




An analysis of transformational leadership, talent acquisition and talent retention of engineers at an energy provider in South Africa



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Orientation: Scholars long debated the importance of transformational leadership, talent acquisition and talent retention.

Research purpose: The purpose of this study was to analyse transformational leadership, talent acquisition and talent retention of engineers at Eskom by investigating the demographic differences, relationships and transformational leadership as the mediating variable.

Motivation for the study: Eskom has improved the remuneration of engineers over the years but continued encountering challenges to attract and retain them. The researcher investigated whether the perceived lack of transformational leadership caused the challenges experienced by the organisation.

Research approach/design and method: This was quantitative study, which used convenience-sampling method to obtain 585 completed questionnaires from the engineers.

Main findings: The researcher performed a one-way Anova test to establish if engineers from a gender and educational qualification perspectives were different from each other on the eight sub-factors identified through exploratory factor analysis. The *p*-values were greater than 0.05, meant that there was no statistical difference between genders and between engineers with different educational qualifications. The researcher conducted a post-hoc pairwise test (*p*-values < 0.05) on different age groups and results revealed that older respondents (31 – 40 years of age) had greater positive attitude on the perception of before-selection, during-selection and development than the younger group (18 – 30 years of age). In addition, the study revealed that transformational leadership mediated the relationship between talent acquisition and retention of engineers.

Practical/managerial implications: The study emphasises that not only salaries are important to attract and retain engineers, but also effective leadership is essential, especially the transformational leadership philosophy.

Contribution/value-add: South Africa has a dearth of engineers. The study results illustrates the importance of transformational leadership philosophy in addressing the challenge the organisation faces. Therefore, the organisation must consider designing programmes to help leaders embrace the transformational leadership philosophy.

Keywords: transformational leadership; talent acquisition; talent retention; mediation; ANOVA test.

Introduction

George (2015) avows that professional workers are a group of people who are involved in the same kind of work and belong to a specific profession. They often display high levels of expertise and autonomy. George (2015) also contends that these people believe in the self-regulation of their profession and value their profession. George (2015) submits further that these professional workers are very loyal to and identify with both the profession and their organisation.

Therefore, in my view, engineers do fall into the category of people as espoused by above. They command high level of expertise and autonomy, believe in the regulation of their profession and can also be loyal to and identify with profession and their organisation. This group of professionals is critical for the world, in general, and for South Africa, in particular, and should be strategically managed.

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The Chartered Institute of Personnel Development (2018) explains talent management as a process that seeks to attract, identify, develop, engage, retain and deploy individuals who are considered particularly valuable to an organisation. Naidoo, Abarantyne and Rugimbana (2019) see employee retention as the ability to hold onto those employees an organisation wants to keep for longer time than the competitors do. Sequeira, Attupuram and Gopalakrishnan (2015) describe talent acquisition as a process of planning, sourcing, assessing, hiring and on-boarding of qualified and talented individuals into appropriate positions in the organisations.

In an uncomplicated way, Mittal and Dhar (2015) expound transformational leadership as the organisational leader's ability to influence followers' behaviour and self-interest towards organisational goals, performing beyond their duties or fulfilling leaders' expectations.

This study has a particular focus on establishing whether the presence or absence of transformational leadership in the organisation understudy has the mediating effect in attracting and retaining engineers.

Purpose

The purpose of this study was to analyse transformational leadership, talent acquisition and talent retention of engineers at Eskom by investigating the demographic differences and relationships amongst the variables and to determine if transformational leadership is the mediating variable between talent acquisition and retention.

Literature review

Transformational leadership

Downton (1973) first coined the theory of transformational leadership and categorised three leadership tendencies, which are transactional leadership, charismatic leadership and inspirational leadership. However, Burns (1978) further studied and developed it through research (Louw, Muriithi, & Radloff, 2017). Mittal and Dhar (2015) describe a transformational leader as one who inspires followers to do more than originally expected. They contend that this is performed by raising their level of awareness about the importance and value of designated outcomes and methods of achieving these outcomes, motivating them to transcend beyond their own self-interest for the sake of the team, organisation or larger community and ultimately expanding their portfolio of needs and wants (Mittal & Dhar, 2015). In agreement with Mittal and Dhar (2015), Khorshid and Pashazadeh (2014) aver that transformational leaders create an atmosphere of trust and motivate employees to work for the organisation beyond their self-interests.

They argue that it can be categorised into four main dimensions: idealised influence, inspirational motivation,

intellectual stimulation and individualised consideration (Mittal & Dhar, 2015). Idealised influence refers to transformational leaders' ability to influence followers by demonstrating high levels of competence, values and ethical standards and displaying self-confidence to followers in their ability to accomplish organisational tasks, leading followers to respect and admire their leaders (Eberly, Bluhm, Guarana, Avolio, & Hannah, 2017). Inspirational motivation includes communication, interaction and discussion of a meaningful vision with followers to work towards the organisation's current and future vision; the leader also needs to demonstrate optimism and enthusiasm for that vision and to inspire followers to overcome challenges that may exceed their expectations (Engelen, Gupta, Strenger, & Brettel, 2015).

Bass and Avolio (eds. 1966) show that leaders displaying intellectual stimulation should carefully examine offers ensuring their suitability; consider different perspectives whilst solving a problem; request for examination of problems from various viewpoints and suggest new ways of how to do something.

From an individualised consideration purview, these two scholars contend that leaders should allocate time for guiding and training their followers; treat members as persons and not as mere members; understand followers as people with different needs and abilities; help others to develop their capabilities (eds. Bass & Avolio, 1996).

Talent acquisition

Most people conflate talent acquisition with recruitment and, in fact, the two concepts are very different from each other. Rivera (2012) explains the former as an ongoing cycle of processes related to attracting, sourcing, recruiting and hiring (or placing) employees within an organisation. Seeing that recruitment is part of the talent acquisition process, Devi and Banu (2014) define recruitment as a continuous process, whereby the firm attempts to develop a pool of qualified applicants for the future human resource needs even though specific vacancies do not exist. It is therefore understood that recruitment is part of the talent acquisition process; however, talent management involves talent acquisition; hence, Kibui and Kanyiri (2013) describe talent management to be centred on resourcing, selection, training and development of employees.

In concurrence with Rivera (2012), Kibui and Kanyiri (2013) and Sequeira et al. (2015), as stated earlier, explain talent acquisition as a process of planning, sourcing, assessing, hiring and on-boarding of qualified and talented individuals into appropriate positions in the organisations. It is widely accepted that attracting the most suitable candidates enhances an organisation's ability to deliver excellent results (Meyer, 2016). At the individual level, a significant amount of attention in the strategic human capital literature has been focused on the hiring of stars (Call, Nyberg, & Thatcher, 2015). In agreement with Call et al. (2015), Kehoe and

Tzabbar (2015) avow that such hires are suggested to provide firms with a visible increase in human capital that can ultimately be diffused to other employees and leveraged by the firm.

Large-scale human capital acquisition approaches, such as mergers and acquisitions, can also be used to modify a firm's stock of human capital (Chatterji & Patro, 2014). However, these two academicians opine that this approach involves the acquisition of additional resources than just human capital and tends to be less flexible than lateral hiring approaches (Chatterji & Patro, 2014).

Talent retention

Organisations are beginning to realise that employees are key to their success and view employee relationship as mutually beneficial. In line with this statement, Dhanpat, Modau, Lugisani, MaboJane and Phiri (2018) explain that fluctuations in the economy and changes in demographics in businesses locally and abroad have caused organisations to shift their attention towards the retention of staff. It is therefore important that organisations should create effective and deliberate mechanisms to prevent employees from acting on their turnover intentions and end up leaving organisations. Kaur, Mohindru and Pankaj (2013) define turnover intentions as the intention of the employees to quit. According to Better (2015), engineering service firms are facing an ever-shrinking supply of talent. Coupled with an ageing workforce, the problem of having a sufficient supply of competent engineers and project managers is of significant concern (Better, 2015). This challenge in my view warrants organisations to strategically manage these engineers; otherwise, they risk losing their competitive advantage.

In line with Kaur et al. (2013), I can explain talent retention as a process where organisations start creating effective mechanisms to persuade employees to not affect their turnover intentions. These scholars, Dhanpat et al. (2018), agree with Kaur et al. (2013) and maintain that for an organisation to thrive in the changing world of work, there is a need to attract, develop and retain talent with the right skills and knowledge that will enhance organisational effectiveness and efficiency. Naidoo et al. (2019), as stated earlier, assert that employee retention can be better explained as the ability to hold onto those employees an organisation wants to keep for longer time than the competitors do. This statement is very important or else they will leave for what is often said 'greener pastures'.

Research design

Research approach

Bless, Higson-Smith and Sithole (2014) aver that a quantitative research design provides a detailed outline for the testing of the hypothesis, spelled out in clear and definite terms. From a purposive purview, Leedy and Ormrod (2015)

profess that quantitative researchers tend to search for explanations and predictions that will extrapolate to other persons and places. The intention, according to Leedy and Ormrod (2015), is to identify relationships amongst two or more variables and then, based on the results, confirm or modify existing theories or practices. Consequently, a quantitative research approach was preferred as the most apposite procedure for this study.

This study could also be characterised as a correlational study. Bless et al. (2014) posit that researchers use a correlational research to make a statement or hypothesis, predicting the relationship between two or more variables. Leedy and Ormrod (2015) concur with Bless et al. (2014) and affirm that correlational research is a statistical investigation of the relationship between two or more variables.

The results obtained in this study will be able to provide a precise description of reality. Therefore, the survey design was correlational as it sought to measure the relationships between three variables (namely transformational leadership, talent acquisition and retention). A cross-sectional design was used to gather the data in order to achieve the specific aims of this study.

Research participants

A convenience sampling was used, which is part of the non-random sampling methodology. Out of these 2500 engineers employed by the responded organisation, 585 engineers completed the questionnaire. The 585 engineers who completed the questionnaires constituted the sample for this study. The response rate in this particular study was 23%, which is acceptable, and the findings therefore can be extrapolated (Mc Daniel & Gates, cited by Martin, 2007). A representative sample of engineers could also be confirmed because of the varied nature of the respondents in terms of age, trade, tenure, academic qualifications and their designations.

The respondents' composition is as follows: 99.7% were on permanent contracts; 68.8% were males and 31.2% were females. This study revealed that 45.7% were between ages of 31 and 40 years, 2.3% were between ages of 18 and 30 years, 21.8% were between ages of 41 and 50 years and 10.1% were 51 years and more. None of the respondents had < 1 year of service. The results demonstrated that of the 585 respondents, 58.5% were electrical engineers, 2.6% were mechanical engineers, 10.0% were chemical engineers, 4.9% were civil and structural engineers, 1.3% were quantity surveyors, 0.5% were draughtsman and 0.2% were geologists.

Measuring instruments

The researcher used two sets of questionnaires. The first set of questionnaire, which was sent to 2500 engineers, was divided into four sections (i.e. biographic data, transformational

leadership, talent acquisition and talent retention). The transformational leadership and talent retention questionnaires were adapted from Avolio and Bass (2004), Lievens, Van Gert and Coetsier (1997) and Sinha and Sinha (2012), respectively. The researcher extracted certain themes from the literature (Crispin & Mehler, 2014; Kaiser, 1970; Rivera, 2012) to develop the talent acquisition questionnaire. This particular questionnaire was piloted and it proved to be valid and reliable when subjected to statistical testing. Out of these 2500 engineers, 585 engineers completed the questionnaire. The response rate in this particular study was 23% and the findings are acceptable and extrapolated as stated earlier.

A principal axis factor analysis with a direct oblimin rotation was performed on the various scales to investigate the groupings of items and their correspondence to the original theoretical scales. This was performed to determine whether the 42 variables could be reduced to a more meaningful set of factors to highlight how transformational leadership is viewed in relation to talent acquisition and retention. Kaiser-Meyer-Olkin (KMO) and Bartlett's test were used and a result of 0.920 was achieved, which is acceptable for sampling adequacy (Kaiser, 1970). Bartlett test of sphericity was significant at $p = 0.000$ (Kaiser, 1970).

Theoretically, transformational leadership had four original factors, which are Idealised Influence, Inspirational Motivation, Intellectual Stimulation and Individualised Consideration. However, after exploratory factor analysis (EFA) investigation on these original factors, new sub-factors were identified, which were supervisory stimulation and vision, consideration and positive attitude. The Cronbach alpha coefficients of these sub-factors are supervisory stimulation and vision (0.891), consideration (0.824) and positive attitude (0.824). The reliability coefficients of all these factors are acceptable and reliable because they are higher than 0.4 (Welman, Kruger, & Mitchell, 2011).

On talent acquisition, theoretically, one factor was intended for talent acquisition. However, factor analysis indicated that a two-factor analysis solution is the best. The factors are before-selection and during-selection and yielded Cronbach alpha coefficients of 0.721 and 0.621, respectively, which are acceptable and reliable.

On talent retention, factor loadings showed that three clear factors could be identified, which were relationship, reward and development, and yielded Cronbach alpha coefficients of 0.650, 0.653 and 0.750, respectively, which are acceptable and reliable.

Research procedure and ethical considerations

As indicated above, this study followed a quantitative approach. The respondent sample was 585 engineers, chosen using a convenience sampling approach as stated earlier. The results were analysed statistically looking at correlation, reliability, analysis of variance (ANOVA), regression, post hoc multi-comparison analysis, regression analysis and bootstrapping.

Ethically, participants were informed of the risks and benefits of participating in this study and how it may affect them. Participant's privacy was protected during the course of this study because their anonymity was preserved when they responded to the electronic questionnaire. The respondents had a choice to either participate in this study or not. Honesty prevailed when reporting the study findings and no misrepresentation or deception took place.

Statistical analysis

A correlation analysis using Spearman's Rho correlation (Leedy & Ormrod, 2015) was conducted to determine the relationship between transformational leadership, talent acquisition and talent retention. Regression analysis was used to determine whether transformational leadership is a mediator between talent acquisition and talent retention.

Discussion

This study focused at Eskom engineers because the leadership felt that something was wrong somewhere. Eskom continued to struggle to attract and retain the engineers despite substantially improving their remuneration.

Categories of engineers in the sample

Male engineers dominated this study with 68.8% and females at 31.2%. This confirms the assertion by other scholars that males dominate the engineering field (Peers, 2018; Singh & Peers, 2019). For example, Smith and Gayles (2018) posit that despite the growing numbers of women earning degrees in engineering, women remain vastly under-represented in engineering fields. As expected, there were more of the electrical engineers than any other field of engineering because Eskom is an electricity generator. Of the 585 respondents, 58.5% were electrical engineers and the rest were between mechanical, chemical, geologists, draughtsman and quantity surveyors. The results also revealed that 26.2% had a tenure lying between 1 and 5 years, 36.0% was between 6 and 10 years, 25.3% was between 11 and 20 years, 8.3% was between 21 and 30 years, 4.2% was 51 years and more. This means that 62.2% of engineers would have left before they reach a 10-year tenure. The majority of engineers had bachelor and honour degrees, with only 26.4% and 1.3% had masters and doctorate degrees, respectively.

Descriptive statistics

The following is revealed as regards to Figure 1:

In all the three sub-factors of transformational leadership, the individual mean scores (i.e. 2.17, 2.33 & 1.76) are lower than the scale midpoint for all the eight sub-factors. This illustrates the fact that engineers were not satisfied with their leaders' lack of supervisory stimulation and vision and consideration and lack of positive attitude.

For talent acquisition factors, engineers showed a positive attitude towards before-selection processes because the individual mean score (2.72) is higher than the midpoint scale

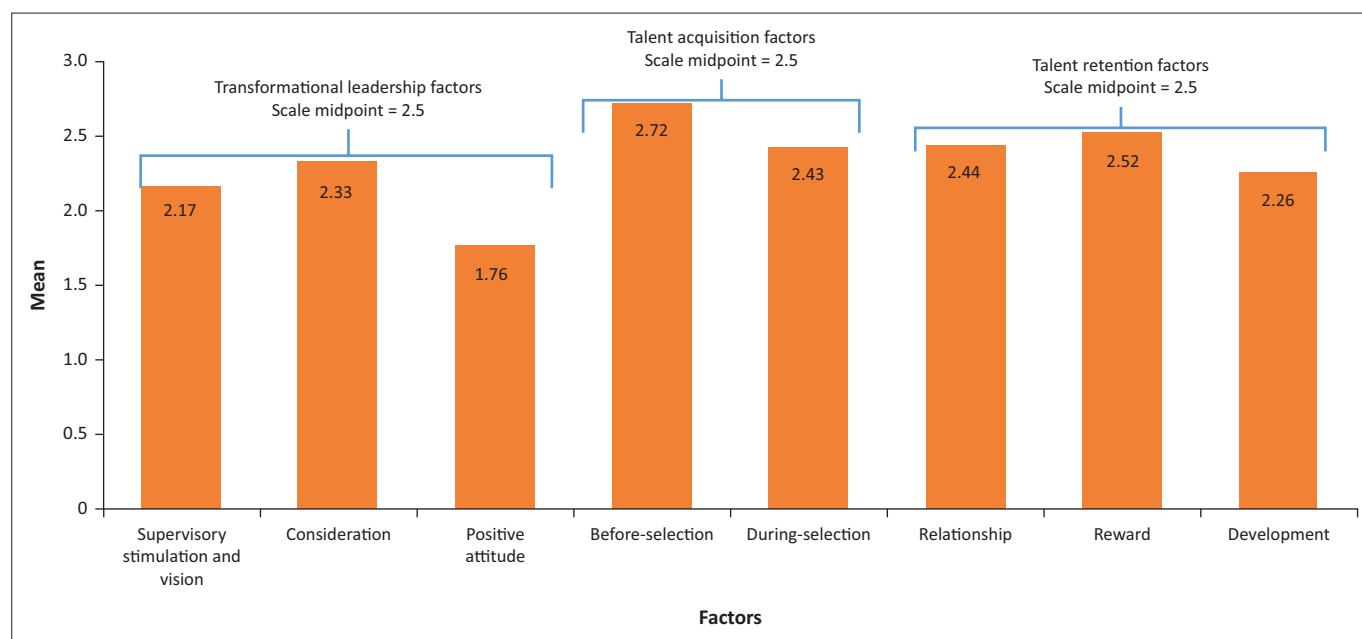


FIGURE 1: Descriptive statistics per factor.

TABLE 1: Analysis of variance comparison between age groups.

ANOVA	SS	df	MS	F-statistics (f)	Sig. (p value)
Before-selection					
Between groups	27.896	2	13.948	34.176	0.000
Within groups	223.656	548	0.408	-	-
Total	251.552	550	-	-	-
During-selection					
Between groups	24.639	2	12.320	35.454	0.000
Within groups	186.254	536	0.347	-	-
Total	210.894	538	-	-	-
Relationship					
Between groups	5.231	2	2.616	5.797	0.003
Within groups	236.909	525	0.451	-	-
Total	242.141	527	-	-	-
Reward					
Between groups	4.256	2	2.128	4.188	0.016
Within groups	256.085	504	0.508	-	-
Total	260.340	506	-	-	-
Development					
Between groups	9.330	2	4.665	9.057	0.000
Within groups	266.788	518	0.515	-	-
Total	276.177	520	-	-	-

ANOVA, analysis of variance; df, degrees of freedom; MS, mean square; SS, sum of squares.

of 2.5, whereas the during-selection factor stands at 2.43 slightly lower than the midpoint scale, demonstrating unhappiness towards what happens during the selection process.

For talent retention factors, engineers observed poor relationship between them and their managers and no opportunities for development because the relationship and development factors stand at 2.44 and 2.36, respectively, which are less than the scale midpoint of 2.5.

Statistical significant differences

Analysis of variance was utilised to examine the differences amongst three or more means by comparing the variances (s-squared) both within and across groups (Leedy & Ormro, 2015). The 5% level of significance was used. Thus, if the Sig.

value (p) is < 0.05 , there is a statistical difference between groups. When there are more than two groups to be compared, a post hoc analysis was added in order to compare the groups pairwise and investigate where there were significant differences.

Analysis of variance for gender

A one-way ANOVA was performed to establish if males and females were different from each other. No statistical significant difference could be found between males and females for all eight factors. This is because the p values were > 0.05 .

Analysis of variance for age

A one-way ANOVA between and amongst age groups as depicted in Table 1 was conducted to compare the age groups

on the factors. In accordance with the p scores in Table 1, statistical significant differences ($p < 0.05$) between groups were identified for five factors (i.e. before-selection, during-selection, relationship, reward and development).

In Table 2, a post hoc pairwise test was also performed to confirm where the differences occurred between groups. The first statistical significant difference was between ages of 18 and 30, on the one hand, and 31 and 40 as well as the 41+

years, on the other hand. On their perception of before-selection and during-selection ($p < 0.05$), on both scales, older respondents had a more positive attitude than the younger ones (18–30).

The next statistical significant difference was between the age groups of 31–40 and 41+ years on their perception on reward. The older group had a more positive perception towards reward than the younger group.

TABLE 2: Multi-comparison tests between age groups.

Dependent variable	Mean difference (I-J)	Std. error	Sig.	95% confidence interval	
				Lower bound	Upper bound
Before-selection					
18–30					
31–40	−0.50889†	0.06984	0.000	−0.6803	−0.3375
41+	−0.56972†	0.07499	0.000	−0.7538	−0.3857
31–40					
18–30	0.50889†	0.06984	0.000	0.3375	0.6803
41+					
18–30	0.56972†	0.07499	0.000	0.3857	0.7538
During-selection					
18–30					
31–40	−0.51971†	0.06519	0.000	−0.6797	−0.3597
41+	−0.49668†	0.07003	0.000	−0.6686	−0.3248
31–40					
18–30	0.51971†	0.06519	0.000	0.3597	0.6797
41+					
18–30	0.49668†	0.07003	0.000	0.3248	0.6686
Relationship					
18–30					
31–40	−0.22527†	0.07490	0.011	−0.4091	−0.0414
41+	−0.25183†	0.08070	0.008	−0.4499	−0.0537
31–40					
18–30	0.22527†	0.07490	0.011	0.0414	0.4091
41+					
18–30	0.25183†	0.08070	0.008	0.0537	0.4499
18–30					
41+	−0.21098†	0.07312	0.016	−0.3905	−0.0315
31–40	0.21098†	0.07312	0.016	0.0315	0.3905
Development					
18–30					
31–40	−0.22142†	0.08110	0.025	−0.4205	−0.0223
41+	−0.37051†	0.08707	0.000	−0.5842	−0.1568
31–40					
18–30	0.22142†	0.08110	0.025	0.0223	0.4205
41+					
18–30	0.37051†	0.08707	0.000	0.1568	0.5842

†, The mean difference is significant at the 0.05 level.

TABLE 3: Analysis of variance comparison between tenure groups.

ANOVA	SS	df	MS	F-statistics (f)	Sig. (p)
Before-selection					
Between groups	10.408	3	3.469	7.965	0.000
Within groups	237.386	545	0.436	-	-
Total	247.794	548	-	-	-
During-selection					
Between groups	6.965	3	2.322	6.091	0.000
Within groups	203.530	534	0.381	-	-
Total	210.495	537	-	-	-
Development					
Between groups	4.154	3	1.385	2.633	0.049
Within groups	271.368	516	0.526	-	-
Total	275.521	519	-	-	-

ANOVA, analysis of variance; df, degrees of freedom; MS, mean square; SS, sum of squares.

In conclusion, it can be inferred that, in general, older respondents had a more positive perception of the measured aspects of the organisation than the younger ones.

Analysis of variance for length of service

In Table 3, it is evident that significant differences ($p < 0.05$) were obvious between groups on before-selection (0.000), during-selection (0.000) and development (0.049). The latter is marginally significant and the researcher is performing analysis.

In Figure 2, further investigation revealed that the perceptions of engagement with the organisation on before-selection showed a steady increase with tenure. In the case of perceptions on during-selection, those with 1–5 years

of experience showed a significantly lower score than those with 6–10 and 11–20 years of experience, respectively. Respondents who have been with the organisation longer seem to have a slightly more positive recollection of their engagement with the organisation on both before-and during-selection.

Analysis of variance for engineering field

A one-way ANOVA between engineering field groups as depicted in Table 4 was conducted to compare the importance of the factors with these groups. In accordance with the p scores in Table 4, statistical significant differences ($p < 0.05$) between groups were identified for two factors (i.e. before-selection and during-selection). For these factors, the p values were 0.023 and 0.003, respectively.

In Table 5, the post hoc pairwise test was undertaken and it showed a marginal significant difference ($p < 0.05$) only between electrical and mechanical engineers for the before-selection sub-factor. Electrical engineers had a slightly more positive perception than mechanical engineers did. The same pattern was found for the during-selection factor.

Analysis of variance for educational levels

A one-way ANOVA between educational level groups was conducted to compare the importance of the factors with these groups. None of the groups showed statistically significant difference because all the p values are higher than 0.05.

Analysis of variance for managerial levels

A one-way ANOVA between managerial levels as depicted in Table 6 was conducted to compare the groups on the sub-factors. In Table 6, a statistical significant difference ($p < 0.05$) between groups was identified for four sub-factors

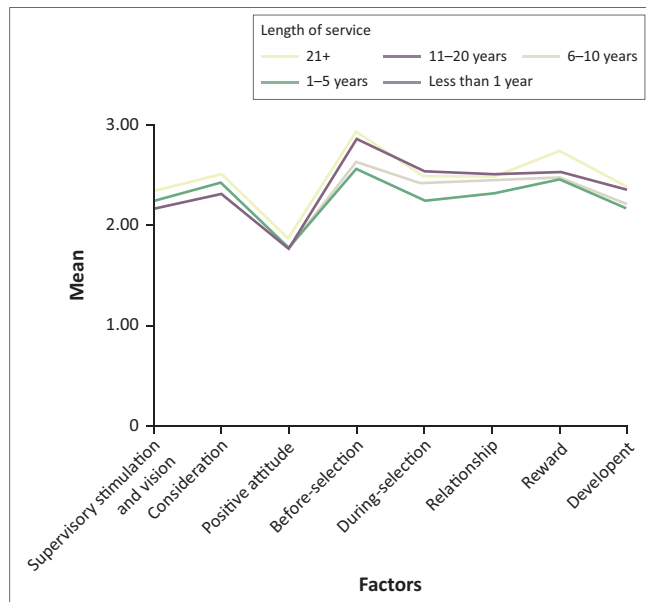


FIGURE 2: Mean plot for all eight factors for tenure groups.

TABLE 4: Analysis of variance comparison between engineering field groups.

ANOVA	SS	df	MS	F-statistics (f)	Sig. (p)
Before-selection					
Between groups	4.481	3	1.494	3.216	0.023
Within groups	236.402	509	0.464	-	-
Total	240.883	512	-	-	-
During-selection					
Between groups	5.426	3	1.809	4.640	0.003
Within groups	195.300	501	0.390	-	-
Total	200.726	504	-	-	-

ANOVA, analysis of variance; df, degrees of freedom; MS, mean square; SS, sum of squares.

TABLE 5: Multi-comparison tests between engineering fields.

Dependent variable		Mean difference (I-J)	Std. error	Sig.	95% confidence interval	
					Lower bound	Upper bound
Before-selection						
Electrical	Mechanical	0.20726†	0.07235	0.043	0.0043	0.4102
Mechanical	Electrical	-0.20726†	0.07235	0.043	-0.4102	-0.0043
During-selection						
Electrical	Mechanical	0.23596†	0.06679	0.006	0.0486	0.4233
Mechanical	Electrical	-0.23596†	0.06679	0.006	-0.4233	-0.0486

†, The mean difference is significant at the 0.05 level.

TABLE 6: Analysis of variance comparison between managerial level groups.

ANOVA	SS	df	MS	F-statistics (<i>f</i>)	Sig. (<i>p</i>)
Before-selection					
Between groups	15.214	4	3.804	8.523	0.000
Within groups	230.728	517	0.446	-	-
Total	245.942	521	-	-	-
During-selection					
Between groups	10.094	4	2.523	6.647	0.000
Within groups	192.108	506	0.380	-	-
Total	202.202	510	-	-	-
Relationship					
Between groups	10.403	4	2.601	5.884	0.000
Within groups	218.797	495	0.442	-	-
Total	229.200	499	-	-	-
Development					
Between groups	13.164	4	3.291	6.514	0.000
Within groups	246.550	488	0.505	-	-
Total	259.714	492	-	-	-

ANOVA, analysis of variance; df, degrees of freedom; MS, mean square; SS, sum of squares.

TABLE 7: Multi-comparison tests between managerial level groups.

Dependent variable		Mean difference (I-J)	Std. error	Sig.	95% confidence interval	
					Lower bound	Upper bound
Before-selection						
Senior manager	Engineer	0.56874†	0.13408	0.001	0.1543	0.9832
Middle manager		0.33313†	0.07451	0.001	0.1028	0.5635
Senior engineer		0.26791†	0.07955	0.024	0.0220	0.5138
Engineer	Senior manager	-0.56874†	0.13408	0.001	-0.9832	-0.1543
	Middle manager	-0.33313†	0.07451	0.001	-0.5635	-0.1028
	Senior engineer	-0.26791†	0.07955	0.024	-0.5138	-0.0220
During-selection						
Middle manager	Engineer	0.35191†	0.06954	0.000	0.1369	0.5669
Engineer	Middle manager	-0.35191†	0.06954	0.000	-0.5669	-0.1369
Relationship						
Middle manager	Engineer	0.35780†	0.07615	0.000	0.1223	0.5933
Engineer	Middle manager	-0.35780†	0.07615	0.000	-0.5933	-0.1223
Development						
Middle manager	Engineer	0.37411†	0.08163	0.000	0.1217	0.6265
Engineer	Middle manager	-0.37411†	0.08163	0.000	-0.6265	-0.1217

†, The mean difference is significant at the 0.05 level.

(i.e. before-selection, during-selection, relationship and development).

In Table 7, a post hoc pairwise test was undertaken and it showed statistical significant differences ($p < 0.05$) between different managerial levels. Looking at the statistical significant differences on the before-selection sub-factor, it would appear that the engineers differed significantly from senior managers, senior engineers and middle managers, respectively. Inspection of the mean scores shows that, in all cases, engineers had a lower score than the other groups and thus had a relatively more negative attitude on this factor.

For during-selection, relationship and development, only middle managers and engineers showed significant differences. In all cases, the mean value of engineers was lower than that of middle management.

Correlation

Leedy and Ormrod (2015) define correlation as a statistical process by which researchers discover whether two or more

variables are in some association with one another. Thus, the resulting statistics is called correlation coefficient, which is a number between -1 and $+1$. These scholars contend that a number close to either $+1$ or -1 (i.e. $+0.89$ or -0.76) indicates a strong correlation. In contrast, a number close to 0 (i.e. $+0.15$ or -0.22) indicates a weak correlation. It is also true that correlation in the middle range (i.e. 0.40 and 0.50 , positive or negative) indicates a moderate correlation.

Using this guideline, correlations were mostly of a small practical effect, except for those highlighted in bold in Table 8, which were of moderate effect size. It is thus clear that transformational leadership only correlated significantly with the overall retention score, as well as with relationship and development, two of the retention sub-scales.

In Table 9, the correlation is statistically significant ($p < 0.05$) and the correlation value is 0.379 . This means that there is a statistical significant positive correlation between talent acquisition and talent retention. In other words, as one variable improves, the same happens to the other one.

Mediation

According to Hayes (2009), mediation is a sequence of causal relations by which variable X exerts its effect on variable Y by influencing intervening variables.

TABLE 8: Correlation between all eight sub-factors.

Correlations	Supervisory stimulation and vision	Consideration	Positive attitude
Spearman's Rho			
Before-selection			
Correlation coefficient	0.181**	0.134**	0.115**
Sig. (2-tailed)	0.000	0.002	0.007
During-selection			
Correlation coefficient	0.124**	0.106*	0.126**
Sig. (2-tailed)	0.004	0.014	0.003
Relationship			
Correlation coefficient	0.406**	0.356**	0.383**
Sig. (2-tailed)	0.000	0.000	0.000
Reward			
Correlation coefficient	0.123**	0.155**	0.126**
Sig. (2-tailed)	0.006	0.000	0.004
Development			
Correlation coefficient	0.443**	0.414**	0.392**
Sig. (2-tailed)	0.000	0.000	0.000
Talent acquisition			
Correlation coefficient	0.176	0.137	0.153
Sig. (2-tailed)	0.000	0.001	0.000
Talent retention			
Correlation coefficient	0.438**	0.414**	0.414**
Sig. (2-tailed)	0.000	0.000	0.000

**, The mean difference is significant at the 0.01 level (2-tailed)

TABLE 9: Correlation between talent acquisition and talent retention.

Spearman's Rho	Talent acquisition	Talent retention
Talent acquisition		
Correlation coefficient	1.000	0.379**
Sig. (2-tailed)	-	0.000
N	553	530
Talent retention		
Correlation coefficient	0.379**	1.000
Sig. (2-tailed)	0.000	-
N	530	530

**, Correlation is significant at 0.01 level (2-tailed).

TABLE 10: Leadership mediation model.

R	R ²	MSE	F	df1	df2	p
Outcome: Transformational leadership						
Model summary						
0.1526	0.0233	0.2556	2.5870	1.0000	528.0000	0.0004
Model	Coefficient	Se	T	p	LLCI	ULCI
Constant	1.7460	0.1036	16.8601	0.0000	1.5426	1.9495
Talent acquisition	0.1396	0.0393	3.5478	0.0004	0.0623	0.2126
Outcome: Talent retention						
Model summary						
0.5507	0.3033	0.1947	114.7179	2.0000	527.0000	0.0000
Model	Coefficient	Se	T	p	LLCI	ULCI
Constant	0.7679	0.1121	6.8500	0.0000	0.5477	0.9882
Transformational Leadership	0.4312	0.0380	11.3513	0.0000	0.3565	0.5058
Talent acquisition	0.2842	0.0348	8.1795	0.0000	0.2160	0.3525
Normal theory of indirect effect						
Effect		SE		Z	P	
0.0602		0.0178		3.3744	0.0007	Sobel

Note: The bold values depict a strong effect of y on x between sub-factors.

MSE, mean square error; LLCI, lower level of confidence interval; SE, standard error; ULCI, upper level of confidence interval.

A bootstrapping test was conducted to determine the mediating influence of transformational leadership between talent acquisition and talent retention. In measuring the mediation role of transformational leadership between talent acquisition and retention, Baron and Kenny (1986) model was used. The variables that were measured are depicted below, where X = Talent Acquisition, Y = Talent Retention and M = Transformational Leadership.

Figure 3 illustrates the effect transformational leadership (c') has on the relationship between talent X and Y. The effects are discussed in Table 10.

The number of bootstrap samples for biasness-corrected bootstrap confidence intervals is 5000 and the level of confidence for all confidence intervals in output is 0.95.

Step 1: This step establishes the direct effect of X on Y. In an intervening variable model, variable X is hypothesised to exert an effect on an outcome variable Y through one or more intervening variables, sometimes called mediators. This represents **path c** in the model in Figure 3. In step 1 of the mediation model, the talent acquisition on talent retention, ignoring the mediator, was significant ($b = 0.3444$ and $p = 0.000$).

Step 2: Next, it needed to be shown that the independent variable is correlated with the mediator. This step essentially involves treating the mediator as if it were an outcome

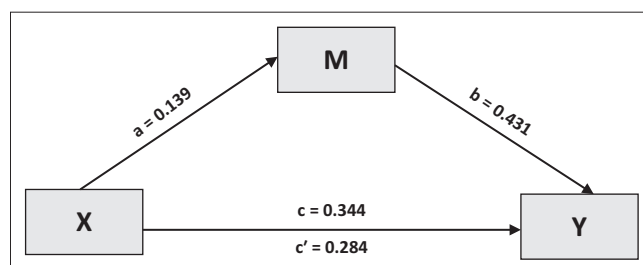


FIGURE 3: A simple mediation model.

variable and represents **path a** above. Step 2 showed that the regression talent acquisition on the mediator, transformational leadership, was also significant ($b = 0.139$ and $p = 0.000$).

Step 3: Now, it must be demonstrated that the mediator affects the outcome variable (estimate and test **path b**). However, it needed to be controlled for the independent variable. In this case, the relationship between transformational leadership and talent retention is significant ($b = 0.431$ and $p = 0.000$), controlling for talent acquisition.

Step 4: To establish path c' , namely that M mediates the X–Y relationship, the effect of X on Y controlling for M should be zero. This would mean that there is complete mediation. This analysis revealed that, controlling for the mediator (transformational leadership), talent acquisition was still a significant predictor of talent retention ($b = 0.284$ and $p = 0.000$), which suggests partial mediation. Satisfying all four conditions provides evidence for complete mediation, whereas satisfying the first three conditions indicates partial mediation.

In other words, if the effect of X on Y is reduced when the mediator is included ($c' < c$), then the direct effect is said to be partially mediated. The B coefficient for c is 0.244 and for path c' , it is 0.284. The effect is thus reduced. This is confirmed by the indirect effect in the output. Zero does not fall within the confidence intervals of the Beta coefficient $BCi = 0.269, 0.097$; therefore, mediation can be assumed.

Significant mediation ($z = 0.60$ and $p = 0.001$) was found: transformational leadership mediated the relationship between talent acquisition and talent retention. In essence, this implies that any changes in either the improvement or deterioration in transformational leadership will increase the level of engineers' desire to remain in the organisation or leave, regardless of the improvement in the talent acquisition levels.

Discussion

The purpose of this study is to analyse transformational leadership, talent acquisition and talent retention of engineers at Eskom by investigating the demographic differences (gender, age, length of service, engineering field, education levels and managerial levels), the relationships between the variables and transformational leadership as the mediating variable between talent acquisition and talent retention of engineers.

In a study by Govender, Garbharran and Loganathan (2013) on leadership style and job satisfaction, the results showed no statistically significant difference in the perceptions of overall transformational leadership and its dimensions and the biographical variables of gender, grade and age. In the same study, the results of the t -test reflected no significant difference ($p > 0.05$) between males and females about

transformational leadership as well as its dimensions in all instances. These results by Govender et al. (2013) confirm what has been found in the present study on gender, but it is inconsistent on age. In another study by Seloane (2010), concurring with the current study, as regards to age groups, he found that there is a statistical significant difference on perception about transformational leadership style 'Modelling the way' ($p < 0.05$) and 'Enabling others to act' ($p < 0.01$).

In another study by Sun and Wang (2017) and consistent with the current study, these two scholars established that transformational leadership could directly lower an employee's intention to leave the organisation. Tse et al. (2013) explored the relationship between transformational leadership and turnover intention and the mediation role of affective commitment. This study found that transformational leadership has a negative relationship with turnover intention and that affective commitment mediates it. In another study by Maaitah (2018) on the 'Role of Leadership Style on Turnover Intention', transformational leadership was found to be negatively and significantly correlated with turnover intention. This finding is consistent with the findings of this study where transformational leadership is found to statistically significantly influence talent retention.

In a study by Were (2015), it was revealed that the relationship between transformational leadership style and talent management is statistically significant ($p = 0.000$) and positively ($\beta = 0.303$) related. As mentioned earlier, talent acquisition is part of the talent management process. Therefore, to a certain extent, I can state that talent acquisition in the study by Were (2014) could be said to be statistically significant to transformational leadership. These results are therefore consistent with the results of the present study where it was established from a regression analysis viewpoint that transformational leadership statistically significantly correlates with talent acquisition.

In agreement with the present study, Shabane, Schultz and Van Hoek (2017) revealed that transformational leadership played a mediating role in the relationship between satisfaction with remuneration and intention to stay. It is the contention by Coomber and Barriball (2006) that satisfaction with remuneration and intention to stay are factors that play a positive role in enhancing the retention employees in organisations.

Limitations

The following limitations were encountered in this study:

- From a designation perspective, the following limitations were encountered during this study:
 - Few senior managers participated in this study.
 - In addition, few senior engineers participated in this study.
 - Less than expected engineers responded to the questionnaire.

- This study was performed only from a quantitative approach perspective and follow-up questions could not be posed to respondents.
- This study could have included the human resources practitioners because they are to a certain extent the custodian of the human resources policies and practices.

Recommendations

Based on this study, the following recommendations are suggested to address the challenge of attracting and retaining engineers at Eskom:

- Future research should also be conducted on other scarce skilled employees (i.e. artisans, technicians and technologist) because the challenge in attraction and retention is spread on all these employees.
- Engineers should be allowed to be creative and innovative so that they stay challenged and engaged in the work they know best. This will improve their retention and thereby the quality of their work. Likewise, the relationship between engineers, managers and leaders should be kept intact to reduce turnover. It is widely known in the leadership literature that employees leave their managers and not the organisation because of poor relations between employees and their supervisors.
- A similar study should be conducted but with the involvement of the human resources practitioners from a talent acquisition and retention perspective. The findings of this study could help Eskom and other organisations improve their selection processes for leaders who display strengths in transformational leadership attributes in order to benefit from it. For example, they could use selection tools to assess transformational leadership attributes to identify leaders who have the potential to become effective transformational leaders.
- Managers and leaders who manage and lead these engineers should be trained on the application of transformational leadership philosophy to effectively address attraction and retention challenge of engineers.
- Training on the application of transformational leadership philosophy should be extended to non-managerial engineers so that by the time they are promoted to leadership positions, they already possess the transformational leadership skills.
- Another similar study should be conducted but should include both quantitative and quality approaches to allow for a balanced view.

Conclusion

The main aim of this study was to determine whether transformational leadership is a mediator in the relationship between talent acquisition and retention of engineers. The results evidently showed that there is statistically significant mediation between acquisition and retention of engineers and transformational leadership. The results of this study

could assist the leadership at Eskom to improve the attraction and retention of engineers by implementing effective transformational leadership development philosophy and programmes. The more the transformational leadership philosophy is embraced at Eskom, the better it can attract and retain its engineers. This may result in improved performance of Eskom in generating, distributing and transmitting electricity throughout South Africa and its neighbouring countries.

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Competing interests

The authors have declared that no competing interests exist.

Authors' contributions

All authors contributed equally.

Ethical consideration

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Data availability statement

Data sharing shall be available whenever is needed.

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