“Transformation through the lens of leadership capabilities in South African universities”

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Abstract

The university leaders of the 21st century have failed to expose the transformation needs and demands of their institutions and have only implemented transformational strategies and measures that suit their career endeavors. This has been compounded by their lack of personal, interpersonal, and cognitive capabilities, which are essential in driving, shaping, and achieving the transformation agenda of their respective institutions. Against this backdrop, this article ascertains university leaders’ knowledgeability of factors and their understanding of change initiatives that could drive and achieve universities' transformation agenda. The leadership traits, cognitive abilities, and qualities that can also influence transforming universities are assessed in this empirical study. A quantitative research approach was adopted in this comparative study, where a structured questionnaire was distributed to 191 respondents. A 70% response rate was obtained at the Durban University of Technology (DUT), while 59% was achieved at the Cape Peninsula University of Technology (CPUT). The Statistical Package for the Social Sciences (SPSS) version 12 was used to capture and analyze the data. This study has the potential to influence university leaders in totality in their nomenclature on transformation and the traits needed for effective transformation. The current research study revealed fascinating results that leaders from both the universities believed that transformation refers to restructuring rather than the widely shared narrative of addressing the racial imbalances of the apartheid era. Furthermore, the results suggest that the university leaders understand their institutional transformation agendas although the freedom of speech and open debates are not promoted and that leaders are not good listeners.

INTRODUCTION

South African universities in this chaotic epoch have experienced an academic evolution from different angles. These include the technological advancements and radical movements coordinated by students. Such individuals fight for free education and the insourcing of vulnerable workers and fight against rampant racism, which demands such institutions to be led by strong and decisive leaders. Such turbulent university campuses have seen the exodus of talented, academically gifted, and capable leaders in different managerial levels due to the complex nature of the challenges and prevalent toxic cultures. Innovative, creative, and flexible leaders are needed who can adapt during such uncertainties. Furthermore, decisive leaders with an in-depth knowledge of university transformation, and skillful leaders with complex and diverse capabilities to influence transformation, are essential in the higher education landscape of South Africa. Meanwhile, scholars have not empirically explored leadership capabilities and their effects on transformation in South African universities, which is a vital research hotspot. This study challenges an unexplored hotspot in research by...
borrowing a myriad of leadership traits and qualities that have the advantage of influencing transformation in the South African university landscape and bringing fundamental changes, challenges, or advances to scholars’ understanding of the phenomenon. Accordingly, this research study sought to dissect the leadership capabilities possessed by leaders to influence transformation in two universities of technology in South Africa: the Durban University of Technology (DUT) and the Cape Peninsula University of Technology (CPUT). Furthermore, the leaders’ knowledge of transformation in the selected universities was also ascertained.

This study partly followed the Leadership Capability Framework (LCF) of Fullan and Scott (2009) and Scott, Coates, and Anderson (2008), which is underpinned by several theories. These include leadership trait-based theories (Zaccaro, 2007) and cognitive resources theory (Fiedler & Garcia, 1987). A plethora of authors (Olasupo, 2011; Scott, Coates, & Anderson, 2008) define leadership as a process of influencing subordinates through motivation and inspiring others to realize a vision and set institutional goals and objectives. Consequently, Sadiq, Barnes, Price, Gumedze, and Morrell (2019) term transformation in universities as involving elements, including student access and pass rate, the acquisition of higher degrees and curriculum, and the composition of the academic staff. According to Rabe and Rugunanan (2012), the majority of black academics at the University of Cape Town (UCT), as expressed by a sociologist in South Africa, believe that universities are grappling with transformation and have experienced institutional racism. Scholars have not extensively explored leadership and transformation in a higher education setting where capabilities, traits, qualities, and change initiatives – which have a direct influence on achieving the transformation agenda of the university and society – are interrogated. This has necessitated that researchers tap into this less-explored terrain by conducting a comparative study on two previously merged and incorporated universities made up of different racial groups and backgrounds. This research study attempted to answer the extent to which the university leaders understand transformation and change in the selected institutions, as well as the leadership traits and cognitive abilities that can drive transformation.

1. LITERATURE REVIEW

1.1. Understanding leadership and transformation in a university context

The South African government has been battling to deal with transformation challenges at the beginning of the 21st century. This situation has been attributed to the multiplicity of needs and demands from different key stakeholders, including students, employees, and their representatives, and the government in the form of the Department of Higher Education and Training (DHET). The employees and their representatives have been fighting against vast inequalities and universities’ unbecoming operations. This includes students embarking on a myriad of protests for free education, decolonizing the curriculum, and insourcing vulnerable employees (including cleaners, security guards, and catering staff). As a result, the government has been crying foul over the lack of progress on the transformation of universities’ systems, structures, and discriminatory policies against the backdrop of the apartheid regime.

Researchers in South Africa acknowledge that transformation is a multifaceted, multidimensional, and multi-perspectival concept. Francis and Hemson (2010) attribute this to race; Seedat, Nyamai, Njenga, Vythilingum, and Stein (2004) to efficiency; Meyer and Botha (2004) to change; and Oloyede (2007) to institutional strategic plans and business processes, systems, and cultural changes. A meta-analysis study undertaken by Du Preez, Simmonds, and Verhoef (2016), on terms in universities, concluded that the term transformation is fluid, loosely defined, and inherently complex. Due to the deficit of available empirical data linking leadership to transformation, this study dissects leaders’ knowledge of transformation and change, as well as the traits and cognitive abilities that can achieve the transformation agenda.

The LCF by Fullan and Scott (2009) and Scott, Coates, and Anderson (2008) constitutes per-
sonal, interpersonal, and cognitive components. The components of the framework include, for instance, personal capability that is guided by leadership trait-based theories (Zaccaro, 2007), which is central to personal and innate traits of leaders who encourage transformation. Another component mentioned by Yukl (2012) argues that theories inform interpersonal capabilities of leadership style. Besides, there are two theories, which guide the cognitive capability-elements: trait-based theory (Zaccaro, 2007) and cognitive resources theory (Fiedler & Garcia, 1987). According to Ghasemy, Hussin, and Daud (2016), self-regulation, decisiveness, and commitment are components that emanate from the dimension of personal capabilities. Goleman (2004) argues that self-regulation skills are essential for leaders in a turbulent environment with scarce resources – such as universities – where an environment conducive to fairness and trust needs to be created to survive. Bland, Weber-Main, and Lund (2005) suggest that the capacity to empower staff members leads to improved communication networks and decision-making processes, thus contributing to effective leadership in universities. Regarding employee commitment, Bryman (2007) mentions mutual respect between university leaders and employees, in addition to trust and collegiality. Ghasemy, Hussin, and Daud (2016) posit that interpersonal capabilities have two constructs: influencing and empathizing. Scott, Coates, and Anderson (2008), meanwhile, suggest that qualities of interpersonal capabilities, including a leader’s ability to influence an employee’s behavior and decisions, inspire others to achieve acceptable results and knowledge, and to work with employees who resist change. Besides, interpersonal capabilities include an emotional intelligence component of empathy (Goleman, 2004). Ghasemy, Hussin, and Daud (2016) indicate that the dimensions of cognitive capability include flexible systems and processes, responsiveness to organizational needs, diagnoses, and strategy features. The theoretical framework presented above provides a foundation for this study to determine the theories linked to personal, interpersonal, and cognitive leadership abilities that influence transformation at merged higher educational institutions.

Several researchers (Jansen, 2004; Kotecha, 2003; Seale, 2004) suggest that the transformation agenda has been compromised by inefficient and ineffective leadership at South African universities. Conversely, a host of authors (Fullan & Scott, 2009; Hempsall, 2014; Martin, 2005; Mendenhall, Osland, Bird, Oddou, & Maznevski, 2008) suggest that interpersonal capabilities, which comprise relationship and interconnectedness, directly affect the transformation or change. Fullan and Scott (2009) mention that leadership capabilities required in universities include talent, performing work functions productively, and being calm and decisive. Mendenhall, Osland, Bird, Oddou, and Maznevski (2008) maintain that leaders should constantly learn for effective transformation. Meanwhile, Service and Carson (2013, 148) contend that to see radical transformation in universities, decisive leaders are needed. Accordingly, Ramsden (1998) mentions that leaders should have personal capabilities, learn from errors, and be risk-takers. Recent studies undertaken at universities regarding transformation (Fullan & Scott, 2009; Niemann, 2010; Spendlove, 2007; Zide, 2010) suggest that leaders who encourage employees to air their views and are active listeners promote transformation. Numerous authors (Joubert & Martins, 2013; Saint, Hartnett, & Strassner, 2003; Zide, 2010) opine that universities with the potential to yield good results regarding transformation are the ones that have both a clear vision and a mission statement. Such institutions have deliverable strategic objectives and have set goals according to the SMART principle (goals that are Specific, Measurable, Attainable, Relevant, and Time-bound).

The above discussion forms the basis of an empirical study that seeks to ascertain leaders’ knowledge of transformation, their capabilities, and factors that influence transformation in the merged universities of technology. This study has not been conducted before in South Africa. There are insufficient empirical data that tests leaders’ knowledge of transformation and the association between a leader’s capabilities and transformation, with the available data being only anecdotal. Therefore, this study attempts to close the void mentioned above by presenting empirical data, which contribute to the body of knowledge, thereby shedding light on the capabilities needed from leaders and which can influence transformation in universities.
1.2. Knowledgeability of transformation in universities

There seems to be a relationship between capable leadership and the achievement of the transformation agenda in South African universities. Herbst and Garg (2017) posit that in South Africa, universities have been criticized for a lack of transformation, which is attributed to leaders’ capability to lead change and transformation effectively. A host of researchers (Joubert & Martins, 2013; Ncayiyane & Hayward, 2007) argue that South African universities’ conflict is caused by lofty goals and expectations from different pivotal stakeholders who have prevented these institutions from driving the transformation agenda. An empirical study was undertaken by Herbst and Garg (2017) with 111 managers at a university of technology in South Africa. The intention was to assess the transformational leadership competency potential, and the study found that leaders exhibiting inadequate transformational and transactional focus caused detrimental repercussions for transforming universities and society at large. The paucity of empirically reliable and validated data on transformation in universities motivates the researcher to investigate transformation in two similar universities and associate this with leadership.

1.3. Leadership qualities driving transformation at tertiary institutions

The approved strategic plan should integrate the university’s transformation plan or agenda to realize the country’s and the university’s transformation agenda (Zide, 2010). Shields (2010) and Zide (2010) encourage robust dialogue and open debate (Ensor, 2004; Fourie, 1999), and the development of a curriculum that is responsive to societal needs. Transforming universities need leaders who understand their strengths and weaknesses (Herbst & Conradie, 2011; Souba, 2006) and learn from their mistakes. Such leaders clearly understand their strengths and weaknesses (Scott, Coates, & Anderson, 2012); these are leaders who possess networking skills and are risk-takers (Ramsden, 1998). Several researchers (Amzat & Idris, 2012; Bryman, 2007; Lumby, 2012; Mintzberg, 1998; Siddique, Aslam, Khan, & Fatima, 2011) indicate that leadership in universities promotes autonomy and consultation regarding important decisions. According to Chen, Silverthorne, and Hung (2006), employees who participate in decision-making are satisfied, and benefit from improved self-esteem. This results in fewer resignations, increased performance (Coates et al., 2010) and makes the university capable and successful (Fullan & Scott, 2009; Mabelebele, 2013).

McMurray, Henly, Chaboyer, Clapton, Lizzio, and Teml (2012) suggest that change management is needed with leaders in universities to value the development of managerial competencies among teaching staff members. Many authors (Cohen, 2010; Drucker, 2010; Fullan & Scott, 2009) argue that universities require leaders who have listening skills, consider dissent to be a good thing, and listen to resistors and can provide positive ideas and define mission statements. Some authors (Bikmoradi, Brommels, Shoghli, Khorasani-Zavareh, & Masiello, 2010; Kennedy, 2001; Zide, 2010) posit that leaders in universities manage their departments through fear, which diminishes their innovation and creativity, as well as the transformation agenda. Besides, several researchers (Olsen, 2000; Stubbs, 2009) suggest that stakeholders at universities, including student organizations and trade unions, can play a pivotal role in radical transformation. The literature reviewed above concludes that several scholars have researched the leadership capabilities required at universities without developing an association with how it influences transformation, which motivates the urgent need for this study.

The research study attempted to test the following hypotheses:

\[ H_1: \text{University leaders’ knowledge of transformation does not achieve the transformation agenda.} \]

\[ H_2: \text{University leaders’ understanding of change initiatives would not achieve the transformation agenda.} \]

\[ H_3: \text{Leadership traits do not affect the transformation in selected universities.} \]

\[ H_4: \text{University leaders’ cognitive abilities do not affect the transformation in universities.} \]
H5: The leadership qualities that do not achieve the transformation agenda.

2. METHODOLOGY AND DATA COLLECTION

A study on leadership capabilities that influence transformation employed a comparative research design where two merged universities of technology in South Africa were compared (Bryman, 2014). To better understand how leadership capabilities influence transformation, comparisons were made between two contrasting universities of technology. This design was an ideal one as DUT was a merger of Technikon Natal (white) and ML Sultan Technikon (Indian), while the Cape Technikon (white) joined the Peninsula Technikon (colored). The same instruments were used at both universities to explain similarities and differences and to understand the influence of leadership capabilities on transformation at these merged institutions (Bryman, 2014). This multi-case study is partly informed by an LDF (Fullan & Scott, 2009; Scott, Coates, & Anderson, 2008), guided by different theories (focusing on personal, interpersonal, and cognitive leadership abilities). This places this study in a better position to establish circumstances in which those theories will or will not hold (Yin, 2009). The positivist paradigm also informed this study as leaders’ perceptions were discovered, measured, and manipulated through a structured questionnaire (McKenna, 2003). The methodology employed in this study is relevant as this is exploratory research that investigates and analyzes the perceptions at universities of technology and, in the case of leadership and transformation research, particularly in the field of organizational behavior.

This quantitative survey study adopted a stratified random sampling with university employees who occupy leadership positions. The total population was employees between Peromnes Grade 6 and 8, which are categorized as middle and junior management. A stratified random sample was used in this study as the population is composite and divided into sub-populations, which are distinct in characteristics of interest (Underhill & Bradfield, 1998). The line managers included coordinators, managers, and heads of department, lecturers, senior lecturers, and officers. These categories of employees were the ones at the tactical and operational levels to effect and achieve the transformation agenda; therefore, it was deemed necessary to target them in this scientific study. The study focused on the probability sampling technique (stratified random sampling) (Lewis, Kaufman, & Christakis, 2008). The population size was 191, distributed equitably to both teaching and administrative leadership staff as per the sampling table that was created by Sekaran (1992), with a sample size of 113 (CPUT) and 133 (DUT) respondents. A structured questionnaire based on a 1 to 5 Likert scale was used, with 1) strongly disagree; 2) disagree; 3) undecided; 4) agree; and 5) strongly agree. The researcher distributed the questionnaire to competent research participants. The total sample size of 133 and 113 was appropriate for testing the research findings’ reliability and validity. It was large enough to reduce errors in drawing inferences on the overall population (Saunders, Lewis, & Thornhill, 2007). The LCF (Fullan & Scott, 2009) formed the basis of the structured questionnaire development in this study.

The dimensions and sub-dimensions of the current empirical study are extracted mostly from the various theories (Fullan & Scott, 2009; Scott, Coates, & Anderson, 2009) because they cover three leadership capabilities (personal, interpersonal, and cognitive). Furthermore, a structure that was used by Ngcamu (2016) was partly used in this study, with a focus on leadership qualities, and initiatives that affect the transformation in universities of technology in South Africa.

The data were collected between 2017 and 2018. Questionnaires were disseminated to 191 university leaders at both DUT and CPUT to test the instruments’ findings, reliability, and validity. The total number of questionnaires collected was 133 from DUT, generating a response rate of 70%; and 113 from CPUT, generating a response rate of 59%. There were no errors at either institution. The questionnaires were distributed to the departmental secretaries with unsealed envelopes to be distributed to the university leaders and collected by the researcher at a later time.
3. RESULTS

The Statistical Package for the Social Sciences (SPSS) version 12 was used in this research study for data capturing, presentation, analysis, and interpretation. The reliability tests, which were performed using Cronbach’s coefficient alpha, revealed a high and reliable coefficient value of 0.9086, which is acceptable and indicates consistent responses.

Table 1. Reliability analysis

| Dimensions                              | Number of items | Cronbach’s alpha |
|-----------------------------------------|-----------------|------------------|
| Knowledgeability of transformation      | 10              | 0.857            |
| Understanding of transformation         | 10              | 0.906            |
| Factors influencing transformation      | 10              | 0.903            |
| Leadership capabilities                 | 11              | 0.927            |
| Leadership influence in transformation  | 10              | 0.950            |
| Total                                   |                 | 0.9086           |

The structured questionnaire was piloted to 20 leaders (10 per university) to identify problems and errors and limit respondents’ difficulties in answering the questions (Lewis, Kaufman, & Christakis, 2008). Factor analysis was made to discover patterns and associations among variables (Babbie & Mouton, 2004). The researcher obtained an ethics clearance from both universities to conduct this study on the effects of leadership on transformation. The synonymy and confidentiality of the respondents were maintained throughout the study.

This study examined the knowledgeability of university leaders on transformation and change. It further ascertained the leadership traits and cognitive abilities possessed by leaders to drive and achieve the transformation agenda.

In terms of transformation, as indicated in Table 1, the leaders showed that transformation refers to restructuring at DUT (70%) and CPUT (65%) more than the widely anticipated variables such as racial transformation and redressing past injustices. Sixty-two percent of the respondents at DUT and 46% at CPUT agreed that transformation refers to institutional structures as pillars of change ($X^2 = CPUT – 3.3, DUT – 3.6; p < 0.019$). As indicated in Table 1, 57% of the leaders at DUT compared to the lower 43% at CPUT referred to...

Table 2. Knowledgeability of transformation

| Item                                                                 | At my university, transformation refers to | Frequency | Response category | % | DF | $X^2$ | P  | Factor analysis components |
|----------------------------------------------------------------------|-------------------------------------------|-----------|------------------|---|----|-------|----|---------------------------|
| At my university, transformation refers to                            | CPUT | DUT | CPUT | DUT | CPUT | DUT |    |                           |
| Racial transformation                                                 | 72   | 77  | Agree          | 64 | 58 | 4    | 3.7| 3.5 | 0.114 | -0.112 | 0.650 |
| The restructuring of the institution                                  | 73   | 93  | Agree          | 65 | 70 | 4    | 3.6| 3.7 | 0.350 | 0.318 | 0.569 |
| Moving away from the comfort zone to the unknown condition           | 44   | 74  | Agree          | 39 | 56 | 4    | 3.2| 3.4 | 0.047 | 0.562 | 0.351 |
| Reflecting on changes taking place in our society                    | 57   | 81  | Agree          | 59.4| 61 | 4    | 3.3| 3.6 | 0.027 | 0.517 | 0.530 |
| Redressing past injustices                                           | 63   | 78  | Agree          | 56 | 59 | 4    | 3.5| 3.6 | 0.473 | 0.256 | 0.721 |
| Institutional structures (council, senate, Senex, committees, Executive Management Committee) as pillars of change | 52   | 83  | Agree          | 46 | 62.4| 4    | 3.3| 3.6 | 0.019 | 0.369 | 0.640 |
| Partnership in governance (state, civil society, stakeholders)       | 47   | 66  | Agree          | 42 | 50 | 4    | 3.2| 3.4 | 0.105 | 0.671 | 0.247 |
| Attracting quality employees                                          | 49   | 81  | Agree          | 43.4| 61 | 4    | 3.2| 3.6 | 0.006 | 0.719 | 0.303 |
| Overcoming inefficiencies                                            | 48   | 76  | Agree          | 43 | 57 | 4    | 3.1| 3.5 | 0.020 | 0.901 | 0.075 |
| Overcoming ineffectiveness                                           | 44   | 67  | Agree          | 39 | 50.3| 4    | 3.0| 3.4 | 0.041 | 0.917 | 0.068 |

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transformation as overcoming inefficiencies ($X^2 = CPUT – 3.1, DUT – 3.5; p < 0.020$). A total of 50% of leaders at DUT indicated that transformation refers to overcoming ineffectiveness compared to the lower percentage at CPUT (39%) ($X^2 = CPUT – 3.0, DUT – 3.4; P < 0.041$).

There was an equal agreement on the understanding of the transformation agenda by the research participants at these universities: CPUT (43%) and DUT (49%). At the same time, almost equal percentages (CPUT: 53%, DUT: 54%) of respondents at the universities understood the transformation problems. Furthermore, university leaders agreed (CPUT: 58%, DUT: 57%) that leaders had an understanding of transformation as responding to societal needs.

A total of 45% of the leaders at CPUT did not believe that freedom of speech is promoted at the university, while at DUT, 48% agreed ($X^2 = CPUT – 2.8, DUT – 3.2; p < 0.003$). Both sets of respondents agreed that independent thinking is promoted (41% and 44%). A total of 53% of leaders at CPUT and 38% at DUT indicated that leaders did not promote open debate ($X^2 = CPUT – 2.6, DUT – 3.0; p < 0.035$).

In terms of leaders learning from their mistakes, 48% of the leaders at CPUT disagreed compared to 38% at DUT who agreed ($X^2 = CPUT – 2.5, DUT – 3.0; p < 0.001$).

Forty-three percent disagreed that leaders at CPUT remained calm under heavy pressure compared to 37% at DUT who agreed. At CPUT, a total of 42% disagreed that leaders are unwilling to make hard decisions, but at DUT 44% agreed that they were willing to make hard decisions ($X^2 = CPUT – 2.8, DUT – 3.2; p < 0.004$). At CPUT, participants revealed that leaders do not collaborate with pivotal stakeholders such as trade unions compared to DUT who agreed (45%) ($X^2 = CPUT – 2.7, DUT – 3.2; p < 0.001$). This study showed that CPUT leaders did not work well with internal stakeholders, including the Student Representative Council (SRC), while DUT leaders agreed, at 49% ($X^2 = CPUT – 2.9, DUT – 3.3; P < 0.000$). Both universities’ leaders agreed that leaders at the university work better with external pivotal stakeholders, with CPUT at the lowest at 37% and DUT at 55%. Both CPUT’s and DUT’s leaders had conflicting views regarding university leaders who give constructive feedback and that they work well with staff members who are resisters.
The results shed light on the influence of leadership capabilities on transformation at the universities. The CPUT leaders had negative views regarding leaders who listen to others (p < 0.039), are inclusive (p < 0.000), are proactive from the top (P < 0.000), manage their staff without fear (p < 0.001), support subordinates (p < 0.000), find solutions in other people’s work (p < 0.001), and listen to the feedback from subordinates (p < 0.001). The results also revealed that the CPUT leaders disagreed that leaders pay attention to the competencies that are significant to bring about change (p < 0.002) and

### Table 4. Leaders’ traits influencing transformation

| Item                                                                 | Frequency | Response category | %     | DF | X² | P | Factor analysis components |
|----------------------------------------------------------------------|-----------|-------------------|-------|----|----|---|---------------------------|
| At my university                                                      |           |                   |       |    |    |   |                           |
| Independent thinking is promoted                                     | 107       | Agreed            | 52    | 3  | 2.5  | 3.2  | 0.004  | 0.770  | 0.187  |
| Freedom of speech is promoted                                        | 107       | Disagreed-agreed  | 39    | 3  | 2.4  | 3.1  | 0.006  | 0.789  | 0.156  |
| Leaders create a platform for open debate                             | 107       | Disagreed         | 37    | 3  | 2.6  | 3.0  | 0.012  | 0.781  | 0.175  |
| Rewards for acceptable performance is encouraged                      | 107       | Disagreed-agreed  | 53    | 4  | 2.7  | 3.0  | 0.036  | 0.784  | 0.053  |
| Leaders create avenues for personal growth                            | 107       | Agreed            | 45    | 4  | 3.0  | 3.2  | 0.014  | 0.777  | 0.167  |
| Business processes are flexible                                       | 107       | Disagreed-agreed  | 42    | 3  | 2.7  | 3.1  | 0.005  | 0.770  | 0.049  |
| Decision-making is centralized                                        | 107       | Disagreed-agreed  | 41    | 3  | 2.8  | 3.2  | 0.052  | 0.665  | 0.473  |
| There is time for meetings, with clear outcomes                       | 107       | Disagreed-agreed  | 42    | 3  | 2.7  | 3.1  | 0.004  | 0.768  | 0.350  |
| Interventions of change are productive                                | 107       | Agreed            | 51    | 3  | 3.3  | 3.3  | 0.076  | 0.621  | 0.930  |
| Both administrative and academic staff work collectively              | 107       | Disagreed-agreed  | 42    | 3  | 2.7  | 3.1  | 0.004  | 0.768  | 0.350  |

### Table 5. Cognitive capabilities of leadership

| Item                                                                 | Frequency | Response category | %     | DF | X² | P | Factor analysis components |
|----------------------------------------------------------------------|-----------|-------------------|-------|----|----|---|---------------------------|
| At my university, leaders:                                            |           |                   |       |    |    |   |                           |
| Learn from their mistakes                                             | 107       | Disagreed-agreed  | 48    | 3  | 2.5  | 3.0  | 0.001  | 0.777  |
| Understand their strengths                                            | 107       | Disagreed-agreed  | 34    | 3  | 2.8  | 3.1  | 0.085  | 0.808  |
| Understand their weaknesses                                           | 107       | Disagreed-agreed  | 34    | 3  | 2.8  | 3.0  | 0.304  | 0.800  |
| Are confident to take calculated risks                                 | 107       | Disagreed-agreed  | 43    | 3  | 2.7  | 3.2  | 0.000  | 0.780  |
| Remain calm under pressure                                            | 107       | Disagreed-agreed  | 43    | 3  | 2.8  | 3.0  | 0.073  | 0.702  |
| Are willing to make hard decisions                                    | 107       | Disagreed-agreed  | 42    | 3  | 2.8  | 3.2  | 0.004  | 0.735  |
| Work well with university stakeholders such as trade unions           | 107       | Disagreed-agreed  | 42    | 3  | 2.7  | 3.2  | 0.001  | 0.759  |
| Work with internal pivotal stakeholders                               | 107       | Disagreed-agreed  | 35    | 3  | 2.9  | 3.3  | 0.000  | 0.731  |
| Work with external pivotal stakeholders                                | 107       | Agreed            | 35    | 3  | 3.2  | 3.5  | 0.001  | 0.677  |
| Respond to subordinates                                               | 107       | Disagreed-agreed  | 46    | 4  | 2.6  | 3.3  | 0.000  | 0.809  |
| Work well with resistors                                              | 107       | Disagreed-agreed  | 43    | 3  | 2.5  | 3.1  | 0.000  | 0.786  |
that skillful and competent leaders would achieve transformation. The DUT leaders agreed with the above dimension at a 95% level of significance ($p < 0.000$). However, respondents from both CPUT (34%) and DUT (45%) agreed that transformation is aligned with the university’s strategy ($X^2 = CPUT – 3.0, DUT – 3.3; p < 0.032$).

Table 7 shows a direct association between an understanding of transformation and the knowledgeability of transformation at $p < 0.441$ level of significance. There is a perfect agreement between leadership traits influencing transformation and two dimensions of the study: the knowledgeability ($P < 0.435$) and understanding of change initiatives ($p < 0.418$). There is a strong correlation between leaders’ capabilities and three dimensions of the research study: the knowledgeability of transformation, understanding of change initiatives ($p < 0.343$), and cognitive abilities influencing transformation ($p < 0.669$). Table 7 depicts a strong correlation between leadership qualities influencing transformation, with all the dimensions of the study including knowledgeability ($p < 0.463$), understanding ($p < 0.374$), leadership traits influencing transformation ($p < 0.698$), and leadership qualities ($p < 0.856$). However, empirical data on the relationship between leadership and transformation in universities are scarce, with the available data being anecdotal and qualitative.

**4. DISCUSSION**

This research unearthed fascinating research findings on different sub-dimensions of the study, which partly contradicts the LCF by Fullan and Scott (2009). This includes the disproportionately high percentage of research participants who suggest that transformation means restructuring and that those who encourage it are in cahoots with researchers (Lee, 2004; Oloyede, 2007; Varghese, 2004). Meanwhile, both universities (CPUT: 64%, DUT: 65%) also referred transformation to race, which is aligned with a host of researchers (Francis & Hemson, 2010; Rabe & Rugunanan, 2012; Seedat, Nynai, Njenga, Vythilingum, & Stein, 2004). Meanwhile, both universities (CPUT: 64%, DUT: 65%) also referred transformation to race, which is aligned with a host of researchers (Francis & Hemson, 2010; Rabe & Rugunanan, 2012; Seedat, Nynai, Njenga, Vythilingum, & Stein, 2004). They state that transformation is based on race and on redressing racial imbalances created by the apartheid government. Another major highlight of the study was the low agreement at CPUT compared to DUT on transformation referring to overcoming inefficiencies, contrary to the purpose of mergers (Kavanagh & Ashkanasy, 2006) and which is central to streamlining efficiencies. An agreement at both universities (CPUT: 58%, DUT:
### Table 7. Correlations among dimensions

Source: Author's own creation.

| Spearman's rho | Knowledgeability of transformation | Understanding of change in a university | Leaders' traits influencing transformation | Leaders' cognitive capabilities | Leadership qualities achieving the transformation agenda |
|----------------|-------------------------------------|----------------------------------------|-------------------------------------------|-------------------------------|------------------------------------------------------|
|                | Correlation coefficient              | 1.000                                  |                                           |                               |                                                      |
|                | Sig. (2-tailed)                      |                                        |                                           |                               |                                                      |
|                | N                                   | 246                                    |                                           |                               |                                                      |
| Knowledgeability of transformation | Correlation coefficient              | .441**                                 | 1.000                                    |                               |                                                      |
|                | Sig. (2-tailed)                      | 0.000                                  |                                           |                               |                                                      |
|                | N                                   | 246                                    |                                           |                               |                                                      |
| Understanding of change in a university | Correlation coefficient              | .435**                                 | .418**                                   | 1.000                         |                                                      |
|                | Sig. (2-tailed)                      | 0.000                                  |                                           |                               |                                                      |
|                | N                                   | 246                                    |                                           |                               |                                                      |
| Leaders' traits influencing transformation | Correlation coefficient              | .446**                                 | .343**                                   | .669**                        | 1.000                                               |
|                | Sig. (2-tailed)                      | 0.000                                  |                                           |                               |                                                      |
|                | N                                   | 246                                    |                                           |                               |                                                      |
| Leaders cognitive capabilities | Correlation coefficient              | .463**                                 | .374**                                   | .698**                        | .856**                                               |
|                | Sig. (2-tailed)                      | 0.000                                  |                                           |                               |                                                      |
|                | N                                   | 246                                    |                                           |                               |                                                      |
| Leadership qualities achieving the transformation agenda | Correlation coefficient              | .463**                                 | .374**                                   | .698**                        | .856**                                               |
|                | Sig. (2-tailed)                      | 0.000                                  |                                           |                               |                                                      |
|                | N                                   | 246                                    |                                           |                               |                                                      |

**Note:** ** Correlation is significant at the 0.01 level (sig. 2-tailed).
57%) that leaders understand transformation as responding to societal needs (Ensor, 2004) and transformation problems (Bateman & Snell, 2002) was also a major highlight in this article. Another finding of interest was the high agreement that suggested leaders did not promote open debate, which is against the ethos of transformation, as echoed by numerous researchers (Rampele, 2008; Shields, 2010; Zide, 2010) who conclude that such leaders paralyze the transformation agenda.

The respondents’ overwhelming agreement that leaders learn from their mistakes in these universities is in disagreement with numerous authors (Ramsden, 1998) that such leaders achieve the transformation agenda of their respective institutions. A relatively high percentage (43%) at CPUT did not believe that leaders are confident in taking calculated risks compared to 44% at DUT who did agree. The greatest disagreement by respondents at CPUT that leaders take risks goes against Ramsden’s (1998) argument that in order for leaders to drive transformation, they should have the capability of taking risks.

Forty-three percent disagreed that leaders at CPUT remained calm under pressure compared to 37% at DUT who agreed. At CPUT, a total of 42% disagreed that leaders are unwilling to make hard decisions, but at DUT, 44% agreed that they were willing to do so. This is contrary to several authors, including Bryman (2007) and Chen, Silverthorne, and Hung (2005) who concluded that the participation of leaders in the decision-making processes results in the satisfaction of employees, resulting in the university becoming capable and successful (Fullan & Scott, 2009). At CPUT, participants revealed that leaders do not collaborate with pivotal stakeholders such as trade unions compared to DUT who did agree. This study showed that CPUT’s leaders did not work well with internal stakeholders, including the SRC, while DUT’s leaders agreed (49%).

The leaders at CPUT, having negative views regarding leaders who listen to others, are inclusive, proactive from the top, manage without fear, support subordinates, find solutions to other people’s work, and listen to feedback from subordinates. This is contrary to different researchers (Fullan & Scott, 2009; Zide, 2010) who state that universities should allow employees to air their views and be active listeners to realize the transformation agenda. The disagreement regarding fear as a management style in the same university agrees with different authors (Kennedy, 2001; Zide, 2010) in that universities are failing to achieve the transformation agenda due to leaders’ management styles, characterized by fear. These data gleaned from the research findings demonstrate that transformation in universities cannot be realized by all stakeholders (internal and external) if leaders do not possess personal, interpersonal, and cognitive capabilities.

CONCLUSION

This empirical study concludes that transformation at universities can be defined and understood differently, generating contextual meanings. The study findings imply that leaders at universities of technology have moved from confining transformation to addressing racial inequalities to restructuring. An interesting observation at these universities is that although independent thinking is promoted, there are limitations on open debate and freedom of speech, which is counterproductive and has inevitable consequences on achieving the transformation agenda. This further paralyzes the cordial relationship between a university’s internal pivotal stakeholders, including students and trade unions.

Consequently, leaders tend to be reactionary on transformational matters as they are afraid to make risky and hard decisions, and take calculated risks. Nevertheless, both universities understand the transformation agenda and its associated problems. Universities need leaders with capabilities to influence and achieve the transformation agenda. It is recommended that future researchers extrapolate this study to other universities in South Africa by using different research designs and methods as the inferences drawn from this study cannot be wholly applicable in other university settings.
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