Employee engagement among women engineering lecturers in TVET colleges in Gauteng, South Africa

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ABSTRACT: Employee engagement relates to job involvement, organisational commitment and job satisfaction. Research suggests that many organisations are falling short in promoting employee engagement, while women seem to be more engaged than males with the outcomes of an organisation. This study aimed to explore what antecedents (or variables) of engagement drive women to be engaged with the outcomes of an organisation, in order to identify further strategies to improve engagement. One hundred fifty-one employees from public TVET colleges in Gauteng, South Africa, participated in this study. Results indicate that role clarity and opportunities for professional development are important for job engagement among the surveyed women, while opportunities for professional development and proactivity are both important for organisation engagement. Results also show that job engagement and organisation engagement promote discretionary efforts on the part of women, while only organisation engagement helps control women's intention to turnover. This study recommends management's involvement in the promotion of engagement.

INTRODUCTION

The concept of employee engagement in terms of its meaning and definition has been an issue of great contention among researchers, as there seem to be no agreement on how to best capture its meaning [1]. There is a majority view that the concept overlaps with other more established constructs, such as job involvement, organisational commitment and job satisfaction [1][2]. Kahn defines engagement as *the harnessing of organisation members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances* [3]. Many definitions have followed all highlighting that engagement requires people to consciously invest themselves into their roles [2][3][4]. Notably, engagement has been linked to customer satisfaction, financial performance, profitability, productivity, higher shareholder returns, discretionary effort, reduced turnover rate, and is generally regarded as a vital component for the success and competitiveness of an organisation [5][6]. There is, therefore, no doubt as to why employee engagement is a subject of great importance worldwide, because of the many benefits it offers to organisations.

These benefits have aided the adoption of employee engagement practices as a competitive, rescue or survival strategy for many organisations, who in the present age are constantly dealing with new challenges in their bid to remain competitive. These challenges include increased pressure for consistent performance, the complexities of new technology, fulfilling the needs of an ever-increasing workforce diversity and the globalisation of business [7]. All of these have led leaders of organisations worldwide to the conclusion that their workforce is their greatest asset, their differentiation strategy, their unique competitive advantage in the quest for organisational success [8][9]. It is thus imperative that organisations unleash the inherent talents of their workforce in order to achieve positive organisational outcomes [8]. Sadly, many organisations are falling short in this respect [2][10]. The realisation that many organisations are falling short in promoting the engagement of their employees [1][10] opened the door to a flood of research [2][10], targeted at interventions to avoid the *engagement gap* (as it is called), which has cost these organisations huge financial losses annually, and considerable losses in productivity [1][11].

Research has aimed to close this engagement gap [9][12], where it has been observed that women tend to be more engaged than men [13]. A question therefore arises, *what drives women to be engaged with the outcomes of an organisation?* Answering this question may help organisations to implement additional strategies to improve employee engagement, and especially for their female employees. Based on the integrative framework of employee engagement as suggested by Saks and Gruman [1], and in response to the above question, the purpose of this article is to explore what antecedents(or variables) of engagement drive women to be engaged with the outcomes of an organisation. The study focuses on women engineering lecturers at eight public technical and vocational education and training (TVET) colleges in South Africa (SA). The article begins by further detailing the concept of employee engagement and the antecedents of engagement investigated in the study, with linkages to past studies. Next, the article covers the outcomes of engagement with linkages to results of past studies. The research methodology, using a survey for data collection is then described. Results of bivariate correlation and structural equation modelling, discussion and conclusions then follow.

EMPLOYEE ENGAGEMENT

Till date, there has been no generally accepted definition of employee engagement [1]. However, two definitions that have gained wide popularity is that of Kahn [3] and Schaufeli et al [4]. Kahn's definition revolves around the employee's conscious presence at work [3]. Schaufeli et al on the other hand, define engagement as …*a positive, fulfilling, work related state of mind that is characterised by vigour, dedication, and absorption* [4]. In spite of recent attempts to define employee engagement [9][10], Kahn's definition tends to be a more complete one as it captures engagement as an intentional act triggered by the individual. This research is based on Kahn's conceptualisation of employee engagement as an invocation of an employee's complete presence on the job for result-driven performance [3]. The antecedents (or variables) in the study, adapted from Saks [2] and other studies [14-21] are: 1) role clarity (which has been shown to be a major issue in academic institutions) [19]; 2) opportunities for professional development (which has been shown to consistently promote employee engagement) [20]; 3) proactive personality (observed to be a significant predictor of engagement) [21]; 4) employee engagement (job engagement and organisation engagement); 5) discretionary effort; and 6) intention to turnover (largely regarded as positive and negative outcomes of engagement) [2][17]. These six study variables will be discussed next in more detail.

ROLE CLARITY AND EMPLOYEE ENGAGEMENT

Role clarity is defined as *the degree to which an individual understands the necessary job information and performance expectations concerning a given position in an organisation* [14]. More recently, role clarity has been described as the clear cut, precise and accurate dissemination of information from supervisors to employees, in relation to the employee's duties, and behavioural expectations, and the extent to which the employees comprehend their role and place within the organisation [19].

According to role theory, role ambiguity leads to an individual's dissatisfaction with a role, which can then lead to increased levels of job stress and burnout [19], thus resulting in reduced levels of performance [14]. Without role clarity, there is bound to be job confusion and job stress, and employees will experience unnecessary difficulties in the performance of their jobs, which will lead to reduced engagement and productivity decline, because of the time lost while attempting to figure out how to perform their job [12]. Equally, an increase in role clarity will considerably eliminate the need for problem solving, coping strategies, role strain, as well as the likelihood of a distorted workplace reality [14]. It is thus critical for organisations to eliminate significantly, the level of uncertainty related to employees' jobs, and promote work-related behaviour required to deal with ambiguous situations [22]. It is thus clear that role clarity plays a key role in employee engagement [2][6]. Based on the above, the authors of this article propose the following hypotheses:

- Hypothesis 1a: role clarity will be positively related to job engagement.
- Hypothesis 1b: role clarity will be positively related to organisation engagement.

OPPORTUNITIES FOR PROFESSIONAL DEVELOPMENT AND EMPLOYEE ENGAGEMENT

Opportunities for professional development have been described as formal avenues provided by employers for their employees to gain requisite skills essential to satisfactory job performance [20][23]. Studies have shown that employees who are well equipped to do their job (through formal training or other relevant means) are more engaged [20]. Schaufeli et al discovered that increased opportunities for learning result in increased employee engagement [23]. Xanthopoulou et al indicated that employees who are exposed to many opportunities for professional development …*possess the instrumental means and are intrinsically motivated to achieve their work goals* [5]. Bakker in his study noted that learning opportunities are positively related with work engagement, stressing that it is vital to ensure that employees have at their disposal the resources necessary to perform their jobs appropriately [20].

Employee's future in an organisation has been said to be tied to the amount of continuous improvement opportunities provided by that organisation [20][23]. Employees who believe that the organisation does the barest minimum or nothing to help them grow professionally might end up seeking greener pastures elsewhere [20][23], an indication that opportunities for growth and development are important for both the individual and organisation. In light of the above, the following hypotheses are proposed:

- Hypothesis 2a: opportunities for professional development will be positively related to job engagement.
- Hypothesis 2b: opportunities for professional development will be positively related to organisation engagement.

PROACTIVE PERSONALITY AND EMPLOYEE ENGAGEMENT

Grant and Ashford define proactive personality as *anticipatory action that employees take to impact themselves and/or their environments* [24]. This definition indicates that proactive employees are in-advance thinkers and actors who expect their actions to have a degree of positive impact. Proactive employees are believed to be able to manage job demands and resources, and nurture personal and organisational goals properly [25]. Furthermore, such employees are swift in recognising opportunities, task implementation and are dogged in the pursuit of meaningful change [16][25]. In line with the above findings, the following hypotheses are proposed:

- Hypothesis 3a: proactive personality will be positively related to job engagement.
- Hypothesis 3b: proactive personality will be positively related to organisation engagement.

EMPLOYEE ENGAGEMENT AND DISCRETIONARY EFFORT

Discretionary effort is defined as an employee's wilful determination to go over and above what is required of them in the execution of their job roles [17]. Discretionary effort is a key organisational variable [17] and is argued to be a positive outcome of employee engagement. Discretionary effort includes activities, such as persistence in order to complete difficult tasks and dedicating extra hours to the completion of tasks in order to achieve speedy results [17].

Past studies have shown discretionary effort to be a positive outcome of employee engagement, especially with respect to productivity and profitability [11]. Furthermore, discretionary effort is now being widely used as *a leverage point for human resource development (HRD) interventions* [11]. The general consensus is that because engaged employees are interested in the success of their organisation, they are prepared to invest extra (discretionary) effort, which surpasses what they are duty-bound to invest [10][20]. Based on the evidence above, the following hypotheses are proposed:

- Hypothesis 4a: job engagement will be positively related to discretionary effort.
- Hypothesis 4b: organisation engagement will be positively related to discretionary effort.

EMPLOYEE ENGAGEMENT AND INTENTION TO TURNOVER

Turnover intent is defined as an employee's voluntary intention to leave an organisation [2] and is regarded as being more predictive of actual turnover than any other variable [10]. Intention to turnover has been shown to be related to employee engagement [6][10] and many engagement models have found a practical connection between engagement and turnover intention [2][6]. Nonetheless, it is crucial to explore new antecedent variables (within known frameworks of employee engagement) in order to discover new perspectives for theory formulation and for practice, particularly in TVET colleges in SA. Regarding the relationship between engagement and turnover intention, past and current empirical literature has shown that engagement is negatively related with turnover intention [2][4][11]. In accordance with these findings, this study proposes the following hypotheses.

- Hypothesis 5a: job engagement will be negatively related to intention to turnover.
- Hypothesis 5b: organisation engagement will be negatively related to intention to turnover.

RESEARCH DESIGN

This study was part of a larger interdisciplinary research project in which a cross-sectional design with a survey data-collection technique was used. Ethical clearance was applied for and granted by the University's Ethics Committee. Potential participants were informed of their right to voluntary participation, and anonymity and confidentiality was also assured. Furthermore, the participants were informed that they could withdraw from participation at any time during the data-collection process without any consequence. The hypotheses previously mentioned were then tested in order to establish key relationships between the stated antecedents of engagement.

Participants

Employees (n = 151) from 43 campuses of eight public TVET colleges in Gauteng, South Africa, participated in this study. All participants were female; 64.2% percent were lecturers (PL1), 34.4% were senior lecturers (PL2), while 1.3% were heads of departments (PL3). Respondents were all in the engineering studies/occupational programmes department. In terms of education, 61.6% had a formal degree, 29.1% had a diploma, while 9.3% were in possession of a professional certificate. An overwhelming portion of participants (83.4%) were permanent employees, while 16.6% were temporary.

Participants' age was grouped into five categories: 47.7% were in the 30-39 age group, 34.4% in the 40-49 age group, 9.3% in the 20-29 age group, 7.9% in the 50-59 age group, while the rest (0.7%) were 60 years or older. With regards to race, 75.5% of participants were black, 9.9% white, 7.9% coloured, while the rest (6.6%) were Indians. The majority (67.5%) spoke an indigenous African language, about 23.2% English, while the rest (9.3%) were Afrikaans-speaking. Sixty point nine percent of the participants were married, 33.8% single, 3.3% indicated they were divorced, while 2% were separated.

Measuring Instruments

The research instrument used for this study consisted of measures from several past studies, selected and adapted to help answer the research questions for this study. The instruments adapted were the role clarity questionnaire [14], the opportunities for development questionnaire [15], the proactive personality questionnaire [16], the job engagement and organisation engagement questionnaire [2], the discretionary effort questionnaire [17], and the intention to turnover questionnaire [18]. A 5-point Likert scale was used in all the questionnaires from 5 (strongly agree) to 1 (strongly disagree).

Statistical Analysis

In the preliminary analysis, descriptive statistics and correlation analysis (via IBM's SPSS) was performed with all the variables used in the study. Next, the internal consistency of the measures used were computed based on Cronbach's alpha coefficients. Estimates as low as 0.6 are deemed acceptable [26]. In assessing the discriminant validity and convergent validity of the measures used in the study, as well as the properties of the latent variables, confirmatory factor analysis (CFA) was performed. After the data was screened, it was exported to Mplus using a *.dat* file as input, and the hypothesised model was estimated using the Satorra-Bentler's maximum likelihood mean (MLM) adjusted estimator. The adequacy of the measurement model was evaluated based on the chi-square goodness-of-fit test, comparative fit index (CFI) [27], Tucker-Lewis index (TLI) [28], root mean square error of approximation (RMSEA) [29], and standardised root mean square residual (SRMR) [29].

In relation to the thresholds used for the assessment of model fit, this study used 0.06 as the cut-off value for the RMSEA, and a cut-off value of 0.90 for the TLI and CFI as suggested by Hu and Bentler [30]. To evaluate the effects of specific measurement items on the model fit, a standardised root mean square residual (SRMR) value, with a threshold value of 0.08 or lower, was chosen as by Hu and Bentler [29]. After the full measurement model for the latent variables was confirmed, the structural model representing the relationships among the constructs in the proposed model was evaluated.

RESULTS

To confirm discriminant validity among the study variables, a confirmatory factor analysis (CFA) was conducted. The goodness of fit of the hypothesised seven-factor model was compared with the goodness of fit of a one-factor model in which all indicators were loaded on to one common factor. The results of these analyses show that the seven-factor model (CFI = 0.94; TLI = 0.92; RMSEA = 0.05; and SRMR = 0.06) provided a significantly better fit to the data than the single-factor model factor (CFI = 0.80; TLI = 0.75; RMSEA = 0.07; and SRMR = 0.1). Factor loadings for the seven-factor model were all significant, ranging from 0.50 to 0.89. These findings provide evidence of discriminant validity among the six study variables. The results also indicate that common method variance is not a concern in this study, because if it were, a single-factor model would reveal acceptable goodness of fit similar to that of *a more complex model* [31]. Furthermore, means (M), standard deviations (SD), reliability coefficient (indicated by Cronbach's alpha (CA)) and correlations among the study variables were computed. Table 1 shows the mean, standard deviation and reliability coefficients for all the variables used in the study, while Table 2 highlights the correlation coefficients among the studied variables of role clarity (RC), opportunities for professional development (OPD), proactive personality (PP), job engagement (JE), organisation engagement (OE), discretionary effort (DE) and intention to turnover (IT).

Table 1: Descriptive statistics.

	RC	OPD	PP	JE	OE	DE	IT
M	3.21	3.92	3.92	3.66	4.00	3.97	3.71
SD	0.74	0.63	0.53	0.70	0.51	0.56	0.70
CA	0.92	0.84	0.72	0.91	0.82	0.86	0.81

As shown in Table 1, role clarity has the highest reliability (0.92), with job engagement coming very close. Proactive personality has the lowest reliability value, which is still above the generally acceptable minimum reliability value of between 0.6 - 0.7 [27][31]. In addition, organisation engagement has the highest mean value, while role clarity has the lowest mean value. In terms of standard deviation, organisation engagement has the lowest value, an indication that the responses of participants to the questions making up the scale were very similar, and judging by the mean value, the majority of the participants seem to agree and strongly agree with the items on the scale.

Table2: Correlation coefficients.

	RC	OPD	PP	JE	OE	DE	IT
RC	1						
OPD	0.50**	1					
PP	0.09	0.26**	1				
JE	0.45**	0.36**	0.16*	1			
OE	0.30**	0.55**	0.38**	0.33**	1		
DE	-0.01	0.24**	0.26**	0.37**	0.55**	1	
IT	-0.36**	-0.24**	-0.01	-0.09	-0.29**	-0.10	1

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

Table 2 shows that the highest positive correlations were between OPD - OE ($r = 0.55$, $p < 0.01$) and OE - DE ($r = 0.55$, $p < 0.01$), while the highest negative correlation was between RC - IT ($r = 0.55$, $p < 0.01$). The correlations serve as a preliminary method of testing the strength and direction of the relationships hypothesised previously and were not interpreted as causation. To establish causation, path analysis (a causal modelling approach) was performed, and the results are highlighted in Table 3.

Table 3: Comparison of structural models.

	X^2	df	CFI	TLI	RMSEA	SRMR
Model 1 (theorised)	381.080	239	0.91	0.90	0.06	0.07
Model 2 (modified)	325.593	233	0.94	0.93	0.05	0.07

As shown in Table 3, the hypothesised model depicted a good fit to the data: CFI = 0.91; TLI = 0.90; RMSEA = 0.05; and SRMR = 0.07. Next, the authors compared the fit of this model with that of a revised model, using modification indices suggested by the statistical software. The results of the model revision revealed that the fit of the model improved slightly: CFI = 0.94; TLI = 0.93; RMSEA = 0.05; and SRMR = 0.07. Thus, the final model was the revised model. Examination of the paths in the final model revealed the following:

- Hypothesis 1a: role clarity is a positive significant predictor of job engagement ($\beta = 0.34$, $p < 0.01$).
- Hypothesis 1b: the relationship between role clarity and organisation engagement is not statistically significant.
- Hypothesis 2a: opportunities for professional development is a positive significant predictor of job engagement ($\beta = 0.29$, $p < 0.05$).
- Hypothesis 2b: opportunities for professional development is a positive significant predictor of organisation engagement ($\beta = 0.41$, $p < 0.00$).
- Hypothesis 3a: the relationship between proactive personality and job engagement is not significant.
- Hypothesis 3b: proactive personality is a positive significant predictor of organisation engagement ($\beta = 0.30$, $p < 0.01$).
- Hypothesis 4a: job engagement is a positive significant predictor of discretionary effort ($\beta = 0.15$, $p < 0.05$).
- Hypothesis 4b: organisation engagement is a positive significant predictor of discretionary effort ($\beta = 0.77$, $p < 0.00$).
- Hypothesis 5a: the relationship between job engagement and intention to turnover is not significant.
- Hypothesis 5b: organisation engagement is a negative significant predictor of intention to turnover ($\beta = -0.31$, $p < 0.01$).

Overall, H1a, H2a, H2b, H3b, H4a, H4b and H5b were fully supported, while H1b, H3a and H5a were not supported.

Discussion

The results of this study reveal that role clarity is positively related to job engagement and organisation engagement. However, the path analysis reveals that role clarity is a statistically significant predictor of job engagement, and not of organisation engagement. This implies that in the context of this study, women do not consider role clarity an important factor for employee engagement, but are of the opinion that role clarity helps them engage more in their job roles. This finding is consistent with other studies [13][17][27]. This study also shows that opportunities for professional development is positively related to job engagement and organisation engagement and is also a statistically significant predictor of both engagements. This is a clear indication that women believe that more opportunities for professional development that are provided by their respective employers will help them to improve in their job and organisation engagement. This result lends support to that of other studies [9][10][11].

Furthermore, the study shows that proactive personality is positively related to job engagement and organisation engagement. However, the path analysis shows that proactive personality is a statistically significant predictor of organisation engagement, and not of job engagement. This absence of significance could mean that participants do not consider proactive personality an essential driver of job engagement, as they probably have other resources facilitating job engagement, for example role clarity. The statistical significance between proactive personality and organisation engagement adds more support to other research findings [20][21][22]. In addition, the study reveals that not only is job engagement and organisation engagement positively related to discretionary effort, they also positively predict it. This result further adds evidence to past findings that discretionary effort is a positive outcome of engagement [11][24]. Finally, the study also shows that organisation engagement is negatively related to intention to turnover, while job engagement is not. In terms of statistical significance, the relationship between job engagement and intention to turnover is not significant. However, the results of this study show that organisation engagement is a statistically significant predictor of intention to turnover, a finding that is consistent with that of other studies [4][15][16].

CONCLUSIONS

Organisations who desire sustainable success should strive to provide their employees with the resources needed to effectively fulfil their job responsibilities. In the context of this study, proper job descriptions should be provided to women, in order to avoid role ambiguity and ensure role clarity. Furthermore, more learning opportunities should be made available, so women can be upskilled and more confident in their job performance. Management of TVET colleges should devise interventions based on the significant variables in this study to help more women achieve a higher level of employee engagement. These interventions may also benefit male employees, which further research can investigate. Employee engagement policy, if available, should be revised to reflect the findings of this study. If no such policy exists, top management should endeavour to create and implement one. It is important to remember that the cost of engagement is cheaper than that of disengagement.

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