagues* and *Growth and development opportunities*. However, practically meaningful results were observed across all job demand

and job resource variables, except for *Managerial style*. In all cases, academic staff were favoured by the results. If we reflect back on the arguments of Heskett *et al.* (2008:5), Sorensen and Ing (2007:3), and Thompson *et al.* (2012:363), the studied HEI are running the risk, due to suboptimal HC resource management, of reduced productivity and revenue potential; particularly since the performance risks are influenced by the co-production of services (Vargo *et al.*, 2008:145). The potential loss of organisational productivity and revenue capacity is directly affected by these mentioned non-financial dependent variables (Bhimani & Langfield-Smith, 2007:4; Cravens & Oliver, 2006:295; Heskett *et al.*, 2008:2; Walker & Forbes, 2014:15).

The second specific objective stated that the perceptual differences' indirect impact on managers will be explored.

Statistically meaningful differences were only observed for *Relationship with colleagues* and *Growth and development opportunities*. However, practically meaningful differences were observed for the dependent variables *Role clarity*, *PM*, *Supervisory support*, *Collegial relationships*, *Effective communication* and *Growth and development opportunities*. Across all of these variables, academic staff showed an advantage over support staff. This raises the question about how the line managers of support staff are applying these VAM competencies resulting in support staff's perspectives differing so meaningfully with that of academic staff. Do the line managers of support staff need additional training on all of these VAM competencies in order to manage support staff more efficiently? The added advantage of the study's selected dependent VAM competencies is that managers can be trained and developed in them.

The last specific objective referred to the argument that an HEI is first and foremost a service-orientated organisation. Therefore, academic and support staff groups contribute to the ultimate production of services. Therefore, the production of services is a collaboration between academic and support staff.

Academic and support staff, in order to ensure the optimal utilisation of their knowledge and skills, need to be managed in an equitable manner by their respective line managers in order to ensure the sustainability of services (BusinessDictionary.com, 2013; Chase & Jacobs, 2011:42; Thompson *et al.*, 2012:363). Both academic and support staff groups ultimately contribute to the service-profit chain (Bakker & Schaufeli, 2008:151; Griffin *et al.*, 2007:333; Heskett *et al.*, 2008:8; Taleo Research White Paper, 2009:1; Thompson *et al.*, 2012:157).

Due to the observed results where support staff reported having more negative perspectives with regard to their experiences of the measure VAM competencies, the question can be raised whether academic and support staff are being managed in an equitable manner? The observed statistical, but more importantly, the practical differences indicate that the efficient management of support staff as a resource needs to be improved on if the studied HEI wants to reduce the associated risks to its SPC.

3.2 Limitations

The following limitations were observed.

The first limitation of this study is the fact that only a select few of the possible 2,500+ employees in the HEI participated. Statistically, the sample can still be considered as representative of the whole HEI population, but due to the studied HEI's vast demographic footprint, a bigger sample should present different results.

From the abovementioned limitation, it might also be possible that the OHFB instrument may not be sensitive enough to identify stronger significant differences. However, since the instrument relies on self-reported results, participant truthfulness may also have a possible impact on the findings.

A third limitation of the study is the fact that while academic and support staff perceptions were juxtaposed, the researcher is of the opinion that valuable information can be obtained if the data could be mined according to age group and ethnicity differences.

Fourthly, the skewness of the sample population (*n*) as presented in Figure 7 may hold some opportunities for management to address the identified risks in a timely manner. Most of the sample population can be found in the age range 20 to 39 years old. The median age was 38 years old, with most being 33 years old. This is indicative that most of the sample population still have a relatively long career path ahead of them in the Institution. As such, it may provide for timely training opportunities to these staff members who will be promoted into managerial positions or advanced to more senior positions.

Finally, the fact that the perceptions of line managers and their direct subordinates were not explored is a limitation of this study. To be able to juxtapose these perspectives might yield interesting and more in-depth results.

3.3 Recommendations

This study explored whether there were meaningful perception differences between academic and support staff with regard to VAM competencies from a JD-R perspective. The results of the study indicated that the optimal utilisation of primary and support staff is a risk to the productivity and cost management aspects of the HEI. Academic staff experienced a more favourable work environment across six of the seven VAM competencies studied.

Despite the identified limitations of the study, the presented findings show that the optimal utilisation of primary and support staff will aid with the achievement of more cost-efficient operations and increase revenue potential. Therefore, the study's findings hold important implications for manager at all levels of the organisation. However, since leadership has been found to be a

salient factor in employee performance, it is recommended that these findings be addressed from a top-down approach (Hong *et al.*, 2013:240; Walumbwa & Hartnell, 2011:153).

It is also recommended that additional independent variables such as age, race and gender be further explored in order to provide a more comprehensive picture. This is recommended in line with Heskett *et al.*'s (2008:2) argument that leaders, who understand their SPC and have a handle on the contained operations, create and maintain a work environment that balances service quality and employee value through efficient competence management (Gabriel, 2006:16; Sorensen & Ing, 2007:3; Sveiby, 2001:1).

The improvement of competence management by means of the further development of managers' VAM competencies holds salient importance to organisational management. Competence incorporates the aspects that are only owned by the employees who possess them. This is important to understand since employees are voluntary members of an organisation (Sveiby, 2011:1). It is therefore salient for an organisation to capture its *competencies* in order to secure its intangible assets (Sveiby, 2001:1; Sveiby, 2011:1). Competence management is therefore most important in organisational value creation and performance (Gabriel, 2006:16; Sveiby, 2001:1).

A number of suggestions for future research are derived from the presented findings to increase understanding and implications of the concepts. These are identified to aid organisational management to achieve more optimal labour utilisation, increase revenue and productivity potential, as well as to create a more harmonious work environment for both academic and support staff members. These suggestions include;

1. to increase of sample size to be more representative of all the business units of the studied HEI;
2. to further explore the possible differences in perceptions across age groups;

3. to further explore the possible difference in perceptions across ethnic groups;
4. to further explore the possible perception difference between line managers and their direct subordinates. This may be more difficult to explore and more cumbersome to code the data, but will enhance the reliability of the information.
5. to attempt to design a model that could calculate the monetary value associated with the non-financial indicators of employee performance; and
6. to explore the possible monetary value of the cause-and-effect relationship between employee performance and profitability of organisations.

As stated by literature, reduced work engagement leads to a reduction in individual performance and ultimately to a decrease in organisational performance and business success (Bakker & Schaufeli, 2008:147; Forbes.com, 2013; Griffin *et al.*, 2007:333; Taleo Research White Paper, 2009:1). Therefore, critical to the success of equitable management of primary and support staff groups is the creation of an understanding among managers of the benefits of an optimal co-created and collaborative work environment. This needs to be supported by the training opportunities and system processes that will provide managers with the opportunity to efficiently apply their gained VAM competencies to ensure maximum benefit.

Reference list

Please note that the Harvard style of referencing is applicable

Bakker, A.B. & Schaufeli, W.B. 2008. Positive organizational behaviour: engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29:147-154.

Bhimani, A., & Langfield-Smith, K. 2007. Structure, formality and the importance of financial and non-financial information in strategy development and implementation. *Management Accounting Research*, 13(1):3-31.

BusinessDictionary.com. 2013. Management.
<http://www.businessdictionary.com/definition/management.html> Date of access: 27 May. 2013.

Chase, R.B. & Jacobs, F.R. 2011. Operations and Supply Chain Management. M New York, NY: McGraw-Hill Irwin.

Cravens, K.S., & Oliver, E.G. 2006. Employees: the key link to corporate reputation management. *Business Horizons*, 49:293-302.

Forbes.com. 2013. The vital link between resilience & your bottom line.
<http://www.forbes.com/sites/janbruce/2013/09/17/the-vital-link-between-resilience-your-bottom-line/> Date of access: 17 Sep. 2013.

Gabriel, E. 2006. Value chain for services: a new dimension of "Porter's value chain". (Unpublished).

Griffin, M.A., Neal, A., & Parker, S.K. 2007. A new model of work role performance: positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50(2):327-347.

- Goldsworthy, J. 2008. Research grant mania. *Australian Universities' Review*, 50(2):17-24.
- Heskett, J.L., Jones, T.O., Loveman, G.W., Sasser, W.E. & Schlesinger, L.A. 2008. Putting the service-profit chain to work. *Harvard Business Review*, Mar./Apr.:1-13.
- Hong, Y., Liao, H., Hu, J., & Jiang, K. 2013. Missing link in the service profit chain: a meta-analytic review of the antecedents, consequences, and moderators of service climate. *Journal of Applied Psychology*, 98(2):237-267.
- LesKar Organisational Management. 2013. Defining organisational sustainability'. <http://organizational sustainability.com/> Date of access: 27 May. 2013.
- Pathak, V., & Pathak, K. 2010. Reconfiguring the higher education value chain. *Management in Education*, 24:166-171.
- People Capacity Solutions. 2014. Practical leadership. <http://www.peoplecapacity.co.za/default.php?ipkCat=44&sid=44> Date of access: 12 Mar. 2014.
- Rothman, I. 2013. Personnel management [personal interview]. 9 Jul., Potchefstroom.
- Sorensen, P. & Ing, B. 2007. Balancing investment in people, process and technology and building the capacity to do so in developing economies. *The International Council of Management Consulting Institutes (ICMCI)*. http://unctad.org/Sections/dite_dir/docs/dite_pcbb_stdev0031_en.pdf Date of access: 27 May. 2013.

Sveiby, K.E. 2001. Towards a knowledge-based theory of the firm. *Journal of Intellectual Capital*, 2(4):1.

www.sveiby.com/articles/knowledgetheoryoffirm.html Date of access: 22 Jul. 2013.

Sveiby, K.E. 2011. The “invisible” balance sheet.

www.sveiby.com/articles/InvisibleBalance.html Date of access: 22 Jul. 2013.

Taleo Research White Paper. 2009. Alignment drivers employee engagement and productivity. Taleo Research.

Thompson, A.A., Peteraf, M.A., Gamble, J.E. & Strickland III, A.J. 2012. *Crafting executing strategy: concepts and cases*. 8th ed. New York, NY: McGraw-Hill Irwin.

Vargo, S.L., Maglio, P.P. & Akaka, M.A. 2008. On value and value co-creation: a service systems and service logic perspective. *European Management Journal*, 26:145-152.

Walker, L.J., & Forbes, M.C. 2014. Human capital and the succession conversation. *Practice Management Solutions*:14-17.

Walumbwa, F.O., & Hartnell, C.A. 2011. Understanding transformational leadership-employee performance links: the role of relational identification and self-efficacy. *Journal of Occupational and Organizational Psychology*, 84:153-172.

Annexure A

Proof of language editing

Cecile van Zyl
Language practitioner
BA (Languages; PU for CHE)
BA honours (BA Language practice; PU for CHE)
MA (Language and literature within the South African context; NWU)
SATI number: 1002391
E-mail: Cecile.vanzyl@nwu.ac.za
Cell: 072 389 3450

2014-04-09

RE: Language editing of article format dissertation: A deductive exploration of value-added management in higher education: a job-demand resource perspective

To whom it may concern

This is to certify that I language edited the article format dissertation by Mr Pieter Greeff (student number: 20823428) during April 2014.

Please feel free to contact me should there be any queries.

Kind regards

Cecile van Zyl
Language practitioner