A SYSTEM DYNAMICS MODEL OF THE TALENT PIPELINE FOR STRATEGIC RESPONSIVENESS AT DUT

Submitted in accordance with the requirements

For the degree of DOCTOR OF PHILOSOPHY in the Subject

LEADERSHIP & COMPLEXITY

DURBAN UNIVERSITY OF TECHNOLOGY

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NOVEMBER 2019

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ABSTRACT

Continuing concerns about quality issues related to the higher education landscape have given impetus to the urgent need for effective human resources talent management. Guided by this, employee engagement represents important human capital whose performance plays an important predictive role in universities achieving sustained success. Related to this challenge, the current study had the primary aim of identifying the cause and effect of talent variables that influence the different components of talent and strategic outcomes. Through a qualitative multi-approach design, data was collected via a combination of document analysis and semi-structured interviews. Non-probability purposive sampling was used in the selection of participants. Using the Durban University of Technology as the case study, employees from the categories of senior and executive management, middle management and the general employees offered insights into DUT's challenges with talent management and the impact on the success of a learning organisation. The study's emergent themes were categorised thematically and the findings articulated. Key areas addressed included conceptions of a learning organisation; the role of policy rigidity in talent management; talent attraction, development and retention; quality teaching and learning as key influences to talent development; sustainability considerations in talent management; policy compliance and its contribution to the development and management of talent within the University. Using the system dynamics methodology, the research offered an in-depth understanding of the complexities inherent in the talent management process. The implication for human resources practice was primarily related to the acknowledgement that the SD approach has far greater application potential than has been acknowledged.

Key words: talent management, recognition, retention, staff performance, system dynamics, employee mobility, systems thinking, system dynamics, causal loop diagrams.

DECLARATION

I declare that, the study titled, **"A SYSTEM DYNAMICS MODEL OF THE TALENT PIPELINE FOR STRATEGIC RESPONSIVENESS AT DUT"** is my own work and, that all the sources that I have used or quoted have been, indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.

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GLOSSARY OF ABBREVIATIONS

CLD	Causal Loop Diagrams
CHE	Council of Higher Education
CPUT	Cape Peninsula University of Technology
CUT	Central University of Technology
DHET	Department of Higher Education
DUT	Durban University of Technology
HRD	Human Resources Development
HEI	Higher Education Institution
HEMIS	Higher Education Management Information System
HRIS	Human Resources Information System
MUT	Mangosuthu University of Technology
SD	System Dynamics
SATN	South African Technology Network
TUT	Tshwane University of Technology
UoT	University of Technology
VUT	Vaal University of Technology

DEDICATION

This thesis is, dedicated to my late mom and dad for instilling in me values, morals and principles and, whose rich legacy continues to inspire and motivate me in my life's journey.

ACKNOWLEDGEMENTS

"It is not the mountain we conquer, but ourselves" (Sir Edmund Hillary)

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CHAPTER 1 - INTRODUCTION AND CONTEXT

1.1 INTRODUCTION

This chapter discusses talent management in the context of a higher education University in South Africa. It further examines the influence of talent management processes for strategic success in the organisation.

1.2 WHY TALENT MANAGEMENT IS ESSENTIAL IN HIGHER EDUCATION

Theron, Barkhuizen and Du Plessis (2014) state that while the need for talented employees is on the rise, insufficient research exists on addressing the "retirement swell" together with turnover and retention within the higher education institutions (HEIs). Theron, Barkhuizen and Du Plessis (2014) and (Badat 2011) confirm that HEI's experience difficulty in retaining talented academic staff to help accomplish the University's vision and mission and to also play a role in transforming the country by accelerating economic growth, reducing poverty and the supply of scarce skills. Gwartney, Lawson and Norton (2008) allude to the World Economic Forum (2011) statistics which revealed that South Africa featured "88"th of the "134 countries on labour market efficiency and 93rd of 134 countries for innovative potential" as a result of low enrolment in higher education and training institutions.

Theron, Barkhuizen and Du Plessis (2014), therefore argue that to contribute to the country's sustainability and development agenda, South Africa's HEIs need to ensure that their talented employees are retained. This is important to circumvent a void created and would be expensive to replace and often affects the current knowledge base and experience at HEIs.

Due to the competitive higher education landscape on talent management, it is now imperative that HEIs begin to place value on managing its talent. Employee engagement must be viewed as an important human capital in order for the University to achieve sustained success. Furthermore, it is critical that the correct talent is placed appropriately in an organisation. Despite initiatives by some organisations that realise the importance of talent linked to retirees exiting the organisation, industries need to be mindful that there is an escalation of talent recruitment costs for both, internal and external recruitment. A common approach is that organisations identify potential replacements only when the individual decides to leave the organisation.

Bushe (2012) asserts that the increase in global mobility and the movement in demographic profiles point to the fact that talent attraction and recognition are escalating challenges. The author further claims that retention of employees include the employment of qualified and competent employees through the establishment of various factors that encompass a motivated staff climate, being an employer of choice as well as establishing a quality of work-life. These interventions tend to influence the employee to remain in the institution by reducing structural change as well as the administrative and quality review demands while simultaneously avoiding compromising high work standards. Bushe (2012) further states that in order for HEIs to effectively manage and retain their teams, particular attention must focus on job satisfaction and its impact on employee performance. The author further states that the issue of remuneration, increased workloads and bureaucratic conditions determine whether talented employees will leave the organisation. To address these issues, management would need to consider a multitude of policy issues, pay and compensation.

The importance of establishing an institutional strategy linked to talent, is critical to organisational success and improved performance. However, the variables that contribute to such success as well as the emerging dynamics must be conceptualised prior to implementation of the strategy. The use of the

Qualitative SD Model provides opportunities to identify the weaknesses in the system and recommend changes in order to mitigate risk of failure. This process is time consuming and overlooked often resulting in failed attempts to achieve the strategy.

1.3 THE ABSENCE OF DEVELOPING TALENT

Lynch (2007) mentions that higher education institutions produce particular talent in order to deliver on their business and to retain a competitive edge within the higher education landscape. The author further states that, generally, higher education institutions are successful in developing their own students but face challenges in managing and developing employees within their own organisations. Such an observation brings attention to the importance for grounding talent management within the higher education landscape.

While the University continues to provide employees with training and development needs, it lacks sufficient recognition interventions in managing, developing and retaining its own talent. Blame for such a lack of opportunity can be apportioned to the prevailing culture that exists within the organisation. Organisational success depends on prioritising the type of talent required and identifying those employees with leadership qualities early in their career in order to provide them with a clear growth path for them to realise their leadership potential. While this prompts various developmental opportunities, it also necessitates a high degree of monitoring, evaluation and tracking of progress. Therefore, in determining future leaders, such individuals could be seen to be having high potential and performing at a higher level than their current position. These employees then migrate through a career development and succession planning process.

The University lacks an integrated talent attraction, retention and development strategy and this appears to impact on the teaching, learning and research

development. This lack is amplified by a reliance on outsourcing scarce and critical skills, an approach that may influence the institution's inability of recognising and growing the skills of internal employees. The SATN (South African Technology Network 2018) reflects that, of the 6 Universities of Technology (UoT), namely, Cape Peninsula University of Technology (CPUT), Central University of Technology (CUT), Mangosuthu University of Technology (MUT), Tshwane University of Technology (TUT) and Vaal University of Technology (VUT), the Durban University of Technology features second highest in its success rate. While this may be the case amongst the UoT's, DUT has increased its success rate from 75% to 82%, which represents a 7% increase in its overall pass rate over the past 5 years. However, the pass rate at DUT has remained minimal from 2013 to 2014. Further, throughput reflects the success of students graduating and in the case of DUT; the statistics reveal that DUT has reached a plateau with respect to students graduating within the expected period. In 2012, DUT reflected a 31% graduation pass rate and in 2013, there was no further movement from this position on the rate of graduation. The risk of the University not increasing its throughput rate implies that there will be a drop in state subsidies, thus affecting the financial sustainability of the University. While research output has increased from 134 units in 2012 to 467 in 2016, DUT features second highest in its research output when compared to all UoT's. DUT appears to have increased its research output from 2012 to 2016, the DHET report on research outputs reveals that, DUT appears to be 16th out of a list of 26 HEIs on overall publications and research output units (DHET 2017). In order for DUT to remain competitive in attracting quality students and employees, it is necessary for DUT to reposition its strategy to support an increase in its research output.

A further challenge faced by the University is the staff and student ratio. Although the University has increased the student number of enrolments from 24 875 in 2012 to 28377 in 2016, the staff and student ratio remains a challenge as the DHET norm is 1:20, which means that for every 20 students,

1 academic employee is allocated. The status at DUT is 1:33. The increased student and staff ratios have been a long-standing problem at the University, and this has raised concerns when measured against the national norm. This matter remains a risk to the University, as increased workloads represent a serious concern on the existing employees as well as the University system. Furthermore, exit statistics reveal that 50% of employees, the highest reported in 2018, felt frustrated and left the University due to the lack of recognition of existing talent. An increased turnover of talented employees has serious implications for graduation and success rates of students.

Furthermore, of the 622 academic employees, a significant number of them do not have a Masters qualification. Since the DUT has evolved into a UoT from the status of a Technikon in 2006, it now offers qualifications from diplomas to post graduate studies. The University has taken a decision that, in order to be competitive with other Universities, a Masters qualification should be the minimum qualification entry for academic employees. The administration and support staff to comply with the minimum qualification requirements and standards as determined by the University management. The lack of adequately qualified academic employees required to meet the mandate of DUT becomes a challenge, as the University will not be able to offer postgraduate programmes if it does not comply with the qualification requirement. The workforce of the University has an average age of 45 to 50 and the retirement age is 65. In order to ensure that these employees meet the minimum qualification for a University, a talent strategy is required to expedite the achievement of this objective.

Therefore, this research explores the talent intervention that addresses the challenges faced by the University. This study analyses the perceptions of respondents using a multi-approach qualitative design that includes a combination of human participants and documentary evidence as data sources. It further explores the problems in the system and possible interventions to correct the system.

The study presents recommendations for the University to develop talent strategies. In doing so, employees are attracted to the University and will remain at the University if they feel that the University values their capability and clearly articulates what is expected of them with continuous feedback and recognition. Understanding the causes and antecedents relating to talent management at DUT is the first step in taking action to remedy the problems and to develop a model for strategic success.

1.4 STUDY SETTING

Since the birth of democracy in 1994, the new democratic South Africa focussed its attention in creating a united, democratic, free and healthy society. Some of the key priorities on the transformation agenda related to addressing the socio economic and political climate and transformation of the education sector.

Although access to education has broadened and a non-racial society has begun to emerge, South Africa still faces high levels of inequality, unemployment and poverty. In an attempt to address these concerns, the government introduced legislation that aims to address the skills required by the country, provision of improved living conditions for South Africans, ensure increased support for postgraduate studies and improve research capacity for Universities. It further aims to establish a new cohort of teaching and learning employees in order to enhance academic development initiatives. Despite various attempts made by the government to eliminate poverty and reduce inequality and to grow the economy in ways that benefit all South Africans, Universities continue to face constant challenges such as state budgetary cuts.

Notwithstanding the history and challenges that face higher education in South Africa, it is necessary for the Durban University of Technology (DUT), being a

merged institution, to position itself as a significant role player within the higher education landscape. In 2002, DUT was the first voluntarily merged institution in the country and during the merger process, voluntary severance packages offered resulted in the loss of many highly talented employees. The result of which contributed towards the talent crisis that the University is currently faced with. Furthermore, in 2006, there was a change in status from a Technikon to the Durban University of Technology. This change brought about several new quality and qualification compliance requirements. Often the University has to compete in attracting high quality researchers and teachers with limited resources to afford the required talent. This study attempts to develop a talent management strategy that seeks to address the problems experienced by the University on talent management and to find solutions on addressing the problems highlighted.

In response to this challenge, DUT developed a five (5) year strategic plan with one of its strategic focus areas centred on DUT becoming a learning organisation. The strategic plan was informed by six (6) drivers namely "Transforming institutional culture, Back to Basics, The Knowledge Project, Networking the University, Greening the University, Internationalising the University" (DUT Strategic Plan 2015: 10). However, the challenge that remains is for DUT to identify the characteristics and attributes required to become a learning organisation in the context of harnessing its existing talent and determining new talent to help solve specific problems in meeting national norms.

The focus of any HEI is its ability to attract and retain its talented employees. However, HEI's need to manage talent to ensure increased positive student and organisational outcomes. Furthermore, it has become a challenge to retain committed, motivated and effective employees without having adequate financial resources to offer market related salaries and to invest in the development of such employees. HEI's have three typologies of Universities, namely, Comprehensives, Traditional and University of Technologies (UoT's).

Comprehensive Universities offer diplomas and qualifications, traditionally offered by Technikons and now offers degrees up to post-graduate level. The offerings of traditional Universities have remained as is and they include degrees up to post-graduate level. Research forms a core component of its business. UoT's focussed on diplomas that included experiential learning with an employer as well as post-graduate qualifications. DUT falls under the category of a UoT.

The University spends approximately 70% of its budget on its human capital and therefore, the return on its investment for strategic success is of paramount importance. The DUT Risk Report (2013) and the Employment Equity Plan (2013-2015) highlights talent and development as a top priority. This research also focuses on addressing problems associated with talent in respect of research outputs, student success and graduation rates, the qualification challenge from a Technikon to a UoT, and possible causes of personnel exiting. To address this risk and to focus on its mandate of teaching, learning, and research and community engagement effectively, DUT as a UoT, needs qualified and motivated academic employees that perform efficiently and effectively. Attracting, developing and retaining talented employees are a huge challenge at the University given the various competing priorities faced. Some of the priorities include increasing graduation and success rates whilst at the same time, ensuring that it has the correct talent to offer quality teaching in order to produce high quality graduates that can enter the world of work successfully. Furthermore, there is a need to increase research outputs to remain relevant and competitive. The increase in turnover, particularly the rate of resignations in 2018, raises concerns at DUT, as the loss of such talent has serious consequences on the student and research output.

In summary, the challenges mentioned above demonstrates significant risk to the University that requires investigation and corrective action. In this study, the holistic system dynamics model was utilised as a foundational basis for the

development of a conceptual framework to support the development of talent within a learning organisation. The study critically evaluates organisational challenges with respect to talent management and proposes enabling structures that intend to promote the success of a learning organisation. The study presents a case study of the Durban University of Technology. The researcher selected DUT as an organisation affiliated to a larger higher education sector and forms part of the grouping of state institutions.

1.5 PROBLEM STATEMENT

The University's core business is to provide high-quality teaching and learning, engagement with industry and the community as well as innovation and entrepreneurship. Furthermore, there are various challenges between employee competencies; the complex University demands; the historical absence of a clear talent management strategy, lack of robust performance management approach, varied application of human resources development principles and employee development approaches. There is insufficient evidence on talent management in HEI's and its influence on strategic success. Therefore, this study seeks to gain an understanding on the influence of talent and its impact on the strategic outcomes of DUT.

Kennedy (2000) affirms that Universities are complex, dynamic, non-linear systems that are continually evolving to meet government, industry and student needs. Such dynamics within the system are likely to create challenges in the management of Universities, thereby facing difficulties in predicting implications on the implementation of policies and strategies. The systems thinking approach could assist in directing and supporting the decision making process in the higher education landscape, particularly at DUT. However, Kennedy (2000) asserts that despite this observation, very little attention has been given to the dynamic model-based approach, as the individuals involved in policy development tend to adopt linear approaches instead. There is an increasing interest in using the system dynamics (SD)

framework in higher education and the use of such a framework will be useful in developing an integrated talent management model for the University system to guide management decision-making on issues of talent attraction, retention and development. Such a system involves the use of variables graphically presented in the form of causal loop diagrams (or feedback loops). When the CLDs are combined they help define the structure of the system and how it behaves over time.

1.6 AIM AND OBJECTIVES OF THE STUDY

Guided by the observations above, the primary aim of this research is to identify the cause and effect of talent variables that influence the different components of talent and strategic outcomes. In achieving this, a number of objectives identified, and these included:

- The talent variables that may inhibit DUT from becoming a learning organisation.
- The historical challenges that influence the future talent recruitment and retention at DUT.
- The identification of performance variables necessary to meet strategic objectives.
- The identification of factors that would advance sustainability in talent management.
- Examination of the University's structures, policies, procedures and systems to identify gaps.
- To construct a system dynamics model that would aim to mitigate risk and obstacles associated with talent.

In addition, the findings of the study will enable further research on talent management in HEI's.

1.7 RESEARCH QUESTIONS

The research focussed on talent management at DUT, a higher education University in South Africa. The key research questions addressed in the study include:

- What are factors that may inhibit DUT from becoming a learning organisation to address the talent gap?
- How do the historical challenges influence DUT's future talent recruitment and retention given its financial constraints?
- What are the performance variables necessary to meet strategic objectives in the context of talent development?
- What are the financial implications to ensure the right talent management at DUT?

1.8 RESEARCH DESIGN AND METHODOLOGY

This study was based on a multi-approach exploratory qualitative design made up of data from (i) a review of documents and (ii) semi-structured interviews. The qualitative paradigm allows the data to be collected from the natural environment. According to Bryman (2012), qualitative research involves a collection of data and analysis of the information gathered into a framework that represents causal relationships between variables that seek to understand the behaviour of a system and its meaning over time. Forty-eight interviews were conducted across the three levels of employees. These included executive and senior management, middle management and the general employees. The interviews were recorded and transcribed. The transcripts of interviews were then coded, and thematic analysis was used. According to Nowell *et al.* (2017) thematic analysis involves interpreting and analysing data.

The analysis of the interviews and study of documents was utilised to build a comprehensive system dynamics model that shows the cause and effect of interrelationships and the wider impact of talent on a learning organisation. Output from the analysis was processed using a software called Vensim to create the Causal Loop Diagram (CLDs). With the assistance of this software, it was possible to depict the number of variables at play in the talent management dynamics at DUT, as well as to show the relationships between each variable. Sterman's (2000: 90) modelling process comprises "problem articulation; dynamic hypothesis; formulation; testing; and policy formulation and evaluation". This study adapted Sterman's model and focussed on the use of problem articulation and policy formulation and evaluation. The stages used were necessary to illustrate the model in a simple and effective manner for easy interpretation and replication by HEI's and other organisations when developing a talent model.

Table 1. Sterman's modelling process

Stage		Explanation	Questions
1	Problem articulation	When articulating the problem, it is important to consider the most important issue of concern, the real problem that is to be addressed and how the model can serve to present the variables in a simplified manner that can be easily understood.	Identification of the problem. The determination of the variables and to what extent it can go back in the past to understand the root of the problem. Further, to what extent the behaviour can be understood for future consideration.
2	Policy formulation and Evaluation	Policies can be designed and evaluated for strategic implementation when sufficient confidence in the model is gained. Feedback is essential for the change in policies. The approach to engage in policy review is non-linear and may influence one another and generate substantial synergies.	What are the environmental conditions that may arise? Can the changes made to policies, be defended in different circumstances in the real world?

To ensure a theoretically aligned data and knowledge management framework within the study, data collected from the interviews and the document review was analysed and primarily processed using the system dynamics modelling process, as the primary mode for theory development. Sterman (2002) uses the system dynamics approach to provide an understanding of the behaviour of complex systems over time by using internal feedback loops and time delays that influence the behaviour of the entire system. System dynamics includes the use of causal loop diagrams to represent its causal structure. Multiple diagrams are used to convey the hierarchical structure of the large CLD. Sterman (2002) argues that systems thinking is being able to see the world as a complex system where everything is connected to everything else, and when the whole is larger than the sum of its parts. Leverage points are identified to make provision for expedient and efficient learning to avoid policy resistance.

1.9 POPULATION/TARGET POPULATION

The University employees from the categories of senior and executive management, middle management and general employees were targeted and forty-eight members selected through non-probability purposive sampling. For the purposes of reporting, the top levels of management and senior executive management were, grouped and identified as "management". To maintain confidentiality of the respondents the data was coded.

1.10 DATA ANALYSIS

An interpretive thematic analysis was used where the information gathered was thereafter captured on a spreadsheet and analysed thematically. Nowell *et al.* (2017) affirm that thematic analysis is conducted in a rigorous and methodological manner that analyses and interprets patterns and trends of textual data to produce meaningful results. Through the use of the Vensim

software, a number of variables at play in the talent management dynamics of DUT were identified and arranged into causal loop diagrams (CLDs). The CLDs were consolidated to form a simple Qualitative System Dynamics Model that aimed to provide a holistic picture of the feedback structures and processes at DUT. Vensim is a software that allows for construction of CLDs, which help improve the performance of real systems by entering equations and parameters on the CLDs, thus making the diagramming phase of the system dynamics process an absolute necessity. For the data to be trustworthy, qualitative researchers must be consistent and precise with the data analysis. In addition, and to ensure credibility of the process, the data must be presented in a comprehensive manner through a process of recording and systematisation with sufficient detail.

1.11 ETHICAL CONSIDERATIONS

Ethical clearance was obtained from the institutional ethics review committee. The anonymity of the participants was confidential and no statements or responses was attributed to individuals. An informed consent form used, guaranteed the protection of participants prior to the interviews.

1.12 SIGNIFICANCE OF THE STUDY

A review of the literature reveals that talent management is an emerging field in the higher education landscape and therefore there is a need for its value and effectiveness to be explored. Furthermore, the adoption of the correct strategy to yield organisational success and improved organisational performance is required. As a result, a need for further research is necessary to investigate the dynamics involved in developing talent management strategies. One of the challenges faced by University management is funding and human resources, particularly with regard to teaching and learning since

a University's focus is mainly to produce graduates and simultaneously increase its high quality research output.

According to Hawari and Tahar (2015) system dynamics is the most effective and useful tool for long-term planning in Universities. The framework of the study draws from Sterman's (2001) model, particularly on the stages of problem articulation as well as policy formulation and evaluation model for the development of talent within a learning organisation. The study will reflect on the problems experienced in the organisation and reassess its talent and enabling structures that influence the success of a learning organisation.

The research intended to provide the senior management team with an understanding of the model developed, to unravel or open up several weaknesses in the system. Furthermore, the researcher provides recommendations for further research for HEI's to create talent strategies where employees can benefit holistically. The research also provided a greater understanding of the smallest variable that affects the talent management at the University taking into consideration the financial constraints, the link between talent and the performance system, recruitment and retention of the correct talent. The model also ensured that the University directs the spend on its return on investment, the value of which is intended to impact the achievement of its strategy.

The talent model developed can be used to predict, in a qualitative manner, what would occur when identifying talent and its influence on the achievement of the University's strategic goals. Adjustments to the model are made continuously to represent reality. Such adjustments occur when discrepancies are highlighted for further policy review and implementation.

System dynamics recognises that people's perception of a particular situation may not be a true reflection of what the actual problem is, as it is not possible

for a single individual to understand the full spectrum of a problem as well as the flow of information and the feedback found within a problematic situation. Therefore, engaging the various respondents enabled the researcher to gather the perceptions of a problem and thereafter form the CLDs. Causal loop diagrams are used to convey the hierarchical structure of the model developed through constant iteration, questioning and reviews that are often repeated in the modelling processes, leading to the redesign of strategies, new structures and policies.

1.13 UNIQUE CONTRIBUTION OF THE RESEARCH

The study offered a number of opportunities for new theoretical and empirically novel contributions. For example, the researcher modified the use of Sterman's model, which offered a unique contribution to this field of study. The adaptation of Sterman's (2002) model allowed the researcher to spend more time interpreting the graphical representations that underpin the problem being investigated and more time to accurately present the data as close to reality as possible. This approach provided a deeper understanding of the talent variables at play and how these influence each other holistically to influence the system for strategic success.

1.14 STRUCTURE OF THE THESIS

Chapter 1 – Introduction

This chapter provides the introduction and rationale for the study. It outlines the research problem, research objectives and purpose of the research.

Chapter 2 – Literature review

This chapter presents the conceptual framework of the study by reviewing literature on the higher education landscape as well as studying the effect of talent management on the University.

Chapter 3 – Research methodology

This chapter outlines the research process, research design and methodology used for this study. Chapter 4 further explains the data collection methods and the research instruments as well as the system dynamics-modelling framework, selected to conduct the research study.

Chapter 4 – Findings

This chapter focuses on analysing the data using thematic analysis showing the common themes that emerged.

Chapter 5 – Discussion

This chapter presents and discusses the findings of the study. This chapter demonstrates how critical thinking and causal reasoning can be used in system thinking and system dynamics to help organisations understand and assess assumptions as well as to detect problems early (i.e. problem identification and model conceptualisation) to make the necessary adjustments to ensure that these have been addressed prior to policy implementation.

Chapter 6 – Recommendations and conclusions

This chapter presents the conclusion and recommendations of the talent interventions that need to be adopted by the University to remain competitive.

1.15 CONCLUSION

This chapter provides an overview of the study. As discussed above, there is a lack of published studies, which holistically assesses the effectiveness of talent management strategies. The recommendations provided will enable the University to create a productive workforce that will positively influence strategic success. Therefore, what remains in question is the adoption of the

right strategy to yield organisational success and improved organisational performance. The next chapter provides a comprehensive overview of literature related to talent management within the higher education landscape.

CHAPTER 2 - LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of this chapter is to review literature on the use of talent management strategies in both the corporate and higher education environment to gather an understanding on the knowledge of talent management. In providing a conceptual analysis of talent and talent management, the researcher addresses the first objective of the study by identifying talent variables that may inhibit DUT from becoming a learning organisation using relevant literature. This section also discusses and critically examines the definitions of talent and talent management to draw together strands of information that developed in isolation. The conceptual analysis unpacks the ongoing debate around talent management to address the factors that inhibit organisations from achieving their strategic goals.

This section reviews literature on talent management in practice in organisations as well as in HEIs within three main areas: Identifying, developing and retaining talent. This forms a significant part of the study, as it highlights issues about managing talent within these environments. As observed by Scullion and Collings (2006) decisions made on managing talent can be improved by developing an extensive talent framework that reflect the environmental complexity. In later research, Scullion and Collings (2011) explained global talent management as including all organisational interventions to attract, retain and develop talent to further strategic goals of the organisation. These authors noted that while organisations tend to acknowledge and identify the need for talent management, they often face challenges in managing talent efficiently. As the current study focuses on talent in a higher education institution within the higher education landscape, possible gaps in the area of talent management is highlighted, emphasising key areas for investigation in this study. In addition, the literature will explore

the impact of talent management in a global context, within the context of the South African higher education landscape and as well as the DUT context.

According to Snyder (2019) while knowledge production within specific disciplines is accelerating at a fast speed, the field of business research remains fragmented and interdisciplinary, making it difficult to ensure that the research collected and evidence gained can be free from this fragmentation. Traditional research usually lacks rigour, occurs on an ad hoc basis and does not explore the discipline thoroughly, resulting in the quality and the trustworthiness of the reviews being questionable. Snyder (2019) is of the view that a literature review is valuable in mapping out the development of a specific research. Snyder (2019) provides three approaches to conducting a literature review, namely, systematic review, semi-systematic review, and the integrative review.

- **Systematic literature review**
  The use of systematic literature review approach helps identify empirical evidence that is related to the particular research to produce reliable findings that can be used to draw conclusions and make decisions, minimising any bias of the researcher.

- **Semi-systematic review**
  The semi-systematic review approach is generally, used by various groups of researchers from different disciplines and prevents the opportunity to engage in a full systematic review process.

- **Integrative review**
  An integrative review approach enables the researcher to evaluate, analyse and generate information on a particular research topic thus enabling new theoretical frameworks and perspectives to emerge.

This study engaged in a systematic as well as integrative review process where empirical evidence was gathered, assessed, analysed to generate

information that enabled the emergence of new theoretical frameworks and perspectives to draw conclusions and make recommendations.

2.2 DATA SEARCH STRATEGY

The data search strategy in this study represents a systematic assessment of the challenges on talent management and the literature review helps to underpin the cause and effect relationships that represent reality (Snyder 2019). To source the literature related to the research problem, several strategies as reflected below were utilised; namely the use of DUT's online library source (Summons); consultation with DUT cataloguing and research librarians as well as the use of on-line research databases, all of which added a specific value to the review.

Table 2. Strategies for locating relevant literature

Data access source	Benefit of data search method
DUT Library Online Resources	Literature searches were conducted using Google Scholar and Summon, DUT's Library Portal to information resources for both print and electronic information. DUT Library provides immediate full text access to general databases, as well as, specialised databases for Management. These include Emerald Management Database (an online collection of journals providing comprehensive coverage across all management disciplines), EbscoHost (full text content from Management and Business, including Africa-Wide Information databases), SAGE Journals online (an extensive interdisciplinary collection of international, peer-reviewed full text journals including high-impact research titles published on behalf of scholarly and professional societies), and Proquest (a large general database that includes management and social sciences).
DUT Print Books	DUT Library provided a vast collection of print books including research and management.
	The library book content provided useful foundational/ background information, as well as, current research books appropriate for the study.

Data access source	Benefit of data search method
DUT Inter-library loans	DUT provided inter-library loans facilities assisted in accessing information that was not available within the DUT library.
Post-graduate Librarians	The DUT postgraduate librarians provided expert help in retrieval of online and print resources, bibliographic management through Endnote training, as well as assistance with accessing journals and articles.

2.3 DATA SEARCH PARAMETERS

Leedy and Ormrod (2015) are of the view that collecting, analysing and interpreting information collected for the purposes of the study, enhances our understanding about the subject under review. To conduct the literature search, a search using key concepts related to the study was used:

- Talent management
- Talent recognition
- Talent retention
- Staff performance
- System dynamics
- Employee mobility

2.4 DEFINITION OF CONCEPTS

Managing talent in organisations may be defined by having a hierarchy of higher positions that are occupied by skilful personnel Al Ariss, Cascio and Paauwe (2014). The concept of talent has gained significant interest in recent years. Despite the research conducted, Universities, as knowledge generating organisations where talent is central to its success, still experience challenges on attracting, developing and retaining talent. Key concepts used in the study defined as follows are:

2.4.1 Talent management

Yarnall (2011) refers to talent management as those employees recognised for their high performance and high potential and targeted for succession planning. Talent management in the context of this study refers to the anticipation of competent employees that the University requires to achieve its core business, given that it is a knowledge generating type of organization. Leveraging and nurturing these employees is important for the University's growth as well as to remain on the competitive edge to attract the best student and employee.

2.4.2 Talent recognition

Irvine (2010) and Robyn and Du Preez (2013) are of the view that talent recognition is a process at the organisation where there is a need to continuously examine and explore the recognition of employee achievements as part of its strategy to acknowledge and appreciate their work. The study emphasises the emerging need for talent identification and recognition and further creates opportunities for leadership to adopt vigorous approaches in recognizing and developing an array of talent amongst its employees to position itself as an institution of development of new knowledge and innovation.

2.4.3 Talent retention

Erasmus, Grobler and Van Niekerk (2015) maintain that talent retention addresses turnover of high performing employees. The University losing its qualified and talented employees to other HEIs remain a risk. The strength of an organization lies in its human capital and it is therefore important to recognize and retain talented and high performing employees to reach its

strategic objectives. This approach, apart from being a cost-saving measure, increases the morale of the workforce thereby enhancing employee performance.

2.4.4 Employee performance

Employee performance guides the retention and employability strategy at an organisation (Garavan *et al.* 2012). Kabwe (2011) affirms the view that employability and talent are mutually inclusive since talent informs recognition and employability. Managing employee performance is a continuous process of identifying, evaluating and developing employee and team performance in alignment to the strategic goals of the University. This study explores the dynamics involved in the recognition and retention of high-performing employees.

2.4.5 System dynamics

Forrester (1994: 72) posits that system dynamics is a powerful mechanism used in the creation of feedbacks through an iterative process in information gathering to build a robust model. The SD approach is adapted and used in this study to elucidate the rationale in capturing how multiple interacting variables can shape the talent attraction, recognition and retention of employees at the University to achieve strategic success.

2.4.6 Causal loop diagram (CLD)

Kiani *et al.* (2009) state that causal loop diagramming is a tool that assist the modeller to conceptualise the system in the real world with the use of feedback loops. The arrows in the feedback loops indicate the direction of influence using a negative and positive polarity to indicate the type of influence.

The next section of this chapter sought to understand current literature on talent gaps and the complexities within talent management. The section focusses on empirical studies: the talent gap, strategic talent management, organisational culture and values, talent retention, performance and potential, talent attraction, development and retention, organisational performance, financial outcomes and system dynamics.

To provide a comprehensive overview of the current viewpoints and existing research, a review of the related literature was conducted to determine prominent viewpoints relating to the area of study as well as to identify gaps in knowledge that require further research.

2.5 TALENT MANAGEMENT IN A GLOBAL CONTEXT

The search for the appropriate talent has increasingly become a challenge for organisations globally. Ragazzi (2014) and Khilji (2012) maintain that active involvement in a number of organisations in attracting and developing talent drives global talent management that goes beyond an organisation and its human resources management functions. It emphasises the challenges within the environment that the organisations manage and develop their skills and career management processes. Furthermore, it includes the incorporation of mobility, government policies and the national need for innovation and competition. Hence, the authors suggest that global talent management extends beyond the individual and, approached from a macro view in the context of a globalised competitive world.

Khilji, Tarique and Schuler (2015) explain that arising out of talent mobility, national global competition for talent in a dynamic and globalised environment, is becoming an increasingly complex phenomenon. The scope of global talent management must be expanded beyond human resource management activities and move to adopt an integrated interdisciplinary approach. Benko

et al. (2014) mention that the uncertainty of the external global environment has increased the understanding and more acutely the need to develop talent management strategies that cope with the changing circumstances in organisations.

Prior to 1994, the claim to legitimacy for government policies in higher education rested on meeting primarily the interests of the white minority and was institutionalised to the extent that all senior posts were largely dominated by white males in decision making positions (Barnes, Baijnath and Sattar 2010; Mouton, Louw and Strydom 2013). In 1997 the White Paper 3 (DoE 1997), declared the creation of a single co-ordinated higher education system. This consolidates the instructive programmes with the view to addressing the human resource development and socio economic needs of the country. Socio economic and vocational needs of communities, governments and individuals have transformed over the years and served as a compass for restructuring higher education institutions in South Africa. In doing so, the advancement of the knowledge base and learning contributes to the alignment of international standards in order to remain competitive in the global world was expected.

The White Paper 3 DoE (1997: 1) further provides the framework for a modernised education system for the benefit of society:

> Contribute to and support the process of societal transformation outlined by the Reconstruction and Development Programme (RDP), with its compelling vision of people-driven development, leading to the building of a better quality of life for all. It must also provide the labour market in a knowledge driven society, with the ever-changing high-level competencies and expertise for the growth and prosperity for this modern economy.

In addressing the DoE prescripts of building a knowledge economy, it is worth noting that the core business of higher education is to equip students with knowledge through attracting talented teachers and researchers that contribute to transformative teaching, learning and research for increased

student and graduate success. After 1994, the new South African government used education as a means to address issues of inequality, access and diversity as part of its societal transformative agenda. The then Minister of Education, Kadar Asmal initiated the restructuring and mergers between Technikons and traditional Universities to address the imbalances of apartheid in order to be responsive to societal needs (CHE 2016). The process of merger and restructuring within the higher education sector began in 1999 and had far-reaching consequences. Although the main purpose of addressing transformation in higher education was to address the effects of apartheid, it was equally important to consider how higher education sectors will respond to economic and national priorities. Habib *et al.* (2001) is of the view that the rationale for the restructuring and mergers in higher education suggest that the mergers were politically and ideologically, motivated. There were huge financial and human capital implications of such a transformative agenda that would inevitably shape the trajectory, dynamics and pace of institutional change. Furthermore, Badat (2010) maintained that transformative initiatives challenged the higher education mandate of teaching and learning through addressing governance, policy and structures, research, quality assurance and leadership.

Goldman (2011) asserts that the main purpose of mergers at higher education institutions is to overcome the racial fragmentation of the educational system. The merger also attempted to address the economies of scale on costs and scope as well as to align governance and management structures. Furthermore, it sought to increase administrative and managerial capacity for increased employee capabilities to improve the quality of programmes offered and aimed to reduce the duplication of institutions in close proximity. Boughey (2004) emphasises the need to develop programmes in line with the economic needs of the country, particularly in respect of employment of highly skilled graduates.

Additionally, the core business of academic institutions is to produce graduates for the world of work. The White Paper 3 (DoE 1997) and the Council of Higher Education (CHE) that formulated the National Development Plan (NDP), also focus largely on the transformation agenda of higher education with particular emphasis on addressing the social inequities and challenges of the past. Academic programmes must address global and national needs to position itself as a significant partner in the higher education landscape. Goldman (2011) asserts that while the issues of transformation within the higher education landscape is being addressed, institutions also wanted to retain their own identities and not lose their skilled academic employees to other institutions during this process of change. However, the merger created additional challenges on issues of merit, access and equity of employees.

Mouton, Louw and Strydom (2013) explain that in the South African higher education context, mergers resulted from the formation of twenty two (22) Universities to eleven (11) institutions, fifteen (15) Technikons to five (5) independent institutions and six (6) comprehensive institutions. 150 technical colleges merged into 50 technical colleges. At present there are three (3) types of higher education institutions include Comprehensives, Traditional and Universities of Technology.

Mouton, Louw and Strydom (2013) observed that the merger between Rand Afrikaans University (RAU) and Technikon Witwatersrand (TWR) influenced the level of job satisfaction while in the case of ML Sultan Technikon and Natal Technikon, role clarity and trust in management was critical for issues of transformation, sustainability and success. In respect of the merger between Tshwane University and Technikon Northern Gauteng, Technikon North West and Technikon Pretoria, the emphasis was on quality and service delivery on teaching and learning, particularly on producing effective leaders. The merger of ML Sultan Technikon and Natal Technikon culminated in the establishment of the Durban University of Technology.

To contribute towards engaging in institution building, much effort is required in adopting employment strategies in a merged institution to facilitate a positive morale amongst a diversified workforce. Given that the Universities operate in a unique environment and is influenced by the socio political and historical context of the country, it is important to understand that external influences such as policy and governance have huge implications for transformation in Universities. Therefore, this study analyses the development of a talent pipeline for strategic responsiveness at DUT. DUT is an evolving University that has the opportunity of addressing these challenges and developing new processes and systems to focus and strengthen its strategic performance outputs. The next section will focus on managing talent within the higher education landscape.

2.6 TALENT MANAGEMENT WITHIN THE HIGHER EDUCATION LANDSCAPE

Liversage (2015) argues that Universities do not adapt easily to talent management activities and therefore may not be able to recognise the appropriate talent to occupy posts. Furthermore, limited research has been done on the application of strategies, policies and procedures on talent management (Lynch 2007; Iles, Preece and Chuai 2010). Only a few South African Universities have engaged in a comprehensive talent management process to attract, retain and develop employees (Lynch 2007; Theron, Barkhuizen and Du Plessis 2014). In light of addressing the attraction, retention and development of talent at a higher education institution, therefore this study aims to address the talent management interventions in the higher education environment.

Liversage (2015) further states that due to the higher education workforce constantly changing, with particular reference to aging employees moving onto retirement, it has become necessary to adopt a strategy that addresses the high demand for talented employees. The challenge for higher education

Universities is to replace the knowledge, skills and expertise and would therefore need to develop strategies and policies to attract, retain and develop talented employees. Although the importance of talent management in Universities have been emphasised and highlighted, organisations still struggle to manage their talent recruits according to their potential effectively.

Guthridge, Komm and Lawson (2008) expand on the view that talent management is, considered as a short-term issue rather than prioritising talent and emphasising its importance for inclusion as a long term integrated business strategy. Guthridge, Komm and Lawson (2008) affirm that although Universities project themselves as continuous learning organisations and seem to struggle to capacitate line managers to execute talent management processes successfully. Strategies to sustain and build a strong talent pipeline is important and is bound to increase employee engagement levels and overall institutional performance to gain a globally competitive advantage. However, Liversage (2015) affirms that there is no evidence that talent management programmes exist in South African Universities and even if they did, it was not clear how effective these programmes are in the achievement of the Universities objectives.

Barkhuizen, Schutte and Nagel (2017) upholds the above view by stating that despite inroads made into the research of talent management, the successful implementation of managing talent in the higher education landscape remains a challenge. Talent acquisition and retention attempts are compounded by poor compensation and reward practices (Onah and Anikwe 2016). Instability caused by student unrest can result in reputational damage thereby impacting negatively on acquisition and retention strategies (Badat 2016). Therefore, higher education management need to engage in compelling talent management strategies to attract, retain and develop employees (Saurombe, Barkhuizen and Schutte 2017).

Lesenyeho, Barkhuizen and Schutte (2018b) mention that while HEIs in South Africa faces the weakening of its brand against the standards of international HEIs, factors such as inadequate state and research funding as well as uncompetitive salary packages and incentives contribute to the delays in achieving employment equity imperatives. In addition to these factors, a shrinking skilled workforce further compounds this observation. In the midst of this difficulty, the higher education sector within South Africa has to make provision for the attraction of employees to ensure that an adequate talent pipeline of employees is developed. This forms a critical component to the developmental agenda of South Africa (Higher Education South Africa 2014). However, Grobbelaar and De Wet (2016) state that the success of attracting such talent depends on the teaching, learning, research and community engagement skill to be able to address the socio economic needs of the country. Such employees who join the higher education profession, pursue this journey because of their desire to interact with students and to contribute towards the improvement of their lives Strauss (2011). Furthermore, employees in HEIs are also challenged with both, advancing their expertise in their discipline and meeting the demands of the 21st century workplace (Du Preez 2015; Ondari-Okemwa 2011 and Lesenyeho, Barkhuizen and Schutte 2018b). Grobbelaar and De Wet (2016) further affirm this view in stating that the pressures of a changing world are forcing Universities to adapt and respond to global competitiveness, the digital revolution as well as the shifts in public policy. Furthermore, Grobbelaar and De Wet (2016) argue that the University is seen as an entity that is responsible for creating a knowledge economy through a process of skills and competency development in order to produce applied knowledge. Having highlighted talent management within the higher education landscape as well as outlining the broad challenges that impede the successful integration of managing talent within Universities, the next section will focus specifically on the Durban University of Technology.

2.7 AN INTRODUCTORY CRITIQUE OF TALENT RETENTION AT DUT

The DUT emanated from the first voluntary merger of the Natal Technikon and ML Sultan Technikon in 2002. Technikons were historically vocational institutions that worked closely with industry and offered Diplomas. After 1994, a unitary non-racial education system was established. The DUT then became a University of Technology (UoT) in terms of the Higher Education Act 101 of 1997. The transformation from a Technikon to a University of Technology brought about various challenges. One of the challenges the newly merged University faced was to ensure that it had the appropriate talent to successfully transit from a vocational type institution to a fully-fledged University. The vocational type institutions offered certificates and diplomas only and did not focus on research. Subsidy income depended on centralised planning by the Department of Education. Universities on the other hand offered diplomas, degrees as well as doctorate and PHD's with emphasis on research. Funding for the strategic plan was highly influenced by the national imperatives.

Transitioning to a University status created a huge talent deficit and called for new policies and strategies in line with the institutions new vision and mission statements. The key characteristics of a UoT is the creation of new knowledge, application of technology, applied research, innovation and entrepreneurship. To realise these imperatives, the new management in 2014 reviewed the strategy and reinforced a nuanced strategic plan 2.0, highlighting four strategic focus areas, namely, building sustainable student communities of living and learning, building research and innovation for development, building a learning and sustainable University. The strategic objectives of the learning organisation include:

> Build an institutional culture of learning, innovation and responsiveness; foster among staff a culture of systemic thinking, alignment, shared values, collegiality, accountability and institutional citizenship; build a shared understanding of the University in its context and attract, retain and nurture talent, recognised excellence and develop the full potential of our staff (Strategic Plan 2015-2019:8).

Furthermore, the strategic plan emphasises the need for the University to establish an interwoven relationship between research and knowledge systems to position itself, for both national and global competition. The University is, viewed as a social institution with many purposes that include:

> Perform high-level teaching and learning and thereby contribute to the development of a flexible, deep labour market that matches the needs of a complex economy and secondly to perform research and thereby contribute to the generation of new knowledge (Strategic Plan 2015-2019: 2).

Table 3 below provides the overall publication output units per institution in South Africa.

Institution	Book Publications		Published Conference Proceedings		Journal Publications		Overall units in 2017	% of Overall Sector Publications Units
	Units	% of total institutional units	Units	% of total institutional units	Units	% of total institutional units		
UP	237.67	10.76%	111.86	8.77%	1713.41	11.13%	2062.94	10.93%
UKZN	128.09	5.80%	67.08	5.26%	1833.63	11.92%	2028.80	10.75%
WITS	286.36	12.97%	102.94	8.07%	1620.28	10.53%	2009.58	10.65%
SUN	266.02	12.05%	105.17	8.24%	1511.34	9.82%	1882.53	9.98%
UJ	326.54	14.79%	303.72	23.80%	1111.15	7.22%	1741.41	9.23%
UCT	185.98	8.42%	104.46	8.19%	1441.18	9.37%	1731.62	9.18%
NWU	110.03	4.98%	82.37	6.46%	1107.64	7.20%	1300.04	6.89%
UNISA	117.61	5.33%	57.94	4.54%	1107.95	7.20%	1283.50	6.80%
UFS	239.20	10.83%	39.71	3.11%	716.31	4.65%	995.22	5.27%
RU	99.22	4.49%	23.80	1.87%	456.02	2.96%	579.04	3.07%
UWC	53.18	2.41%	7.25	0.57%	422.55	2.75%	482.98	2.56%
UFH	13.81	0.63%	17.91	1.40%	382.94	2.49%	414.66	2.20%
NMU	22.52	1.02%	54.23	4.25%	312.33	2.03%	389.08	2.06%
TUT	6.47	0.29%	49.50	3.88%	265.54	1.73%	321.51	1.70%
UL	21.41	0.97%	15.99	1.25%	278.28	1.81%	315.68	1.67%
DUT	28.58	1.29%	21.25	1.67%	210.03	1.36%	259.86	1.38%
CPUT	25.84	1.17%	23.40	1.83%	206.77	1.34%	256.01	1.36%
UNIZULU	24.90	1.13%	5.59	0.44%	161.28	1.05%	191.77	1.02%
UNIVEN	8.38	0.38%	8.90	0.70%	158.91	1.03%	176.19	0.93%

Institution	Book Publications		Published Conference Proceedings		Journal Publications		Overall units in 2017	% of Overall Sector Publications Units
	Units	% of total institutional units	Units	% of total institutional units	Units	% of total institutional units		
VUT	0.00	0.00%	22.86	1.79%	103.90	0.68%	126.76	0.67%
CUT	3.21	0.15%	44.23	3.47%	59.78	0.39%	107.22	0.57%
SMU	1.00	0.05%	0.00	0.00%	93.38	0.61%	94.38	0.50%
WSU	1.14	0.05%	4.00	0.31%	68.94	0.45%	74.08	0.39%
MUT	0.78	0.04%	0.25	0.02%	23.19	0.15%	24.22	0.13%
UMP	0.00	0.00%	1.50	0.12%	21.69	0.14%	23.19	0.12%
Total	2207.94	11.70%	1275.91	6.76%	15388.42	81.54%	18872.27	100.00%

Table 3. Overall publication output units per institution 2017

Source: DHET 2017

While Table 3 is indicative of the institutions research output position among other HEI's, it is worth noting that the university has the potential to improve its overall publication output units by attracting, retaining and developing the appropriate talent.

After 12 years as a University, there is still engagement on the consolidation of a sustainable model for future growth. DUT, as a University of Technology is unique amongst the other higher education institutions in that the majority of its students are from disadvantaged communities (lower living standards - LSM), insufficient reserves, poor infrastructure conditions and decline in government subsidies as well as increased staff remuneration costs (Bawa 2014). Apart from the LSM, the majority of DUT's students are first generation students. Such factors influence the University's sustainability. This research explores the talent gaps as identified by a series of techniques in the system dynamics modelling process considering the national and the institutional imperatives necessary for the DUT to build a learning organisation.

In order to meet the strategic objectives mentioned above, one of the key imperatives of the University is to have the appropriate talent to train students in the new qualifications up to Doctoral level. The benchmark for masters and doctorate qualifications are, set by the DHET for a UoT. If these benchmarks are not met, the University would not be in a position to offer post-graduate studies and research in many of the disciplines as these qualifications required employees to be in possession of Masters and Doctorate qualifications.

Merely addressing the qualification of employees was insufficient in addressing talent management at the University. The University therefore had to pursue its realisation of becoming a learning organisation by building a reputation that attracts high calibre students and employees. In addition, it was important to recognise the process of recruitment, development and retention of qualified employees to achieve the objectives of a UoT.

The University must ensure that the staff to student ratio and the percentage spend of the budget on salaries align with the national benchmarks. Vigorous processes for professional development and careful succession planning were part of the plan to position the University as an employer of choice. One of the University's priorities is to support processes that transform new knowledge and innovation which include the creation of new ideas, development of patents and transfer of technology. These interventions produce products, processes and services, up to successful commercialisation and implementation by increasing research output institution-wide with the intention of increasing the subsidy income. Attracting the appropriate quality of employees has a significant importance to student performance and as underpinned by policies, structures and processes to achieve academic excellence.

A highly skilled workforce underpins the focus areas. However, at DUT, the average age of employees is forty-five and a large number of employees do

not meet the qualifications and the competency profile of a University. In addition, the student growth over the past five years have increased from 19 371 to 22 101; however there has been a decline in graduation rates (DUT enrolment plan 2020-2025). Despite the employees within the teaching and research sector having increased from 640 to 762 to address the student growth number, there has been a significant change in the student staff ratio (HRIS report 2019).

As evident in the Table 4, P.36, the student enrolment plan for 2020 to 2025 reflects a growth in student numbers from 30219 to 33103. This growth in student numbers have implications for staffing requirements at the University. Therefore, the University would need to develop strategies to address the talent requirements necessary to provide quality teaching and learning to the students for strategic success.

Table 4. DUT planned student enrolments for 2020 to 2025

Faculty	2020	2021	2022	2023	2024	2025
Accounting and Informatics	7 497	7 658	8 093	8 102	8 132	8 183
Applied Sciences	2 700	2 821	2 748	2 754	2 873	2 959
Arts and Design	2 911	2 916	2 920	2 925	2 929	2 979
Engineering and the Built Environment	6 045	5 872	5 840	5 993	6 128	6 326
Health Sciences	3 024	2 832	2 835	2 911	2 957	3 014
Management Sciences	8 042	8 340	8 699	8 899	9 188	9 642
Grand Total	30 219	30 439	31 135	31 584	32 207	33 103

Source: DUT Enrolment Plan: 2020-2025

A study on a South African higher education institution found talent retention and employee turnover a major concern because of the loss of talented employees to both the private and the higher education sector as a result of the offer of better rewards and benefits (Erasmus, Grobler and Van Niekerk 2015). The authors stress the challenge in attracting and retaining high

performing talent for organisations overall. In addition, due to the expenses incurred in recruitment and retention by higher education institutions and organisations, an analysis is necessary to ascertain reasons for why employees leave the organisation. The authors recommend the development of a talent retention tool that addresses retention and turnover of high performing employees (Erasmus, Grobler and Van Niekerk 2015).

Selesho and Naile (2014) are of the opinion that, high turnover of staff in higher education has adverse effects on the quality, consistency, and stability of academic endeavours. Unfavourable working conditions and poor remuneration contribute to the high turnover in higher education institutions (Selesho and Naile 2014). Venter, Snelgar and Renard (2013) study using a sample of 250 participants in a South African organisation, revealed that remunerating employees was the most important reward when attracting and retaining employees. These researchers conclude that employee commitment and satisfaction can be influenced by highly competitive salaries and therefore, reduce turnover. Employee shortages have resulted in increased work demands and employers claim that staff suffer from exhaustion and burnout (Du Plooy and Roodt 2010). Therefore, organisations must consider the number of costs that emerge from turnover, including those of remuneration and poor working conditions.

In addition, the SABPP (South African Board for People Practices 2012) conducted a HR study and found that 46% of those that responded indicated that greater emphasis be placed on talent retention, while 32% of the respondents claimed that they did not consider talent retention as a significant factor in their organisation. The study also involved the analysis of turnover over a three-year period from 2010 to 2012. The results revealed that there was a consistency in the turnover outcome at 4.89% in 2011 compared to 4.70% in 2010. There appeared to be a drop of 0.55% in the turnover results in 2012.

The creation of a knowledge-based economy as well as the continuously competitive challenge that organisations face such as talent shortages, looming retirement, inadequate supply of qualified employees has led organisations to address the need to establish strategies to attract, retain and develop employees. These changes include a move towards providing platforms for lifelong learning and managing talent in order to remain relevant and current for purposes of affordability and sustainability. Although the study is on the talent pipeline for DUT, it is worth noting the Staffing South African Universities Framework (SSAUF) report by the DHET (2015). The report suggests that national growth projections for student numbers over five years (2015 to 2020) emphasises the need to rapidly upscale the recruitment of academic staff. The higher education sector will require at least 1200 new academics per annum to address the historical backlog, make provision for employee turnover as well to accommodate planned growth. The absence of a talent pipeline will result in a critical loss of experience, knowledge and expertise if there is no strategy in place to ensure that the knowledge is transferred timeously for continuity of learning in the classroom. Higher education institutions will need to prioritise recruitment processes and create strategies around succession planning for knowledge retention in order to avoid such a future dilemma.

The DUT's strategic Plan (2015-2019: 2) reflect that:

> Universities are social institutions embedded in the context in which they find themselves and as they have multiple purposes. Firstly, they perform high-level teaching and learning and thereby contribute to the development of a flexible, deep labour market that matches the needs of a complex economy.

> Secondly, they perform research and thereby contribute to the generation of new knowledge. Thirdly, Universities contribute to the building of critical, participatory citizens who are both national and global in scope, who strengthen this still nascent democracy while ensuring they are also effective as individuals in an increasingly globalised, increasingly connected world.

According to the DUT HRIS (2019) exit report, employee turnover at the University has risen from 3.7% in 2016 to 4.8% in 2018, resulting in a loss of competent and qualified employees. One of the most critical elements in the DUT's strategy is the extent to which there is the necessary human competencies required to deliver on its strategy as well as the identification of the learning and development necessary to equip its employees to achieve the strategic objectives. DUT faces challenges in its effort to attract and retain the correct calibre of employees. Due to the limited pool of appropriately qualified and experienced academics in South Africa, DUT has to compete with the private sector and other HEIs when trying to recruit and retain academic and support staff.

Once the employee joins the University, creating and maintaining conditions in which employees feel motivated, affirmed and energised becomes a challenge, as the University has to keep up with such demand and supply of talent constantly. Increased workloads, resulting from the loss of key talent, together with the fast pace of new technologies, the calibre of student intake as well as the demands that are posed by various stakeholders for increased accountability and transparency lead to staff feeling overworked. In addition, national imperatives such as complying with the employment equity imperatives places further pressure on the University to introduce innovative and robust talent management practices that will enable the University to attract, retain and develop employees with the appropriate competencies to successfully achieve its strategic objectives.

It is important to distinguish between talent and success because both concepts are often interchangeably used, but with salient differences. Ross (2013) argues that there is a difference between talent and success for organisations and individuals. At an organisational level, employee success means that the individual's talent for organisational success is recognised. Likewise, at an individual level personal achievement is recognised and

rewarded. Ross (2013) further explained success from an innate ability dimension, emphasising that success could be the ideal indicator of talent, hence, organisations must understand that there could be a relationship between talent and personal motivations for fulfilment which is an important aspect for retaining such talent within the organisation. As such, talent models are often, based on the understanding that the organisations have greater success rate when recognising talent with innate ability than when compared with other employees within the same environment. This view might sometimes differ, as most talented people are not always those that are successful.

2.8 THE TALENT GAP – ANALYSIS OF IMPACT ON STRATEGIC DEVELOPMENT

The talent gap refers to the difference between the actual competencies to that which is necessary by the University to meet its strategic goal in the future. Despite a substantial number of published journal articles which indicate a growing need for talent in higher education institutions, the attraction, retention and development of talent remains a challenge because of the constant growth of knowledge and demand for high level human capital in order to remain competitive.

Lesenyeho, Barkhuizen and Schutte (2018a) mention that higher education institutions is, faced with attracting and retaining skilled, innovative and talented individuals. The number of South African scholars leaving the country to seek better prospects outside the country poses a risk to the sector. In addition, Universities find it difficult to acquire and retain talent for reasons that include the loss of talent to other countries (Ackers and Gill 2005).

Robyn and Du Preez (2013) claim that higher education institutions have the responsibility of ensuring that employees are skilled and produce new

knowledge. Within such organisations, students are equipped with knowledge and experience to enter the world of work for the adoption of best business practices.

Robyn and Du Preez (2013) claim that employee turnover is a concern, particularly within the higher education landscape. A study conducted by Robyn and Du Preez (2013) found that there was a significant correlation between employee commitment and job satisfaction as reasons for leaving the organisation. Furthermore, higher education institutions should focus on the employee's previous background and experiences when attempting to comprehend the motive for employees' leaving the organisation. This observation emphasises the need for a background screening of employees to take place. Therefore, there is a need for higher education institutions to investigate the retention of employees holistically rather than on an individual basis and prioritise the development of action plans for short, medium and long term to address this observation. In addition, reasons for leaving the organisation included remuneration, reward and recognition. Furthermore, higher education institutions must incorporate retention, remuneration and reward as part of its recognition strategy.

Researchers Pienaar and Bester (2006) and Robyn and Du Preez (2013) impress upon the importance of managing the careers of employees to influence the achievements and functioning of higher education institutions. Other scholars mention the challenges faced by higher education institutions (Simmons 2002; Badat 2008; Pienaar and Bester 2008; and Robyn and Du Preez 2013). Furthermore, Badat (2008) highlights the importance of ensuring that employees that join the organisation will contribute fully to the transforming of the organisation's culture. The limitations in managing talent and the neglect of the individual talent has surfaced in recent times. However, the employee perspective has since been receiving greater attention and it has been suggested that there needs to be a balance between organisational

goals that need to be closely linked with individuals' career aspirations in order to retain talented employees with high potential (Collings *et al.* 2011; Farndale *et al.* 2014).

Yarnall (2011) states that the traditional approach to talent management has since evolved from the emphasis on career development, to the recognition of those who are considered as high-flyers, high potential for succession planning, particularly with the view to attract and retain scarce resources to a more planned approach to career development. Organisations are beginning to regain control of career management of high potential employees through the assessment, mentoring and development of its human capital in alignment with organisational strategy.

Wildavsky (2012) and Khilji, Tarique and Schuler (2015) argue that educational institutions are important stakeholders in global talent management. In most developed countries, these institutions are engaging in collaboration with other higher education institutions and partnership programmes globally to access talent pools. Such initiatives broaden the talent base that organisations can draw from, therefore reducing the risk of poaching of individual talent.

Robyn and Du Preez (2013) affirm that it is evident that job satisfaction and employee engagement are both important factors for inclusion in the agenda and continued growth within the higher education sector. Most researchers agree that high levels of job satisfaction that exist within the workforce improves employee productivity, creativity and commitment to the employer and often influences retention and results in organisational success (Robyn and Du Preez 2013). These authors argue that the management of higher education institutions nationally, should ensure that their human resources strategic agenda focuses on employee retention throughout their career cycle. This agenda needs to be communicated to employees, as there is a tendency to understand their contribution and commitment to the process if there is

sufficient engagement on what is expected of them and the direction the organisation is moving in.

Robyn and Du Preez (2013) and Jacobsz (2012) argue that despite the challenges faced by HEIs, delivery of an agile quality education, innovative and adaptable to the changing workforce is critical to its success. Furthermore, transformation and mergers often lead to low employee morale as well as loss of identity and sense of belonging to the organisation, resulting in compromised teaching standards and levels of excellence (Grobler and Grobler 2015; Drowley, Lewis and Brooks 2013). It is important to manage such organisational changes in such a way that it maximises the transformation process while effectively managing employee resistance and the inherent costs to the organisation.

To increase accountability and responsibility, performance appraisals could be assessed by a weighted measure that is aligned to the organisational expectations and cultural objectives (Shuck and Wollard 2010; Robyn and Du Preez 2013). It is important for organisations to inform their employees that performance assessments are intended to provide feedback and not punitive and should be used as a vehicle to improve communication (Robyn and Du Preez 2013; Harter, Schmidt and Hayes 2002). This will improve engagement and the morale of employees. Managers to be trained on the use of the performance system as an effective tool to improve low performance, sustain high performance and effect reward mechanisms.

As student performance improves, it is likely that trust in management will increase and succession-planning interventions are effectively managed in order to achieve sustainability and effectiveness of the organisation. Another challenge for HEIs is the need to ensure that teaching and learning employees have the competencies to produce successful students. Badat (2008); Robyn and Du Preez (2013) further state that another challenge relates to the

competition with industry to retain young skilled academics. These recommendations resonate with this study on creating a talent management pipeline for strategic responsiveness in the context of a learning organisation within the HE sector*.*

Placement of students form an integral part of the students' career. Therefore, it is important that organisations recruit employees that understand the link between the students and industry. A study conducted by McCracken, Currie and Harrison (2016) revealed that there has been a collaboration between industry and Universities to develop qualifications that addresses the needs of industry. Thus, this partnership enhances the ability of students for placement in industry and gain valuable experiential skills. It is imperative to ensure that placement opportunities are, provided for graduates as part of the process of understanding the graduate's performance and potential in addition to other initiatives that include internships, placement and assessments in order to strengthen the relationship between employers and University students. Therefore, it is crucial that employers make every effort to retain competent employees to meet this imperative.

Robyn and Du Preez (2013) mention that HEI's depend on funding from government and other sources of income and it is for these reasons they have to ensure that their existence as centres of excellence is critical for national and international recognition, which in turn will attract additional income. University reputation as a centre of excellence and a knowledge driven organisation is bound to attract students nationally and internationally.

Mader, Scott and Abdul Razak (2013) and Grobler and Grobler (2015) refer to the four pillars of sustainability within HEIs as curriculum, research, engagement activities and operations. Pop-Vasileva, Baird and Blair (2011) as well as Littledyke, Manolas and Littledyke (2013) support this view by affirming

that in order for Universities to create a stable and sustainable environment, there is a need to invest in improving the organisational climate.

McDonnell (2011) argues that talent management has become a relevant principle-determining factor in a turnaround approach for organisational sustainability and success. Capelli (2008) and McCracken, Currie and Harrison (2016) expand this view by providing the following broad principles on managing talent:

- develop or recruit talent in order to manage risk to be cost effective and sustainable, the ability of the organisation to be able to adapt to the changes in the market for high talent;
- increase the return on investment in the development of employees; and
- ensure that the search for talent balances the employer goals and the employee needs.

Grobler and Grobler (2015) maintain that sustainability at HEIs include a wide scope of social, economic and environmental factors at a national level and at an institutional level. Cebrián, Grace and Humphris (2013) as well as Grobler and Grobler (2015) refer to sustainability as a structural transformative process that includes employees within the University and the community. Trunk Širca, Babnik and Breznik (2013) are of the view that organisational climate refers to the employee's perception of the organisations operations, policies and procedures. An organisation climate must be understood as it influences employee work performance, their well-being, attitude and ultimately sustainability of institutional performance Grobler and Grobler (2015).

For countries to succeed, it is necessary for them to be innovative and to be able to apply the knowledge taught for them to be leaders in technology. This rests on the ability for these organisations to engage continuously on learning

and investment in relevant developmental programmes (Clarke 2013). The search for competent talented individuals has become a priority within organisations because of advanced artificial intelligence, skills deficiencies and growth through expansion, multi-cultural workforce as well as globalisation (Senge 2014; Katzenbach and Smith 2015). Kuźmicz (2015) explains that the core business of Universities is the generation and transformation of learning and knowledge as contained in the mission of the organisation as well as becoming a learning organisation that cultivates a climate of creativity and lateral thinking to enhance learning. Kuźmicz (2015) and Senge (2006) maintain that a learning organisation encourages employees to aspire towards the achievement of desired results, team culture and continuous learning.

Milinga *et al.* (2019) observe that one of the most pertinent characteristics of effective teamwork is cohesiveness. Studies on the influence of individual and job functions on team cohesiveness revealed that cooperativeness and collaborative behaviour as well as satisfaction with teamwork positively influences team cohesiveness, while workload and complexities in tasks negatively affects team cohesiveness. Team cohesiveness affects team member's attitudes. Capacitating employees and students to function as teams is of concern within the higher education and working environment. Therefore, there is a need to encourage teamwork, cooperativeness and collaboration with peers. Continuous learning is a core principle of a learning organisation as described by (Senge 2006). Hence, while Bui and Baruch (2010) expands on the factors connected to Senge's (2006) five disciplines, Kuźmicz (2015) states that the extension to the disciplines be included in the conversation about HEI's as learning organisations. Kuźmicz (2015) further states that the information by Bui and Baruch (2010), despite substantiated by literature, lacks detail and argumentation and is limited to only academic employees. Kuźmicz (2015) argues that most publications merely superficially sketch Universities as learning organisations. In addressing this gap Pedler and Aspinwall (1998); Senge et al. (1994) and Kuźmicz (2015) explain that a

learning organisation is distinct with its own characteristics, particularly for HEIs that need to be developed and understood in a particular context and setting with meaning and quality.

Kuźmicz (2015) and Chrispen and Mukeredz (2013) refer to various factors that affect HEIs as learning organisations. These factors include the development of people and partnerships, enhancing leadership capacity, adopting a culture of transformation, reflection and self-evaluation, quality assurance framework, intellectual stimulation, continuing professional development, creativity and innovation as well as enhancing team skills. Senge (2014) states that organisations that are able to address such challenges, meet timeframes, are relevant and able to compete globally to expand their capacity, will succeed in meeting strategic and transformative goals. One of the key principles Senge (2014) mentions is building capacity and talent to developing a learning organisation.

According to Santos and Steil (2015: 116), organisational learning is defined "as a process that involves cognitive, social and political dynamics, and it occurs across three levels of analysis: individual, group and organisational". They further mention that the framework developed by Crossan, Lane and White (1999) efficiently describes the simultaneous and dynamic nature of organisational learning. Concurrently, individuals learn new skills, innovation and invent new products, services and systems, as marketed to countries worldwide thereby influencing the learning processes of these individuals and groups (Easterby-Smith and Lyles 2011). Garavan *et al.* (2012a) further emphasised the importance of cultural awareness and organisational process underpinning career advancement and talent growth. They suggest that it is important to consider strategic integration and top management commitment when considering leveraging the broader organisational alignment to staff personal motivation for success.

Kuźmicz (2015) study offered recommendations to those HEIs that undertake to adopt a learning organisation approach. Some of these recommendations include: the adoption of a social responsibility and competent standards at the workplace; inculcating innovation and transparency, creativity and open communication; encouraging competence; team learning; development of teams from different disciplines; creation of mechanism of knowledge storage, openness and consultation with HEIs and business and the need for constant and consistent learning.

2.9 COMPLEXITIES IN TALENT MANAGEMENT

Earle (2003) and Ross (2013) argue that understanding the concept of talent can be complex and ambiguous. They further argue that understanding this ambiguity helps to identify possible flaws when defining talent and to question how employees can be inspired to do their best, stay motivated to deliver their top performance and collectively steer the organisation to achieve its full potential. Garavan *et al.* (2012b) affirms that the most important asset in an organisation is its people, who collectively ensure the future competitiveness and success of the organisation. Generally, the organisation's success depends on strategically identifying and managing employees that perform at a superior level. This include those employees that are talented that can help the organisation meet its vision and mission.

In order for organisations to be effective, the talent management process is to be clearly articulated. Davies and Davies (2010) are of the view that for an organisation to be progressive and productive, it must constantly build capacity to align with the external environment and integrated with purposeful and strategic human resources processes.

Employees who have leadership potential are identified through the talent management process (Hollenbeck, Noe and Gerhart 2018). An important

characteristic of organisational management is having a steady flow of capable individuals into such leadership. Vaiman, Scullion and Collings (2012) offer a different view of talent management. They argued that talent analytics is useful for efficient decision making on talent and that there is a significant shift towards evidence-based management of talent. They identified fundamental challenges in talent management that include skills scarcity, societal demands and gender diversity. Other challenges include the growing movement of people across countries and diverse cultures. Vaiman *et al.* (2012) are of the opinion that for decision making to be effective in talent management, there must be a synergy between the process and the strategic and corporate culture of the organisation.

Talent is synonymous to people or assets within an organisation, and it could mean individual knowledge, skills, attitude or competence (Meyers and Woerkem 2014). However, understanding the typology of talent is essential for appreciating the substantive content. Talent is considered as skills brought into the organisation by the employee or may be developed and context-bound. Corroborating this argument, Talpoş, Pop, Văduva and Kovács (2017: 66) posit that:

> A systematic effort to retain and develop the company's intellectual capital for the future will be the only sustainable differentiation in the competition strives of the next years and it will be the way to unlock the potential of a certain business direction, which has to be fully in line with the strategic vision of a company.

Lewis and Heckman (2006) note that talent is categorised by firstly, as a collection of human resources and departmental practices. This includes activities such as identifying the functions and roles of management in recruitment, selection and staff career development, as well as initiating a realistic succession plan for management. Secondly, the focus on talent pools and the process specifically designed to identify individuals for specific jobs. The purpose is to strategically anticipate the creation of platforms that will

facilitate staff career development. Hence, gaps within the organisational structure that may aid training and development are considered. Lewis and Heckman's (2006) third category identifies two levels that should be considered in the assessment of talent within an organisation. The first level identifies individuals with potentially high performing values that will put the organisation at a competitive advantage. The second level include individuals who have potential to achieve excellence within the organisation through developmental interventions.

The above section discussed talent management in a holistic approach organisation wide for employees to perform at the best of their ability. Notwithstanding the human management function inherent in talent management, Garavan *et al.* (2012b) mention that talent management differs from human resources management as it focuses on a move from the human resource management activities to a more central component of business strategy. Talent management is also an integral aspect of organisational management across departments especially in areas of recruitment and staff development.

2.10 STRATEGIC TALENT MANAGEMENT

According to King (2016), an organisation's management of talent is an important component of human capital planning. It is therefore important to examine the influence of organisational talent management as well as the contractual expectations of talented employees to achieve intended organisational success (Govaerts, Kyndt, Dochy and Baert 2011). Emphasis is on understanding the employee responses to strategic talent management within the organisation and prioritised for sustainable strategic value.

Newhall (2015) is of the view that having a strategic plan for recruiting relevant talent in line with organisational goals is crucial for success. This process is

vital for the survival and continual relevance of organisations. Once the critical or pivotal positions are established and the requirements understood, the right people for the right job are identified. Newhall (2015) suggests analysing current versus future skill requirements as well as the demand and supply dynamics of the organisational needs as preventive measures for potential pitfalls.

Cameron and Quinn (2011) argue that HR must reposition itself to become a strategic partner that supports key decisions within the organisation and provides a system that supports critical decision making on competency identification. Most leading organisations have adopted talent management by aligning talent needs with the organisations' vision, mission, goals and strategy, recognising that employees form an integral part of an organisation's success (Sageer, Rafat and Agarwal 2012).

Research conducted by Robyn (2012) highlights the concern on the aging workforce and the limited opportunities for the attraction and retention of young employees within the higher education sector. The study on DUT analyses the attraction and retention of talent as a strategic intervention in its human capital planning process. Robyn (2012) further affirms the importance of the development of a human capital plan that align to the institution's attraction and retention strategies. This study focusses on the incorporation of an academic employee's intention to exit HEIs in South Africa.

Fatima (2011) affirms the view that organisations need to include attraction and retention as a key strategic thrust of talent management within its organisational strategy. "*Retaining high-performing employees or the 'best professional talent' is of great significance to organisations as it eliminates the recruitment, selection and on-boarding costs that would otherwise be incurred in replacing them*" (Tymon Jr, Stumpf and Smith 2011: 293). It is therefore imperative for organisations to integrate talent management into the

organisational strategy and ensure that internal mobility informs the recognition of internal employees for cost effectiveness, increasing motivation and efficiency levels as well as alignment to strategy.

Cloete, Sheppard and Bailey (2015) refer to a lecture of the higher education society delivered by Castells (2009) at the University of the Western Cape in 2009:

> We live in a global knowledge economy and in societies based on processing information, which is a primary University function. This implies that the quality, effectiveness and relevance of the University system be directly related to the ability of people, society, institutions, to develop (Castells 2009: 1).

Cloete, Sheppard and Bailey (2015) argue that with the developmental potential of Universities expanded to build research and technology institutes as well as industry partnerships, further tension arose as Universities are expected to be a productive force, connected to the economy and social and cultural changes of society. This meant that Universities had to focus on knowledge production and technological innovation to participate in the global economy.

There have been significant changes in the nature of work over the years (Dubina, Carayannis and Campbell 2012). These changes have been attributed to the growing innovation, increase in knowledge creation and competitiveness (Leydesdorff 2012). The 21st century work life is driven by strong values such as complexity, unpredictability and insecurity (Pryor and Bright 2011). There has been a shift towards a knowledge-based economy. This new economy, driven by knowledge is reshaping market structure and continuously changing demand and challenging the world of work (Beck 2014).

In view of all the observable changes in the world of work, coupled with the anticipated and much debated revolution of technology, it is important for organisations to re-assess their roles, functions, strategies and effectiveness. With specific reference to the issues of employability and relevance of organisational association, talent management has become a much-debated framework. Learning is no longer strictly associated with educational degree or pre-career choices, but constant and continuous performance appraisal in relation to specific job requirements. As organisations continue to compete and adapt to changing market structures, there is a need to adopt new strategies to measure quality, customer satisfaction, innovation and development (Festing and Schäfer 2014; Meyers and Van Woerkom 2014; Ambrosius 2018).

An internal development approach is important to the identification and development of specific knowledge and skills to implement business strategy successfully. A competency framework that recognises the roles in an evolving organisation informs this process. However, few organisations use competencies to assess potential for leadership roles, as specific job requirements are not considered.

According to Bethke-Langenegger Mahler and Staffelbach (2011), developing talent has a positive impact on employee commitment, job satisfaction and confidence in their management. Collings and Mellahi (2009) affirm the above view that work motivation, organisational commitment and high performance mediate the relationship between strategic talent management and financial performance of organisations. Strategic talent management are activities and processes that involve the identification of key positions, which differentially contribute towards organisational growth.

The function of human resources management has extended beyond its administrative duties to assisting the organisation in strategically positioning

itself in developing an organisational culture that fosters innovation and change (Kontoghiorghes 2016; and Dessler 2013). According to Edwards (2008) and McCracken, Currie and Harrison (2016), talent management and talent pools should be designed to meet the needs of the organisation. Stredwick (2013) argued that the role of human resources needed to be unpacked if it is understood that talent management is about merely reacting to the demands of the external environment together with internal human resources interventions to produce results. Bhatnagar (2008) corroborated this view by arguing that various human resources processes contribute to talent management. Bhatnagar maintains that talent management is on the rise and talent pools in organisations are viewed as instrumental for high performing organisations. Collings and Mellahi (2009) refer to strategic talent management as including key roles and those employees that display potential that are suitable for filling leadership roles from organisation talent pools.

2.11 ORGANISATIONAL CULTURE AND VALUES AS INLFLUENCES TO ORGANISATIONAL PERFORMANCE

It is important to have an organisational culture that underpins transformation, particularly, a talent management culture. Davies and Davies (2010) conclude that such a culture should include the establishment of standards and strategy and an effective performance assessment that is rewards based. In order to create a talent management culture, it is important that organisations establish powerful learning opportunities, identify long-term developmental needs, and determine leadership talent for integration into the organisational processes. The cumulative effect regarding this approach is to build a talent culture that entrenches the value of competence, hard work and reward of excellence within the organisation. Therefore, talent management strategies are usually concerned with recruitment, identification, development and retention of employees with high potential. These institutional processes shape the talent culture within organisations.

Kontoghiorghes (2016) argues that an ethical culture, trust and respect, in addition to attitudes and behaviour influences the talent management and development processes, thereby contributing to the development of a high performing and empowering work environment. Furthermore, employee motivation and job satisfaction as well as organisational success influences attraction and retention of talent. Organisational commitment appeared to have a moderate effect on talent attraction and retention. Kuźmicz (2015) argues that leadership within the higher education context can create an organisational culture of team learning. Senge (2006) and Bui and Baruch (2010) mention that the antecedents of personal mastery focusses on personal values, motivation and individual learning.

Irvine (2010) and Robyn and Du Preez (2013) report that talent recognition at the workplace requires that organisations make this intervention a strategic priority with clear objectives and measurables that is embraced positively within the organisational culture. There is a need to continuously examine and explore the recognition of achievements of employees as employees are, motivated by being, acknowledged and appreciated for their work. Collings (2014) explains the importance of understanding value preposition for efficient talent management. Furthermore, it is critical for talented candidates to find the job appealing and in accordance with the career aspirations, hence, human resource professionals at the point of recruitment must avoid painting a deceitful picture of organisations just to recruit the best talent. Finding a balance between organisational goals and talented candidates personal career goals enhances productivity, delivery and retention. Moreover, aside from the financial package and issue of working conditions provided for employees, value proposition must address the intrinsic rewards of competence (Tsegaye 2016).

Cameron and Quinn (2011) are of the opinion that organisational culture comprises of structures, reporting authorities, management approaches and

diverse work styles and organisational values. It is essentially the sharing of norms and values in an organisation, which is articulated in both written and unwritten rules regarding the employee's behaviour and their interaction with one another (Hampden-Turner and Trompenaars 2011).

Wilson (2012) discusses the ability of organisations to influence the culture for all stakeholders to direct the employees to have a common perspective of the vision and values of the organisation. Organisations must have a clear direction, spelt out in the purpose, vision, values and mission statements. Wilson (2012) proposes that engagement has two aspects, namely, relational and purposeful. Relational engagement addresses the degree to which the employees feel valued, while purposeful engagement is about the value attached to work. Employee engagement supported by management and processes that include performance appraisal, personal development and team development are essential to an organisation. These interventions go a long way in recognising employees and making them feel valued. The organisation needs to be committed to the long term, relentless reflection on progress and in the process continually strive to improve the culture, values and beliefs of the organisation to suit growth plans (Senge 2014). The goal of this critical assessment and reflection is to reward employee productivity and diligence and to celebrate accomplishments and redefine organisational strategies for future growth.

In relation to this study within the higher education context, the organisational culture must embrace talent management strategies, particularly, where organisational change and transformation is critical to help promote the goal achievement. Organisational culture affects the way employees relate to stakeholders, customers and themselves. Additionally, such culture influences the behaviour of employees within the organisation. Furthermore, in developing interventions to address organisational change processes, it is

important to ensure that the current environment is scrutinised prior to embarking on the desired state of the organisation.

2.12 TALENT RECOGNITION, PERFORMANCE AND POTENTIAL

Kontoghiorghes (2016) and Thunnissen, Boselie and Fruytier (2013) posit that the aim of talent management is the attraction, development, motivation and retention of talent, while other views claim that talent management contributes to organisational performance and competitiveness. Kontoghiorghes (2016) argues that despite various perspectives and views on talent management, talent is generally viewed within the framework of an input, process and output transformation approach with the primary focus being on attraction, development, motivation and retention of talent to advance organisational performance and competitiveness. Marescaux, De Winne and Sels (2013) further claim that talent management has an impact on commitment. Employees that are committed to the organisation are from the onset able to create a way to adapt and continue their learning and development alongside the growth of the organisation. Hence, as employees build capacity and progress beyond their job functions, they experience job satisfaction. It is important for organisations to operate in partnership with employees in building career pathways that define common goals and achievement of objectives by both the employee and the organisation.

Kontoghiorghes (2016) further claims that since the organisation faces challenges continuously emanating from the external environment and is influenced by factors within the internal environment, it can be concluded that the current approach to talent management prevents organisations from embracing the benefits of talent management and addressing the factors that are affected by it holistically. Kontoghiorghes (2016) further mentions that organisational culture affects performance and its effect on talent management for organisational success. Gallardo-Gallardo, Dries and González-Cruz (2013) and McCracken, Currie and Harrison (2016) describe

the conceptualisation of talent as those employees with exceptional characteristics, in possession of the natural ability, personal mastery and commitment to the organisation. Other researchers refer to talent as employees who can make an impact on organisational performance by contributing to the organisations mission and demonstrating high levels of potential and performance (McCracken, Currie and Harrison 2016; Tansley 2011).

Employees who are high performers tend to be targeted for key positions and employees who have high potential are successful on the lower positions. These employees are provided with developmental opportunities to step into higher and broader managerial roles (Al Ariss *et al.* 2014). Few organisations identify talent based on organisational needs, but rather much emphasis is on the performance of employees (Warrick 2011). The author further states that assessing performance instead of examining potential to identify talent is more likely to fail. In addition, management of succession plans should not be prioritised above equipping employees' relevant skill, strategy and knowledge because the latter should essentially drive talent management (Newhall 2015).

Rummler and Brache (2012) is of the view that organisations have difficulty in analysing performance information effectively, resulting in symptomatic interventions based on symptoms and not the underlying causes of problems. There is a need for a framework that will assist performance measurement as well as a guide for management to incorporate the integrated decision-making approach and system dynamics aimed at further enhancing the common understanding of the difficulties faced by an organisation (Gond, Grubnic, Herzig and Moon 2012). Drescher *et al.* (2014) explain that it is important to take into consideration the interdependencies as well as the interactions of the various performance indicators when developing a comprehensive management framework and system. Hence, the mapping out of the relationship between the appropriate indicators and the interactions can assist in the identification of appropriate measures and trade-offs between them.

Davies and Davies (2010) state that there is a distinction between talent attraction and attracting the employees with the correct talent. Employees with the correct talent are enthusiastic and subscribe to the values, beliefs and mission of the organisation. The authors further state that successful organisations are forward planning and are aware of the type of competence that they will require from their talent pool. One of the criticisms of this process is that high potential employees, selected for placement in talent pools, have an advantage over other employees in the recruitment and promotion process, if the process in identifying talent pools are not justified. To counter this criticism, organisations must ensure that there are fair and equitable processes employed in the identification of talent pools. Further challenges that organisations face when managing talent pools include addressing changing organisational needs, provision of developmental opportunities, securing management commitment and determining critical success measures (Sparrow, Hird and Cooper 2015; Ahmad, Mohamed and Manaf 2017).

In discussing the selection of talent pools, Hills (2009) identifies five key strategies for electing successful leaders. These include aligning succession strategies to organisational strategy, evaluating management potential according to the competency framework, knowledge and behaviour, connecting individual's skills and ability with institutional culture, synergising individual and institutional values, planning and execution of developmental goals; and broadening scope for succession.

Garavan, Carbery and Rock (2012a) state that talent categorisation in the form of talent pools greatly influences strategic success. Bhatnagar (2008) emphasises the importance for organisations to identify and grow those employees who have the critical skills for promotion into higher positions. The authors mention that high potential employees identified within the talent

pipeline broaden their experience by engaging in rotating jobs, mentoring and coaching as well as training and development.

The growth of employees within a talent pool targets those with high potential and high performance to occupy such positions in a diverse organisational environment and forms a point of departure for strategic talent management positions. It is believed that this approach will lead to a positive and sustainable strategic outcome (Collings and Mellahi 2009; Bethke-Langenegger *et al.* 2011; Phillips 2012).

Organisations evolve through change processes in order to stay competitive and meet future goals. Succession planning is a strategy which clarifies future needs, identifies future leaders and exposes high potential leaders to challenging projects (Conger and Fulmer 2003; Webb, Diamond-Wells and Jeffs 2017). The primary aim of managing talent in organisations is identifying individuals with the potential to increase organisational outcomes and position them at a competitive advantage. Ross (2013) encourages organisations to focus on positioning individuals to leverage on their potential for personal accomplishment aligned with organisational goals, considered an effective way to explore the hidden potential of individuals for organisational advantage. Ready (2010) corroborates this view by suggesting that the characteristics of high potential employees include delivery of strong results and mastering of new types of expertise at a fast pace, usually geared at developing oneself. It can be argued that individuals who have been identified as having high potential are those that are determined to achieve personal excellence (Ready 2010).

2.13 TALENT ATTRACTION, RETENTION AND DEVELOPMENT

This section explores the talent attraction, development and retention and discusses the different approaches to managing talent in an organisation.

Kontoghiorghes (2016) concluded that talent attraction and retention influences a high performance organisational culture, employee attitudes of satisfaction, motivation and organisational commitment. Furthermore, the study found that talent attraction and retention was associated with the following:

- transformation
- quality and a culture that is driven by technology
- supported by a sense of creativeness and transparency
- managing information
- values

The study also concluded that a strategically aligned and high ethical performance culture influences talent attraction and retention. Kontoghiorghes (2016) argues that organisations that are not adaptive tend to have rigid systems with firm instructions and guidelines, do not encourage creativity and restrict the maximisation of the employee's potential. Some organisational systems, like those of a learning organisation, given their evolving nature, are adaptable and engaging and powerfully influence the organisational attraction and retention strategy.

Generally, literature on talent is, cited as a key strategic goal for human resources management (HRM) and organisational effectiveness. However, these observations appear to be inadequate as organisations are moving towards investing in their human capital in order to survive and gain a competitive advantage (Kontoghiorghes 2016). This view is affirmed by researchers as they maintain that talent management has become the focus of organisations globally (Kontoghiorghes 2016; Beechler and Woodward 2009). Kontoghiorghes (2016) was of the view that despite the critical importance of talent as a strategic objective, the slow rate of the implementation of talent management was concerning. Kontoghiorghes (2016) argues that performance management systems in an organisation that

focusses on high performance, provides opportunities to talented high performing employees to develop and grow to higher levels.

McCracken, Currie and Harrison (2016) suggest that while the recognition of high potential is based on past performance information, students entering the world of work require on the-job- experience to be assessed appropriately. These graduates may have insufficient experience and therefore not be afforded the opportunity to display their knowledge and expertise.

Erasmus, Grobler and Van Niekerk (2015) argue that retaining high performing employees maintains continuity in the area of expertise. Iles, Preece and Chuai (2010) argue that talent management is not intrinsically different from Human Resources Development (HRD), they both focus on ensuring that the correct talent is appointed and managed. Garavan *et al.* (2012) builds on Davies and Davies' (2010) view on talent development and emphasises that enhanced employability, knowledge and competence targeted programmes are essential for attracting potentially high performing individuals. However, Garavan *et al.* (2012) is of the opinion that employability and retention is results from employee performance and competence specific to assigned duties in relation to meeting organisational goals. In essence, the concept of employability and talent are mutually inclusive since the possession of talent is critical to being employable (Kabwe 2011). The interrelatedness between the individual, organisational-social dimensions often constitute the framework that define talent management (Davies and Davies 2010; Kabwe 2011; Garavan *et al.* 2012).

Talent management is an integral part of HRD with a selective focus on a small segment of the workforce, identified through their performance and potential. These employees form part of a talent pool where line managers focus on developing their competence and talent for higher positions. Iles *et al.* (2010) posit that talent management helps to address or solve issues to attract,

develop leaders and adopt succession planning within organisations. For any organisation to attract and retain the best talent, they must strive to create a productive working environment that continually challenges and motivates performance optimally (Jones and Jones 2013).

Organisations that focus on becoming a knowledge-based economy and embracing economic expansion should recognise and understand the importance of extending their strategy to include non-financial measures such as getting the right people and skills for the right job (Kalim, Lodhi and Haroon 2002). Consistent with this argument, Kalim *et al.* (2002) argue that employees' skills and talents are the most important factor. Therefore, attracting the right skills implies that needs have extended from salaries and benefits to include work experience in a productive, flexible and dynamic work environment (Earle 2003; Garavan *et al.* 2012a). This is because the world of work has transformed to address the changes that emerge from innovation, new knowledge generation and greater competition.

Burke (2013) argues for organisations to gain control of their environment, with emphasis on talent management, attracting and retaining key talent. Conger and Fulmer (2003) state that the choice and cultivation of an organisation's future leaders is crucial to an organisation's performance. Bhatnagar (2008) states that while the struggle for critical talent is on the rise, organisations need to rethink their retention and attraction of talent strategies. One of the approaches would be to highlight sections of the organisation that is responsible for growth and to focus on individual capabilities. Distinguishing between employees who excel in their performance and potential form part of another strategy in growing the leadership talent pipeline (Stahl *et al.* 2012).

Garavan *et al.* (2012a) investigate the notion of talent development by unpacking its scope, formulation and strategies adopted by organisations. They assert that talent development includes issues such as competency

development, organisational development drivers, pacing development and the overall architecture of developmental support programmes within organisations. Mentoring and succession processes; and dependence on collaborating partnerships with external organisations, is highly valued (Zepeda Bengtson and Parylo 2012; Julius 2017). Mentoring forms part of relationship building which is voluntary and should not be seen as a process to be imposed on employees. Mentoring is also a method of transferring specific skills, knowledge and norms to employees as a part of professional development of an organisation's continued commitment to the creation of an environment for lifelong learning.

2.14 ORGANISATIONAL PERFORMANCE AND FINANCIAL OUTCOMES

The interest in organisations combining non-financial and financial measures is growing. However, some organisations continue to use financial results to measure business performance. While financial performance is an indicator of utilised resources and management, there are limitations on relying on financial measures for performance as it is a lagging indicator and results of decisions made are seen much later (Ozkan, Cakan and Kayacan 2017; Glaister *et al.* 2018). Bethke-Langenegger *et al.* (2011) maintain that organisational performance is measured by financial organisational and human resources outcomes. Scholars have argued that organisations prioritise the recognition and development of their employees improved their financial returns significantly (Phillips 2012; Noruzy, Dalfard, Azhdari, Nazari-Shirkouhi and Rezazadeh 2013).

Khilji, Tarique and Schuler (2015) explain that researchers concluded that organisations should develop systemic competencies in order to remain competitive. Tarique and Schuler (2010) affirm this view by asserting that organisations must pay particular attention to external factors that include the migration of employees across countries that are developing or developed as

well as global talent shortages when developing an integrated talent management framework.

2.15 SYSTEM DYNAMICS - A NEW PARADIGM IN TALENT MANAGEMENT

System dynamics is a powerful mechanism in creating feedback and is an iterative process that helps build a robust model by using the information gathered. Such information is qualitative in nature, as described by Forrester (1994: 72) and narrows from mental to written information to numerical information through a magnitude of reiterative processes. There is a move away from the use of quantitative analysis to qualitative analysis, as the use of quantitative analysis of the variables require the use of a computer aided simulation, which is time consuming. Therefore, this study focuses on the use of qualitative system dynamics as it relies on the identification and examination of the problem using causal loop diagrams. This view is supported by Schaffernicht (2010) who mentions that system dynamics relies on specific concepts and diagramming language in model building. Furthermore, the term language relies on a set of rules and symbols to ensure expression of proper and meaningful content.

Hsieh and Yuan (2010) recommend a conceptual framework adapted for talent management and it draws onto customer expectation management with the aim of capturing key elements within service operation strategies. They state that the use of the system dynamics approach allows for a macro viewpoint for service operation strategies and policies. System dynamics is also a practical approach that policy makers can use to help solve important problems. To be effective, system dynamics deeply held beliefs must be challenged (Espejo and Reyes 2011). The tension emanating from various forms of thinking, models, scientific rigor and decision-making is complicated by different backgrounds within various categories of people, sectors, levels

of knowledge and expertise (Ghaffarzadegan *et al.* 2011). A challenge of systems thinking is to eliminate false barriers that create division between scientific fields, the social sciences and sciences as well as between the scholars' world of ideas and the policy maker's world of action (Espejo and Reyes 2011). Sterman (2002: 511) further argues that:

> One of the goals of system dynamics is to expand the boundaries of our mental models, to lengthen the time horizon we consider so we can see the patterns of behaviour created by the underlying feedback structure, not only the most recent events. Expanding the boundaries of our mental models is much more than just recognizing the delayed and distant effects of our decisions. It requires crossing disciplinary boundaries, boundaries between departments and functions in a company, between specialties in the academy. It requires breaching barriers erected by culture and class, by race and religion. System dynamics uses tools and processes to help expand the boundaries of our mental and formal models, which includes, boundary charts, listing the variables that are endogenous and exogenous.

Ford and Sterman (1998) maintain that public and private sector systems that are difficult to manage requires an intensive knowledge base and expertise from interdisciplinary teams. Formal models such as system dynamics assist organisations realise the cause of the problem and help develop policies that address this complexity. To develop a credible and useful model, modellers must elicit, articulate and describe the knowledge about the system structure and governing policies held in the mental models of the operational experts to develop the model (Ulrich and Probst 2012). Ford and Sterman (1998) reflect on the categories of the information base for system dynamics modelling as mental, written and numerical and analyses the strengths and weaknesses of source.

2.15.1 Qualitative system dynamics

The mapping process surfaces the mental models of the individual, which may have narrow boundaries and expanding these mental models to include previously unrecognised feedback, adds value. Furthermore, no learning can

take place in the absence of feedback or the information pertaining to the results for actioning. For people to adopt a new perception and for them to change their behaviour that has been embedded, they first need to be assisted with seeing the boundaries of their present beliefs, which will help them see through a new lens to help expand their mental models for better decision making. Adcroft *et al.* (2009: 155) mention that:

> System thinking is the ability to see the world as a complex connected system where the whole is more than the sum of its parts. This approach allows faster and more effective learning that promotes the identification of system changes and policy resistance.

Adcroft *et al.* (2009); and Sterman (2001) state that, a systemic perspective allows decisions to be made that are consistent with the longer term effects of the system as a whole, represented by mental models on a research problem. Additionally, it is a dynamic system focussing on understanding the structural effect that trigger the behaviour of the system. The causal loop diagram represents the equations that connect the variables in the proposed model.

To improve the management of systems that are complex, the use of tools such as causal mapping that have the capacity of capturing feedback processes, time delays and other aspects of dynamic complexity, assist in understanding how these structures create system dynamics and generate policy resistance (Sterman 2001). It also assists with the evaluation of the consequences of new policies and new structures. Sterman (2001: 10) states that:

> A fundamental principle of system dynamics states that the structure of the system gives rise to its behaviour. In complex systems, different people placed in the same structure tend to behave in similar ways. However, people have a strong tendency to attribute the behaviour of others to dispositional rather than situational factors, that is, to character (and, in particular, character flaws) rather than to the system in which these people are, embedded.

To develop goals and support decision-making, system dynamics use a number of tools that help in mapping the broad understanding of the reality in question. In doing so, the individual building the model is able to filter and organise the information from a mental position. In a CLD, the variables are connected with arrows that denotes their causal influences. Each causal link contains a polarity, which is either positive or negative to depict the changes in the variable. Kiani *et al.* (2009: 690) state that:

> Causal loop diagramming is an easy tool, which helps the analyser to conceptualise the real world system in terms of feedback loops. In a causal loop diagram, the arrows indicate the direction of influence, and the plus or minus signs indicate the type of influence. All other things being equal, if a change in one variable generates a change in the same direction in the second variable, relative to its prior value, the relationships between the two variables is referred to as positive. If the change in the second variable takes place in the opposite direction, the relationship is negative.

Kim and Andersen (2012) explain the role of coding qualitative data and the mapping process used in system dynamics and requires an approach that documents the interpretive process. This approach uses written data to develop causal maps in the system dynamics modelling process. Hsieh and Yuan (2010) is of the view that system dynamics focuses on the feedback behaviour of variables within the closed loop of the system. Kiani *et al.* (2009) states the variables within the system interact with each other. Hsieh and Yuan (2010) further mention that system dynamic helps predict the behaviour of system's key variables in a complex system when there is high uncertainty. To understand the systems behaviour and influences there is a need to study the relationship and feedback behaviour of key variables of the system (Hsieh and Yuan 2010). It provides a system in which the inputs can be changed, outputs can be and observed and feedback and used to influence the input.

Sterman (2002) mentions that feedback is critical for actioning and failure to recognise such feedback leads to policy resistance and delayed feedback. Policy resistance contributes to ineffectiveness in attempting to make a

difference in a progressively changing world. An important difficulty highlighted is the teaching of system dynamics, as individuals struggle to see themselves as part of a bigger system. However, their feedback is crucial in assisting people to see themselves as part of a larger system and that their feedback is critical in shaping the world in whichever size or shape in both desired and undesired ways. Such feedback, time delays and nonlinearities are important elements for the development of effective systems thinking and modelling (Sterman 2001). Cummings and Worley (2014) reiterate this view and argue further that system dynamics is influential in the establishment of feedback theories. It is also important to note that various data gathering techniques play an important role in rigorous system dynamics efforts. This study employed a qualitative approach, where interviews were used to garner the real life experiences of employees at the University that will contribute to the talent pipeline for strategic responsiveness.

Forrester (1994) mentions that systems thinkers see both, the forest and the trees, both the generic and the specific, not just the latter. Once positioned, those embracing systems thinking, filter what they see through the lens of causal thinking, closed-loop thinking and operational thinking. Policy resistance, according to Sterman (2002), is having the tendency to understand experiences as a series of events and the lack of understanding of the feedback operating in a system. This lack of understanding is most likely to view outcomes of a situation as a consequence of decisions made and that new crises that occur affirm the view that the world is uncertain and complex and merely a reaction to events. Sterman (2001) goes on to state that organisational leaders often think that the tools they use have not succeeded in addressing the challenges faced and may be creating unanticipated policy resistance. To understand the source of such resistance, the complexity of systems and the mental models used to make decisions must be understood. Sterman (2001) uses the analogy of the results of low sales for a month to explain drop in sales as often a result of attributing blame and reinforcing the belief of powerlessness. Many questions arise from attempting to understand

the whole system. Some of those questions include; how policy resistance arises and avoided? as well as how to identify the high leverage points that can lead to sustainable benefits.

Sterman (2001) posits further, that system dynamics helps solve real world problems, effectively promote learning to work with policymaking teams and to act as a catalyst for change in organisations. In order to understand why people are resistant to policies, it is critical to understand that both the mental models and the complexity of systems are both used for decision-making (Sterman 2001). "Whilst the world is dynamic, evolving and interconnected, we tend to make decisions based on our mental models, which are most often static, narrow, and reductionist" Sterman (2001: 5).

2.16 SUMMATIVE OVERVIEW OF EMERGENT DEBATES FROM THE LITERATURE

This chapter discussed a number of observations in the literature findings. A summary of these include:

2.16.1 Learning Organisation

It is imperative that HEIs deliver agile quality education and be innovative and adaptable to the changing environment. Transformation and mergers contributed to the low employee morale as well as the loss of identity and a sense of belonging that would inevitably affect teaching standards and levels of excellence. However, managing these changes assists the transformative processes and effectively manages employee resistance and the inherent costs to the organisation. The success of an organisation is dependent on its continuous ability to engage in learning and investment in developmental programmes. The search for talented individuals has become a priority, given

the advanced intelligence, skills deficiencies and growth through expansion, diverse workforce and globalisation. Team cohesiveness is an important component in a learning organisation as cooperativeness, and collaborative teamwork positively influences team cohesiveness. On the other hand, increased workload and complexities in tasks negatively affect team cohesiveness. Team cohesiveness also influences attitudes. Therefore, there is a need to encourage teamwork, cooperativeness and collaboration with peers, to adopt a social responsibility and competent standards at the workplace, to inculcate innovation and transparency, creativity and open communication. It is additionally important to encourage team learning and development of teams from different disciplines, to create a mechanism of knowledge storage and enhance the need for constant and consistent learning. Organisations that are not adaptive, have rigid systems and do not encourage creativity, restrict maximising employee potential.

2.16.2 Employee Performance Management

A formal performance management system aligned to the cultural objectives and organisational expectations is key to increasing accountability and responsibility. The system should not be punitive but rather be used as a vehicle to improve communication, thereby improving engagement and morale of employees. It is imperative that managers are familiar with the use of the performance tool to improve low performance and reward and sustain high performance. It is critical for organisations to build a talent culture that entrenches the value of competence, hard work and reward for excellence within the organisation. An ethical culture, trust and respect, in addition to attitude and behaviour influences the talent management and developmental processes that contribute to a high performing and empowering work environment. High potential employees identified within the talent pipeline broaden their experience by engaging in rotating jobs, mentoring and coaching as well as developmental initiatives.

2.16.3 Student performance

Placement of students is important in a student's career. Therefore, it is important that organisations are mindful of the link between students and industry when recruiting employees. Such a collaboration can only take place when there is an understanding of student performance and internship, placement and assessments and the role industry plays in this initiative. Furthermore, collaboration between industry and HEIs help address the economic needs of the country, thereby also enhancing the student placement opportunities to gain valuable experiential skills.

2.16.4 Employee turnover and retention

The literature search highlighted the link between employee commitment and job satisfaction when assessing turnover. To retain employees, it is important that comprehensive screening is instituted at the employment stage. Furthermore, as part of the retention strategy, the employees' career aspirations must articulate with the organisational goals.

A further factor for consideration for HEI's is to consider revisiting its benefits structure to include remuneration and reward as part of its retention and recognition initiatives. Job satisfaction and employee engagement are critical for the continued growth of the higher education sector. High levels of job satisfaction improve employee performance, creativity and commitment, which often influences retention and organisational success.

Hence, the strategic agenda should focus on employee retention throughout the career cycle of the employee. Managing career paths of employees is also key to an organisation as it has the potential to influence the achievement of its strategy.

2.16.5 Sustainability and organisational success

HEI's depend on the government for funding and must therefore position themselves as centres of excellence for both national and international recognition. The literature indicates that organisational climate influences employee work performance, their well-being as well as their attitude. Positive attitudes contributes towards organisational success.

Talent management has also become an integral component to organisational sustainability and success. These can be achieved by ensuring that the correct talent is recruited, developed and that the organisation is adaptable to changes in order to realise its return on investment. The complexity and ambiguity of talent management can help organisations discover possible flaws in the talent management process and develop strategies to keep employees inspired, motivated to perform well and to collectively drive the organisations' success. Fundamental challenges highlighted include, skills scarcity, societal demands, gender diversity, increasing movement of people across countries as well as diverse cultures.

2.16.6 Current skills verses future skills requirements

Studies reveal that it is important for talent strategies to be in line with the organisational vision, mission, goals and strategy to achieve success and to remain relevant. The strategy should include an analysis of current skills and future skill required, demand and supply dynamics of organisational needs to prevent the risk of the organisation not having the competencies required to deliver on its mandate. To address this need, human resources must reposition itself to become a strategic partner that engages on critical decision-making on competency identification.

To maintain a competitive edge, the talent strategy must include factors such as innovation, environment and sustainability, which will inform the creation of internal mobility structures for the attraction and retaining of competent employees.

2.16.7 The higher education dilemma

The agenda of HEIs has expanded to build research and technology and industry partnerships, which creates tension as Universities are, expected to be a productive entity that addresses social, economic and cultural needs of the country. This meant that Universities would need to engage in greater participation with the global economy for improved knowledge production and technological innovation to remain competitive. While there is a competition for talent, there appears to be a need to collaborate globally with HEIs to access talent pools, which reduces the risk of poaching of individual talent.

2.16.8 System Dynamics

The use of qualitative system dynamics relies on the identification and examination of the problem, by using Causal Loop Diagrams (CLDs). The use of the system dynamics approach allows a macro viewpoint to help solve important problems and challenges deeply held beliefs. System dynamics assists organisations to identify the cause of the problems and to develop policies that address this complexity. The modellers have to elicit, articulate and describe the knowledge about the system that are held in the mental models of the experts during the model building process to assess for strengths and weaknesses of the source. The mapping process of the mental models may have narrow boundaries and people have to change their behaviour in order for them to see through a new lens for them to expand their mental model. Understanding the behaviour and its influences requires a study of the relationship and feedback behaviour of key variables in the system,

which influence the output. Failure to recognise such feedback results in policy resistance and ineffectiveness in assisting with making and implementing changes in a progressively changing world.

2.17 CONCLUSION

This chapter explores the various views that provide a theoretical framework that underpins this study. In addition to the theories discussed in this chapter, it must be noted that as the environment is constantly evolving and the needs of the organisation is continuously changing, it is imperative that organisations keep abreast with the trends and patterns that may change over time in order to remain relevant (Khilji 2012; Khilji, Tarique and Schuler 2015).

The argument by Liversage (2015), that the ever changing workforce within the higher education landscape supports the need for further research to be conducted in adopting a strategy that addresses the demand for talented employees. Furthermore, this view is corroborated by Guthridge, Komm and Lawson (2008), who mention that talent management must be prioritised and integrated in the long-term business strategy for increased institutional performance and global competitiveness. Factors such as the shrinking skilled workforce, inadequate state and research funding as well as uncompetitive salary packages and incentives, implications of increased work demands, employee engagement and job satisfaction be included in the business strategy. Robyn and Du Preez (2013 and Jacobsz (2012) stress that delivery of quality education, innovation and adaptability is key to an organisation's success. Additionally, Kuźmicz (2015) and Chrispen and Mukeredz (2013) highlight people development and partnerships, leadership capacity, a transformative culture, reflective and self-evaluation quality assurance framework as important considerations in a learning organization.

This study therefore, draws from the findings of the various theorists in this literature review and uses Sterman's approach to focus on problem articulation and policy formulation and evaluation to address the talent gap at the University. The next chapter explains the research plan and discusses the research methods and design. It further details the data collection techniques and methods employed to interpret data.

CHAPTER 3 - RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter presented the literature review, which considered theory and evidence related to talent management, in addition to the exploration of contemporary debates about talent management. The review offered a discussion of important theories that form the basis of how the current topic areas, is understood and researched. This chapter provides an overview of the study's methodology.

The aim of this chapter is to provide an overview of the study's methodology, including the study design, and the methods used in addressing the specific research questions. The study further presents an overview of the research paradigms, research approach, data collection techniques; data analysis and interpretation; adaptation of the analysis to the System Dynamics perspective and the reliability and validity of the study.

The following table provides an overview of the how methodology is conceptualised.

Table 5. Understanding the paradigm (Source: Patel 2015)

Ontology	What is reality?
Epistemology	What and how can I know reality/knowledge?
Theoretical perspective	What approach can we use to get knowledge?
Methodology	What procedure can we use to acquire knowledge?
Methods	What tools can we use to acquire knowledge?
Sources	What data can we collect?

As indicated in Table 5, ontology refers to the researcher's perspective of the nature of reality. Epistemology relates to the researchers understanding of

acceptable knowledge and methodology explains the procedures used to acquire knowledge on a particular area using specific research instruments.

As a first step in making decisions about methodological choices, the researcher had to understand the different paradigms. The study will articulate the methodology utilised within the qualitative design using an interpretivist approach. The research also extends to include a constructivist approach as the main purpose of this research is to understand human interaction within the social context and the qualitative and interpretive approach allows the researcher to gain an understanding of the participant's environment. It has been argued that the interpretivist paradigm is suggested for organisational management, "not only are business situations complex, they are also unique. It is a function of a particular set of circumstances and individuals coming together at a specific time" (Saunders, Lewis and Thornhill 2016: 141). Saunders et al (2016) highlights the complex social nature of organisational management. Subsequently, this study focusses on the development of a talent pipeline for strategic success in the context of a higher education University. Furthermore, it allows the researcher to identify trends, patterns and new understandings relating to talent management.

3.2 RESEARCH PARADIGMS

Paradigm can be described as "the set of common beliefs and agreements shared between scientists about how problems should be understood and addressed" (Anderson 2013: 3). Guba and Lincoln (1994) maintain that research paradigms can be characterised through their ontology, epistemology and methodology as illustrated below:

Figure 1. Research Paradigm (Adapted from Guba and Lincoln 1994)
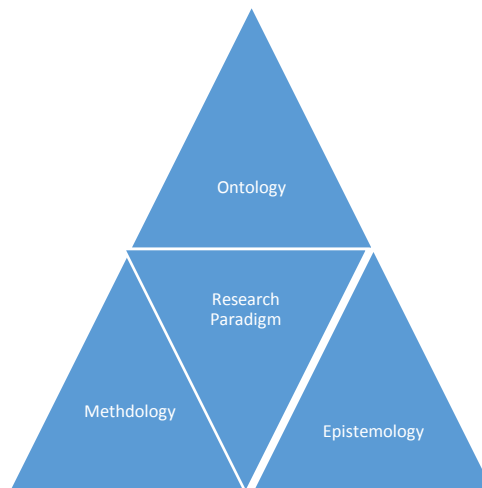
The table below, as adapted from Bryman (2012), outlines the various research paradigms.

Table 6. Research Paradigms adapted from Alan Bryman (2012)

Empiricism	Empiricism is used in many ways; however, the two most important ones denote a general approach to the study of reality that suggests that ideas must be rigorously tested prior to being considered as knowledge and the second meaning refers to the belief that the accumulation of "facts" is a valid goal.
Deductive theory	Deductive process is linear where one-step follows the other in clear, logical sequence and where observations and findings are, drawn from theory. This process may differ from case to case as at times, the researcher's view of theory or literature may have changed when the collected data has been analysed or when new theoretical ideas or findings may be published before the researcher has concluded his/her findings.
Inductive theory	With the inductive approach, theory emerges as an outcome of research where the process of induction involves drawing generalisable inferences out of observations. It is a non-linear process where the researcher, once having gone through the process of theory reflection, may want to collect additional data and weave back and forth between theory and data. This process is known as iterative and is evident in grounded theory.
Epistemological	Is concerned with what is and should be regarded as acceptable knowledge in a discipline with particular emphasis on whether the social world can and should be studied according to the same principles, procedures and ethos as the natural sciences. Affirmation of this process is known as positivism.

Positivism	Is an epistemological position that promotes the application of natural sciences methodology to study social reality and beyond?
Realism	Is another philosophical position that claims to provide an account of the nature of scientific practice?
Interpretivist	Contrasts positivism in that researchers are of the view that the study of social sciences is understood as having a reflection on the distinctiveness of humans against the natural sciences.
Ontological	Social ontology is the study of social entities. The point of departure for an ontological approach is whether social entities can and should be considered as objective entities that have a reality external to social actors or whether they can and should be considered social constructions built up from the perceptions and actions of social actors. These positions are referred to as objectivism and constructivism.
Objectivism	Is an ontological position that asserts that social phenomena and their meanings have an existence that is independent of social actors? It implies that social phenomena and the categories that we use in everyday discourse have an existence that is independent or separate from actors.
Constructivism	Is an ontological position that asserts that social phenomena and their meanings are continually, being accomplished by social actors? It implies that social phenomena and categories are not only produced through social interaction but that, they are in a constant state of revision.

The use of a constructivist approach to understand the human interaction within the social context and the qualitative interpretive approach allows the researcher to gain an understanding of the participant's environment.

The next section describes the research approaches of the study.

3.3 RESEARCH APPROACHES

3.3.1 A Holistic Approach

HEIs face a number of challenges relating to attracting, retaining and developing talented employees emanating from various competing priorities. Jackson (2000: 1) mentions that:

Complex problems involved richly interconnected sets of 'parts' and the relationships between those parts can be more important than the nature of the parts themselves. New properties, 'emergent' properties, arise from the way the parts are organised. Even, if the parts constituting a complex situation, can be identified and separated out, therefore, this may be of little help because the most significant features, the emergent properties then get lost.

Systems thinking focusses on a holistic approach in examining complex social phenomenon as it is centred on the ethos of holism. Reynolds and Holwell (2010) argue that systems approaches focuses on simplifying the thinking process and the management of complex realities in order to provide direction on selectively addressing the details that affect our ability to think in a clearer way. This approach helps expose the fundamental features from a set of clear perspectives. The traditional approach of non-systems thinking may result in a narrow view of interpretations where interconnections are ignored, "a single cause may be assumed" (Reynolds and Holwell 2010: 6) instead of understanding that there could be various problems underpinning a particular situation. In addition, emphasis on the outcomes of a situation could be made instead of the process that could result in a positive change. Therefore, it is important to understand the interconnectivity relationship between the variables. While systems thinking encompasses a wide variety of diverse ways of thinking, about various methodologies in a number of disciplines, this study is guided by the use of System Dynamics (SD), which is one of the systems thinking methodologies.

SD seeks to understand the complex behaviour of a system by identifying a number of variables that influence each other. Such influence between the variables or "feedbacks" are then graphically explicated by drawing what is known in systems thinking language as reinforcing or balancing loops.

The interaction between all these variables allow for in depth understanding of the complexities within the system thus, SD is a methodology that allows for the understanding of phenomena in a more holistic way that goes beyond focussing on one or two symptoms of a "problem" but rather examines the

system as a whole. Given that the social environment is complex, it is difficult to find a single solution to all the problems within the entire system. Therefore, SD adopts a systemic thinking that holistically seeks to understand the relationship between all the individuals and components within the system.

This study involved the understanding of the feedback relationships between the various human factors and components that were involved in DUT's approach to talent management including the University's human resources strategies, its policies, practices and procedures, employees, managers, and various other stakeholders. Such was an attempt to address the complexities of managing talent within the university for strategic success.

3.3.2 Qualitative approach

According to Bryman (2012), qualitative research is a research strategy that usually emphasises words rather than quantification in the collection and analysis of data. Qualitative research is in addition, described as being grounded in a philosophical position that is "interpretive" as it concerns itself with how the social world is, interpreted, understood, experienced and produced. Schwandt, Denzin and Lincoln (2003) and Denzin and Lincoln (2003: 17) posit that qualitative research is a field of inquiry that cuts across disciplines, fields and subject matters. They claim that it is complex and interconnected to a cluster of terms, concepts, assumptions and procedures surrounding its paradigm. The authors state further that qualitative researchers study human interaction from a social perspective seeing the real world as existing. Bryman (2012) explains research design as a framework for the generation of evidence that is suitable to a certain set of criteria as well as to the research questions in which the researcher is involved. Bryman (2012) posits that a research design provides a framework for the collection and analysis of data that reflects decisions on the prioritisation of the various dimensions of the research process. He further states that this framework includes expressing causal connections between variables, understanding

behaviour and its meaning in a social context and having an appreciation of the social phenomena and their interconnections over time.

Using the qualitative research methodology, this study aims to obtain new knowledge that will contribute to existing knowledge and offer meaning to the justified claims that it makes. In attempting to gain access to gather data at the University, the study employed semi-structured interviews, analysed archival data and documentation as the primary source of data collection. The qualitative method allows for the use of open-ended questions and this enabled the researcher to gain a deeper understanding of participant's experiences and views.

Furthermore, a qualitative method was selected as it provided the researcher with rich data via detailed account of participants' experiences and knowledge on talent. This research explored the challenges associated with talent management at DUT by utilising a qualitative approach to data collection and a qualitative SD modelling process considering the national and institutional imperatives necessary for DUT to build a learning organisation. A Qualitative SD model was created to demonstrate the multiple variables involved in the University's current strategy in dealing with talent management.

3.4 AIM AND OBJECTIVES OF THE STUDY

The primary aim of the study was to identify the cause and effect of talent variables that influence the different components of talent and strategic outcomes at the University. In achieving this, a number of objectives were identified, and these included the identification of:

- The talent variables that may inhibit DUT from becoming a learning organisation;
- The identification of factors that would advance sustainability in talent management;

- Examination of the University's structures, policies, procedures and systems to identify gaps;
- To construct a system dynamics model that would aim to mitigate risk and obstacles associated with talent.

In addition, the findings of the study will enable further research on talent management in HEI's.

3.5 RESEARCH QUESTIONS

The research focussed on talent management at DUT, a higher education University in South Africa.

The key research questions include:

(i) What are factors inhibit DUT from becoming a learning organisation to address the talent gap?

(ii) How do the historical challenges influence DUT's future talent recruitment and retention given its financial constraints?

(iii) What are the performance variables necessary to meet strategic objectives in the context of talent development?

(iv) What are the financial implications to ensure the right talent management at DUT?

3.6 RESEARCH DESIGN

The study analysed the perceptions of the respondents using a multi-approach qualitative design that included documentary evidence as well as in depth interviews to solve problems in a complex environment. This study will explore the problems in the system and possible interventions on how to correct the system. Senge (1990) asserts that systems thinking helps solve problems in

a complex environment in a holistically manner. This approach avoids the tendency to solve problems in a fragmented and silo driven way. SD is an approach that attempts to understand non-linear behaviour in a complex system over time using causal loop diagrams.

3.7 CAUSAL LOOP DIAGRAMS (CLDs)

One of the key principles in systems thinking is that it assumes that individuals have the potential to influence the outcome of the dynamics in a system to yield outcomes that are more positive. This can be achieved if individuals operate collectively to create a theory that underpins how the system operates over a period of time (Serra 2006). CLDs consists of elements that include the variables and the links between them as well as the signs on the links (which show how the variables are interconnected) and the description of the loop. These loops can be either reinforcing or balancing (which shows what type of behaviour the system will generate) (Banson *et al.* 2019). The key variables are, represented graphically in causal loop diagrams. These diagrams illustrate the linking of several loops which tell a story about the cause and effect relationships between the different variables (Banson *et al.* 2019).

This study used the system dynamics framework to develop the model on talent management. In describing the modelling, the various main activities by different modellers is discussed with particular emphasis on adapting Stermans' approach to the modelling process as reflected in Table 7 below:

Table 7. The system dynamics modelling process across the classic literature.

Randers (1980)	Richardson and Pugh III (1981)	Andersen et al. (1983)	Wolstenholme (1990)	Sterman (2000)
Conceptualisation	Identification of problem	Definition of problem	Construction and analysis diagrams	Problem articulation
	Conceptualisation of the system	Conceptualisation of the system		Hypothesis dynamics
Formulation	Formulation of model	Representation of model	Simulation phase (stage 1)	Formulation
Testing	Analysis of model behaviour	Model behaviour	Simulation phase (stage 2)	Testing
	Evaluation of model	Model evaluation		
Implementation	Policy analysis	Policy analysis and model use		Policy formulation and evaluation
	Model Use			

Source: Luna-Reyes and Anderson (2003: 5)

The above authors have explicated the various stages in the SD modelling process. While they have proposed different stages of the modelling process, the activities remain constant across them. Sterman (2000) presents an interesting way to use qualitative data in the formulation of non-linear functions based observed qualitative data and structured interactions with individuals or groups. These stages involve an iterative process in which the researcher is able to discern the causal structure that generates a series of behaviours over a time through the construction of CLDs that depict the feedback relationships within the system. It further illustrates the interaction within a system. For purposes of this study, Sterman's approach was adapted to include problem articulation and policy formulation and evaluation given the context and nature of the study.

3.8 POPULATION AND SAMPLE FRAMEWORK

The study population was primarily the employees from the categories of executive and senior management, middle management and general employees. The total staff complement of DUT is one thousand five hundred and seventy six (1576) members of which forty-eight (48) staff members constituted the sample. In order to conceptualise a problem, a decision on the sample population must be so that the data gathered and analysed would be reflective of the real problem at the University.

Table 8. Population sample

Target Group	Population	Sample
Top Management	2	1
Senior Executive Management	29	10
Middle Management, Professionally Qualified and experienced Specialists	687	20
General Staff	858	17

Source: HRIS (2016)

The participants' expertise and understanding of strategy, policies, procedures and systems of the University as well as their involvement and role in the University structures was considered prior to being included in the sample. The selection of samples were from various levels of staff at the University to obtain diverse views on talent management and its impact on the business of the University and did not necessarily represent the full staff complement.

The study used a non-probability purposive sampling method and included semi-structured interviews. This study falls into the category of interpretive research, in which the research develops a wide collection of descriptions of

perceptions, context, people and actions. When gathering qualitative data in the system dynamics modelling, it is important to identify the problems in the early stages during the conceptualisation of the model. In addition to conceptualisation, a decision must be made about who should be interviewed, the location of the interviews and when it should take place. The participants were, selected from categories of the executive and senior management, middle management and the general staff. Some of the participants chosen from within these categories were familiar with the debates and discussions on the organisation. Furthermore, some of the employees expressed their willingness to participate in the research due to their association with the former institutions during the merger transformation processes. Other employees that participated in the research had recently joined the institution and were interested in contributing to the talent management strategy at the University.

3.9 RESEARCH TOOLS

Luna-Reyes and Andersen (2003) maintain that data collected can be conceptualised mentally and thereafter it can be stored in a written database. The table below summarises the research tools used in the study for data collection.

Table 9. Representation of the causal structural variables

System dynamics constructs	Explanation	Data Collection Tools
Summary boundary chart	Key variables and parameters of the model are summarised.	These data gathering techniques will be, used to elicit the necessary information to develop the system dynamics constructs as shown in the first column.
Causal loop diagrams	Causal Loop Diagrams (CLD) are simple maps that provide a feedback	

System dynamics constructs	Explanation	Data Collection Tools
	structure reflecting the causal relationship.	**Semi- Structured Interview**s
Conceptualisation	Through a process of semi-structured interviews and oral histories, the researcher used questions and information to obtain opinions and perspectives from the respondents. During this process, the researcher was able to obtain an initial picture of the problem and identify the key variables.	The research would explore the perceptions, views, opinions and experiences of the Executive and Senior Management members, employees and members of the labour forum using semi-structured interviews. Pilot interviews were, conducted to assess the relevance of the right questions. This interaction included both structured and unstructured questions. The researcher conducted and analysed the data, looking for patterns, definitions and stories and elicit respondent's views.
Policy design and evaluation	During this phase the outcome of the interviewee's perceptions and opinions as well as the theories are, integrated and recorded to display how the variables were constructed.	**Archival Data** Studying historical information of the University, which included reports, policies and practices, annual reports etc. provided insight on the historical information that contextualised the current situation as well as the strategic intent.

Source: Adapted from Luna-Reyes and Anderson (2003: 278).

Pilot study. A pilot study was conducted with respondents who did not form part of the final sample of employees interviewed. The purpose of the pilot study was to assess the effectiveness of the interview questions, determine if the questions were easily understood, logical and unbiased, applicable to the objectives of the study and whether the questions would be appropriate to all intended respondents. Challenges in understanding the research questions observed, prompted the researcher to adjust the interview questions for clear interpretation by the interviewees. Thus, conducting the pilot interviews is critical in the research process, particularly when interviews are the main source of collecting data, as was the case in this study. The iterative process

of conducting pilot interviews, obtaining feedback from the interviewee and making the necessary adjustments contributes to the interview questionnaire that is more effective in obtaining the relevant data, therefore strengthening the research overall.

The respondents understood most of the interview questions in the pilot study. Some of the suggestions made related to ensuring that the interview questions was amended to assist in the eliciting of an appropriate response from the respondent. These adjustments were made prior to the fieldwork commencing. *In-depth, semi-structured interviews* were conducted with various stakeholders from the University. The aim of the interviews was to gauge an in-depth perception of the respondents in order to obtain an understanding of the complexity of the feedback influences in the overall managing of talent at the University. The interviews ranged from fifteen minutes to an hour in duration and consisted of open-ended questions. The interviews were recorded and documented in writing. Transcripts of interviews were, coded and analysed in themes and categorised in groups. The analysis of the interviews and study of documents was used to build a holistic Qualitative System Dynamics model that reflected the cause and effect interrelationships and wider impact of talent at the University.

Table 10. Data schedule

Method of Research	Target Group	Context
Semi-structured interviews	Top Management	Understanding the DUT strategy within the social and economic setting
	Senior executive Management	Operationalising the DUT strategy and talent processes
	Middle management as well as Professionally and specialist employees	Roll out of Structural and Policy decisions
	General staff	Compliance with structural and policy decisions
Study of documents		All documents that have been, drawn up in recording the development process of the research.

The researcher used the following steps in the interviews:

- In the introductory statements, the researcher outlined the purpose and outcome of the research.
- The researcher assured the participants about the confidentiality of their participation as well as the confidentiality that maintained against the identification of the organisation.
- The first set of questions established general information on the respondents.
- Use of various open-ended questions.
- During the closing, the researcher thanked the participants and assured them of the confidential use of the information.

Secondary data was also utilised. Studying of documents included reports, policies and practices, the University's Strategic Plan; annual reports provided the researcher with insight on the quality of the historical information that contextualised the present situation at DUT and its strategic intent. Given that the DUT arose out of the merger of two institutions, it is imperative to acknowledge that such an event have contributed significantly to its current status and this context must be understood in the research.

3.10 DATA COLLECTION

Interviewees were invited to engage in the study. Interviews took place in the office of the interviewee or at a private convenient place where the identity of the respondents was protected. The respondents were informed of the objective of the research, what would be required of them and also explained that the confidentiality would be maintained and that the notes will be stored until the research has been concluded and destroyed thereafter. The field notes were collected and analysed for content validity, coding and classification of ideas.

3.11 DATA ANALYSIS AND INTERPRETATION

Creswell and Creswell (2017: 94) states that qualitative analysis is used to make sense of the text and graphical information and may be conducted by opening up the layers of information gathered and then putting the data back in a logical, coherent and meaningful way. It is imperative to analyse qualitative data in sequential stages, from specific to general that involves multiple levels of analysis.

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┌─────────────────┐        ┌──────────────────────────┐
│  Validating the │        │ Interpreting the meaning of │
│  accuracy of the│────────│    themes/descriptions     │
│  information     │        └──────────────────────────┘
└─────────────────┘          ┌──────────┐   ┌──────────────┐
                             │  Themes  │   │  Discussion  │
                             └──────────┘   └──────────────┘
                             ┌──────────────────────────┐
                             │      Coding the Data      │
                             └──────────────────────────┘
                             ┌──────────────────────────┐
                             │   Reading through all data │
                             └──────────────────────────┘
                             ┌──────────────────────────┐
                             │ Organising and preparing data │
                             │      for analysing         │
                             └──────────────────────────┘
                             ┌──────────────────────────┐
                             │   Raw data (transcripts,   │
                             │      Images, etc.)         │
                             └──────────────────────────┘
```
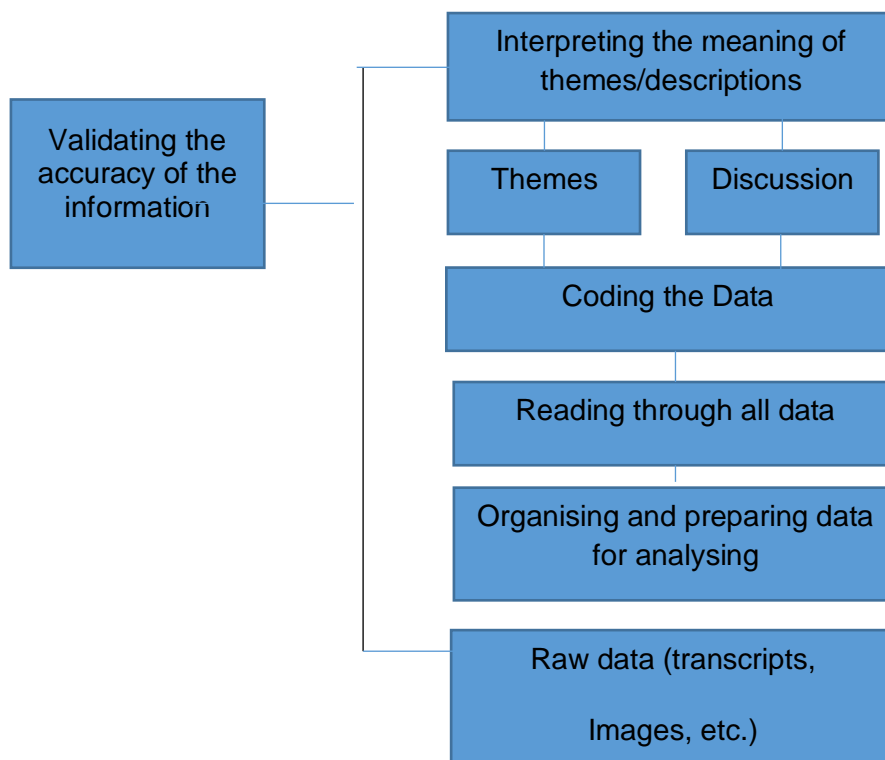
Figure 2. Data collection stages adapted from Creswell and Creswell (2017: 194)

The study used the data collection stages as described by Creswell and Creswell (2017):

- Recording and transcribing the interviews, typing up the field notes and referencing the material, organising, categorising and organising the information.

- Making of notes to obtain an overall impression of depth, reliability and the ability to use the information. Other forms of recording the information included notes made by the researcher and visual data sketched for ideas.

- Coding of the data by organising and labelling the data. The researcher arranged the information gathered in themes and indexed the text to facilitate the study.

The themes identified appeared as major findings and displayed multiple perspectives from various respondents and were supported by evidence and direct quotations. Thematic coding process was used to build additional layers of complex analysis that often interconnect into a story line.

- Advancing the description and themes by using a narrative passage to deliver the findings of the analysis by way of multiple perspectives from participants and quotations. Visuals, figures and tables was used in the qualitative analysis approach and a holistic Qualitative System Dynamic model was presented.

- Codes and themes used helped ensure that the findings represented diverse and multiple perspectives.

- Arranging the code and themes into a conceptual map that displayed the flow of ideas that represented the themes from a general to a specific picture.

- A narrative for each theme emanating from the discussion on the overall findings of the study made.

3.12 ADAPTATION OF THE ANALYSIS TO THE SD PERSPECTIVE

The above data analysis process assisted in extracting themes from the data collected. However, the focus with the SD methodology included the identification of the feedback influence between specific variables. The researcher revisited the data to gain a deeper understanding of the themes to identify the variables within each theme and how it influenced one another as well as the overall behaviour created through the feedback influences. This allowed for the combination of the CLDs to form the Qualitative SD Model that reflected the overall picture of all the themes interacting with one another within the system. Through this process, a picture of the organisations' talent management system that was created in accordance with the SD methodology providing systemic insights with regard to the overall University strategy. Initially, the researcher hoped to have employed the full SD methodology that included the stages from problem articulation to simulation but was unable to do so as the full SD methodology was beyond the scope of the study.

Bryman (2012) states that the results of the investigation are not final neither conclusive. Further, it maps out the steps in the model building process. The process of iteration help build confidence and trust in the model resulting in possible change to the modeller's initial mental model which may lead to the redesign of strategies, new structures and decisions. The model could then be implemented in the real world and feedback from such implementation may then lead to new insights and further improvement both in the mental and formal model. According to Sterman (2002), multiple subsystem diagrams such as CLDs and policy structure diagrams capture the key variables to form a consolidated macro model. Flaws and contradictions are identified during this stage. Depending on the outcome, the decision-making process may undergo change before implemented in the real world.

3.13 RELIABILITY AND VALIDITY

To assess reliability and validity of the findings, various reliability and validity procedures was used. Triangulation conducted included the comparison of the data emerging from the use of in-depth semi-structured interviews, examination of archival and other documentation relating to the organisation. Coherence among these data sets were identified which allowed an effective grounding for the themes.

The researcher also examined transcripts to ensure that it reflected the audio recordings. In terms of the coding of data, the researcher attained the view of an independent person to ensure consistency and appropriateness of the codes used in coding of the data. The researcher engaged with two other independent researchers to validate the discussion and the interpretation of the findings as well as the final output of the study to identify inconsistencies of the data in order to ensure reliability.

3.14 ETHICAL CONSIDERATIONS

According to Leedy and Ormrod (2015), ethical considerations in research typically involve the consideration of four categories (1) voluntary and informed respondents; (2) protection from harm; (3) the right to privacy and (4) honesty with professional colleagues.

3.14.1 Voluntary and informed participants

Leedy and Ormrod (2015) state that voluntary and informed participation refers to respondents that are fully conscious of the nature of the study and specifically confirm their desire to participate in the study. The participants were fully informed about the objective and the design and methodology of the study that would be followed. There was no coercion or manipulation for participation in the research. All respondents were informed in writing that

confidentiality and anonymity is to be maintained, and were provided with details of the study. They were further informed of their rights to withdraw from the study at any given point. The respondents were informed that their participation was voluntary and all information obtained will not be used to identify any person.

3.14.2 Protection from harm

The respondents that participated in the study were not subjected to any physical or psychological inconvenience at any stage of the study. The researcher displayed respect and consideration to all respondents and held a debriefing session to inform the respondents of the process of data collection and analysis, interpretation and distribution of information. Earlier engagements on the study was highly supported by the respondents.

3.14.3 The right to privacy

The raw data was captured and securely stored for a period of five (5) years. The information would only be accessible to the researcher and destroyed thereafter. No statements or responses will be attributed to individuals since the presentation of the data and findings.

3.14.4 Honesty with professional colleagues

The researcher carried out the research with ethical responsibility and a high standard of rigor and integrity and was willing to allow the modeling process to change her mind. All data was captured for future analysis and the respondents were informed that the documents to be destroyed after the study. The University will have access to the results of the completed research through the institutional repository. Honesty during the modelling process is

key to building trust with key stakeholders of the research even if it is to the detriment of the researcher, as the focus has to be on solving the problem.

3.15 CONCLUSION

This chapter provided an overview of the research framework that underpinned this study. These included the research paradigms; research approaches; aim and objectives of the study; research questions; research design, data collection techniques; data analysis and interpretation; adaptation of the analysis to the SD perspective; reliability and validity and ethical considerations. The research provided a greater understanding of the variables that affect the talent management at the University taking into consideration the financial constraints, the talent attraction and development, talent recognition and retention and sustainability. The holistic Qualitative SD model will help predict in a qualitative sense what would occur when identifying talent and how it influences the achievement of the University's strategic goals.

CHAPTER 4 - FINDINGS

4.1 INTRODUCTION

This chapter provides a summative overview of the study's findings following on from the document analysis as well as the interview data collection. To ensure a relevant presentation of the findings, it is important to restate the primary aim of the study, its key objectives and research questions. Guided by this, the main aim of the study was to explore the cause and effect of talent variables that influence the different components of talent and strategic outcomes. The research objectives included identifying: the talent variables that inhibit DUT from becoming a learning organisation; the identification of factors that would advance sustainability in talent management; examination of the University's structures, policies, procedures and systems to identify gaps; to construct a holistic Qualitative System Dynamics model that would aim to mitigate risk and obstacles associated with talent. The key research questions addressed in the study included: (1) what are factors that inhibit DUT from becoming a learning organisation to address the talent gap; (2) How do the historical challenges influence DUT's future talent recruitment and retention given its financial constraints? (3) What are the performance variables necessary to meet strategic objectives in the context of talent development? (4) What are the financial implications to ensure the right talent management at DUT?

The findings of this study derived from a qualitative analysis of the interviews and study of documents was used to build a holistic Qualitative System Dynamics Model that will show the cause and effect. In-depth semi-structured interviews was conducted with the employees from the categories of the executive and senior management, middle management and general staff from the University. The aim of the interviews was to gauge an in depth perception of the respondents in order to obtain an understanding of the

complexity of the feedback influences in the overall managing of talent at the University.

Emergent themes were categorised into thematic areas and presented to articulate the major findings. The qualitative findings offer insights into multiple perspectives from various participants. As illustrative support, verbatim quotations from the participants are provided as part of the thematic coding process were used to build additional layers of complex analysis. The description and themes were advanced by using a narrative passage to deliver the findings of the analysis by way of multiple perspectives from participants and quotations. Visuals, figures and tables were also used in the qualitative analysis approach and presented a holistic Qualitative System Dynamic model.

Sterman (2000) emphasises the use of systems thinking as an approach that focuses on the engagement with the various stakeholders and further stated the importance of the personal perceptions held by each respondent, namely, mental models, as being critical to the study. The outcome of the multi exploratory qualitative research was to present the findings and not results as a quantitative report would. The individual perceptions and experience of each respondent emerging from the interviews together were categorised into themes using coding. The outcome of the data analysis explain how the findings are, developed logically from the problem and further how the research design addressed the research question. Synthesising the findings of the study is one of the most important steps in presenting the data, as the researcher needs to ensure that is presented as accurately as possible and that the experiences and perceptions of the findings of the respondents are independent of the researchers' own perceptions to avoid any form of bias. Therefore, it was crucial that these findings be supported with direct quotes from the respondents, as well as the rich descriptions of the archival University documentation. The number of variables established made it possible for the

researcher to construct the CLDs that depicted the nature of the relationships between such variables.

These variables formed the basis for the creation of the causal loop diagrams that informed the construction of the holistic Qualitative SD Model. The following section unpacks the themes, which emerged from findings:

Table 11. Summary of themes and variables

Research Question		Theme	Variable
What is a learning organisation?	1	Conceptions of a Learning organisation	• Employee trust level • Team cohesiveness • Team performance • Employee commitment • Employee conflict level • Number of disputes
How do the historical challenges influence DUT's future talent recruitment and retention given its financial constraints?	2	The role of policy rigidity in talent management	• Hierarchical power distribution • Autocratic decision making • Policy rigidity • Communication level • Employee trust level • Silo mentality • Employee turnover
What are the performance variables necessary to meet strategic objectives in the context of talent development?	3	Talent attraction, retention and development	• Employee turnover • Talent recognition • Employee morale • Quality of teaching • Student staff ratio • Employee burnout • Talent attraction • Employee productivity • Qualified employees • Talent retention • Substandard service • Employee workload • Absenteeism
	4	Quality teaching and learning as key influences to talent development	• Quality teaching • Student motivation to work • Student performance • Graduation rates • University reputation • Ability to attract qualified employees • Resistance to learning

Research Question		Theme	Variable
			• Student pass rate • Research output • Risk to University standards • Student job opportunity • Student employability
What are the financial implications to ensure the right talent management at DUT?	5	Sustainability considerations in talent management	• Research output • Research funds • Collaboration • Innovative ideas • Research commercialisation • Subsidy income
	6	Policy Compliance and its contribution to the development and management of talent within the University	• Policy compliance • Risk and audit queries • Litigation rate • Policy rigidity

The next section explores the themes in more detail, indicating how and why they are contributing factors to the management of the talent pipeline and how this is supported by participant perceptions.

4.2 THEME 1: CONCEPTIONS OF A LEARNING ORGANISATION

Participants were, asked to provide their conceptions of what a learning organisation was. The responses were collated against the backdrop of the organisation's vision on being a learning organisation, the organisation asserts that every employee is important to the organisation and should demonstrate commitment to the organisation that drives quality and excellence. A learning organisation has a shared vision and shared culture, which ensures that the organisation is knowledgeable about its own subject matter and is not built on research only, but on capacity building for continuous learning. Constant learning takes place where:

"New things from outside the institution are learnt that adds value to the team culture, team learning and self-development." (Respondent 17).

This helps to keep the organisation and its people competitive in a changing world. The drive towards becoming a learning organisation in terms of the strategic focus area, as contained in the University Strategic Plan 2.0 was highlighted as a significant contributing factor to the overall achievement of managing talent at the University. Respondent three (3) stated that:

"A learning organisation is also responsible to educate, teach and support its students and engage in continuous learning, for both professional and personal development and change". (Respondent 3).

The following variables were described as being influential in the dynamics of a learning organisation:

- Employee trust level
- Team cohesiveness
- Team performance
- Employee commitment
- Employee conflict level
- Number of disputes

4.2.1 Employee trust level

Employee trust levels refer to the building of relationships to create high performing teams.

"DUT seems to be holding onto the traditional bureaucratic approaches in its decision making on recruitment and is not in keeping with the new strategies and approaches which slows the process down causing frustration and lack of trust". (Respondent 21).

The University was perceived as a bureaucratic organisation that pursues a narrow interest on sectoral or departmental goals as expressed by the above respondent. In such bureaucratic structures, power is concentrated in levels of authority and position instead of making policy decisions for the organisation as a whole. Employees at the cold face feel alienated as they see the tendency of decision making as not being made in the interest of the organisation as a whole, thus resulting in a drop in employee trust levels in management. Another view expressed on the issue of trust, is the lack of understanding on the implementation of legislation:

"The lack of understanding of the employment equity process may lead to staff distrust". (Respondent 8).

Some employees of the designated group feel marginalised, as they do not fall into the appropriate demographic group. They see very little prospects in the organisation despite the wealth of experience they may have accumulated over the years at the University. This contributes to a lack of low trust levels, which is not conducive to high-level teamwork. The above respondent mentions that the lack of understanding of employment equity processes lead to employee distrust. It appears that the nature of bureaucratic structures is characterised by a lack of openness and transparency. Ideally, with the introduction of any legislation, an organisation will go a long way in having an open and consultative process, where employees participate fully in the development process right up through the development of policy formulation and its application. This approach ensures, that there is no room for misinterpretation, which can lend itself to mistrust. In order to aspire to

becoming a learning organisation, the structures must be adaptive and open to change. Leaders that build high levels of trust are able to motivate employees to aspire to higher goals.

4.2.2 Team cohesiveness

Team cohesiveness refers to the extent to which the team members pursue a common goal and see each other as part of a bigger system to be able to solve problems. Team cohesiveness is characteristic of a learning organisation where continuous learning takes place in order to respond efficiently to the challenges of an organisation. Learning new things from and conducting an introspection adds value to team culture, team learning and self-development, as supported by respondent 17 below:

> *"A learning organisation tries to reinvent itself and learn as it encounters new problems thus enhancing team cohesiveness". (Respondent 17).*

> *"Stakeholders do not operate in a cohesive manner that effectively embrace the vision and mission of the institution". (Respondent 9).*

Teams that have common goals complement each other and collectively help meet the organisations goals. It is critical for the organisation to build unified effective teams that operate in a cohesive manner in order for them to adopt a common vision and goals as part of a change management process, as expressed by Respondent 9 above. It appears that there is a lack of an integrated approach to build teams and the adoption of a shared vision and shared identity that, results in organisational success. Therefore, it is imperative for the organisation to focus on building team cohesiveness for organisational success.

4.2.3 Team performance

Team performance refers to how employees work together as teams to produce a cohesive outcome. Feedback is critical for continuously improving performance.

> "*Employees working together in teams to improve performance at an individual, team and organisational level". (Respondent 15).*

The University does not have a performance management strategy. Organisational success is dependent on the performance of strong supportive cohesive teams. Such organisations are known to have deep organisational teams that have layers of expertise.

> "A *performance management system helps identify those employees that perform below or higher than the standard as well as those who meet the standard and show potential for higher positions". (Respondent 26).*

The performance management system identifies organisational weaknesses in an attempt to provide feedback for improvement. In doing so, the processes must be fair to ensure that the ladder of learning is continuous despite the complexity of the organisation.

4.2.4 Employee commitment

Employee commitment occurs when all employees within a team are committed to achieving the goals of the organisation.

"Every employee is important to the organisation and should demonstrate commitment to the organisation, however the, University does not recognise the contribution of employees" (Respondent 3).

The data revealed that the commitment levels appear low at the University, as employees are not recognised. This finding is further expressed by the following quotation:

"A lack of commitment could be largely because of the organisational culture and history and the lack of the ability to take risks" (Respondent 11).

The merger between the ex-Natal Technikon and ML Sultan Technikon, resulted in differing organisational cultures as employees from these institutions brought behaviours and styles that they were familiar with. This created a clash in cultures and impact on organisational performance. The performance management system is an intervention to be used to assess commitment, establish reasons for the lack of commitment as well as to establish interventions to recognise contributions. However, the University seems to struggle to merge these cultures into a single unified culture to create employee commitment. Despite employees belonging to the same University, they continue to uphold beliefs and assumptions of the previous institutions. Hence, the University must recognise that every employee is important to the organisation and should therefore demonstrate commitment that drives quality and excellence.

4.2.5 Employee conflict level

Employee conflict level refers to the disagreement of employees, who respond differently on various issues. This conflict can have a negative effect

on the organisation and would therefore pose challenges in building teams to advance the vision of the organisation:

"There are too many policies that are, not aligned to talent management and if not revised, aligned and integrated may result in conflict with employees and management" (Respondent 18).

This is further emphasised in the quotation below:

"The challenge is to change mind-sets to prevent conflict" (Respondent 34).

A learning organisation drives its business through accepting that its employees will be innovative to embark on new initiatives. Organisations will succeed if they have strong supportive teams, which will minimise the level of employee conflict. To bring about a change in the mind sets of the employees, the organisation must create a value system that would raise consciousness about working together to reduce conflict levels, thus building a positive working environment. Furthermore, the non-alignment of policies of the University may result in conflict with employees and management. The University has not embarked on an integrated decision-making approach on talent management. Such an approach is bound to reduce the conflict level and bring about a sense of compliance and harmonious relationship between the University and the employees.

4.2.6 Number of disputes

Disputes refer to the various disagreements of the employees that emanate from conflict situations. Talent between management and employees as well

as poor industrial relations could lead to mistrust because of inconsistent policies. This view indicates that having a consolidated talent strategy would go a long way in clearly stating a talent policy that could be employed in attracting and developing talent, thereby reducing any disputes and conflict with regard to the interpretation of these interventions:

"Employing the correct talent would enhance teaching, learning, research and entrepreneurship, thus preventing disputes as employees will be able to see the benefits of decision making and good teaching" (Respondent 27).

These observations suggest that the University does not have a talent strategy that could act as a catalyst to motivate employees to reduce the number of employee disputes and conflict.

"Organisations will succeed if they have strong supportive teams that is characterised by low conflict" (Respondent 38).

The University appears be engaging in recruitment practices that do not necessarily attract the correct talent since the absence of a talent strategy results in inconsistent talent attraction and recognition. This approach may have detrimental implications to meeting the standards and quality of the delivery of its teaching, learning, research and entrepreneurship as part of its core business.

4.3 THEME 2: THE ROLE OF POLICY RIGIDITY IN TALENT MANAGEMENT

Policy rigidity was described as the second most significant contributor to the delays in recruiting, development and retention of talent. A rigid culture involves a strong resistance to change processes, where management displays an unwillingness to adapt to the changing needs of the organisation. The following set of variables was maintained as influencing policy rigidity within the management hierarchy:

- Hierarchical power distribution
- Autocratic decision making
- Policy rigidity
- Communication level
- Employee trust level
- Silo mentality
- Employee turnover

4.3.1 Hierarchical power distribution

Hierarchical power distribution refers to the power structure that is dominant in the decision-making powers also guided by the values of the University and cultural symbols that defines the organisation. Hierarchical power rests in managers who make decisions on strategy that has an impact in the direction the organisation would take. Such an approach can be time consuming as decisions take a long time from ground level to the executive level.

The culture that underpins hierarchical structures emerged from the merger of the ML Sultan and Natal Technikon. The effects of the merger has still lingered on since not all benefits have been harmonised, for instance, employee

numbers remain distinctly separate. The University needs to develop a corporate identity, shared and bought into by employees. In addition, employees are not always motivated by money but by a form of new shared identity and kinship. The following respondents affirm the need for the University to move away from a hierarchical structure to a more flat structure that is engaging and inclusive.

> *"Hierarchical power rests in structures where managers make decisions on structure and governance matters" (Respondent 17).*
>
> *"DUT needs a more flat structure as it is currently too hierarchical" (Respondent 7).*

There is a need to move away from hierarchical structures. The nature of hierarchical structures have multi layers of power distribution amongst its management. These structures are highly bureaucratic and rules based. The organisation needs to have flatter structures with fewer layers of management that are closer to the employees to facilitate open and consultative communication resulting in effective decision-making.

4.3.2 Autocratic decision making

Autocratic decision-making refers to decisions being, made without consultation. One of the challenges faced by the University is the high turnover of its executive management resulting in differing managing styles in policy decision making. This exasperates the challenge faced by the organisation since bureaucratic structures already exist. The study found that the high transiency in executive management is unsettling and creates uncertainty amongst the employees. The responses below affirm this observation.

"The impact in transiency in executive management and the autocratic decision-making causes reputational damage to the University" (Respondent 5).

The University is driven by rules as envisaged by the following respondent:

"There are too many rules at the University and at times there are no or little communication due to the autocratic approach" (Respondent 8).

The nature of bureaucratic structures tend to favour autocratic decision-making. This type of decision-making approach poses challenges to the organisation to meet its strategy. As a result, such structures employ managers that reflect autocratic decision-making and poor communication with its employees. Employees are critical of this type of leadership, as it is not conductive to change and managing complex organisations like DUT that is, geographically dispersed across many campuses.

4.3.3 Policy rigidity

Policy rigidity refers to the policy and systems that are inflexible and rigid. The University has policies and procedures in place that are rigid and does not appear to make provision to address the changing needs of the organisation. This view is supported by the following respondent:

"The recruitment policies are, too rigid, and unimaginative" (Respondent 9);

"DUT's systems are rigid and too specialised and is not flexible on cross-functional learning given that the environment is constantly evolving" (Respondent 6).

The policy approval process is lengthy and at times, if not supported by the relevant stakeholders, can delay the approval and implementation of important policies. The current strategy at the University focuses largely on cost and is not flexible and imaginative enough to make provision for attracting employees that are on the cutting edge of research or in the midst of projects to make provision for cross-functional and multidisciplinary learning. These individuals come at a high cost and the University should recruit these employees and ensure that they are, remunerated accordingly. The University should revisit its recruitment policy and strategy, making it flexible so that it could address transformation and change. This will make it attractive for such individuals to choose to join the University. There are financial constraints and appropriate talent comes with a high price, however, key positions should be established and the correct talent brought in.

4.3.4 Silo mentality

Silo mentality is found when employees operate independently of each other. While the goal is to collectively achieve the vision, there is no coherent method of steering the organisation in the same direction to produce effective results. This disjuncture risks the outcome of poor work ethic and misdirected work functions. Further barriers include leadership, scholarly collaboration, and adoption of silo approaches. DUT's role in the economy and on society is critical to its existence. The following quotations affirm the silo driven approach at the University:

"*Silo driven structures result in a poor work ethic" (Respondent 29).*

In addition, the University is seen as ignoring the need of adopting an integrated approach in its systems and policies to prevent silo structures:

"DUT has a tendency to encourage silo approaches" (Respondent 22).

Silo driven structures lead to ineffective teams because employees may be pursuing their own goals and not the organisational goals. They tend to compete with themselves instead of competing with external competitors. This is symptomatic of poor work ethic resulting in the organisation losing its competitive edge thus increasing conflict and delaying the achieving of institutional goals.

4.3.5 Employee turnover

Employee turnover occurs when employees exit the organisation for various reasons. A disengaged workforce experiences a higher turnover rate, resulting in increased costs for recruitment and selection:

"Employees leave the organisation because they may be unhappy as a result of unresolved issues" (Respondent 27).

Strategies are required to address employee turnover that has severe risk for organisations, especially Universities that attract skilled innovators and knowledge producers. As evidenced by the quote below, the University is at risk of losing its key talent:

"The recruitment policy does not make provision for targeted selection to specifically address the talent gap at the University and could lead to high turnover" (Respondent 1).

It was worth noting that majority of the employees that had exited provided reasons that they had alternative employment. This could be as a result of

better prospects for recognition, promotional or salary related matters. Retention of talented employees is critical to the organisations success as employees are instrumental in the overall growth and performance of the organisation. Provision of leadership development, succession planning, and mentoring and coaching opportunities are key to reducing employee turnover.

4.3.6 Communication level

Communication level refers to engagement with employees that encourages verbal or written, conversations on policy matters. At the University, communication was an area that needed to be improved:

> *"If staff are not part of the process and see themselves as outsiders, it complicates issues; they must own the process in order for it to be followed and for them to believe in it. Open communication channels and transparency are essential to address staff concerns and fears"* *(Respondent 9).*

There is a need to keep stakeholders informed of new projects, new initiatives, revised strategies, new legislation and policies to keep employees engaged:

> *"Policies, procedures, structures and systems would need to be flexible and adaptive and not rigid and aligned to the talent management strategy in order to ensure the success of projects undertaken to build communication and trust levels" (Respondent 8).*

The policy decisions taken by management often instils a lack of certainty among employees who may not necessarily see themselves as part of a whole system. Employees on the other hand, may be fearful to communicate with

management, to their own detriment, which further widens the gap between employees and management.

Information relating to the organisation's future is important in the employee's role at the University. Providing information to employees keeps employees engaged and motivated to enable them to function more efficiently, thus realising their full potential. It is important for employees to have an opportunity to voice their opinion often leading to increased trust levels.

4.3.7 Employee trust level

Employee trust levels refer to the ability of employees to feel confident about the integrity of management. Employee trust level is dependent on, amongst other factors, consultative and inclusive leadership styles. To improve trust levels, employees were of the view that there was a need to build employee trust level in management. The respondent suggested the following solution:

> *"Line managers must have authority and be trusted to make decisions and should be held accountable" (Respondent 21).*

Employee commitment is shaped by various historical factors such as the merger and transformation to a fully-fledged University and the lack of a unified culture, as affirmed by the following respondent:

> *"A lack of commitment could be largely because of the organisational culture and history and the lack of trust in the organisation and the ability to take risks." (Respondent 11).*

The organisational culture, bureaucracy, autocratic leadership have cumulatively contributed to the lack of employee trust levels in management. Trust is the driver of employee attraction and retention as employees begin to perceive management as being honest and having integrity in decision making on talent attraction and recognition. It envisaged that they will be more engaged, thus increasing employee trust level.

4.4 THEME 3: TALENT ATTRACTION, RETENTION AND DEVELOPMENT

The following variables identified influence recognition of talent, performance and potential:

- Employee turnover
- Employee recognition
- Employee morale
- Quality of teaching
- Student staff ratio
- Employee burnout
- Talent attraction
- Employee productivity
- Qualified employees
- Talent retention
- Substandard service
- Employee workload
- Absenteeism

DUT has an informal approach to the recruitment, development, retention approaches and incentive system. There are a number of ways to identify talent, and an important approach would be to identify excellence and the mechanism used to identify this talent.

4.4.1 Employee turnover

Employee turnover refers to employees exiting the organisation for various reasons, including resignation, retirement and promotional positions offered elsewhere. The challenge faced by the University is the loss of knowledge particularly from those who retire and exit the institution, as stated by the following respondent:

> *"Not much is being done to manage talent at the DUT and people leave the organisation because the talent policy is not finalised" (Respondent 37).*

To address this problem, formal mentoring, coaching and development programmes are necessary to create opportunity for continuity purposes.

> *"The risk is that turnover can increase if employees are not developed from within and could be set up for failure" (Respondent 28).*

It appears that employee turnover results in the loss of talent, placing the University at risk in the smooth continuity of its operations. Policies and procedures on talent management is critical to give effect to development for future positions so that when employees leave, there is a pipeline of talent available for replacement purposes.

4.4.2 Talent recognition

Talent recognition occurs when the University acknowledges excellence of employee performance. Employees want to be recognised as well as to have

open and honest relationships with their senior which, increases commitment levels. This view is supported by the quotation below:

"The University acknowledges excellence and recognises competent employees suitable for appointment" (Respondent 13).

Emphasis should be placed on an institutional performance management system that recognises and rewards performance as supported by a portfolio of evidence to justify the recognition.

"The performance management system should, in addition to being used for the recognition of high performance and potential be a fair and transparent process as often numbers are not reflective of the actual situation" (Respondent 15).

The fully operationalisation of the performance management system at the University is imperative for recognition of employees. However, fair and transparent processes must be employed, failing which the University risks losing such key talent.

4.4.3 Employee morale

Employee morale refers to employees' feelings arising out of experiences at the workplace. The University needs to look at continuous strategies to improve employee morale and retention. This observation is supported by the following respondent:

"Improving confidence of the employees will create mobility within structures of the workforce and uplift morale of the employees" (Respondent 11).

Other reasons for low morale include the inconsistent application of policies. The following respondent mentioned that:

"There appears to be a deviation from these policies resulting in a low staff morale" (Respondent 1).

The organisation would need to build confidence and morale so that employees are able to take control of their careers and recognise opportunities when it is available. Recognising talent will uplift the morale of the University and will be in keeping with the University's intent to strive towards a learning organisation. Staff should also be given further opportunities to engage in staff exchange programmes on a much broader scale than that which is currently happening to bring in international exposure and thinking to the University.

4.4.4 Quality teaching

Quality of teaching refers to the dissemination of knowledge in such a manner that produces excellent student results. The University is becoming increasingly competitive in a knowledge driven economy and therefore has to focus on quality of teaching for improved results, as evidenced by the following respondent:

"Quality teaching may result in a higher research output as well as increased pass and graduate rates, resulting in higher subsidies" *(Respondent 3).*

The lack of quality teaching could result in high dropout and low pass rates, as affirmed by the respondent below:

> *"The challenge faced by the University is that once the student registers, there may be drop outs as a result of either incorrect subject choice or that the student may be unable to pay tuition fees or could be poor quality teaching" (Respondent 4).*

Quality teaching is important for student success rates and help contain students' dropout rates. Quality teaching is important in the development of research output in a knowledge driven society.

4.4.5 Student staff ratio

Student staff ratio refers to the number of students per employee in a classroom. The low student to staff ratio can help students to build closer relationships with their lecturers and receive timeous feedback as well as engage in more interactive and inclusive discussions. Further, smaller student numbers per class, offers individual attention, which encourages greater interaction between the student and the employee, thus yielding improved results. However, increased student numbers lead to higher stress levels, thus resulting in the employees feeling frustrated and could exit the institution, as envisaged by the respondent below:

> *"Employees tend to leave the organisation due to the high staff student ratio" (Respondent 5).*

The increased student number places immense pressure on the academic employee, thereby reducing the available time for their own professional development, as expressed by the respondent below:

"No time-off for development as there is an increased student allocation with no relief provision" (Respondent 12).

4.4.6 Employee burnout

Employee burnout can be conceptualised as a process in which the employee has experienced prolonged high levels of job stress that has placed the employee beyond their ability to cope and often results in a negative attitude towards work life. Increased student numbers results in increased workload that includes additional assessment, student evaluations and examinations. The workload is, further exasperated by projects that include new programme offerings and re-curriculation, thereby placing further pressure on the employee, as articulated by the respondent below:

"If the focus of the organisation was on achieving student numbers and increasing income only, without giving attention to the welfare of employees, this could result in employee burnout, employees will leave the organisation" (Respondent 6).

Difficulties in building capacity for professional growth can be attributed to the lack of time due to high student numbers, as reflected in the quotation below:

"Not enough time to develop due to increased student numbers often resulting in exhaustion and burnout" (Respondent 27).

Clearly, if student numbers exceed the minimum student and staff ratios as set by DHET, employee productivity and service quality is likely to decrease, thereby reducing opportunities of being recognised. Furthermore, the time allocated for the development of the employee could be affected. Staff would not have sufficient time to engage in their own development or conduct research.

4.4.7 Talent attraction

Talent attraction refers to the recruitment of employees that bring in new knowledge and different thinking to the workforce. DUT requires an efficient system to recognise talent and excellence that would serve the best interest of the institution. In order for an organisation to be student centred it is imperative for a learning organisation to attract and grow the correct talent to ensure that student capacity is developed. If the institution develops its own talent, around areas identified, this would provide management with opportunities to utilise such talent that can be used to develop, mentor and coach other employees.

> *"Often the reason why people with scarce skills are recruited from outside of DUT is because the University requires the skill that does not exist at the University" (Respondent 9).*

> *"Despite finances, monies should be available to attract key talent if critical skills are needed. Not having the right person could impact on objectives or goals or productivity or development of others" (Respondent 10).*

The internal employees are expected to compete with the external candidates, which may reduce the level of morale within the workforce and incur additional costs. These employees may be denied opportunities of being, developed for

recognition and promotion from within the institution, as expressed by the respondent below:

> "*Recruiting from the outside would pose a challenge given the costs incurred in the recruitment processes. Thus, internal recruitment is bound to help the University to reduce recruitment costs*" (Respondent 23).

The University implements its recruitment policy and advertises both internal and externally. It is important for the University bring in expertise to create new knowledge by attracting external expertise and talent despite the challenges experienced in attracting key talent to build capacity. It is important for the University to ensure that key skills as well as scarce and critical skills externally are, procured in order to build existing capacity. The new talent would contribute to technology innovation and research.

4.4.8 Employee productivity

Employee productivity involves the level of efficiency of employees at the workplace. The performance management system is critical as it recognises talent and sets quality benchmarks and standards and reduces risks. It further links to strategy and creates pathways of talent recognition for upward mobility. The respondent below affirms this observation:

> "*Upward mobility should be driven by a formal performance management system that must be supported by a portfolio of evidence*" (Respondent 23).

The performance management system is, viewed with much suspicion and misperceptions, however, the system recognises high quality and productivity and therefore, should be perceived as a recognition tool to highlight talent. The delay in fully operationalising the performance management system, further results in employees being denied the opportunity of recognition for internal mobility into promotional positions. To prevent any form of bias, it is imperative that recognition is based on a portfolio of evidence in an attempt to build trust and transparency.

4.4.9 Qualified employees

Qualified employees refer to an employee who has met the minimum requirements for the job set required by the University to demonstrate the ability to conduct his/her duties. Retention of qualified employees in building organisational capabilities to ensure sustained competitiveness is critical to organisational success. The loss of appropriately qualified staff poses a challenge and creates a skills gap at the University.

"There is insufficient interventions in place to retain these qualified staff and address the skills gap at the DUT" (Respondent 4).

The University is contributing to staff development using the skills opportunities and not much done to retain staff who excel in their jobs, as supported by the following quotation:

"The challenge of retaining staff results in the loss of appropriately qualified staff from other race groups creating a skills gap at the University" (Respondent 30).

Inadequate retention interventions results in the loss of qualified employees, thus posing a challenge to the University to replace such employees. Furthermore, the University has to ensure compliance with employment equity imperatives and faces challenges in retaining qualified employees from designated groups. The University faces various overlapping priorities, namely, there is a need to ensure that the staff are qualified to deliver on the core business of the University while simultaneously having to address institutional employment equity imperatives. Therefore, it is imperative that the University ensures that interventions are in place to retain qualified employees to deliver quality teaching and increase student performance.

4.4.10 Talent retention

Talent retention refers to the organisational goal of retaining employees who have the knowledge, skills, ability and qualifications to help achieve the strategic priorities of the University in order to reduce turnover. One of the key strategies for retaining employees is to ensure that, they are constantly rewarded for their efforts and contributions made. Furthermore, such employees are likely to build institutional memory specific to the organisation, which, helps them to address challenges with ease. However, the following respondent asserts:

> *"DUT has been unable to retain qualified staff due to numerous factors that include lack of opportunities for access to higher positions"* (Respondent 10).

> *"The University is not adequately prepared for talent retention due to the lack of sufficient planning" (Respondent 3).*

The University has not made provision for talent retention of employees that excel or display high potential in their performance, resulting in the loss of

highly skilled employees. Engaging in short and long term planning for talent retention is crucial for the sustainability of talent. The University must be mindful that losing talented employees, increases recruitment costs and loss of intellectual capabilities to other institutions or other countries.

4.4.11 Sub-standard service

Substandard service refers to the service level an employee delivers to its customers and stakeholders. The value chain helps create a service culture. The notion to serve must be embraced as part of the University's values and therefore the respondents below posit that such employees must subscribe to this quality system, thereby improving the student throughput, graduation and service delivery:

> *"Recruitment of correct talent that brings in teaching excellence and service delivery would result in improved throughput, graduation and improved service" (Respondent 30).*

> *"The correct talent would improve the service standard of the teaching and learning and result in greater success rates of the students" (Respondent 11).*

By ensuring the University recruits the correct talent, service delivery is bound to increase student performance. On the other hand, burnout results in substandard service.

4.4.12 Employee workload

Employee workload refers to the allocation of work to the employee. When employees leave, existing employees have to take on additional workload in

the absence of the filling of the post. As a result, employees are unable to engage in self-development for improved qualifications, as expressed below:

"There is no time-off for development as there is an increased workload with no relief provision" (Respondent 12).

The University has a tendency to use the old formula in the workload despite the broadening of its scope from diploma to degree offerings, resulting in an increased employee workload. In addition, employees have to take on additional workload to compensate for those that have left the system.

"For talent management programmes to be successful, the staff member has to have a balanced workload that makes provision for professional growth" (Respondent 17).

There appears to be a lack of forward planning to ensure that the employee has a balanced workload in order to have sufficient time to engage on agreed priorities to meet sector or organisational goals. The issue of remuneration, increased workloads and bureaucratic conditions determine whether the talented employees will leave the organisation.

4.4.13 Absenteeism

Absenteeism refers to employees staying away from work. Increased pressure causes the employee to experience high stress levels and exhaustion, which often results to the employee staying away from work, thus affecting critical operations of the University. Prolonged absenteeism places increased risk on the University thereby affecting the efficiencies of the system.

"Work pressures experienced results in increased absenteeism" *(Respondent 4).*

The University may need to engage on a cost saving strategy on recruitment and to explore approaches to motivate and uplift the moral of existing staff members in order to prevent absenteeism.

"Staff may stay away from work if there is no change on how the University currently responds to talent" *(Respondent 29).*

Absence from work is concerning for the University as this is indicative to the organisation that employees are exhausted, stressed and experience burnout. Further increased absenteeism affects service delivery, thus compromising the efficiencies of the system.

4.5 THEME 4: QUALITY TEACHING AND LEARNING AS KEY INFLUENCES TO TALENT DEVELOPMENT

The following variables were depicted as being influential in the teaching and learning dynamics at the institution:

- Quality teaching
- Student motivation to work
- Student performance
- Graduation rates
- University reputation
- Ability to attract qualified employees
- Resistance to learning
- Student pass rate
- Research output

- Risk to University standards
- Student job opportunity
- Student employability

4.5.1 Quality teaching

Quality of teaching refers to the dissemination of knowledge in such a manner that produces excellent student results. The graduate output is dependent on the quality of teaching, which is, informed by how motivated and committed the employee is. High quality teaching impacts on students' progress and ultimately uplifting the University's reputation. The lack of formalised talent strategies places the University at risk as employees, if not recognised, are bound to be demotivated and experience low morale. Furthermore, quality of teaching would be compromised, thus, affecting the student success and graduation rate. This is articulated in the following quotation:

"The loss of such talent or the recruitment of the incorrect talent could result in poor quality teaching that would result in a decrease of the graduation and success rate" (Respondent 15).

An additional challenge is the drop out of students, which could be largely because of poor quality teaching. Other factors that contribute to student drop out is poor subject choices and lack of finance to fund their studies.

"The challenge faced by the University is that once the student registers, there may be drop outs as a result of either incorrect subject choice or that the student may be unable to pay tuition fees or could be poor quality teaching" (Respondent 4).

If quality teaching is present, it is highly likely that there would be an increase in student pass and graduate rates. There appears to be a lack of targeted selection of qualified employees and therefore, the student dropout rates could be attested to quality of teaching, thus severely affecting the state subsidies and the University funds.

4.5.2 Student motivation to work

Student motivation to work occurs when the learner directs his energy to achieving their academic potential. Students are motivated to learn by competent teaching staff:

> *"Students should be encouraged to get involved in the innovation and entrepreneurship initiatives at the University"* (Respondent 3).

> *"In order for an organisation to be student centered it is imperative of a learning organisation to attract and grow the correct talent to ensure that the student capacity is developed" (Respondent 6).*

The University is complex and has to keep up with globalisation, massification of education and student access challenges. Therefore, the University would therefore need to revisit its talent strategy and make provision for the employability of its students as part of its drive to motivate and address issues of unemployment.

4.5.3 Student performance

Student success is related to the student performance based on how motivated the student is to perform well. The University is currently plagued by a number of challenges that affect student performance such as student

dropouts, increased student protests and class boycotts. Amidst this staff must continue to keep students motivated to learn to improve student performance. Quality teaching is critical to the student being motivated to perform well in the classroom. Therefore, the lack of an integrated talent management system is bound to affect the performance of the student and ultimately the overall graduation and success rates.

> *"DUT is an educational institution and if talent is developed and retained with the appropriate support, it will positively impact the quality of the student's progress" (Respondent 24).*

Talented teachers have an important contribution to make in the lives of students in unlocking their potential and preparing them for the world of work and knowledge. In addition, a conducive learning environment also influences the student performance, as expressed by the respondent below:

> *"The student's performance depends on a student centeredness environment and there is uncertainty as to whether elements that constitute a student centeredness environment is in place to help the student up to the stage of graduation" (Respondent 7).*

Student performance is dependent on how teaching is conducted by the teaching staff. The ability of staff to motivate students in learning has emerged as an important tool to improve student performance.

4.5.4 Graduation rates

Graduation rates refer to the number of students that complete their qualification. The University's current graduation and success rate is dependent on student performance, which is, influenced by quality teaching:

> *"If the University recruits, develops and retains the correct talent, then it is sure to meet its strategic goals of higher throughput and research outputs succession and graduation rates. As a result, subsidies will increase and supplement the University's shrinking budget"* *(Respondent 3).*

Setting high standards of teaching and research will go a long way to improving graduation rates:

> *"Recruitment of correct talent that brings in teaching excellence and service delivery would result in improved throughput, graduation and improved service" (Respondent 30).*

Improved graduation rates are related to good teaching. Setting high standards can be a requirement for recruitment of new incumbents.

4.5.5 University reputation

University reputation is the overall impression of excellence provided by stakeholders. By ensuring that the correct talent is attracted, retained and rewarded, it is more likely that the teaching and learning techniques used and expertise gained would be beneficial to the student since one of the strategic objectives of the University is to be student centred. This would lead to the student having a better understanding of the subject and would boost the morale resulting in a higher throughput rate. Incidentally, the image of the University would be uplifted. The research output would also be increased, and staff would be motivated to produce more research for publication in journals, further leading to new knowledge being produced, resulting in increased funding. Innovation and entrepreneurship would add value in teaching students to face the real world. Each student should to be marketed

and employable with a view to increasing sponsorship and being ambassadors of DUT:

> *"Increased research output that raises reputational profile of the University. Further, it will improve DUT's teaching and research output and innovation and entrepreneurship as well as position DUT at the competitive edge as well as enhance its image and reputation"* (Respondent 32).

Thus, adopting internal recognition processes, help build a motivated workforce that is engaging and encourages excellence:

> *"Utilising existing employees help build new knowledge, promote a good work ethic and contribute to the goal of becoming a learning organisation, raising the reputational image and uplifting the profile of the institution and ultimately the economy" (Respondent 15).*

Given the subsidy cut by the DHET, the University needs to increase innovation and entrepreneurship initiatives to increase funding that would assist in additional learning interventions that would improve quality of the student pass rates and uplift the University's image and reputation.

4.5.6 Ability to attract qualified employees

The ability to attract qualified employees would positively have an impact on the learning organisation by contributing to employee development, and motivation, as well as providing the University with a competitive advantage in attracting and retaining talented and skilled employees. As asserted by

Respondent 8, talent recognition and development processes must be, aligned to the recruitment process:

> *"Attempts are being made to recognise and grow talent even though the employee will still be subjected to the recruitment processes" (Respondent 8).*

> *"Violent protests at DUT has a negative effect on the attraction and retention of staff and students" (Respondent 5).*

The University's ability to attract, develop and retain employees not only assists in meeting strategic objectives and in addition assists the employees in achieving their career goals. A combined method of building capacity, mentoring, and coaching employees with potential helps the University to develop talent and avoid any unnecessary external recruitment. However, as expressed by Respondent 5 above, student and staff disruptions affect the University's ability to attract quality staff and students.

4.5.7 Resistance to learning

Resistance to learning refers to the level at which the students resist teaching and learning offered. The University's public image has been damaged by more than a decade of student and staff strikes, protests, violence and negative media and public sentiment, which has since contributed to the resistance to learning:

> *"…limited understanding of the change dynamics hence there is bound to be resistance" (Respondent 7).*

However, quality of teaching is likely to reduce any form of resistance, as the student will feel motivated and committed to learning. Alternatively, the increased workload could also result in student resistance to learning:

"…increased student numbers often resulting in exhaustion and burnout and eventually students resisting to learn" (Respondent 27).

Resistance to learning may be as, a result of poor teaching, high student and staff ratio, boycotts resulting in burnout and exhaustion. Furthermore, recruiting high-level talent will go a long way in creating a conducive environment in which students will be able to learn and flourish.

4.5.8 Student pass rate

Student pass rate refers to the number of students that successfully pass their examination. Various elements affect the student pass rate, particularly quality teaching. Whilst the University focusses on pass rates, emphasis should also be placed on building the competence of employees.

"… too much focus is on pass rates and not on managing talent" (Respondent 30).

The University needs to place emphasis on attracting the appropriate talent. This approach is likely to impact on student pass rates, increased research output, thus contributing to an increase in funding, as asserted by the following respondent:

"*Excellent teaching would result in high pass rate, increased research output would improve DUT's research profile and innovation and*

entrepreneurship would produce top class graduates" (Respondent 34).

One of the key drivers of student pass rates are effective teaching. An excellent core of key professionals will make a significant contribution in ensuring that students produce high pass rates, increase research output, thereby increasing state subsidy.

4.5.9 Research output

Research output refers to the number of research publications by an employee that, results in increased income to the University.

> *"Adopting an integrated talent approach and employing the correct people with the right skills, attitude and qualification applicable to UoT will lead to increased research output" (Respondent 36).*

The University focuses on the DHET specifications for research output. Employees struggle to meet this requirement as they have high workloads, thus having an impact on the government subsidies for research funds.

4.5.10 Risk to University standards

Risk to University standards refers to non-compliance in meeting the minimum standards that are set by DHET. Compliance to University standards are crucial to the accreditation and registration of the University and its programmes are based on meeting these standards. The risk of not meeting these standards could result in programmes having being deregistered, which has severe implications to the University's finances, as expressed by the respondent below:

"Teaching standards are compromised if the University does not employ or recognise the correct talent to increase research output and innovation and entrepreneurship" (Respondent 33).

The University at present does not have sufficiently qualified employees with masters and doctorate degrees to deliver on the expected standard. Therefore, the University would need to engage external talent attraction processes to mitigate the associated risks on meeting the University standards.

4.5.11 Student job opportunity

Student job opportunity refers to the opportunities students are exposed to in industry. Partnerships with industry and the University increases opportunities for workplace learning, which is a requirement for the student to complete their qualification:

"Exposing the students to national and international exchange programmes, industry and higher institutions of learning to broaden knowledge in the classroom and create job opportunities" (Respondent 4).

The University engages with external stakeholders on staff and student job opportunities. However, additional partnership, both nationally and internationally should be forged to create job opportunities for the students. These graduates may not have sufficient experience not be given the opportunity to display their knowledge and expertise.

4.5.12 Student employability

Student employability refers to the employment of students by industry. As the University builds its relationship with industry and secures the workplace experience opportunities, it is likely that such an industry will provide job opportunities to the student, posited by the following respondent:

> "*Students should be prepared for integration into the workplace and, in doing so the University will be assisting in reducing the unemployment rate" (Respondent 3).*

Greater emphasis should be placed on student employability and placement within industry thereby reducing the unemployment rate.

4.6 THEME 5: SUSTAINABILITY CONSIDERATIONS IN TALENT MANAGEMENT

The following variables were identified as being influential in the sustainability and funding dynamics of the University:

- Research output
- Research funds
- Collaboration
- Innovative ideas
- Research commercialisation
- Subsidy income

4.6.1 Research output

Research output refers to the research papers and journals published. Such publications increase the state subsidy income and the University's reputational image. Research is now a mandatory requirement for UoT's to produce research. Additional research output is a source of income and places the University in a positive position amongst its competitors.

> *"The research output and opportunities to bring in 3rd stream income through the development of short courses will be increased" (Respondent 6).*

The funds generated through the research activities provides avenues to improve research infrastructure for further research.

4.6.2 Research funds

Research funding refers to monies gained through the promotion and support of research. While talent is an essential resource in higher education, organisations require funding to sustain itself. Hence, the importance of funding to the sustainability of the DUT, as expressed by following respondent is critical:

> *"One of the key barriers is funding. The institution requires stronger internal sectors to drive research output" (Respondent 6).*

The University would need to engage in attracting external researchers to drive and promote research output to increase research fund. As proposed by Lesenyeho, Barkhuizen and Schutte (2018b) while HEIs in South Africa are

faced with the weakening of its brand against the standards of international HEI's, factors such as inadequate state and research funding as well as uncompetitive salary packages and incentives contribute to the delays in achieving its strategic imperatives.

4.6.3 Collaboration

Collaboration is the working together to produce a common outcome. With regard to recruiting the appropriate talent, innovation and entrepreneurship, is likely to be increased as those employees joining the system or provided with developmental interventions from within are expected, to engage with commerce and industry. This relationship would not only enhance relationships with industry for placement of students, but also engage with projects and partnerships to develop new products and patents, all of which has an impact on the image of the University positively.

> *"It is important to invest in young people, and when [they are] recruited, [they] should be given all the support that includes an environment that is conducive for growth. Incorporation of technology, collaboration, innovation [is needed] where staff could develop their own prototype"* *(Respondent 28).*

The University should collaborate with industry and research organisations to invest in its youth to increase employability and job opportunities.

4.6.4 Innovative ideas

Innovative ideas are new thoughts to facilitate the development of research activities for increased funding. This enables the University to position itself in a unique competitive platform. Innovation is also a characteristic of a UoT, as

there is an expectation to apply research through innovative ways to solve problems, as articulated by the respondent below:

> *"Innovation and entrepreneurship that has a positive impact on the University as it will be in a better position to compete for better students" (Respondent 13).*

Innovation strategies can be used to develop new products and services that can be patented and generate income thus, increasing the University's fund and strategically positioning the University in a highly competitive environment.

4.6.5 Research commercialisation

Research commercialisation occurs when ideas and research are transformed into products that are marketed.

> *"Entrepreneurial schools and graduate business schools would need to develop programmes that are relevant to industry to supplement the revenue" (Respondent 6).*

As stated by the above respondent, the University needs to exploit the research commercialisation opportunities to increase its current revenue. Furthermore, there are no entrepreneurial schools and graduate business schools that could maximise opportunities of engaging in partnerships and collaborating with industry to generate additional University funds.

4.6.6 Subsidy income

Subsidy income refers to monies directly affected by the government and any changes in the policies of the higher education framework will invariably affect the DUT learning environment. The challenge faced by the University is that once the student registers, there may be dropouts emanating from either incorrect subject choice or that the student may be unable to pay tuition fees. Once the turnaround time for the programme is met the University would only then be in a position to recruit additional students, as it cannot exceed the capping instituted by DHET. The more graduates are produced, the greater the space available for the intake of new students, hence the greater the subsidy for both the graduating student and the incoming student.

> "*One of the external downward trajectory is the reduced subsidy income by DHET*" (Respondent 6).

As explained by the respondent above, the University is dependent on government funding and the revised subsidy formulae affects the affordability and sustainability of the University. Therefore, it is imperative that the University place greater effort in recognising talent that encourages excellence in teaching to produce improved student performance and increased University revenue.

4.7 THEME 6: POLICY COMPLIANCE AND ITS CONTRIBUTION TO THE DEVELOPMENT AND MANAGEMENT OF TALENT WITHIN THE UNIVERSITY

The following variables were identified as being influential in the policy compliance dynamics at the University:

- Policy compliance
- Risk and audit queries
- Litigation rate
- Policy rigidity

4.7.1 Policy compliance

Policy and governance compliance refers to the management of good corporate governance for organisational stability.

> *"Policies and procedures are not user friendly and do not promote professional and personal growth at all levels of employment"* *(Respondent 15).*

The absence of formal talent strategies at DUT is a further challenge.

> "*Policies need to be revised/refined. New policies to be developed [succession planning to build capacity systematically]. (Respondent 18).*

Many policies as well as supporting legislation have been framed in the last decade to support and guide the operation of HEIS in South Africa. Equally important, government agencies like the Council for Higher Education (CHE), Department of Higher Education and Training (DHET) was established to accelerate and promote entry to higher education. Consequently, the above-mentioned agencies are known to have a profound influence in the matters of HEIs in terms of funding and support, as expressed by the following respondent:

"DHET provides the framework for UOT's and provides a steering mechanism to achieve the goals set out in the White Paper 4, where transformation is emphasised within the Higher Education Sector" (Respondent 4).

A similar view was, expressed by the following respondent:

"External influences include DHET, SAQA, CHE, Professional Bodies, Industry, potential employer, number of external factors that have a direct bearing on the institutions core business that include the regulatory/legislative framework that governs higher education" (Respondent 15).

DUT is a public University hence the affairs of the institution are guided by the policies and legislation governing HEIs. Moreover, as one of the interviewees mentioned:

"The University, being a public institution and receives its funds from the student fees, donors and DHET, operates in the context of legislation and regulations set by DHET in a constantly changing environment with new demands" (Respondent 17).

Adding support to the above assertion, another of the respondent corroborated this further by stating that:

"Higher Education is governed by a series of legislations such as the White Paper of 1997 in which transformation is emphasised" (Respondent 3).

The above statement reaffirmed the position that DUT as a learning organisation is guided and shaped by the policies and legislation that govern HEIs. Consequently, any changes in the policies of the higher education framework will invariably affect the DUT's learning environment.

4.7.2 Risk and audit queries

Risk and audit queries refer to issues that place the University at risk and may occur arising from absence or poor application of policies. Absence of talent management policies and strategies, places the University at risk as it may have inconsistent application of recognition systems. In addition, the absence of such policies impacts on the appointment of new employees as subjective decisions made by committees may not be reflective of the needs of the University. The following respondent asserts:

> *"The University may stand the risk of losing employees whom they have spent time and large sums of money on development in the absence of formal, fair and transparent retention strategies and policies"* *(Respondent 6).*

The following respondent impresses upon the importance of a talent management policy and strategy to attract the required talent to prevent such risk.

> *"The University should revisit its recruitment policy and strategy and make it attractive for such individuals to want to join the University, failing which it risks losing such talent" (Respondent 17).*

The introduction of flexible and attractive talent management strategies would ensure the return on investment on employees that the University has invested in.

4.7.3 Litigation rate

The litigation rate refers to the number of disputes lodged in court. The University could experience an increase in litigation cases due to inconsistent application of policy, as asserted by the following respondent:

> *"Lack of a rewards and recognition framework or inconsistent counter offers made, often leading to litigation or unhappiness within the workforce" (Respondent 15).*

There are increasing labour cases on inconsistent application of policies, particularly on inconsistent counter offer on selective employee retention cases. This approach creates disharmony and raises concerns on issues of fairness and transparency*.*

4.7.4 Policy rigidity

Policy rigidity refers to policies that are inflexible and do not address the needs of the University. DUT's systems are rigid and too specialised and is not flexible on cross-functional learning given that the environment is constantly evolving, as conveyed by the respondent 10 below:

> *"Inflexible and rigid recruitment and secondment policies" (Respondent 10);*

"DUT needs to expedite the approval of the succession planning and career planning policies and avoid rigid policies" (Respondent 2).

Creative and flexible recruitment and secondment policies enable the University to engage in talent attraction, recognition and retention processes that identifies potential employees for succession planning and career pathing, as articulated by respondent two (2) above.

4.8 SUMMATION OF THEMES

Six themes were identified in this study as being pivotal to the management of talent at the DUT. These include: conceptions of a learning organisation; the role of policy rigidity in talent management; talent attraction, development and retention; quality teaching and learning as key influences to talent development; sustainability considerations in talent management; policy compliance and its contribution to the development and management of talent within the University.

Emergent themes suggest that the University has a hierarchical power structure that tends to influence policy development and decision making processes that result in inflexible policies, particularly the recruitment and selection policy that inhibit DUT from becoming a learning organisation. Employees feel disengaged and devalued, as they feel excluded from the bigger system due to the inconsistent application of recognition and retention processes. These observations are not characteristic of a learning organisation and therefore, the University may need to revisit its strategy on how it attracts, develops and retains its employees to ensure that an effective and efficient workforce is created. A workforce that is motivated and committed is bound to deliver on its mandate of ensuring high student performance, creation of new knowledge and improved efficiencies.

Employee productivity is guided by talent recognition and retention strategies as high levels of performance help the organisation to meet its strategic objectives. Thus, employees that are recognised, developed and retained are likely to remain at the University and contribute significantly to the University meeting its strategic objectives. Creating employee upward mobility programmes, succession and career planning as well as the establishment of talent pools assists in creating a sense of redefined value and belonging at the University, thus contributing to the sustainability of its business and the achievement of its strategy.

In addressing the issue of sustainability, the University needs to ensure that it has a budget system that makes provision for costs incurred in talent management, development and retention strategies. A weak budget system that is, not aligned to such strategy places further constraints on any strategic attempt made by the organisation to address the management of talent and the development initiatives associated with talent recognition.

4.9 CONCLUSION

This chapter has explored the data sources of the interviews, the organisational strategy as well as documents from the organisation, thus identifying the key variables that impact, the talent attraction, recognition and retention at the University. Six main themes as well as the variables contributing to the dynamics of each theme was identified. Thereafter, various internal and external factors that influence the University's talent processes were identified and discussed. The next chapter explains the causal relationships drawn from variables and will be presented as causal loop diagrams (CLDs) within the themes identified.

CHAPTER 5 - DISCUSSION

5.1 INTRODUCTION

This chapter demonstrates how critical thinking and causal reasoning can be used in systems thinking and system dynamics to help organisations understand and assess assumptions and to detect problems early (problem identification and model conceptualisation) and make the necessary adjustments to ensure that these have been addressed prior to policy implementation. The traditional way of dealing with problems in a system is to break it up into small problems and solve each problem separately with the assumption that if each part of the problem is solved, then the overall problem is solved. However, this study aimed to gain an understanding of the structural causes that result in behavioural changes managing talent at the University.

Luna-Reyes and Andersen (2003) state that the use of qualitative research methods can guide system dynamics users during the model building process, which can further provide a powerful tool to help organisations understand the dynamics at play in the organisation. The conceptualisation stage defines the problem and system conceptualisation. During this stage, the modeller develops the problem through the process of discussion, supplemented with archival documentation. During the problem articulation stage, it was important to consider the problem of managing talent at the University and how the model developed can serve to present the variables in a simplified manner that can be easily understood. El Halabi, Doolan and Cardew-Hall (2012) affirm that during the model conceptualisation stage, the problem area of the system under study is identified and the system boundary established. This meant that the approach involved exploring the system while simultaneously engaging with the participants. During the study, once the transcripts of the interviews were concluded, coding of the data took place. The responses were, first coded (grouped) in accordance with the interview questions. The

iterative process included the identification of specific factors that capture the data and sub-codes were identified (regrouped). Each code was then compared, analysed and discussed as findings within each focus area. The codes were used to list the variables and the causal relationship was then established. The themes were then identified and the causal links were verified against the transcripts and was revised without affecting the validity of the data collected within each theme. During the diagramming process, some variable names were changed which forced the revision of the causal relationships, while ensuring conformity with the interview data. The policy formulation and evaluation of policies stage would be designed for strategic implementation when sufficient confidence in the model was gained. Feedback was critical for the change in policies. The findings presented in the previous chapter served as a basis for developing a causal loop diagram (CLD) which was then combined to form the SD diagram that represented the complexities of talent management at the University. When there is confidence in the model, changes to the policies and interventions on the system can be made to address the changing dynamics in the system through an iterative process of feedback. The capabilities and behaviours of the variables change over time and often leads to an increase of some of the variables and at times causing long and short-term time delays in feedback channels.

5.2 QUALITATIVE SYSTEM DYNAMICS (SD) MODEL

The aim of this Qualitative SD Model was to provide a holistic picture of the feedback structures and the cause and effect relationships that influence the talent management system and processes at the DUT. It is not always possible to understand the full complexity of these relationships, particularly in the absence of important data. However, a SD approach makes it possible to distinguish between major variables and their cause and effect relationships and helps to visualise their recurrent dynamics. An assumption of system dynamics is that the system behaviour emerges from its structure in the form of cause and effect relationships and feedback loops rather than from a single

variable itself. The aim of a qualitative SD approach is to understand the behaviour of complex systems over time and to consider delays that influence the behaviour of the entire system. Therefore, the purpose of this modelling exercise was to increase the understanding of the complex dynamics involved in managing talent at the University and to consider the possible consequence of existing policies and procedures on the system as a whole. The following themes emerged from the analysis of the interviews and the institutional documentation:

Figure 3. Major themes in managing talent at the University
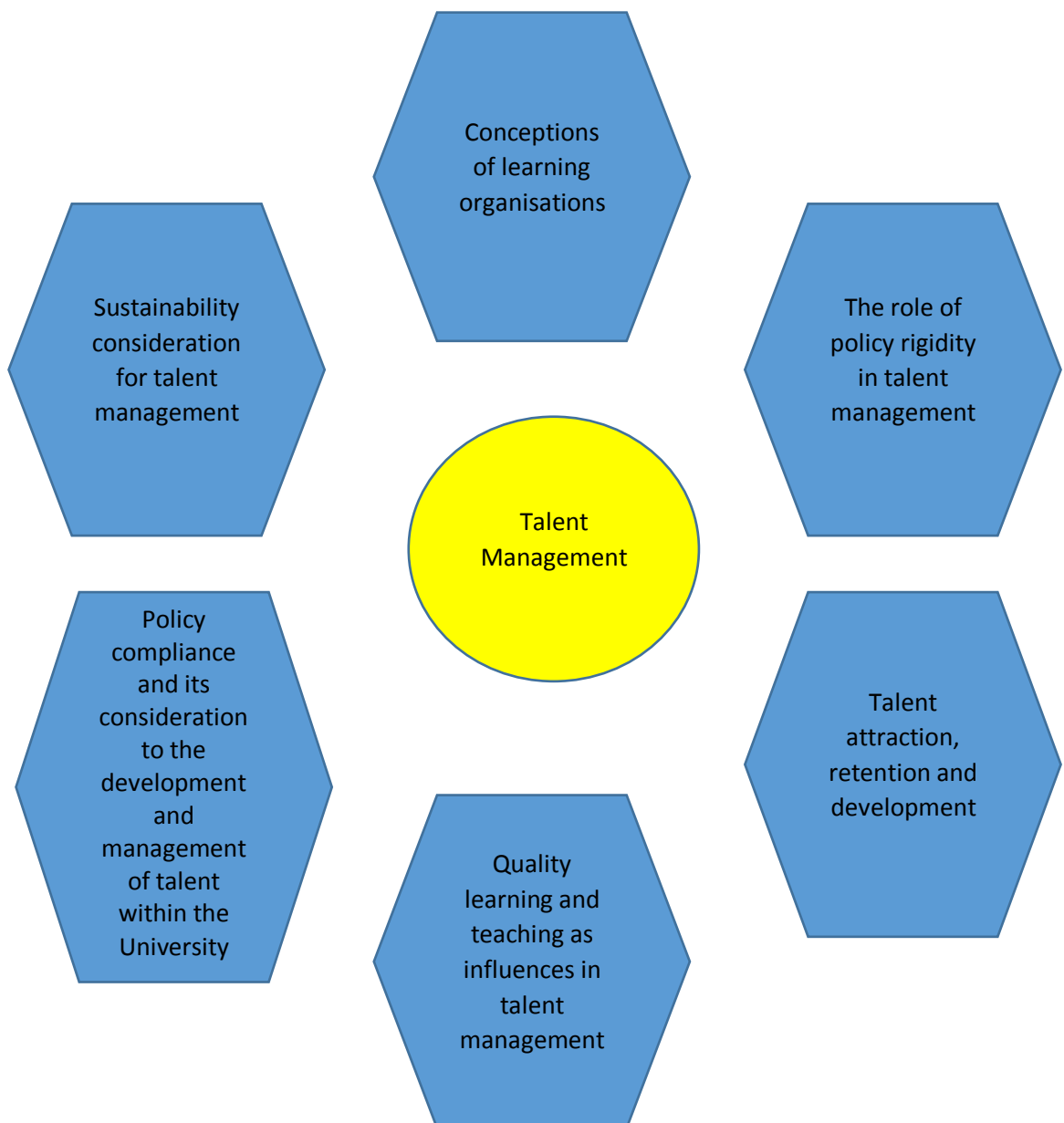
5.2.1 Theme 1 - Conceptions of a Learning Organisation

As mentioned in the previous chapter the variables on page 103 were portrayed as being influential in the dynamics of a learning organisation:
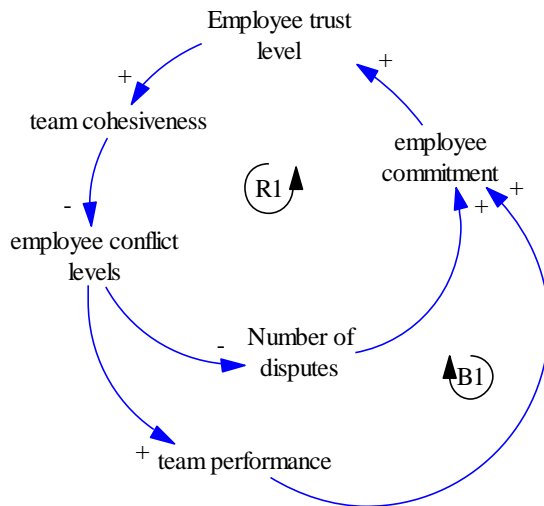
Figure 4. A Reinforcing loop (R1) and a Balancing loop (B1) impacting DUT as a learning organisation

To clarify the causal relationship between the factors of team dynamics and employee conflict level, a reinforcing loop (R1) and a balancing loop (B1) explain the relationship between the variables that have a direct influence on creating or disrupting a learning organisation.

5.2.1.1 Reinforcing Loop 1 (R1)

Trust is key in an organisation. When employees trust their leadership, it is likely that employees will have confidence in the decisions made and could easily be influenced even during periods of uncertainty. However, when there is disconnect in what leaders say and what they do, employees are less likely to become involved and committed to the organisation. In learning organisations, groups of people in the organisations share responsibilities and have common goals. They strategise together and they reach agreement by consensus and implement the decisions in a co-ordinated manner. Through team leadership, these organisations are able to mobilise the talent of key employees and thus enhance team dynamics and team performance. On the other hand, cohesive teams collectively engage in innovation and talent, as they are able to work together. They are also empowered and responsible for their functional activity and accountable for performance. As the employee trust level increases, teams are able to gain a deeper understanding of each other and to build relationships. Hence, team cohesiveness is enhanced, and employee conflict level is reduced, resulting in a reduced number of disputes and increased employee commitment. It is likely that teams that are committed to a common purpose will achieve performance goals that are mutually accountable.

5.2.1.2 Balancing Loop 1 (B1)

If team cohesiveness exists in the organisation, employee conflict decreases and thus it is more likely that teams will function cohesively, thereby increasing team performance beyond their individual self-interests. As team performance increases, teams are likely to receive incentives, which will motivate and inspire them to produce quality work, thereby increasing their commitment. Employees that perform well are bound to increase their commitment to the core function, hence, building trust levels. However, groups of people are not

necessarily teams as they could be competing against each other, rather than focusing on the common goals of the organisation.

A cohesive team with a unified culture are critical components for a learning organization. However, the success of such teams may be compromised, in an environment that has a hierarchical structure and rigid policies. Theme two (2) expands on the role of policy rigidity and its impact on talent management at the University.

5.2.2 Theme 2 - The role of policy rigidity in talent management

The following variables as reflected on page 109, were found to be influencing policy rigidity:
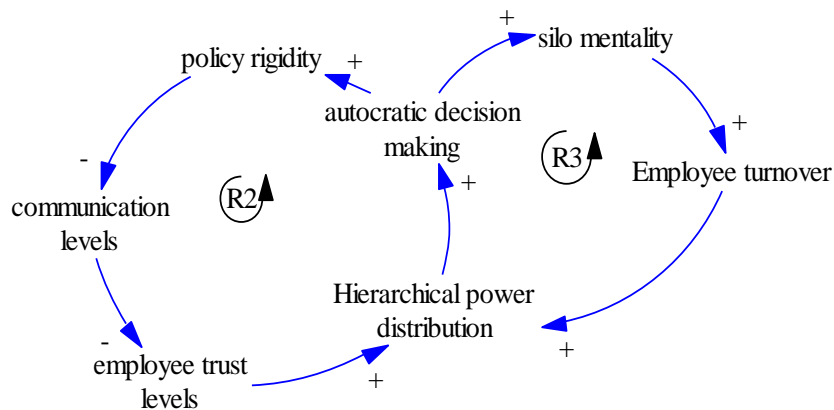
Figure 5. Reinforcing loops (R2 & R3) influencing policy rigidity

5.2.2.1 Reinforcing loop 2 (R2)

Hierarchical power distribution in organisations is characterised by a hierarchical structure. Hierarchical structures have a number of reporting levels in terms of seniority and the power is concentrated at upper levels, while a flatter structure has fewer reporting levels and power is proportionally distributed at all levels with the emphasis being on teams (not silo driven).

When an organisation is characterised by many levels of hierarchical power, decisions taken are highly centralised in the apex of such organisations and management is likely to engage in autocratic decision making assuming that it is in the best interest of the organisation. However, such decision-making may result in rigid policymaking and employee trust levels and communication levels are likely to drop when decision-making is made centrally.

Furthermore, autocratic decision making often results in *silo mentalities* among employees, in which communication takes place amongst certain groups and/or departments within the organisation, to the exclusion of all others. This hampers communication and synergistic action between employees and departments, thus impeding the performance and efficiency of the organisation. Such a situation can be so frustrating that employees could be incited to leave the organisation, thus increasing staff turnover, with the result that hierarchical power distribution is further entrenched within the system when managers feel that they must exert the most power in order to control employees and prevent such turnover for instance.

As trust levels decrease, the ability to communicate openly decreases, hence resulting in a decrease in employee engagement, as employees do not feel safe to openly communicate and engage with their line managers. On the other hand, flatter structures are characterised by a team culture and efficient decision-making and communication. Such organisations are able to adapt

quickly to change due to the uninterrupted and smooth flow of information throughout the system and align internal systems to the demands of the external environment, thus resulting in strategic achievement*.*

5.2.2.2 Reinforcing Loop 3 (R3)

As autocratic decision-making is increased, employees tend to feel disengaged and begin adopting a silo mentality, often creating silo structures. These types of structures create barriers in terms of adopting new systems and processes that would ordinarily shape a new organisational culture of progress and expansion. Further, adapting to the changing needs of a complex organisation and responding to such changes becomes a challenge. These organisations find difficulty in responding to the transformation and change processes, therefore having an impact on the delivery of their strategy. This fragmented, silo approach results in employees carrying out their work functions independently of each other, thereby creating frustration amongst each other. Employees are often held accountable for incomplete tasks that may be as a result of non-performance of other employees and are most likely to exit the organisation; thus resulting in increased employee turnover as employees do not see themselves as part of an integrated team that contributes towards the success of the organisation as a whole. As employee turnover increases, so too does hierarchical power distribution in the institution because employees who remain behind at the institution support the hierarchical structure of the organisation, thus adding to the increase in the hierarchical power distribution.

Policy rigidity and hierarchical power distribution often results in silo and fragmented approaches. Communication in a hierarchical structure does not reach all levels of employees in the system, therefore excluding others who then leave the organization out of frustration. However, if recognized, retained and developed, employees are likely to remain at the institution. Theme three

(3) addresses the talent attraction, retention and development of employees and the impact of turnover and employee productivity.

5.2.3 Theme 3 - Talent attraction, retention and development

The following variables identified on page 116 was, seen as influencing the recognition and retention of talent at DUT, as well as the performance and potential of employees:

Figure 6. Reinforcing loops involved in talent attraction

5.2.3.1 Reinforcing Loop 4 (R4)
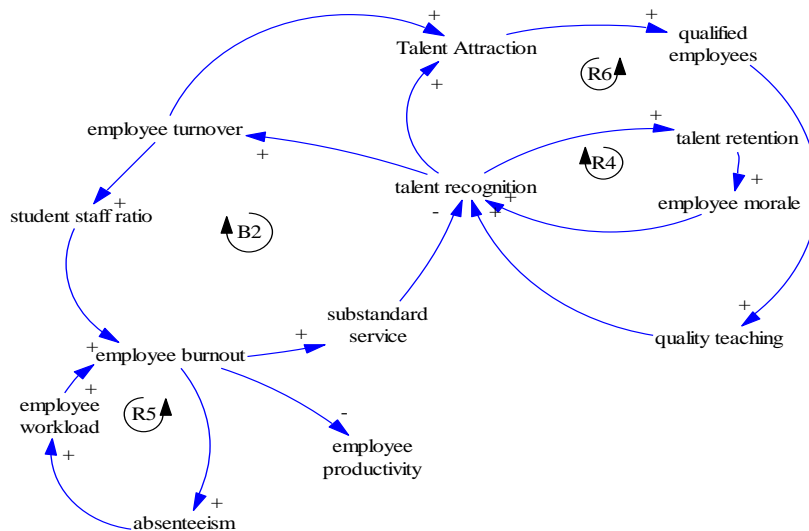
Employee recognition is acknowledged through a performance management system, where employee potential and performance are recognised and developed. When employees are recognised for their contribution, they may

be motivated to contribute positively to the organisation and are more likely to be retained. Employee retention is crucial to the organisation as those employees who are recognised through their competence and rewarded through remuneration competitively are most likely to be committed to the organisation. When employees are motivated, they are likely to have more job satisfaction since employee morale is high. Motivated employees take ownership of their responsibilities and their contribution to organisational goals are far greater. Feedback from management towards these employees tend to be of a more positive nature as managers can see the input of such employees as contributing to the organisation as a whole and continue to recognise those that excel in performance.

5.2.3.2 Reinforcing Loop 5 (R5)

As employee burnout increases, employees experience fatigue and frustration thereby regularly staying away from work, resulting in increased absenteeism due to physical and emotional exhaustion, chronic fatigue and susceptibility to a variety of physical health conditions due to the stress from working under such difficult and demanding conditions. When absenteeism increases, employees remaining behind are expected to carry the workload, thus resulting in increased employee workload and also increasing the chances of such employees being pushed toward experiencing the symptoms of burnout themselves; which will once again increase absenteeism and decrease overall productivity of the workforce.

5.2.3.3 Reinforcing Loop R (R6)

It is significant for organisations to finding the correct talent to drive planned growth and success. In organisations that experience talent shortages, the need to attract the correct talent has become a major challenge. In an attempt

to engage in talent acquisition, organisations have various options of either, mobilising internal resources, or of attracting employees from the external job market. Talent attraction must be aligned to the talent strategy that outlines the competencies that are necessary for organisational success. The talent acquisition process will attract qualified employees and will strengthen the work ethic of the institution, thus increasing the overall teaching quality and thereby improving employee productivity, which in turn helps recognise talent. Employees who feel motivated as they are recognised within the organisation are less likely to exit the organisation.

5.2.3.4 Balancing Loop 2 (B2)

Employee turnover is likely to be high within organisations that have inadequate recognition systems. As a result, of the high employee turnover, organisations are, left in a vacuum without the appropriate talent. The reduction of skilled staff creates difficulties for organisations to replace as there may be insufficient resources available or alternatively, the organisation's reputation may influence its ability to attract quality employees. For example, in a HEI, a highly skilled academic may be placed in a situation that has a high student staff ratio resulting in increased student numbers per teaching employee. The employees who remain at the University, suffer from burnout due to the failure to address such changes and as such is likely to deliver substandard service. Furthermore, burnout experienced by the employees has the potential to decrease employee productivity.

Flatter structures in a learning organization have few reporting lines. Such structures encourage a strong team culture, efficient decision making and communication. Employees are often attracted and motivated by this approach and are bound to improve the service quality. Theme four (4) discusses quality teaching and learning as key influences in talent management.

5.2.4 Theme 4 - Quality Teaching and learning as key influences in talent management

The following variables, reflected on page 128-129 were identified as influencing teaching and learning dynamics at the University:
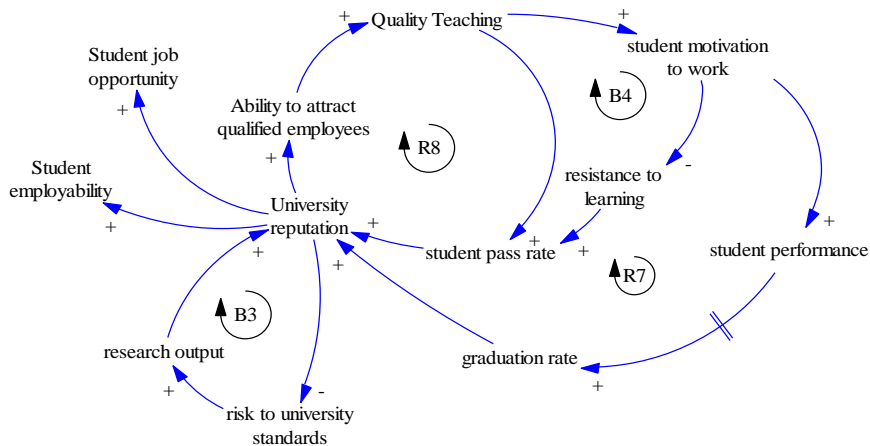
Figure 7. Loops involved in teaching and learning

Figure 7 depicts the causal relationship between the factors of teaching and learning. Two reinforcing loops (R7 & R8) and balancing loops (B3 & B4) explain the relationship between the variables that have direct influence on teaching and learning.

5.2.4.1 Reinforcing Loop 7 (R7)

As quality of work increases, students understand the learning material better and are motivated to learn, thus student motivation to work is increased, thereby increasing student performance in the long term. Such long-term

delays in the student performance results in the increase of students' success rates and graduation rates are increased as the students have a longer period of learning and assessment, thereby uplifting the University's reputation.

As Student pass rates and graduation rates increase, the University's reputation is uplifted making it more likely that potential employers would look favourably on students from such an institution, resulting in increased student employability rate. Furthermore, when the University's reputation is enhanced, so will its ability to attract qualified employees who can provide and thus enhance quality teaching in the institution.

5.2.4.2 Reinforcing Loop 8 (R8)

As quality of teaching increases, students are motivated to work harder, resulting in a decrease in resistance to learning, as students can gain a deeper understanding of the learning material. In turn, the decrease in resistance to learning by students' increases student pass rate in the short term, as well as success and graduation rates, hence increasing the University's reputation and ability to attract competent employees who deliver quality teaching.

5.2.4.3 Balancing Loop 3 (B3)

As the University reputation increases, the risk to university standards set by the education quality assurance standards bodies will decrease, resulting in an increase in research output, as professional researchers prefer to be associated with a brand that is reputable and successful, thereby increasing their effort in producing increased additional research.

5.2.4.4 Balancing Loop 4 (B4)

As quality teaching increases, student motivation to work increases and the resistance to learning decreases, thereby resulting in an increase in the student pass rate. When the student pass rates increases, the University's reputation is bound to increase, thus increasing the University's ability to attract qualified employees to deliver on quality teaching.

As the University attracts, retains and develops high-performing employees, quality teaching is bound to increase student success, resulting in the improved University image. Qualified and competent employees attracted by successful organizations tend to deliver quality service. Theme five (5) addresses sustainability of University funds.

5.2.5 Theme 5 - Sustainability considerations in talent management

The following variables as found on page 138 were depicted as influencing sustainability in talent management:
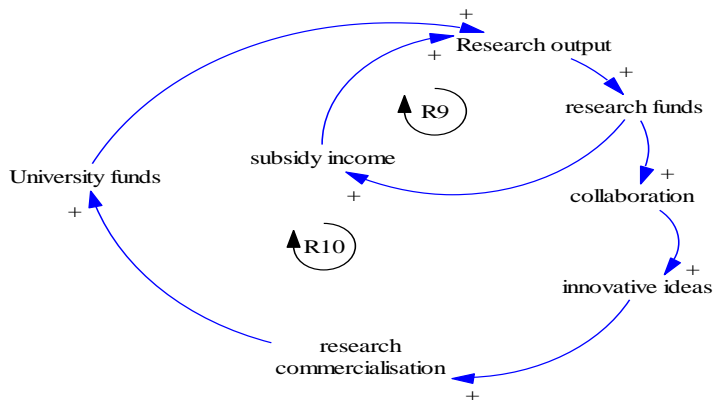
Figure 8. Loops influencing research funding

Figure 8 depicts the causal relationship between research funding and research commercialisation at the University. Two reinforcing loops (R9 & R10) have been, identified that explains the relationship between the variables that have direct influence on research funding and research commercialisation.

5.2.5.1 Reinforcing Loop 9 (R9)

One of the elements of financial sustainability is to increase research output. If an organisation produces research at the required level, the implications are that research funding will increase, resulting in increased subsidy income.

5.2.5.2 Reinforcing Loop 10 (R10)

As research funding is increased, more monies become available to increase the expenditure on the research infrastructure. This increase in research infrastructure increases collaboration and production of innovative ideas, intellectual property and patents. These products increase research commercialisation, which will eventually increase University funds to increased support for research.

Sustainability involves improved research output and increased research and University funds that in turn are used to build further research infrastructure that supports collaboration and innovation. Theme six (6) discusses policy compliance and its direct influence on sustainability at the University.

5.2.6 Theme 6 - Policy Compliance and its contributions to the development and management of talent within the University

The following variables reflected on page 143, were illustrated as being influential in the policy compliance dynamics at the University:

Risk and audit queries +

+

litigation

B5

policy compliance

-

+

policy rigidity
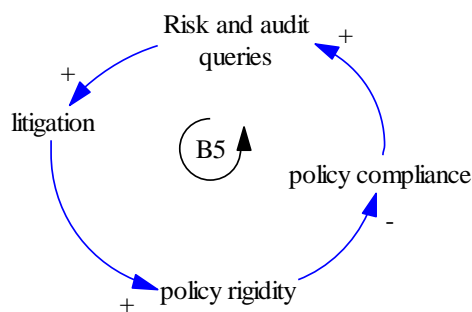
Figure 9. Balancing Loop 5

Figure 9 depicts the causal relationship between policy and governance compliance levels and accountability at the University. One Balancing Loop (B5) has been identified that explains the relationship between the policy and governance compliance levels that have a direct influence on sustainability at the University.

5.2.6.1 Balancing Loop 5 (B5)

When policies are rigid, it is likely that policy compliance will be low. Policy compliance helps employees apply their daily job responsibilities in line with the laws and regulations applicable. Policies are crucial in the workplace as it

helps reinforce and clarify the standards expected of employees and enables employers to manage employees more efficiently and effectively. Furthermore, it provides a framework to distinguish acceptable and unacceptable at the workplace. However, if such policies are too rigid, employees may find it hard to comply every day and thus policy compliance slowly falls as the rigidity of such policies increase. Furthermore, when policy compliance decreases, the risk and audit queries raised by internal auditors are bound to increase, placing the institution at risk and thus increasing the possibility of litigation. This theme discusses the implications of policy rigidity and its impact on policy compliance, risk and audit queries to avoid increased litigation.

5.3 QUALITATIVE SD MODEL OF TALENT MANAGEMENT AT DUT

Variables were brought together and the main themes identified from the data and arranged in causal loop diagrams. When these CLDS merged and the relationship between the various loops identified, a holistic Qualitative SD Model was formed. This model was able to provide an integrated picture of the interacting variables involved in the development of a talent pipeline at the DUT. Even though the use of a computer simulation model provides scientific validity with much precision, this is a Qualitative SD Model and while it does not progress to the simulation stages, it provides useful insight on the systems behaviour over time, as shall be seen in the ensuing discussion.

The holistic Qualitative SD Model reflected in Figure 10 below highlights the various levels of feedback at play within each of the themes identified, and how each of the thematic feedback influences talent management.

Figure 10. Consolidated Qualitative System Dynamic Model of talent management derived from Sub-Diagrams reflected on pages 153-165
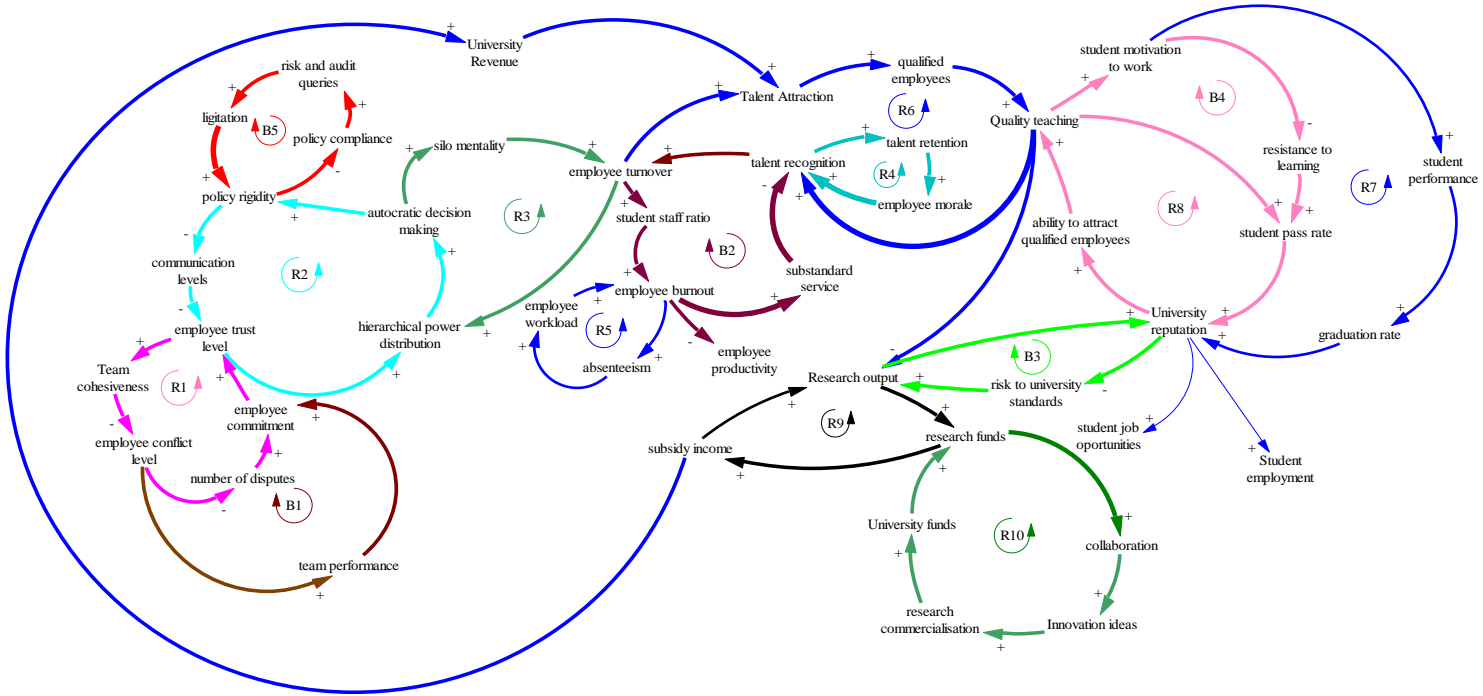
5.3.1 Team cohesiveness

DUT is a public University, hence the affairs of the institution are guided by the policies and legislation framed by the laws governing higher education Universities. When examining a University such as the DUT that has been in existence for many years, the historical context of such cannot be ignored. This is also because the historical context exerts a significant influence on how the institution operates presently and influences a number of institutional variables.

Hierarchical power distribution in the University has influenced policy development decision-making processes. As a result, policies have been characterised by varying levels of rigidity and inflexibility that has an impact on the University's ability to respond to change, in particular the recruitment and selection policy. Such decision making processes gives rise to teams with silo mentality and is not conductive to building successful teams. Power relations and authority manifest itself in processes such as budget allocations, expenditure and decision-making. Espejo and Reyes (2011) and Dale (2015) argue that decision makers are highly influenced by resistance to change and therefore have rigid policies and structures that often leads to conflicting mandates within the organisation and contributes to ineffectiveness in attempting to make a difference in a progressively changing world. However, the transparency and nature of the decision-making is dependent on the trust and credibility of such leaders. Tendencies towards decision making that do not subscribe to a consultative process often restrict inclusivity and engagement and further creates a silo mentality where employees tend to have a mind-set about working independently of each other and not being willing to adopt an integrated approach to its function.

Employees who do not feel engaged and recognised tend to leave the University, for example, rigid policies meant to guide employees are actually alienating them. Therefore, what was meant to fix the system (rigid policies) is actually failing the system (alienation of employees, in fighting, conflict, disruptions in merger, etc.). Furthermore, unilateral decisions result in rigid policymaking, thereby reducing communication levels, as employees may feel disengaged and not involved in building trust.

Eventually, employee conflict experienced by DUT employees reduces the level of employee performance on achieving targets because there is inadequate co-ordination of teamwork, as employees do not subscribe to a unified culture, thereby resulting in a decline in employee commitment and employee productivity.

To improve policy compliance and build cohesive teams, DUT has to realign its strategies to recognise, nurture and reward employees who perform well and are committed to the workforce. Adopting an inclusive and consultative process will provide opportunities to explore new ideas, creativity, collaboration and innovation that broaden the minds of its employees and better prepares students for the world of work. In addition, it creates space to accelerate development and create a sense of continuing improvement. This approach is supported by Friedman (2018) who states that a University aims to improve efficiency and quality to emulate the new thinking of reducing the layer of bureaucracy, and flattening the organisational hierarchy with a view to:

- encouraging open communication
- enhance employee engagement; and
- creating an agile, efficient and effective organisation.

Bethke-Langenegger, Mahler and Staffelbach (2011) also affirm the view that talent management practices that focus on developing talent has a positive impact in trusting leaders, job satisfaction, motivation, morale and commitment. They further mention that talent management practices aligned to strategy has an impact on the achievement of:

- strategic objectives
- employee satisfaction; and
- company attractiveness.

In response to how DUT should adapt to all the changes happening to it, we refer to (Green 2016: 254):

> *"Thinking more deeply about how change happens should change everything: the way we think and work, the things we try to change, and the structure and activities of our organisations."*

As organisations continue to compete and adapt to changing market structures, there is a need to adopt new strategies to measure quality, customer satisfaction, innovation and development (Festing and Schäfer 2014; Meyers and Van Woerkom 2014; Ambrosius 2018). Normandin and Therrien (2016) state that after a crisis, a system may be, adversely affected, resulting in a decrease in flexibility and its ability to acquire new characteristics and properties. However, in order to return to normality and allow for progression, there must be resilience so that the system can become adaptable, creative and flexible, while simultaneously self-regulating itself to manage complexities and preventing oversimplification. To solve the problem of the system returning from crisis to becoming flexible and adaptable, teams need to work together and adopt a unified culture and team ethic, reducing the level of employee conflict as well as resulting in a decrease the need for dispute resolution interventions. Hence, employees' commitment to the work

environment increases. Therefore, the emphasis of systems thinking on interrogating the feedback inherent in a system and looking at them from a holistic rather than a fragmented perspective can go a long way in initiating the University's journey to thinking about change.

5.3.2 Talent attraction

Talent attraction is critical to the organisation's success and therefore employing the correct talent contributes to the University strategic success. The University's public image has been marked with negative publicity for more than a decade with student and staff strikes, protests, violence which has also contributed to parents of students who may have performed well at school not willing to risk their children registering at the University. The University faces the risk of not attracting the best students thereby resulting in delays experienced in students graduating within the prescribed period of completion. The Table below reflects the student success and graduation rates. The system appears to have reached a plateau with neither major improvement nor decline, which implies that subsidy income will not increase. Thus, while the natural reaction of stakeholders would be to continue doing what was being done that initially improved the system, the actual leverage point lies in investigating the factors prevent a steady increase in graduation rates as well as attracting, retaining and developing talent that is linked to key skills required by the University to respond to the strategy.

Table 12. Student success and graduation rate

	2016	2017	2018
Student Success Rate	84%	85%	86%
Graduation Rate	25%	26%	26%

Source: HEMIS audited reports 2017-2019

The implication of attracting the correct talent influences the type of employees that the University employs in line with the qualification benchmarks of DHET. For example, the current teaching and research workforce would take up to 10 years to obtain the minimum Masters qualification as well as the research experience and competency profile, thus creating delays in the meeting of strategic goals.

On the other hand, where the University does not have the required competencies, it would need to attract external talent, thereby bringing in new knowledge and more employees with Masters and PHDs thus accelerating the rate of strategy achievement and resulting in increased subsidy income from DHET. It is especially crucial to have highly qualified employees with Masters and Doctorates to produce quality teaching to students. Simultaneously, growing talent within the organisation to meet the talent needs of the University while recruiting external talent will help expedite the achievement of goals over a short and long-term period. Quality teaching increases motivation and enhances the commitment of the student to learn, hence reducing the level of resistance towards learning. When students become receptive to learning, their attitude towards their learning changes, thereby improving the student pass and graduation rates.

Furthermore, in the competitive higher education landscape, recruiting quality students are dependent on the reputational image of a University. Hence, the increased pass and graduation rate of the student result in the uplifting of the University reputation, thereby positioning the University in a favourable position to be a University of choice. Such a reputational upliftment further increases the University's ability to attract qualified and competent employees who wish to be associated with a successful and well-positioned University. These employees bring in high-end skills and experience, thereby increasing the quality of teaching. The students, once graduated, enter the world of work and carry the reputation of the qualifying University. Decisions made by

industry are influenced by the student performance as well as the credible reputation of the University the student has qualified from and provide these graduates with job opportunities and employment.

Therefore, talent attraction is a strategy that is necessary for quality teaching and student motivation for increased performance. Having a long-term view of talent requires a parallel strategy of recognition and retention.

5.3.3 Talent recognition and retention

Talented employees should be recognised for their contribution to the organisation. The search for key talent has increasingly become a challenge for the University and has resolved to use recruiting agencies to employ the required talent. Furthermore, the institutional strategic planning process that highlights the objectives to be met for that particular reporting period must articulate with the performance management system to enable the University to objectively recognise, retain and develop future talent. For any organisation to attract and retain the correct talent, they must strive to build a productive working environment (Jones and Jones 2013). In doing so, the performance management system is one of the mechanisms that the University can use in recognising and retaining talent that respond to the strategy. The full potential of employees are unleashed when the organisation engages in recognition and rewards programmes to generate motivated and committed employees which is essential for growth, development and success of the University. Such motivation increases delivery and employee productivity. This results in an increase in employee productivity and service delivery. Retaining employees from within the University, not only creates internal mobility but also reduces recruitment costs.

On the other hand, employees, whose competence is not recognised by the University, leave the organisation thereby increasing the turnover rate. Those employees remaining at the University, experience increased workloads and high student to staff ratios, resulting in a decline in service quality and absenteeism. Clearly, the employee system at the University is struggling to be beneficial to employees and human resources processes in this regard need to be examined as they are creating unintended consequences and not operating as positively as envisaged. Delays in developing internal employees takes longer. This is in line with the belief among system thinkers that there is often a time delay between cause and effect, thus an action instituted in one part of the system will take time to bring about change in the overall or another part of the system.

To ensure that the University recognise and retain talent, the University has to review its current policies and processes, introduce an integrated performance management system that supports mentoring and coaching strategies for talent that is recognised, thereby creating mobility for employees within the University to progress into higher positions. Employees are influenced by standardised and institutionalised policies and processes thereby uplifting the employee morale and increasing the achievement of the overall performance of the University. Therefore, at the outset, a competency profile is required to assess and identify the existing talent through transparent processes to ensure alignment to the strategic objectives.

By developing a talent framework and system, the University will be able to determine how and where to attract the appropriate skills. In this way, the University's reputation will also be enhanced resulting in attracting high-level talent for increased employee productivity.

5.3.3.1 Employee productivity

Employee productivity is an outcome of recognition and retention interventions and such talent help decrease the time delays in achieving goals with continuous monitoring and evaluation processes in place. The achievement of the strategy is seen over time. This comes back to the system dynamics principle of delays in cause and effect, which should not be perceived negatively but rather should be accepted as a feature of the nature of feedback as it makes its way through the entire system. The important point is to give such policies time to show their systemic benefits instead of expecting quick fixes that eventually fail or are inefficient in the end. Constantly adapting the means of recognising high performance and potential for development among employees will be in line with recognition of systems as constantly evolving in a complex and turbulent world that is very rarely unchanging, thus allowing the organisation to evolve and withstand such turbulence and complexity. Garavan *et al.* (2012) emphasises that enhanced employability, knowledge and competence targeted programmes are all essentials for attracting potentially high performing individuals.

As mentioned in Chapter 2, (Collings and Mellahi 2009) posit that the work morale, commitment to the organisation and performance facilitate the relationship between strategic talent management and financial performance. Further, employability and retention is based on employee performance and competence specific to assigned duties in relation to meeting organisational goals. Abazaoğlu and Aztekin (2016) mention that teacher motivation is a contributing factor that helps achieve the teaching objectives, motivation as well as the academic achievement of a student. De Barba, Kennedy and Ainley (2016) supports this view by stating that student participation, followed by motivation was critical for student performance.

5.3.3.2 Mentoring and coaching

From a systems thinking perspective, if too much effort is placed on developing just one part of the system, whilst ignoring the system as a whole, policies implemented may have unintended and even harmful consequences for the system as a whole. Thus, while DUT has been instituting talent attraction initiatives on an *ad hoc* basis, it must be mindful that it has to support a mentoring and coaching philosophy of newly recruited personnel. Such employees may not be able to fulfil their academic duties, which then feeds negatively through the entire talent attraction and management system. This uncertainty of talent recognition may affect performance levels and demoralise internal employees. Therefore, it is important that sufficient attention be given to developing an effective mentoring and coaching programme to develop and support new and existing employees of the University to pursue their careers.

Introduction of career growth strategies would create a framework for development and should form part of the University's retention strategies. Attendance at conferences and workshops, reading the latest research journals, being abreast of latest issues that impact on organisational growth, will improve the knowledge base. The appointment of retired academics would assist in the mentoring and coaching programmes. Self-learning should form part of the talent development process for employees to build a knowledge base outside their field of operation. Other retention interventions that include; staff rotation, international exchange programmes with industry and HEIs to ensure knowledge is gained and information is relevant and useful.

However, from a systems thinking approach to human resource development, we need to remember that flexibility (and not control) of human agents is encouraged. It is acceptable to provide guidance to human resources, however, rigid policies and conditions on their behaviour is likely to stifle

innovation, creative thinking and inhibit the spontaneous coming together of agents to produce ideas and plans that could not have emerged from each of them alone. This is eloquently explained by Green (2016: 266) in his work with the development sector when he asserted that:

> In a complex system, a more productive approach may be 'don't control unless there is good reason to'. Local staff or junior staff and partners should have a free rein to apply their deeper understanding to the programme. The job of head office should be to create the space for them to experiment, adapt and learn, and to negotiate that leeway with funders.

In the same way, while it may be difficult for DUT to dispense with rigid policies, it will be in its best interest to cultivate this kind of academic environment to encourage and maintain a productive, agile, innovative and efficient workforce that promotes employee mobility.

5.3.3.3 Employee mobility

Introduction of staff mobility programmes may lead to planned growth of employees and enhancement of performance. Such development initiatives for purposes of moving to higher positions and remuneration increases motivation amongst employees and enhances performance. Employees that are succession planned into higher positions through a formal performance management, increases internal mobility, thus accelerating the development processes amongst the existing employees. Furthermore, international exchange programmes improves the knowledge base of new ideas and innovation. This illustrates once again to the systems thinking idea of human agents as being capable of much more together than they could ever have achieved alone, and is affirmed by the following quote:

> Inherent in this definition, is the recognition of systems as being not only products of the real, physical world, but as a means of

conceptually representing the world as well. In addition, explicit in this definition, is the idea that systems are, made up of elements or agents that while being separate from each other, still interact with one another in a manner that creates the feedback influences, which underlie and sustain such systems. Within the ambit of the systems thinking philosophies, these interconnected networks of feedback influences are, referred to as the system's "structure". This lends itself to one of the fundamental principles in understanding social systems, which is the belief that the structure of the system determines its overall behaviour (Singh 2015: 72).

Ross (2013) further argues that success could be a desired manifestation of talent and therefore, it is critical that organisations understand the relationship between talent and personal motivation for fulfilment. This is an important aspect for retaining such talent within the organisation. As such, talent models are based on the assumption that talent leads to success. Talent is about having a greater innate ability, which could lead to increased success and greater results. From a systems thinking approach we need to remember that the innate ability of the human agents must, acknowledged and recognised (not ignored) if organisations are to yield successful results. It is acceptable to recognise the abilities of human agents, however, if the recognition of such a relationship is ignored, it is likely that their ability to perform such functions at a higher level will be restricted. However, we must remember that it is the collective effort of human agents that contribute to the success of an organisation and not the individual itself.

5.3.4 Talent development

Ramrathan and Pillay (2015) mention that the student enrolment in higher education increases annually, however there appears to be a concern on the increased dropout rates, low throughput rates and graduation rates. Employee burnout experienced can be conceptualised as a process in which the employees experience prolonged high level of job stress that has placed the employee beyond the ability to cope and often results in a negative attitude

towards work life. In this instance, the lack of an integrated talent management system could result in employee burnout and stress for those employees that have to compensate for the additional workload. Employee turnover has resulted in increased workloads across the disciplines because few people remain to do additional work. Therefore, employers claim that staff suffer from burnout (Du Plooy and Roodt 2010). Gharakhani and Zaferanchi (2019) mention that burnout and reduced individual achievement has negative effects on job satisfaction. Whelan and Carcary (2011) emphasises an internal developmental approach to identify and develop specific knowledge and skills to, successfully implement business strategy. Hence, the establishment of talent pools and succession planning as internal developmental interventions, help identify and develop targeted talented employees at the University.

5.3.5 Sustainability

Funds generated through research output, student fees and other sources of funds increases the University revenue, thereby increasing its ability to invest in research infrastructure. The implications of such an investment is that the University is then able to collaborate with other organisations to increase the collation of innovative ideas and research commercialisation. Such an initiative will not only increase the subsidy income but will also increase the University revenue on the overall. This is especially crucial in the case of research output. While DUT has increased the research output for the period 2009-2017, reflecting a significant increase of 88%, it is still below the normal range of traditional Universities.

In addition, in managing the talent process, the University has the potential to provide entrepreneurship opportunities to employees and students. Entrepreneurial schools and graduate business schools be established to develop programmes for industry. Full time students who have completed a

Master's degree and who have embarked on a PHD be provided with opportunities to progress into junior lectureship supported by a mentoring and coaching programme. There is a need for closer liaison with academic staff and industry in preparation for students to engage in job opportunities for employability. This is supported by Kuada (2015) in his assertion that entrepreneurs are individuals that are brave to explore and embrace expertise and knowledge that have not been explored before and has thus led innovators to argue that knowledge and learning contributes to entrepreneurship and economic growth. However, from a systems thinking approach, while the University may have the correct intention to provide entry into entrepreneurship opportunities, for the employees and students, it is important to remember, that the system will fail, if the University does not formalise the process, of creating partnerships with industry, introduction of formal structured programmes and mentoring and coaching strategies. This will thus impede the mobility of these individuals and limiting the University's ability to raise additional funds through entrepreneurship opportunities.

5.4 STRENGTHS AND SIGNIFICANT CONTRIBUTIONS OF THE MODEL

HEIs can benefit immensely from the recommendations of this research when creating talent strategies. SD provides a framework for deep interrogation of the issue of talent management by prompting the researcher to identify the underlying feedbacks involved in managing talent. It also enabled the identification of variables and their influences that help understand complex social systems whose behaviour constantly changes over time due to the feedbacks operating within such systems. The use of CLDs help build a holistic SD qualitative diagram that provides a big picture on talent management in a higher education institution. It also helped to highlight how different functions of the organisation are perceived as independent and unrelated to each other, but actually significantly influence each other, hence contributing to the overall management of talent.

5.5 LIMITATIONS IN THE MODEL

Data gathering and subsequent analysis associated with this research study was confined to the three categories of staff, namely, the executive and senior management, middle management and the general staff and therefore, the views of other stakeholders may be necessary to draw a comprehensive conclusion.

Systems thinking methods ideally encourage the participation of numerous stakeholders in the creation of CLDs and models. However, due to the geographical distance constraints (as the University has six (6) campuses dispersed across the city of Durban) as well as time constraints on the part of the researcher and most study participants, this was not possible. Therefore, the researcher used data from interviews with participants from the University, as well as archival University documentation to draw conclusions.

In addition, the holistic Qualitative SD Model revealed five (5) balancing loops and ten (10) reinforcing loops involved in the talent management process at the University.

5.6 DIRECTION FOR FUTURE REFINEMENT OF THE MODEL

The SD modelling software enables researchers, to sketch a causal diagram that captures feedbacks, time delays and non-linearity is, identified. Mathematical equations are drawn and the analysis and calibration of data could easily be, automated. However, whilst the computer aided software provides a platform for easy analysis of data, it cannot replace the thinking process but instead provides a way to improve our mental model to design effective policies. Kim and Andersen (2012) mention that analysing data systematically by understanding the links between the causal map and data

source, adds rigor to the model building process. However, this process is labour intensive and in order to address this shortfall, Turner *et al.* (2013) mention that aggregating causal relationships instead of individual ones, help reduce the time taken during the variable identification process. In addition, the data source references that stipulates the links between causal relations and the data source stage eliminated as the coder and the interviewer is often the same person.

While the SD methodology stages of problem conceptualisation and policy formulation and evaluation provided useful insights in this study, given the higher education context, it is suggested that further research could explore the use of computer simulation and policy testing stages of the methodology to assess the system's behaviour over time. Eker and Zimmermann (2016) argue that the computer simulation process can be reduced by examining all coded text that result in a high correlation identified and investigated to establish the causality. However, this process may not necessarily be time efficient or eliminate subjectivity.

Future research in examining talent management may include the focus on causal relationship from the stage of coding, generalisation of a simplified causal map that does not record individual relationships to save time, the use of a software to maintain the links of the causal relationship and data source. Further, the use of simulation and testing of policy recommendations should also be included to contribute to the development of a far more realistic diagram that reflects reality.

5.7 CONCLUSION

This chapter aimed to discuss the implications of the analysis that emerged from the interview as well as organisational documents. This included the

examination of the themes that were, identified as being part of the talent management process at the University through the creation and discussions of CLDs. These included team cohesiveness, policy rigidity, talent attraction, retention and development, teaching and learning and sustainability.

The CLDs were, combined to create a holistic Qualitative SD Model, depicting the feedback relationships between them all. Although such themes and feedbacks were particularly related to the University under study, it is possible to see them as being operative in other similar organisations within the higher education landscape, which can form the point of departure for further studies.

The adaptation of Sterman's (2002) model provided a unique approach to the researcher where more time was allocated in interpreting the graphical representations that underpin the problem being investigated as close to reality as possible. These included gaining an understanding of the talent variables at play and how these influence each other holistically in order to have an impact on the system for strategic success.

CHAPTER 6 - RECOMMENDATIONS & CONCLUSION

6.1 INTRODUCTION

This chapter offers a summative discussion of the study and highlights key findings as well as recommendations. The recommendations represent a consolidated critical engagement with relevant literature as well as previous related research and findings made during the current study. The aim of the study was to identify the cause and effect of talent variables that influence the different components of talent and strategic outcomes in an organisation. These included, identifying a number of objectives such as: the talent variables that may enable or inhibit DUT in becoming a learning organisation; the historical challenges that influence the future talent recruitment and retention at DUT; the identification of performance variables necessary to meet strategic objectives; the identification of factors that would advance sustainability in talent management; to construct a system dynamics model that would aim to mitigate risk and obstacles associated with talent.

In order to contribute towards engaging in institution building, much effort is required in adopting employment strategies in a merged institution to facilitate a positive morale amongst a diversified workforce. Given that Universities operate in a unique environment and is influenced by the socio political and historical context of the country, it is important to understand that external influences such as policy and governance have huge implications for transformation in Universities. Within this increasingly competitive environment for human capital and an ongoing need to be accountable to its various stakeholders, it has now become important that HEIs begin to place value on managing its talent. Despite initiatives by some organisations that realise the importance of talent associated with the number of exits, the cost of external recruiting and the importance of retaining high performing and potential personnel is steadily increasing. Often organisations tend to identify

potential replacements only when the individual decides to leave the organisation.

Furthermore, talent management takes place at various ranks of an organisation and is not necessarily limiting to senior and management positions. It was also recognised that managing the talent strategy of Universities is complex within the higher education landscape and it is not always possible to understand this full complexity and its relationship in the absence of all the relevant data and therefore require a methodology that adequately captures this complexity. The Qualitative System Dynamic methodology makes it possible to distinguish between the talent variables and their cause and effect relationships and helps to graphically visualise their current dynamics.

The study reflected on the organisation reassessing its problems on talent and its enabling structures that has an impact on the success of a learning organisation. The researcher selected DUT as an organisation that is affiliated to a larger higher education sector and forms part of the grouping of state institutions. Guided by these observations, the study had the primary aim of identifying the cause and effect of talent variables that influence the different components of talent and strategic outcomes. The sampling method used was non-probability purposive sampling.

This study adopted a multi-approach exploratory qualitative design made up of data from a review of documents and semi-structured interviews. The analysis of the interviews as well as the study of the University's policies and practices on recruitment, development and retention, employment equity and risk reports, the HRIS reports as well as the strategic plan was used to build a holistic System Dynamics model to show the cause and effect interrelationships and wider impact of talent on a learning organisation. This

study would be different from previous empirical research in that it analysed the causal process of experience design through the use of tools of system dynamics e.g. Causal Loop Diagram (CLD) using the system dynamics methodology to focus the real life experiences of people and discover some unanticipated meanings.

Through the empirical evidence gathered, there appeared to be a strong link between talent management, the University's strategic plans and the University's current approach to managing talent in the organisation. This observation is corroborated by Collings *et al.* (2011) and Farndale *et al.* (2014) who maintain that the employee perspective has since been receiving greater attention and that there is a need for balance between organisational goals that need to be closely linked with individuals' career aspirations in order to retain talented employees with high potential.

Important components of talent management include mentoring, coaching, talent attraction, retention and development, talent pools, upward mobility and succession planning. Wildavsky (2012) and Khilji, Tarique and Schuler (2015) argue that education institutions are important stakeholders in global talent management. Furthermore, in most developed countries, these institutions are engaging in collaboration with other HEIs and partnership programmes globally to access talent pools.

Empirical investigations conducted included semi-structured interviews with executive and senior management, middle management and general employees. In addition, the careful examination of the University's policies, processes and documentation formed the basis of the findings that emerged which point out to six themes that influence the talent management at the University, namely:

- Conceptions of a Learning organisation;

- The role of policy rigidity in talent management;

- Talent attraction, retention and development;

- Quality teaching and learning as key influences to talent development;

- Sustainability considerations in talent management;

- Policy compliance and its contribution to the development and management of talent within the University.

Various external influences were also identified that impact the University's ability to attract, retain and develop, including the influence of a raft of legislation pertaining to higher education, the voluntary merger between the Natal and ML Sultan Technikon and the pressure by DHET to conform to the norms and standards pertaining to a UoT. The differing cultures that emerged from the historical merger posed a challenge to the university in adopting unified teams with a common vision as there always remained a "them" and "us" perception, extending the divide at the University. The pursuance of the University to move towards becoming a learning organisation requires a change in this prevalent culture and various mechanisms must be, explored to address this challenge. One of the mechanisms recommended is that the University recognise talent through the assessment of performance to recognised quality, excellence and commitment. A further challenge highlighted was the hierarchical structures that emerged from the merger and the importance of developing a sense of corporate identity that is shared and bought into by employees as well as moving away from a hierarchical structure to a more flat structure that is engaging and inclusive and prevents the formation of silo driven structures. Overall, implications for the University were also, identified including the effect of the exiting of key talent as well as the consequences of the higher education sector's reliance on state subsidies for its revenue.

An important component to any talent management model is employees being able to engage in multiple techniques to ascertain their leadership potential, behaviours and other competencies whilst identifying a talent strategy in recognising and developing such talent. The study highlighted significant factors that may influence the conceptualisation and the operationalisation of talent management, namely: external and internal influences, merger, culture, performance and potential, qualified employees, graduation and success rates, research outputs. High potential employees may perceive the talent management process to be lengthy and rigid as the time lag from the point of talent recognition, through to development and appointment, may be considered as unnecessarily long to progress to senior positions. Kontoghiorghes (2016) affirms that organisations that are not adaptive tend to have rigid systems with firm instructions and guidelines and consequently do not encourage creativity and restrict the maximisation of the employee's potential.

The talent management approach must be customised to meet the needs of the organisation as part of an existing cultural framework and must include attraction, retention and development strategies. Regardless of the organisations best intent, the culture must be aligned to the talent concept and its importance for strategic success. This is supported by Scullion and Collings' (2011) who maintain that global talent management organisational interventions drives attraction, retention and development of talent to further strategic goals of the organisation.

Employees are more likely to embrace talent management when there is transparency in consultation and decision-making. Given the uniqueness of each organisation, the talent management strategy required must fit the institution's value, culture and strategic vision. This allows for greater buy-in by its constituents. Resistance to change can sometimes lead to silos through the organisation, creating challenges in identifying key talent. This view is

substantiated by Grobler and Grobler (2015) and Drowley, Lewis and Brooks (2013) who assert that organisational changes must be managed in such a way that it maximises the change processes, while effectively managing employee resistance and inherent costs to the organisation.

The recommendations will be presented in accordance with the research questions identified earlier on in this study:

Research question 1: What are factors that may inhibit DUT from becoming a learning organisation to address the talent gap? (How do we become a learning organisation?)

Research question 2: *How do the historical challenges influence DUT's future talent recruitment and retention given its financial constraints?*

6.2 CONCEPTIONS OF A LEARNING ORGANISATION

A learning organisation is characterised by employees working together and striving towards achieving a common objective.

6.2.1 Findings #1

It was established that the University has a hierarchical power structure that tends to influence policy development and decision-making processes that result in inflexible policies. Further, hierarchical structures tend to create silo mentality and structures which results in employees pursuing their own individual goals instead of institutional goals. This finding is supported by Friedman (2018) who advocated the elimination of a silo mentality and further encouraged policies that favour interdisciplinary and multidisciplinary

programs and research for improvement of organisational agility and organisational success.

It was also recognised that employees who do not feel engaged and valued, find themselves not complying with these policies, as they do not trust the organisation and this non-compliance could influence performance. This observation is confirmed by Kontoghiorghes (2016) who reaffirms that an ethical culture, trust and respect, in addition to attitudes and behaviour influences the talent management and development processes, thereby contributing to the development of high performing and an empowering work environment. Furthermore, employees do not see themselves working in teams or as part of a bigger system to achieve common organisational goals. They tend to feel alienated, operate in silos and exit the organisation. Consequently, they experience a drop in their commitment and trust levels often resulting in conflict and increased disputes.

As employees in an organisation begin to trust each other, strong cohesive teams are formed. These teams begin to engage better with reduced conflict and dispute levels. Such employees tend to feel a sense of greater commitment and are likely to pursue common goals thereby resulting in increased employee performance. These organisations emulate the characteristics of a learning organisation, which are agile, flexible, more productive and receptive to change.

6.2.2 Recommendation

To solve the problem, it must first be understood that teams that work together and adopt a unified culture and good team work ethic will be more committed to the organisations mission and goals. This view is substantiated by Milinga *et al.* (2019) who maintains that one of the most pertinent characteristics of

effective teamwork is cohesiveness. This will reduce conflict and the number of disputes, thereby contributing to the University being able to re-establish itself as a learning organisation. However, the transparency in open conversations including decisions made is dependent on the trust and credibility of its leaders. Therefore, through an inclusive and consultative team leadership, DUT will be able to mobilise the talent of key employees, thereby enhancing team dynamics and team performance to offer new ideas and viewpoints as these employees feel empowered and responsible for their performance. Therefore, in order to become a learning organisation and to build effective teams, it is essential that the University management:

- Ensure that the Strategic Plan includes a strategic objective that addresses the employment equity imperatives without compromising the recognition and retention of existing qualified staff to enable the successful delivery of its core business.
- Move away from hierarchical and silo type organisational structures to a flatter non-hierarchal structure that is team-based;
- Adopt an inclusive and consultative leadership style;
- Revisit its policies and processes to ensure that it is flexible and agile;
- Be engaging and inclusive in policy decision making to explore new ideas, creativity, collaboration, innovation and encourage open communication;
- Align its strategy to recognise, nurture and reward employees who perform well;
- Introduce change management processes that help build a unified team culture and good work ethic.

6.3 TALENT ATTRACTION

It was also found that the University is faced with competing priorities in addressing the loss of talent, as not many South African Universities have

engaged on a comprehensive talent management process to attract, retain and develop employees (Lynch 2007; Theron, Barkhuizen and Du Plessis 2014). Causal Loop Diagrams (CLDs) at play in the theme of talent attraction reveal the importance of attracting qualified employees to ensure that quality teaching can result in improved employee performance and increased service quality. As articulated by Hsieh and Yuan (2010) a conceptual framework can be adapted to support talent management as it draws onto customer expectation management with the aim of capturing key elements within service operation strategies. A comprehensive communication strategy, detailing the developmental opportunities relating to the long-term vision of the University is key to communicating the University's intent. Talent management plays an important role in identifying candidates that are legible for appointment and promotion and in doing so, will assist the University in achieving its strategic success. It is critical for these employees to subscribe to the University's vision, mission and values. This would ensure the improved reputation of the University and government subsidies, making it capable of attracting experienced and committed employees who can continue to reinforce such an effect. Robyn and Du Preez (2013) supports the notion that the University reputation serves as a centre of excellence and a knowledge driven organisation and is bound to attract students nationally and internationally.

6.3.1 Findings #2

Robyn and Du Preez (2013) claim that the University's mission is to create new knowledge by attracting skilled employees with the requisite knowledge, innovation and expertise to advance the mandate of the University. This helps to accelerate the quest and development of new knowledge at the University. In addition, to sustain employee morale, it is critical to develop internal employees. Several other factors contribute to the graduation and success rate of students. This view corroborates with Badat (2008); Robyn and Du Preez (2013) who claim that HEIs are challenged with the need to ensure that

teaching and learning employees have the competencies to produce successful students. Additionally, Badat (2010) maintains that transformative initiatives challenges the higher education mandate of teaching and learning through addressing governance, policy and structures, research, quality assurance and leadership.

This study found that the University lacked the required competency and qualification profile required to deliver on its purpose, thus posing a risk to the possible closure of affected programme offerings. This finding emanated from the consequences of the historical merger that resulted in the loss of talent. Therefore, the University engages in external attraction approaches to ensure compliance with the qualification requirement of the University. In so doing, existing employees experience a drop in morale thus affecting employee productivity, service quality and employee turnover. Furthermore, employees tend to leave the University if they are not recognised, as confirmed by Robyn and Du Preez (2013) who assert that employee turnover is a concern, particularly within the higher education landscape.

It was also emphasised that high staff and student ratios lead to an increase in employee burnout often resulting in frequent absenteeism due to increased workload. Effective attraction policies, practices and systems help reduce turnover and increase employee commitment and productivity through the process of targeted selection. Bushe (2012) affirms that HEI's must focus on job satisfaction and employee performance as part of its retention strategy. By attracting qualified employees, the University is bound to strengthen the work ethic resulting in an improvement in the overall service quality. Employee productivity would be, increased thus increasing the recognition of high performing employees. Therefore, employee turnover rate is likely to reduce, as employees feel motivated when their talent is recognised.

Further, employees recruited from the external environment, may not necessarily buy into the University's value and strategy. In other instances, it was found that internal staff are required to orientate and induct those that are recruited due to their institutional memory and knowledge of policies, procedures and systems.

6.3.2 Recommendations

To address the problem of losing key talent in the system, it is necessary that management:

- Develop a talent attraction strategy that recognises internal talent and identify key talent to be recruited externally.

- Revisit its retention and pay strategy to attract researchers who are on the cutting edge of research and experience to help promote internal research and increase research outputs, which will improve the cohort of skilled employees at the University.

- Introduce a targeted selection approach for talent attraction.

- Introduce a battery of psychometric tests to increase the likelihood of recruiting the appropriate candidate for the job.

6.4 TALENT RECOGNITION AND RETENTION

Delays in developing internal employees' take longer and therefore often time delays instituted in one part of the system will take time to bring about change in the overall or another part of the system. The recognition of talented employees must be carefully managed in ensuring that employees are not made to feel outside the team. Line managers are encouraged to ensure that the talent management system recognises and retains talent for strategic success. This is articulated by Vaiman *et al.* (2012) who affirms that effective

decision making is dependent on coherence between process and strategic success of the organisation.

One of the mistakes organisations often tend to make when recognising talent is, to expect the replacement candidate to emulate the incumbent whom they may potentially replace. The risk of this approach is that it may deny the incoming candidate the opportunity to bring in new talent or build on existing talent. This is corroborated by Ackers and Gill (2005) who affirm that Universities are challenged with the acquisition and retention of talent as they are sought after by other countries or institutions. Therefore, it is important to ensure that the University clearly defines the requirements and key competencies for the position prior to the selection process.

6.4.1 Findings #3

It was established that the University does not have a formal recognition and retention policy in place. Employees, when recognised for their skills and performance are likely to be motivated at the University, thereby increasing employee productivity and service quality. Furthermore, it was also discovered that employees who are recognised are motivated, hence uplifting employee morale.

6.4.2 Recommendation

To ensure that the University recognise and retain talent, the University must:

- Review its current policies and processes and introduce an integrated performance management system that supports mentoring and coaching strategies for talent that is recognised, thereby creating

mobility for employees within the University to progress into higher positions.

- Develop a competency framework to assess and identify the existing talent through transparent processes for alignment to the strategic objectives.

- Identity critical areas and skills gaps of the institution.

- Introduce development programmes by monitoring and measuring performance.

Research question 3: What are the performance variables necessary to meet strategic objectives in the context of talent development?

6.5 EMPLOYEE PRODUCTIVITY

The performance management system is important for organisations to inform their employees that performance assessments are intended to provide feedback and not to be punitive. This system should be used as a vehicle to improve communication, thereby improving engagement and the morale of employees, as substantiated by (Robyn and Du Preez 2013; and Harter, Schmidt and Hayes 2002).

Employee productivity is an outcome of talent recognition and retention strategies as employees, who are recognised, feel a sense of value and are unlikely to leave the University. Moreover, the high student numbers means additional assessments, consultation and increased teaching workload, thereby resulting in exhaustion and burnout. This is articulated by Du Plooy and Roodt (2010) who affirm that employee shortages have resulted in increased work demands and employers claim that staff suffer from exhaustion and burnout. Team performance encourages teams to work

together to improve organisational performance which is expressed further by Kuźmicz (2015) who mention that leadership within the higher education context can create an organisational culture of team learning.

It is imperative to have mechanisms in place that recognise, retain and develop those employees that exceed the standard as these individuals contribute to the sustainability of its business and the achievement of its strategy. This is further affirmed by Lesenyeho, Barkhuizen and Schutte (2018a) who assert that HEIs are challenged with attracting and retaining skilled, innovative and talented individuals. There could be varied perceptions of the meaning of potential. For example, management may interpret potential as future needs for the investment in human capital of the organisation and the talented employee might view potential as recognition directed at their career advancement. These individuals may be a flight risk to the organisation if not recognised, motivated and committed to the organisation.

6.5.1 Findings #4

It was discovered that quality teaching results in improved student performance, thereby increasing the student pass and graduation rates and uplifting the University's reputation. Furthermore, it was found when the University's reputation improves, there is a less likelihood of the university incurring any risk to its standards as it would have complied with policies and legislation. Students were likely to secure employment and have greater job opportunities when associated with a University that is reputable. Therefore, quality teaching must be assessed against University and higher education standards and is best conducted using a formal performance management system which measures student and employee output. However, the performance management system is not fully operationalised and hence, the University is at risk of losing its key talent due to the lack of recognition and

retention strategies. To support the development intervention of performance, mentoring and coaching interventions are key to the developing and supporting of new and existing employees of the University to pursue their careers. It was further found that there is a lack of a mentoring and coaching processes at DUT to address talent development.

6.5.2 Recommendations

Therefore, to solve the problem the following recommendations are made:

- Institutionalise the performance management system that is rewards based to build a performance culture
- Identification of high performance and high potential talent
- Introduce a 360 degree assessment for managers to assess their competence and work related style to produce results
- Introduction of career growth strategies to create a framework for development to form part of the University's retention strategies
- The appointment of retired academics to assist in the mentoring and coaching programmes
- Encouragement of self-learning to form part of the talent development process for employees to build a knowledge base outside their field of operation
- Introduction of staff rotation, international staff exchange programmes with industry and higher education institutions to ensure knowledge is gained and information is relevant and useful

6.6 EMPLOYEE MOBILITY

Employee mobility involves the planned growth of employees into higher positions, resulting in increased remuneration, which has an impact on employee morale. Tymon Jr, Stumpf and Smith (2011) support this view by

asserting that retaining high performing employees within the organisation, creates internal mobility and helps reduce recruitment costs. Adopting an integrated performance management system that is supported by mentoring and coaching strategies, further assists talent progression into higher positions, thereby increasing employee confidence and commitment levels.

Further, global mobility has also been emphasised as influencing the talent mobility as posited by Bushe (2012). Global talent management forms part of the talent management interventions to attract, retain and develop to achieve strategic goals. Global mobility encourages innovation and creativity in a competitive HEI environment.

6.6.1 Findings #6

There is an expectation that the University will provide growth opportunities that are linked to the post that will be vacated by retirees, hence, there is a need to develop replacement strategies to ensure that there is no loss of skill, competencies and qualifications. This institutional challenge has resulted in the human resources department having to address one of the most sensitive and critical people management processes. These exits create opportunities for the University to plan ahead in addressing scarce and critical needs, employment equity imperatives and the recognition of key talent for succession planning.

6.6.2 Recommendations

It is important that DUT:
- Introduces staff mobility programmes that address planned growth of employees

- Introduce international exchange programme offerings to improve the innovation, collaboration and new ideas
- Create a performance culture by encouraging transparency and engaging in information sharing and review processes

6.7 TALENT DEVELOPMENT

Talent development motivates employees to build knowledge and promote a good work ethic, thereby establishing a flexible, innovative and competent workforce. Garavan *et al.* (2012) and Davies and Davies' (2010) supports this view by stating that talent development strategies that enhance employability and include knowledge and competence targeted programmes attracts high potential and high performing employees. These concepts cannot be seen in isolation and emphasises the interrelatedness between the individual and the organisation for strategic success.

Talent management must be recognised as an organisational requirement given the risk of losing key talent. A transfer of learning programme would need to be created to ensure that the skills are transferred to employees identified within talent pools. Such employees should be developed and prepared to assume critical positions as an attempt to ensure the smooth continuity of work functions.

Further, organisations expect return on their investment in the employee that they have invested in and employees on the other hand expect either financial or non-financial recognition for upward mobility. High potential employees have high expectations in their career development as well as their personal aspirations, which may be emanating from them participating in talent management initiatives at the organisation.

6.7.1 Findings #7

It was found that DUT does not have a talent development process and hence, employees feel demotivated, resulting in a drop in morale and commitment levels.

6.7.2 Recommendations

To address this problem, the DUT management must:
- Develop and cultivate potential employees for higher positions
- Develop plans linked to retention of skills which must be in line with University needs
- Create internship programmes for development on targeted positions

6.8 TALENT POOLS

The growth of talent pools targets those with high potential and high performance to occupy such positions in a differentiated human resources environment in order to reduce costs and enhance skills, commitment and performance of the employees. It was found that nomination to talent pools and provision of high potential employees with a suite of developmental interventions, could lead to employees feeling valued and appreciated, resulting in increased commitment. There is always a risk that the investment in talent management may assume that employers and employee share a reciprocal relationship but may ignore the individual's desire of choice in the process. Furthermore, with no guarantee of promotion, employees within talent pools may view the developmental process as time consuming and result in being frustrated and demotivated with the administrative procedures on the progression into senior positions. Employees within talent pools may view the talent management process as having to help the employer achieve

their strategic goals. The organisations must bear in mind the importance in investing in time and resources in its approach to learning and transfer of skills. Although line managers may be responsible for managing the expectations of employees, they may not be provided with the opportunity to contribute in the developmental interventions of talent pools as this process is managed and tracked by human resources and other senior managers.

6.8.1 Recommendation

- Introduce a dual intervention of integrating the identification of high performers and high potential for placement into talent pools so that high performers are targeted for key positions identified by the organisation.

6.9 SUCCESSION PLANNING

6.9.1 Findings #8

It was found that DUT does not have succession planning strategies to recognise high potential and high performers as part of its retention strategy and identification of future leaders for higher positions. This finding is supported by Yarnall (2011) who maintains that the traditional approach to talent management has since evolved from career development, to recognising employees who perform well and those employees who have high potential to be succession planned into higher positions. Talent management may be influenced by demographic factors based on legislation requirements in staffing. Therefore, there must be deliberate attempts by management to ensure that these imperatives are timeously addressed and integrated into succession planning strategies to ensure that there is always a cohort of talented employees to replace those employees exiting the system. This

approach provides continuity of role function. The main thrust of managing talent is to increase the employee performance as a way of improving efficiencies and organisational performance. Therefore, it is recommended that:

- The University establish succession-planning strategies to encourage an environment that recognises and develops the potential of the workforce to reduce its turnover.

- Align succession and career planning initiatives with organisational strategy.

Research question 4: What are the financial implications to ensure the right talent management at DUT?

6.10 SUSTAINABILITY CONSIDERATIONS IN TALENT MANAGEMENT

The Universities sustainability is largely dependent on subsidy income from government. This is supported by Robyn and Du Preez (2013) who mention that HEIs depend on funding from government and other sources of income and it is for these reasons they have to ensure that their existence as centres of excellence is critical for national and international recognition, which in turn will attract additional income.

Reduced funding by the DHET required deliberate attempts on cost cutting approaches to prevent the organisation from losing its talent and having to adopt measures that will drastically affect employees. One of the key result areas of the DUT is to ensure that students engage in work integrated learning to prepare them for the world of work, which is part of their curriculum. McCracken, Currie and Harrison (2016) supports the view that students

entering the world of work require on the job experience to be assessed appropriately.

6.10.1 Findings #9

It was found that increased research output results in additional research funds, thereby improving the subsidy income for the University. Furthermore, additional research funds make provision for greater collaboration and partnership with industry and the general community to generate innovative ideas and find solutions to problems. Additionally, these ideas could result in research commercialisation, thereby increasing the University's funds.

It was also, established that when policies are rigid, employees have difficulty in complying and aligning to transformation imperatives, thereby resulting in increased risk and audit queries as well as litigation as employees will be in breach of policies, thus compromising the achievement of transformation goals.

6.10.2 Recommendation

To solve this problem, DUT would need to:

- Ensure that skilled employees are attracted and recognised to improve productivity that will improve the subsidy income and University funds.
- Align the budget to the University strategy.
- Develop a comprehensive work force plan.
- Establish closer liaison with employees and industry in preparation for students to engage in job opportunities for employability.

6.11 PRACTICAL IMPLICATIONS

This research makes important practical contributions. It sheds light on how to unravel the complexities in talent management in complex organisations like DUT. This study challenges the traditional structures of HEIs and suggests that the management of HEIs adopt talent management practices that addresses the strategic needs of the University, using the SD methodology.

Future research could benefit from the investigating the tension between the competitive, individualistic as well as the isolated nature of academic life and how these contribute towards the talent gap lends itself to further research. Additionally, useful insights could be obtained from further research conducted on the mismanagement of human resources within the context of the marketisation of Higher Education that could result in an increase in attrition of talented staff to reveal challenges in addressing the talent gap.

6.12 LIMITATIONS OF THE STUDY

The study was confined to the three categories of staff, namely, the executive and senior management, middle management and the general staff and therefore, the views of other stakeholders may be necessary to draw a wide-ranging conclusion. Further, DUT has multi campuses which are geographically, dispersed, posing difficulties in extending the participation to include other respondents in the study. The researcher therefore used data from interviews with participants from the University, as well as archival University documentation to draw conclusions.

In addition, the Qualitative SD Model revealed five (5) balancing loops and ten (10) reinforcing loops involved in the talent management process at the University. While the reinforcing loops depict management of talent at the

University, the organisation must be aware of the potential of such loops to have the opposite effect when reversed. This simply means that these feedbacks, if not managed properly can pose a risk to the University, particularly since there are a greater number of reinforcing loops as compared to balance loops. Hence, while the balancing loops and the reinforcing loops presented in this study may help to maintain the managing of talent at the University, there is always the potential of the reinforcing loops becoming negative where even the existing balancing loops will not be able to maintain the system as it is. Therefore, the management team must ensure that there is continuous assessment conducted to strengthen these feedbacks in order to prevent any downward spiral that could impede the stability of the organisation.

One of the weaknesses of the qualitative SD approach is that the process is long and requires a particular skill that takes time to comprehend. Additional phases of the qualitative SD approach requires computer simulation of the model under operational conditions, however, this was not possible as this process would be time consuming and far more complicated for the organisation on which this study was based on. However, the merits of the use of computer simulation is acknowledged as gaining greater insights into the behaviour of the overall system on talent management over time. This approach would have benefited the outcome of the research, as the computer simulations are able to decipher the behaviour of the overall system over time in a shorter period of time and with much ease.

6.13 CONTRIBUTION OF THIS STUDY TO THE DISCOURSE

The unique contribution of this study was the application of a Qualitative SD methodology in understanding the talent management at the University. This study was based on empirical work that involved the use of semi-structured interviews and the analysis of organisational information. It can be concluded

that although literature on SD was available, the process of applying the methodology to convert qualitative data to SD models was difficult and complex. Therefore, the process involved the stages of acquiring the raw data to the construction of the CLDs and the holistic Qualitative SD Model. This iterative process required constant adaptation by the researcher. The adaptation of Sterman's (2002) model allowed the researcher to spend more time interpreting the graphical representations that underpin the problem investigated.

This method provided a unique approach to gaining a deeper understanding of the talent variables at play and how these influence each other holistically to, have an impact on the system for strategic success. It further helps to gain an understanding of how the external environment and the internal systems interact with each other. Further, Hawari and Tahar (2015) confirms that system dynamics is an effective and efficient tool that can enhance planning strategies in learning organisations. Hence, the findings from the fieldwork and the literature review provided a holistic Qualitative SD model on talent that assists and supports human resource departments and higher education professionals in addressing issues of talent in a complex environment. HEIs can benefit immensely from the recommendations of this research when creating talent strategies. The Qualitative SD model provided a framework for deep interrogation of the issue of talent management by prompting the researcher to identify the underlying feedbacks involved in managing talent. It also enabled the identification of variables and their influences that help understand complex social systems whose behaviour constantly changes over time due to the feedbacks operating within such systems. The use of causal loop diagrams helped build a holistic SD qualitative diagram that provided the macro picture on talent management in a HEI. It also assisted in highlighting how different functions of the organisation are perceived as being independent and unrelated to each other, when in fact these actually are related and

significantly influence each other, hence, contributing to the overall management of talent.

The study suggested that to formulate talent management strategies, various dynamics that influence talent in complex organisations must be explored. These observations are important and are worth probing further to explore new insights that bring about organisational change.

The SD approach used in this study to investigate talent management at DUT, made it possible to observe the complex feedback interactions at play. Successful Universities are dependent on talent for new knowledge to be produced. Universities need to understand how to manage this resource in order to successfully manage the cycle of talent attraction, retention and development. There are number of variables that influence one another in the talent management process, as it is impacted by and responds to the dynamics within the organisation. This is largely because the overall talent management system emerges from the interaction of the variables, some of which were identified in this study.

However, the study has contributed to the realisation that managing talent extends beyond attracting, developing and retaining talent and included understanding talent within the conceptions of a learning organisation, employee productivity, upward employee mobility, talent pools, succession planning and sustainability considerations in talent management. Therefore, it is through the strengthening of these factors that the organisation will be able to meet its strategic goals.

However, despite the observations made throughout the study, there is potential for additional research to be conducted in this area of study. Clearly, there are limited levels of engagement, organisational commitment, value and

growth opportunities and recognition. Some of the challenges noted include time constraints, increased workload and inadequate communication and limited opportunities for career advancement.

6.14 CONCLUSION

This chapter summarises the key findings highlighted in the study and discussed talent management in the context of a higher education University in South Africa. It further examined the influence of talent management processes for strategic success in the organisation. It also provided a broad overview of the national landscape on factors affecting talent management and its impact on Universities. Furthermore, it presented the conceptual framework of the study by reviewing literature on the higher education landscape as well as studying the effect of talent management on the University. Thereafter, the research design chapter outlined the research process, research design and methodology used in the study. Data collection methods and the research instruments used in the research as well as the system dynamics-modelling framework, selected to conduct the research study was explained. The findings chapter focussed on analysing the data using thematic analysis and illustrated how common themes emerged. The discussion chapter demonstrated how critical thinking and causal reasoning could be used in systems thinking and system dynamics to assist organisations understand and assess assumptions as well as to detect problems early (problem identification and model conceptualisation) to make the necessary adjustments to ensure that these have been addressed prior to policy implementation. This chapter presented the conclusion and recommendations of the talent interventions that need to be adopted by the University to remain competitive. In addition, it offers recommendations for further research.

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APPENDIX 1 - INSTITUTIONAL RESEARCH ETHICS COMMITTEE APPROVAL
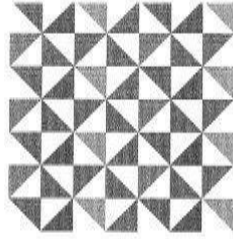
Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
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Gate I, Steve Biko Campus
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15 March 2017

IREC Reference Number: **REC 127/16**

Mrs M Perumal
P O Box 24
Ilala Ridge Estate
Umhlanga Rocks
Durban
4021

Dear Mrs Perumal

A System Dynamics model of the Talent Pipeline for the Strategic Responsiveness at DUT

The Institutional Research Ethics Committee acknowledges receipt of your final data collection tools for review.

We are pleased to inform you that the interview schedules have been approved. Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the IREC acknowledges receipt of your gatekeeper permission letter.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Yours Sincerely,

Professor J K Adam
Chairperson: IREC

DUT DURBAN UNIVERSITY OF TECHNOLOGY

2017 -03- 1 5

INSITUTUTIONAL RESEARCH ETHICS COMMITTEE
P O BOX 1334 DURBAN 4000 SOUTH AFRICA

APPENDIX 2 – PERMISSION TO CONDUCT RESEARCH

Directorate for Research and Postgraduate Support
Durban University of Technology
Tromso Annexe, Steve Biko Campus
P.O. Box 1334, Durban 4000
Tel.: 031-3732576/7
Fax: 031-3732946
E-mail: moyos@dut.ac.za

17ᵗʰ January 2017

Ms Manoshni Perumal
c/o Department of Public Management and Economics
Faculty of Management Science
Durban University of Technology

Dear Ms Perumal

PERMISSION TO CONDUCT RESEARCH AT THE DUT

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research Committee (IRC) has granted permission for you to conduct your research "A System Dynamics model of the Talent Pipeline for Strategic Responsiveness at DUT" at the Durban University of Technology.

We would be grateful if a summary of your key research findings can be submitted to the IRC on completion of your studies.

Kindest regards.
Yours sincerely

_____
PROF. S. MOYO
DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT

APPENDIX 3 – INTERVIEW QUESTIONS USED IN THE PILOT STUDY

INTERVIEW SCHEDULE 1: EXECUTIVE & SENIOR MANAGEMENT

PHD: LEADERSHIP & COMPLEXITY

TOPIC: A System Dynamics model of the Talent Pipeline for Strategic Responsiveness at DUT

SECTION A: BIOGRAPHICAL

1. Department :   Job Title
2. Category of Staff
3. Number of years of experience on the job

   1-4   5-9   10-14   15-19   20 and above

SECTION B: LEARNING ORGANISATION

4. Explain the external forces that influence the development of a learning organisation
5. Describe the factors involved in transforming institutional culture in a learning organisation
6. To what extent does talent, impact a learning organisation?

SECTION C: ATTRACTION, DEVELOPMENT AND RETENTION OF TALENT

7. To what extent does DUT adopt a systemic approach to talent development?
8. Explain the impact of the historical challenges on attraction, development and retention of its future talent
9. Describe how the attraction, development and retention of the correct talent addresses teaching, research output, innovation and entrepreneurship
10. Explain how DUT can improve and optimise staff mobility within the University.
11. Describe the performance and talent variables necessary to bridge the talent gap
12. Explain how the reliance on sourcing scarce and critical skills affect the recognition and growth of existing talent at the University
13. To what extent does the University prepare women for Senior and Executive positions?

SECTION D: FINANCIAL SUSTAINABILITY

14. Explain the University's current strategies in the recruitment and retention of its talent
15. Explain how the Universities financial situation affects the talent attraction, development and retention initiatives.

SECTION E – STRUCTURES, POLICIES AND SYSTEMS

16. Explain the University's attempt to address the risk of inadequate talent and development interventions as identified in the University Risk Report (2013) and the Employment Equity Plan (2013-2015)
17. To what extent should the University's current structures, policies, procedures and systems be revisited to address the talent approach?

INTERVIEW SCHEDULE 2: MIDDLE MANAGEMENT

SECTION A: BIOGRAPHICAL

1. Department :   Job Title
2. Category of Staff
3. Number of years of experience on the job
   1-4   5-9   10-14   15-19   20 and above

SECTION B: LEARNING ORGANISATION

4. To what extent does the Executive and Senior Management consider talent management at the University in its attempt to become a learning organisation?
5. Describe the institutional barriers that could prevent or delay the development of an integrated talent management system
6. Explain the role of talent management in a learning organisation

SECTION C: ATTRACTION, DEVELOPMENT AND RETENTION OF TALENT

7. To what extent does DUT adopt a systemic approach to talent development?
8. Explain the impact of the historical challenges on attraction, development and retention of its future talent.
9. Describe how the attraction, development and retention of the correct talent addresses teaching, research output, innovation and entrepreneurship.
10. Explain how DUT can improve and optimise staff mobility, both within the University and internationally.
11. Describe the performance and talent variables necessary to bridge the talent gap.
12. Explain how the reliance on sourcing scarce and critical skills affect the recognition and growth of existing talent at the University.
13. To what extent does the University prepare women for Senior and Executive positions?

SECTION D: FINANCIAL SUSTAINABILITY

14. Explain the University's current strategies in the recruitment and retention of its talent.
15. Explain how the University's financial situation affects the talent attraction, development and retention initiatives.

SECTION E – STRUCTURES, POLICIES AND SYSTEMS

16. Explain the University's attempt to address the risk of inadequate talent and development interventions as identified in the University Risk Report (2013) and the Employment Equity Plan (2013-2015)

17. To what extent should the University's current structures, policies, procedures and systems be revisited to address the talent approach?

INTERVIEW SCHEDULE 3: GENERAL STAFF

SECTION A: BIOGRAPHICAL

1. Department: Job Title
2. Number of years of experience on the job
   1-4   5-9   10-14   15-19   20 and above

SECTION B: LEARNING ORGANISATION

3. To what extent does the Executive and Senior Management consider talent management at the University in its attempt to become a learning organisation?
4. Describe the institutional barriers that could prevent or delay the development of an integrated talent management system
5. Explain the role of talent management in a learning organisation

SECTION C: ATTRACTION, DEVELOPMENT AND RETENTION OF TALENT

6. To what extent does DUT adopt a systemic approach to talent development?
7. Explain the impact of the historical challenges on attraction, development and retention of its future talent
8. Describe how the attraction, development and retention of the correct talent addresses teaching, research output, innovation and entrepreneurship
9. Explain how DUT can improve and optimise staff mobility, both within the University and internationally
10. Describe the performance and talent variables necessary to bridge the talent gap
11. Explain how the reliance on sourcing scarce and critical skills affect the recognition and growth of existing talent at the University
12. To what extent does the University prepare women for Senior and Executive positions?

SECTION D: FINANCIAL SUSTAINABILITY

13. Explain the University's current strategies in the recruitment and retention of its talent
14. Explain how the University's financial situation affects the talent attraction, development and retention initiatives

SECTION E – STRUCTURES, POLICIES AND SYSTEMS

15. Explain the University's attempt to address the risk of inadequate talent and development interventions as identified in the University Risk Report (2013) and the Employment Equity Plan (2013-2015)
16. To what extent should the University's current structures, policies, procedures and systems be revisited to address the talent approach?

APPENDIX 4 – INTERVIEW QUESTIONS USED IN THE STUDY

INTERVIEW SCHEDULE 1: Executive and Senior Management, Senior Directors and Directors)

SECTION A: BIOGRAPHICAL

1. Department :   Job Title
2. Number of years of experience on the job

| 1-4 | 5-9 | 10-14 | 15-19 | 20 and above |

SECTION B: LEARNING ORGANISATION

1. In your opinion, explain what you understand by a learning organisation
2. Explain the external influences that impact the development of a learning organisation
3. Describe the factors involved in transforming institutional culture at DUT
4. Describe the institutional barriers that could prevent or delay the development of an integrated talent management system?
5. Explain how talent management could impact a learning organisation?
6. In your opinion, should talent be linked to:

   (i)   The identification of key posts in line with the University's strategy
   (ii)   Potential and Performance; or
   (iii)   Both the identification of key posts in line with the University's strategy as well as potential and performance

SECTION C: ATTRACTION, DEVELOPMENT AND RETENTION OF TALENT

7. To what extent does DUT adopt a co-ordinated approach to talent development?
8. Explain how the institution's historical challenges affect the:-
   (a) Recruitment
   (b) Development; and
   (c) Retention

   of its existing staff

9. Describe how the attraction, development and retention of the correct talent would enhance the DUT's

   (i) Teaching
   (ii) Research output,
   (iii) Innovation and entrepreneurship

10. Explain how DUT can improve and optimise staff mobility, both within the University
11. Describe the performance indicators necessary to bridge the performance gap for:
    (i) Academic sector
    (ii) Administrative sector
12. Describe the talent indicators (knowledge, skills and abilities) necessary to bridge the talent gap at DUT
13. Explain how the recruitment of scarce and critical skills from outside of DUT affect the recognition and growth of existing talent at the University? How should the University approach this challenge?
14. To what extent does the University prepare women for Senior and Executive positions and why?

SECTION D: FINANCIAL SUSTAINABILITY

15. Describe the University's current approach to the recruitment and retention of its talent?
16. Given the concerns on the University's current financial situation, explain how this impacts on the talent attraction, development and retention initiatives

SECTION E – STRUCTURES, POLICIES AND SYSTEMS

17. According to the University Risk Report (2013) and the Employment Equity Plan (2013-2015), there is inadequate talent management initiatives. What does DUT do to address these observations?
18. Explain how the University's current structures, policies, procedures and systems should be revisited to ensure that the correct talent is recruited, developed and retained to meet its strategic objectives.

........./...............................   ....

SIGNATURE OF SUPERVISOR   **DATE**

INTERVIEW SCHEDULE 2: Middle Managers/Heads of Departments/Specialists

SECTION A: BIOGRAPHICAL

1. Department :   Job Title
2. Number of years of experience on the job

   | 1-4 | 5-9 | 10-14 | 15-19 | 20 and above |

SECTION B: LEARNING ORGANISATION

1. In your opinion, explain what you understand a learning organisation to be.
2. To what extent does the Executive and Senior Management consider talent management at the University?
3. Describe the institutional barriers that could prevent or delay the development of an integrated talent management system?
4. Explain how talent management could impact a learning organisation?
5. In your opinion, should talent be linked to:

   (i)   The identification of key posts in line with the University's strategy
   (ii)   Potential and Performance; or
   (iii)   Both the identification of key posts in line with the University's strategy as well as potential and performance

SECTION C: ATTRACTION, DEVELOPMENT AND RETENTION OF TALENT

6. To what extent does DUT adopt a co-ordinated approach to talent development?
7. Explain how the institution's historical challenges affect the:-
   (a) Recruitment
   (b) Development; and
   (c) Retention

   of its existing staff

8. Describe how the attraction, development and retention of the correct talent would enhance the DUT's

   (i) Teaching
   (ii) Research output,
   (iiii) Innovation and Entrepreneurship

9. Explain how DUT can improve and optimise staff mobility, both within the University

10. Describe the performance indicators necessary to bridge the performance gap for:
    (i) Academic sector
    (ii) Administrative Sector

11. Describe the talent indicators (knowledge, skills and abilities) necessary to bridge the talent gap at DUT

12. Explain how the recruitment of scarce and critical skills from outside of DUT affect the recognition and growth of existing talent at the University? How should the University approach this challenge?

13. To what extent does the University prepare women for Senior and Executive positions and why?

SECTION D: FINANCIAL SUSTAINABILITY

14. Describe the University's current approach to the recruitment and retention of its talent?
15. Given the concerns on the University's current financial situation, explain how this impacts on the talent attraction, development and retention initiatives

SECTION E – STRUCTURES, POLICIES AND SYSTEMS

16. According to the University Risk Report (2013) and the Employment Equity Plan (2013-2015), there is inadequate talent management initiatives. What does DUT do to address these observations?
17. Explain how the University's current structures, policies, procedures and systems should be revisited to ensure that the correct talent is recruited, developed and retained to meet its strategic objectives.

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SIGNATURE OF SUPERVISOR   **DATE**

INTERVIEW SCHEDULE 3 : GENERAL STAFF

SECTION A: BIOGRAPHICAL

1. Department :   Job Title
2. Number of years of experience on the job

    1-4   5-9   10-14   15-19   20 and above

SECTION B: LEARNING ORGANISATION

1. In your opinion, explain what you understand a learning organisation to be.
2. To what extent does the Executive and Senior Management consider talent management at the University?
3. Describe the institutional barriers that could prevent or delay the development of an integrated talent management system?
4. Explain how talent management could impact a learning organisation?
5. In your opinion, should talent be linked to:

    (i)   The identification of key posts in line with the University's strategy
    (ii)   Potential and Performance; or
    (iii)   Both the identification of key posts in line with the University's strategy as well as potential and performance

SECTION C: ATTRACTION, DEVELOPMENT AND RETENTION OF TALENT

6. To what extent does DUT adopt a co-ordinated approach to talent development?
7. Explain how the institution's historical challenges affect the:-
    (a) Recruitment
    (b) Development; and
    (c) Retention

    of its existing staff

8. Describe how the attraction, development and retention of the correct talent would enhance the DUT's

(i) Teaching
(ii) Research output,
(iiii) Innovation and Entrepreneurship

9. Explain how DUT can improve and optimise staff mobility, both within the University

10. Describe the performance indicators necessary to bridge the performance gap for:
    (i) Academic sector
    (ii) Administrative Sector

11. Describe the talent indicators (knowledge, skills and abilities) necessary to bridge the talent gap at DUT

12. Explain how the recruitment of scarce and critical skills from outside of DUT affect the recognition and growth of existing talent at the University? How should the University approach this challenge?

13. To what extent does the University prepare women for Senior and Executive positions and why?

SECTION D: FINANCIAL SUSTAINABILITY

14. Describe the University's current approach to the recruitment and retention of its talent?
15. Given the concerns on the University's current financial situation, explain how this impacts on the talent attraction, development and retention initiatives

SECTION E – STRUCTURES, POLICIES AND SYSTEMS

16. According to the University Risk Report (2013) and the Employment Equity Plan (2013-2015), there is inadequate talent management initiatives. What does DUT do to address these observations?
17. Explain how the University's current structures, policies, procedures and systems should be revisited to ensure that the correct talent is recruited, developed and retained to meet its strategic objectives.

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SIGNATURE OF SUPERVISOR   **DATE**

APPENDIX 5 - DOCUMENT INVENTORY

(1) Durban University of Technology (DUT). Recruitment, Selection & Appointment Policy and Procedures: 2019

(2) Durban University of Technology (DUT). 2019. Human Resources Information System. Durban: DUT.

(3) Durban University of Technology (DUT). 2016. Human Resources Information System. Durban: DUT

(4) Durban University of Technology (DUT). 2019. HEMIS audited reports 2017-2019. Durban: DUT.

(5) Durban University of Technology (DUT). 2019. DUT Enrolment Plan 2020-2025. Durban: DUT.

(6) Durban University of Technology (DUT). DUT Strategic Plan 2015-2019. Durban: DUT.

(7) Durban University of Technology (DUT). 2013-2015. Employment Equity Plan. Durban: DUT.

(8) Durban University of Technology (DUT). 2013. Strategic Risk Assessment Report. Durban: DUT.