Testing the nexus between reward system, job condition and employee retention through intervening role of employee engagement among nursing staff

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Abstract

Abstract**Purpose** – This study investigated the effects of reward system (RS) and job conditions (JC) on employee retention (ER). In particular, this study addressed the mediating effect of employee engagement (EE) on the relationship between RS, JC and ER.

Design/methodology/approach – This paper employed descriptive survey approach and the unit of analysis consisted of public hospital nursing staff. Data were collected using questionnaires with a sample of 370 nurse respondents. Structural equation modelling with Smart-Partial Least Squares (PLS) 3.3.8 was used in a statistical analysis.

Findings – The results revealed that RS and JC significantly related to ER. The study also showed the direct effect of RS and JC on EE. These findings indicate that (EE) has a partial mediating role in the relationship between RS, JC and ER.

Practical implications – The study offers important policy insights for public nursing stakeholders who seek to increase retention of skills among their nursing staff. The findings are also crucial because they may help the health sector improve their ER strategies, especially in dynamic and competitive business situations where organisations are challenged to retain personnel from a limited skilled workforce.

Originality/value – The findings of this study contribute to the literature on retention of nursing employees by enhancing the understanding of the influences of EE, RS and JC on ER among public hospitals.

Keywords Employee engagement, Employee retention, Job condition, Reward system

Paper type Research paper

1. Introduction

One of the main issues in the current organisational context is the retention of workers. One of the most difficult problems facing organisations nowadays is managing retention of an employee and maintaining a low turnover rate in comparison to industry standards. Qualified, motivated and experienced personnel are an important and significant asset to an organisation's survival, growth and development (Schuler & Jackson, 2016). The new era's dynamic market climate has justified the need to employ and retain a highly skilled workforce. There is a very strong competition for essential talent, as well as strategies to recognise and retain skilled employees. Competition in the form of skilled employees to attract and retain human capital and in comparison to other competitive features of business settings, the capacity to keep them has become a major competitive concern. In most organisations, better prospects with better packages have created plenty of challenges for retaining employees. Nowadays, the employment market requires the highest-skilled personnel and it is a struggle for many organisations to survive with these valuable staff. Employee performance does not come from the compensation alone, so to give their workers more reasons to stay, organisations must participate in other additional activities (Nasir & Mahmood, 2018; Dunmade & Kadiri, 2018; Bhatt, 2015).

It has been shown that rewards and workers condition are the fundamental components of how much workers receive by devoting their time and effort to achieving business goals; thus, Managers are in charge of building an attractive incentive strategy to attract and retain valuable staff (Ashraf, 2019; Chen, Rasdi, Ismail, & Asmuni, 2017; Jacobs, Renard, & Snelgar, 2014). These factors may be either from the current organisation of the employee or the next potential employer and differ from the terms and conditions of service, the working atmosphere, the reward system, the individual job goals, the benefits, the operating system, employee engagement (EE) and any other factor sufficiently perceived by the employee to affect the decision to step out (Jackson & Fransman, 2018; Karatepe & Olugbade, 2016). This helps employees in making decisions whether to stay or switch to other organisations in their current organisation. However, there are a variety of factors that affect these decisions. Employees are one of the most crucial components of an organisation's success, and without a certain level of effort from its workers, organisations will not survive. Organisations also strive to satisfy their employees in order to obtain their engagement and loyalty. Exploring the concepts such as job condition, rewards system and job engagement have thus become critical for a firm's survival in these challenging moments (Hanai, 2021; Victor & Hoole, 2017; Enguene, 2015; Balakrishnan *et al.*, 2013; Kwenin, Muathe, & Nzulwa, 2013).

The significance of exploring rewards system (RS) and job condition (JC) is that, many prior studies have discovered a link between employee loyalty, performance and job satisfaction (JS) (Irabor & Okolie, 2019; Wickramasinghe & Sajeevani, 2018; Rebekah, Madhu, & Jemimah, 2018; Martono, Khoiruddin, & Wulansari, 2018; Nasir & Mahmood, 2018; Rono & Kiptum, 2017; Mathimaran & Kumar, 2017; Abbas, Khan, & Hussain, 2017; Ellis, Chigbue, & Peter, 2017; Ali & Ahmed, 2017; Isaack & Dinah, 2016; Smith, Joubert, & Karodia, 2015; Rowland & Hall, 2014). With high turnover rates and challenging economic situations, businesses have slashed their expenditures and spending considerably, putting their reward practices and workers' conditions in the spotlight. This has also contributed to a downturn in results, such as employee loyalty and trust. As a result, linking organisational rewards and job conditions to EE and employee retention (ER) has been increasingly important in recent

years. This research also looked into how rewards could be used by management to improve human-related approaches in order to maximise ER in the modern workplace, by investigating the effect of RS and JC on ER among nursing staff.

In a scenario where incentive programs and working conditions are rewarding and consistent with the ability to address the demands of the individual, then it is ideal that every employee will perform better. While economic reasons are vital in this regard for the motivation and retention of health workers, other elements are also significant (Tsymbaliuk & Shkoda, 2022; Lee & Chui, 2019; Fletcher, Alfes, & Robinson, 2018; Currie, Burgess, & Hayton, 2015; Jonczyk & Buchelt, 2015; Adzei & Atinga, 2012). For instance, a large number of health professionals in Nigeria frequently leave the underprivileged communities or districts as a result of inadequate pay, limited prospects for additional education and job promotion and a lack of better working conditions at the hospital. This in turn causes most health workers to leave for another working environment, which eventually worsens access to high-quality healthcare in the country's environmental setting, rural and underdeveloped areas.

This study seeks to investigate the RS and JC of nursing employees in North-western Nigeria. The information used to assess whether the reward and job condition given, if any, is associated with the retention of the nursing staff in delivering on their tasks. The basic motivation of this research work is the realisation that despite so many efforts made towards understanding the JC and RS of nursing in Nigeria, there has been concentration on the variable of JS which though very relevant, does not capture the whole essence of employer employee relationship. From what obtains in the literature review the work environment in other professions in Nigeria is relatively sufficiently investigated. However, the same is not true with studies on nursing employee work environments which begs for additional research efforts to reflect the nature of the work. There are a number of studies carried out to investigate reward and work environment (Ashraf, 2019; Martono et al., 2018; Sikawa, 2018; Abbas et al., 2017; Raziq & Maulabakhsh, 2015; Msengeti & Obwogi, 2015). However, these studies failed to correlate work related behaviours such as RS, JC and EE so as to give health stakeholders and practitioners enough information to appreciate the gain or loss they tend to incur as a result of certain traits exhibited by retention of their workers. It is argued that organisations that retained its employees through making them engage are more likely to stay relevant in the business cycle.

Despite the fact that no studies have examined the influence of a RS or JC on ER through EE among nursing employees and considering EE as a mediating variable in understanding how RS, JC and ER are related, the current study contributes to the previous literature. However, the purpose of this study is to determine the effect of RS, JC and EE on ER and mediating role of EE in the link between RS, JC and ER among staff nurses in Nigeria's North-western states. As a result, this study is divided into five sections. The first section is the introduction. Section 2 consists of a study of related literature and the development of hypotheses on the subject matter. The paper's methodological issue and the measurement of the study variables were explored in Section 3. Section 4 discusses the outcome of the research. Finally, part 5 gave the conclusions, implications, limitations and suggestions for future research of the paper.

2. Literature review, theoretical framework and hypotheses development

A review of previous studies found that there are divergent views on the relationship between the RS, JC and ER. ER has been shown to be critical for the development and achievement of the objectives of the organization, especially in building a competitive edge over other organisations (Bussin & Toerien, 2015). ER is defined as a management effort to keep employees from leaving the organisation, to reward them for doing a good job, to guarantee

friendly working relationships between managers and employees and maintain a safe working environment (Mngomezulu, Challenor, Munapo, Mashau, & Chikandiwa, 2015; Hytter, 2007). ER refers to a company's efforts to keep desirable personnel with the specific goal of attaining corporate goals (Kaur, 2017; Dutta & Banerjee, 2014). Retaining the competent well-performing workers in the organisations for a longer time to gain competitive advantage is known as ER.

Hospitals have distinctive organisational structures and cultural environments within the healthcare industry and there are status differences between doctors and other healthcare workers including nurses, managers and professions related to medicine (Tsymbaliuk & Shkoda, 2022; Kamselem, Nuhu, & Liman, 2020; Lee, Lee, & Phan, 2020; Lee & Chui, 2019; Jonczyk & Buchelt, 2015; Currie et al., 2015). Nurses and geriatricians have combination middle manager positions within the interprofessional status and these hybrid middle managers have dual responsibilities for implementing management policies and clinical practices (Currie et al., 2015). The nurses and managers have a crucial role in providing front-line healthcare and knowledge sharing and they provide the organisation with important strategic opportunities (Lyubovnikova, West, Dawson, & West, 2018; Fletcher et al., 2018; Burgess & Currie, 2013; Adzei & Atinga, 2012; Currie & White, 2012).

The findings of Tsymbaliuk and Shkoda (2022) demonstrates how poorly the amount of the healthcare staff's decent pay corresponds to their performance. It has been shown that employee nursing personal and career progress and remuneration benefits are closely associated (Lee & Chui, 2019). Similarly, the studies of Malik, Akhtar and Ghafoor (2018), Fletcher et al. (2018), Burgess and Currie (2013), Adzei and Atinga (2012) found that financial incentives, training and support significantly influence the intention of nursing staff to remain in the hospital. Other studies of Kloutsiniotis and Mihail (2017), Jonczyk and Buchelt (2015), Macky and Boxall (2013), Currie and White (2012), established that nursing attitude and compensation related to salaries and wages associated with intention to stay in the hospital.

2.1 Theoretical framework and hypotheses development

The following research model was developed after a thorough review of the literature on RS, JC, EE and ER.

Figure 1 depicts a functional model that relates RS and JC to EE and ER. From a framework viewpoint, social exchange theory is assumed to be the mechanism that explains how RS and JC can enhance ER via EE (Blau, 1964). Through the reciprocity method, SET helps illustrate the relationship between the variables (Gill, Dugger, & Norton, 2014). Employees should understand that sound rewards and JC from the hospital management or immediate supervisor through impact and effective support (motivation and incentives),
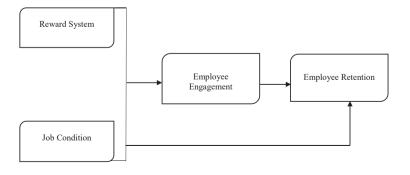

Figure 1.
Conceptual model

encouragement, respect, employee-employer relationship and other important support) and whether they are judged positively/negatively. Engagement may be increased if employees perceive that RS and JC affects them directly, which, in turn, justify why they would choose to retain their job. Hence, RS may influence ER via EE directly and indirectly (Albrecht, Bakker, Gruman, Macey, & Saks, 2015). Therefore, a sound guide for the research is given by the observed theory.

2.1.1 Reward system and employee retention. Kwenin *et al.* (2013) states that, the key aspect that demonstrates how much workers receive for committing their time and effort to attaining corporate goals is reward; thus, businesses must create an intriguing compensation package to attract and retain valuable personnel. Rewards are considered significant elements in the workplace (Victor & Hoole, 2017; Bussin & Toerien, 2015). The financial, non-financial and psychological benefits given to employees by an organisation in exchange for their sacrifices and efforts are known as rewards (Abulraheem, 2016). The tangible benefits, such as financial and money-driven incentives used to reward employee success, are monetary rewards (Osa, 2014).

Many previous studies established that when RS are adequate, equity and retention are increased (Wickramasinghe & Sajeevani, 2018; Idemobi, Ngige, & Ofili, 2017; Mngomezulu *et al.*, 2015; Kwenin *et al.*, 2013). Several studies have recommended to using reward systems to address the needs of personnel from various different backgrounds (Martono *et al.*, 2018; Isaack & Dinah, 2016). Aktar, Sachu and Ali (2015) indicate a strong association between total reward and ER. It was also found that job promotion had a positive and significant influence on ER (Banerjee, 2019). Wijesiri *et al.* (2019) findings revealed that there is less impact of HR practices on ER. Another study indicates that compensation is significantly related with ER (Rono & Kiptum, 2017). The current study hypothesis was formed based on the previous empirical studies mentioned above:

H1. Reward systems are positively and significantly related to employee retention.

2.1.2 Job condition and employee retention. The working conditions for a profession could range from perfectly comfortable to uncomfortable, challenging and dangerous to the lives and health of the workforce (Enguene, 2015). A safe and pleasant working environment is one of the major concerns in Muslow's theory of motivation. Working conditions include not just the physical characteristics of an employee's work environment, but also all aspects of the organisation's culture and the employee's participation in the work itself (Wickramasinghe & Sajeevani, 2018; Edgar & Geare, 2005). It is the sum of all observable physical, psychological and behavioural aspects in the workplace that operate in an increasingly complicated and demanding environment (Aslam, Ghaffar, Talha, & Mushtaq, 2015; Kimutai & Sakataka, 2015). Employees have been shown to feel better about showing up to work when they have a favourable working environment, which provides the required drive to keep them going throughout the day (Hanai, 2021; Thirapatsakun, Kuntonbutr, & Mechinda, 2014). A work environment that generates a sense of belonging motivates employees and provides generous personnel policies and effective workplace management, which increases employee incentive to continue working with the organisation for a longer period of time (Zhijian & Tianshu, 2013).

Stradinger (2015) findings indicated that there is a strong relationship between workplace creativity and ER. Several research have found a favourable relationship between work environment and involvement, engagement and ER (Altunel, Kocak, & Cankir, 2015; Steger, Littman-Ovadia, Miller, Menger, & Rothmann, 2013; Edgar & Geare, 2005). In addition, Ashraf (2019) and Al Mehrzi and Singh (2016) examined similar working conditions and retention issues. These research' conclusions suggest that working conditions are strongly linked to ER. It was also revealed that work environments have significant influence on ER (Hanai, 2021; Malik *et al.*, 2018; Msisiri & Juma, 2017;

Chen *et al.*, 2017; Gangwani & Dubey, 2016). Based on the above empirical research, the current study hypothesis developed as:

H2. Job conditions are positively and significantly related to employee retention.

2.1.3 Reward system, job condition and employee engagement. Within today's work environment, RS and EE are important behavioural concepts (Mabaso & Dlamini, 2018; Bussin & Toerien, 2015; Bedarkar & Pandita, 2014; Krot & Lewicka, 2012). Many previous studies have found a positive link between rewards, JC and engagement (Kimutai & Sakataka, 2015; Gill *et al.*, 2014; Jacobs *et al.*, 2014; Masvaure, Ruggunan, & Maharaj, 2014; Zhijian & Tianshu, 2013). These studies have found that the RS and JC contribute to better levels of EE and the principle of social exchange reinforces this link. This theory states that when employees are recognised and rewarded for their accomplishments at work, they will respond to increased EE (Arnoux-Nicolas, Sovet, Lhotellier, Di Fabio, & Bernaud, 2016; Hulkko-Nyman, Sarti, Hakonen, & Sweins, 2014; Waqas & Saleem, 2014). Several other studies indicate that the RS and JC have substantial influence on the productivity of workers (Rebekah *et al.*, 2018; Ellis *et al.*, 2017; Isaack & Dinah, 2016). It also shows that effective rewards and recognition help to promote and preserve positive employee actions, which leads to long-term success and engagement excellence. (Rita, Madhu, & Adeline, 2018; Victor & Hoole, 2017). Therefore, from the empirical and theoretical evidences, the following hypotheses are proposed in this study:

H3. Reward systems are positively and significantly related to EE.

H4. Job condition systems are positively and significantly related to EE.

2.1.4 The mediation role of employee engagement. EE is essentially characterised differently as psychological characteristics and behaviours in academic research (Victor & Hoole, 2017; Anitha, 2014). Albrecht *et al.* (2015) perceived engagement as the sum of effort one exercises in work responsibilities. EE is also viewed as high energy levels, the ability to put out effort in one's work, mental fortitude and determination in the face of adversity (Altunel *et al.*, 2015). While testing mediation, this study supports the findings of Hayes (2009), Zhao, Lynch and Chen (2010) and Rucker, Preacher, Tormala and Petty (2011). According to these researchers, measuring mediation based on the direct relationship between the independent and dependent variables is insufficient since mediation might be significant even when there is no direct association. Considering EE as a powerful motivator for positive results, it was used in this study as a mediator. EE has also been recognised as an antecedent of OC and job tools or resources by various researches (Altunel *et al.*, 2015; Anitha, 2014; Saks, 2006; Schaufeli, Salanova, González-Romá, & Bakker, 2002).

Rewards system has been found to lead to an increase in EE (Thirapatsakun *et al.*, 2014; Engelbrecht, Heine, & Mahembe, 2014). EE has also been used as a determinant factor of JC and employee performance in a number of other studies (e.g. Al-dalahmeh, Musa'deh, & Abu Khalaf, 2018; Gangwani & Dubey, 2016; Bedarkar & Pandita, 2014). The findings of these studies indicated that a pleasant JC can reduce unfavourable attitudes among employees and also improve performance. Employee efficiency would be improved if EE were given better physical and psychological instruments. Previous study by Sanhari (2014) suggested that if workers are sufficiently supported (EE), they will be satisfied, which will have a favourable impact on their performance and level of commitment. They claimed that workers will be happier and perform better if they believe their working environment meets their intrinsic, extrinsic and social needs. The current study hypotheses were developed based on the above studies arguments:

H5. (EE) mediates the relationship between the reward system and employee retention.

H6. (EE) mediates the relationship between the job condition and employee retention.

3. Material and methods

3.1 Sample and procedures

The study employed a descriptive cross sectional survey to assess the influence of reward system and job condition on employee retention in the Nigerian public Hospitals. The nursing staff of public hospitals in Nigeria's Northwestern states served as the study's unit of analysis. This set of responders is believed to give an accurate view of the content. Eight thousand two hundred and sixty three (8,263) nurses working in general hospitals in the northwest zone, Nigeria make up the study's population. This Figure was collected from the statistics and planning Department of the Ministry of Health of the seven states, Zamfara, Sokoto, Kebbi, Kano, Katsina, Kaduna and Jigawa State (Ministry of Health, 2021). Using the sample size requirements of Krejcie and Morgan (1970), a minimum of 370 nursing personnel was collected from the whole research population. However, multi-stage sampling procedures for these current study were employed. Furthermore, in adopting the multistage technique, there are three major procedures: sample random, proportionate and systematic sampling. Thus, general hospitals within the seven Northerner states were selected to ensure that each of the state's general hospitals was fairly represented. Therefore, this study used a simple random, proportionate and systematic sampling technique, which gives each respondent in the population an equal chance of being chosen as a subject in a sample and allows the researcher to distribute or apportion the study sample to accurately represent each of the study population.

3.2 Measures

There are 24 items in this study questionnaire that make up four constructs. Edgar and Geare (2005) and Axelsson and Bokedal (2009) were used to develop the RS (five items) and JC (four items) measures. The two measures used a 5-point response scale (5 strongly agree). EE comprised 8 items, adapted from (Schaufeli *et al.*, 2002), such as "At my work I feel bursting with energy" and "at my work, I feel strong and vigorous" ($\acute{a}$ = 0.85). ER was composed of 7 items, such as "I remain in this hospital because it offers me financial independence" (α = 86). The 7-item of ER was adopted from Kiaw and De Run (2007). All items were rated on a five-point Likert scale, with 1 being the most strongly disagreed and 5 being the most strongly agreed. The scale was used in the previous studies of Kamselem *et al.* (2020), Nuhu, Salisu, Abubakar and Abdullahi (2018) and Abdullahi, Raman, Solarin and Adeiza (2021). The validity and reliability of the research instrument were evaluated in a pilot study. In terms of validity, the instrument was evaluated by two academic experts and two industry professionals. The relevance of the items, coherence, clarification and themes were all established with this content validity. The questionnaire is divided into two parts. The first section of the questionnaire contains the demographic profile of the study respondents, while the second section contains the study measurement variables.

3.3 Analytical strategy

Participants in the study were given a total of 555 questionnaires, of which 365 were completed and returned accurately. As a result, there were no missing data or outliers after data cleaning and screening tests. Consequently, a total of 365 valid questionnaires were used in the analysis. Furthermore, the current study used the Statistical Package for Social Science (SPSS) 27.0 and assessed the respondents' profiles and conducted preliminary analysis, while Smart-PLS version 3.3.8 to test the study's hypotheses.

3.4 Common method bias

Data are subject to common method variance because all of the study's measurements were self-reported. Both Harmon's single factor technique and the Zero-constrained test were used

to determine whether common method bias is an issue. Harmon's single component only accounted for 11.3% of the overall variance, indicating that common technique bias is not a significant issue. Harmon's single factor also accounted for less than 45% of the entire variation. Additionally, the zero-constrained common factor model and the unconstrained common factor model were contrasted. Furthermore, proof that common technique bias is not an issue in this study was acquired because the chi-square difference test was not determined to be significant.

4. Results and discussion
4.1 Descriptive statistics
The participants filled out the survey questionnaire that included items regarding ER, EE, RS and JC. The participants also provided demographic information such as gender, age, educational background and department name. The total of 365 responses was deemed to be valid for analysis. Male made up 39.2% of the participants while female 60.8% and this is not surprising because nursing staff is a female-dominated profession in Nigeria. The range of 21 to 30 years of age (47.7%) was the age group most represented in the survey. The diploma (46.6%) was the highest educational background of the respondents. Approximately the majority (38.4%) of respondents indicated that they are from the ward department. In Table 1, the demographic profile of the participants is given.

Category	Frequency	Percentage (%)
Gender		
Male	143	39.2
Female	222	60.8
Total	365	100.0
Age of respondents		
21–30 years old	174	47.7
31–40 years old	113	31.0
41–50 years old	52	14.2
51 years old and above	26	7.1
Total	365	100
Educational qualifications		
Diploma	170	46.6
Bachelor of Science	147	40.3
Masters	35	9.6
Doctor of Philosophy (PhD)	1	0.3
Other specify	12	3.3
Total	365	100.0
Name of department		
Theatre	48	13.2
Ward	140	38.4
Accident and emergency	16	4.4
Ophthalmic	13	3.6
Maternity	59	16.2
Antenatal	14	3.8
Out-patent dept	18	4.9
Ear nose and throat	16	4.4
Others specify	40	11
Total	365	100.0
Source(s): Field Survey (2022)		

Table 1.
Socio-demographic characteristics of the respondents

4.2 Measurement model

To assess the measurement model, this current research used the approach established by Hair, Hult, Ringle and Sarstedt (2014), which assessed convergent validity (CV) and discriminant validity (DV). CV refers to the applicability of the findings acquired when the test is constructed, using the measure and the relevant theories. This principle can be accomplished by looking at the factor loading of items via the CV of the measurement model (Henseler, Ringle, & Sarstedt, 2015). This research makes use of factor loading with a substantial value of 0.6 (Hair *et al.*, 2014). Figure 2 and Table 2 show the findings, thus, it is
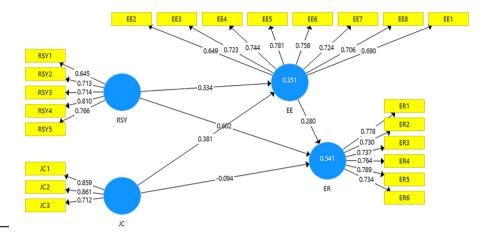

Figure 2.
Measurement model

Constructs	Items	Loading	Cronbach's alpha	(CR)	AVE
RSY	RS1	0.645	0.781	0.851	0.535
	RS2	0.713			
	RS3	0.714			
	RS4	0.810			
	RS5	0.766	0.741	0.854	0.662
JC	JC1	0.859			
	JC2	0.861			
	JC3	0.712			
	JC4	Deleted			
EE	EE1	0.690	0.870	0.897	0.522
	EE2	0.649			
	EE3	0.723			
	EE4	0.744			
	EE5	0.781			
	EE6	0.758			
	EE7	0.725			
	EE8	0.706			
ER	ER1	0.778	0.851	0.889	0.571
	ER2	0.730			
	ER3	0.737			
	ER4	0.764			
	ER5	0.789			
	ER6	0.734			
	ER7	Deleted			

Note(s): RSY = Reward system, JC = Job condition, EE = Employee engagement, ER = Employee retention

Table 2.
Items loadings, CR and AVE

shown that 2 items (JC4 and ER7) were removed for having a low factor loading. The
remaining items' loading factors range from 0.645 to 0.861, which is higher than the
recommended threshold of 0.6. (Hair *et al.*, 2014). CV is the magnitude in which a set of items
can evaluate a specific construct which can still be evaluated by CR and the AVE. The
proposed threshold value for CR is set at 0.7 and above, while the AVE is set at 0.5 and above
(Hair *et al.*, 2014; Götz, Liehr-Gobbers, & Krafft, 2010). The finding outcome in Table 2
indicates that the latent variable (LV) value of CR and AVE was above the bench mark value
of 0.7 and 0.5 simultaneously (Götz *et al.*, 2010; Chin, 2010). Tables 3 and 4 below
demonstrated by achieving DV. Using Fornell and Larcker criterion, all values (bold) in their
parent construct are greater than their relationship with other constructs. Henseler *et al.*
(2015) criticised Fornell and Larcker's (1981) and cross loading approach for being too liberal
in establishing validity and instead recommended using HTMT based on the multitrait-
multimethod matrix to assess DV. Table 5 shows the study's HTMT.

	EE	ER	JC	RSY	VIF
EE	0.723				1.330
ER	0.518	0.756			1.540
JC	0.505	0.269	0.813		1.382
RSY	0.475	0.500	0.370	0.732	1.158

Note(s): RS = Reward System, JC = Job condition, EE = Employee engagement, ER = Employee retention.
The square root of the AVE is represented by the diagonal values (italic), whereas the off-diagonals are
correlations

Table 3.
Fornell-Larcker
criterion

	EE	ER	JC	RSY
EE1	*0.690*	0.319	0.313	0.281
EE2	*0.649*	0.259	0.262	0.302
EE3	*0.723*	0.337	0.344	0.369
EE4	*0.744*	0.457	0.426	0.362
EE5	*0.781*	0.422	0.389	0.373
EE6	*0.758*	0.417	0.365	0.321
EE7	*0.724*	0.419	0.401	0.395
EE8	*0.706*	0.310	0.382	0.323
ER1	0.391	*0.778*	0.183	0.471
ER2	0.385	*0.730*	0.222	0.433
ER3	0.440	*0.737*	0.262	0.532
ER4	0.376	*0.764*	0.224	0.593
ER5	0.341	*0.789*	0.153	0.536
ER6	0.411	*0.734*	0.176	0.579
JC1	0.444	0.236	*0.859*	0.393
JC2	0.439	0.213	*0.861*	0.272
JC3	0.339	0.210	*0.712*	0.225
RSY1	0.274	0.526	0.196	*0.645*
RSY2	0.294	0.592	0.181	*0.713*
RSY3	0.371	0.500	0.278	*0.714*
RSY4	0.428	0.508	0.366	*0.810*
RSY5	0.362	0.417	0.331	*0.766*

Note(s): ER = Employee retention, JC = Job condition, EE = Employee engagement, RSY = Reward system.
The italic values show the items that fall on a particular construct

Table 4.
Cross loading

4.3 Goodness of fit

A diagnostic technique for determining the goodness of fit (GOF) of the model was demonstrated by (Hair *et al.*, 2014). GOF demonstrates how effectively ordered model structures work by describing how well a set of data matches the model. Hair *et al.* (2014) set three criteria for evaluating the GOF study's outcomes: small (0.02), medium (0.25) and large (0.36). The GOF value in this research was 0.27, indicating that the proposed model of the link between the components of the analysis has performed reasonably well. The measurement values for the Q^2 in the current analysis are 0.16 and 0.19 for EE and ER, which indicates that they are of sufficient predictive significance. The structural model's Q^2 was above zero and for the constructs the VIF was below 3. Furthermore, Figure 2 shows the results of R^2 indicates that RS and JC explain 35% ($R^2 = 0.351$) of the variance of EE. RS and JC explains 54% ($R^2 = 0.541$) the variance of ER.

4.4 Assessment of structural model

The relations between constructs were evaluated by the structural model. The nexus between RS, JC, EE and ER constructs were assessed on the basis of the research hypothesis. A bootstrapping approach was used to calculate the model's *t*-values. Table 6 reveals that RS has a significant effect on ER ($\beta = 0.267$, $t = 17.38$, $p < 0.000$). Thus H1 is supported. From the analysis, it was revealed that JC significantly related with ER ($\beta = 0.084$, $t = 2.024$, $p < 0.043$) (H2). The results of the direct influence of the constructs included in the model also shows that RS, JC and EE have a strong positive association ($\beta = 0.315$, $t = 6.921$, $p < 0.000$) and ($\beta = 0.399$, $t = 9.316$, $p < 0.000$) (H3 and H4). Thus H3 and H4 are supported. Similarly, EE had, in turn, a strong positive relationship with ER ($\beta = 0.236$, $t = 5.617$, $p < 0.000$) as shown in Table 6. However, the results supported the three direct hypotheses developed. Additionally, the variance accounted for (VAF) mediating effect was investigated. The relation between RS and ER was statistically established via EE, as shown in Figure 3 and Table 7 ($\beta = 0.074$, $t = 4.201$, $p < 0.000$), with a VAF value of 22%, which is higher than 20%, it was determined that EE partially mediates the relationship between RS and ER, supporting H5. Similarly, through EE, JC was found to have a positive relationship with ER. ($\beta = 0.094$, $t = 5.367$, $p < 0.000$) (H6). According to the findings, the VAF is 53%, indicating that EE has a
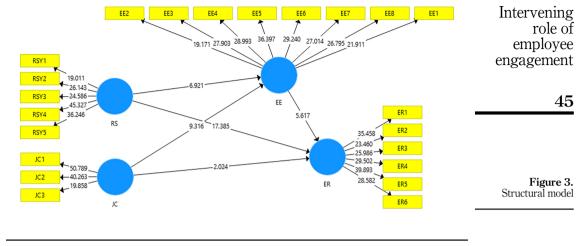
	1	2	3	4
EE				
ER	0.590			
JC	0.617	0.340		
RS	0.571	0.847	0.481	
Note(s): RS = Reward system, JC = job condition, EE = Employee engagement, EP = Employee retention				

Table 5. Heterotrait-Monotrait ratio (HTMT)

Hypothesised paths	Beta coefficient	Standard error	*t*-value	Lower bound	Upper bound	*p*-value	Decision
RS → ER	0.267	0.037	17.38	0.001	0.273	0.000	Supported
JC → ER	0.084	0.042	2.024	−0.149	0.037	0.043	Supported
RS → EE	0.315	0.045	6.921	0.600	0.726	0.000	Supported
JC → EE	0.399	0.043	9.316	−0.018	0.155	0.000	Supported
EE → ER	0.236	0.042	5.617	0.318	0.563	0.000	Supported
Note(s): RS = Reward system, JC = Job condition, EE = Employee engagement, ER = Employee retention							

Table 6. Structural path model results

Figure 3.
Structural model

Relationships	Path a*b	Std error	t-value	p-value	VAF %	Lower bound	Upper bound	Decision
RS → EE → ER	0.074	0.018	4.201	0.000	22	0.211	0.387	Partial mediation
JC → EE → ER	0.094	0.018	5.367	0.000	53	−0.008	0.072	Partial mediation

Note(s): RS = Reward system, JC = Job condition, EE = Employee engagement, ER = Employee retention

Table 7.
Mediation test results

partial mediating effect on the relationship between JC and ER. However, the two indirect paths are partially mediated.

The results indicate that the mediating latent construct (EE) explained 22 and 53% of the total influence on the RS, JC and ER relationship. It can be deduced that EE mediating effect is partial on the relationship between the two constructs. This is consistent with Hair *et al.* (2014) classification, according to which a VAF value of less than 20% implies no mediation, 20% to less than 80% suggests partial mediation and 80% and above indicates complete or full mediation.

5. Discussion

H1 stated that RS is significantly related to ER. According to the findings in Figure 3 and Table 6, RS shows a substantial positive relationship with ER. The size of RS's effect on ER is categorised as a large effect ($f^2 = 0.595$). Thus, the RS has a large and positive effect on ER nursing employees. Reward system is considered an important predictor of ER. These findings suggest that increasing the use of the RS could improve the ER. Furthermore, the findings are in line with those of prior studies (e.g. Banerjee, 2019; Wijesiri *et al.*, 2019; Sitati, 2017; Rono & Kiptum, 2017; Kaur, 2017; Aktar *et al.*, 2015). Many other studies have found that having appropriate RS in an organisation leads to equity and increased retention and positive correlation exist between ER and reward and recognition (Nasir & Mahmood, 2018; Wickramasinghe & Sajeevani, 2018; Idemobi *et al.*, 2017; Mngomezulu *et al.*, 2015; Kwenin *et al.*, 2013). This outcome is also in line with past research (Anitha, 2014; Jiang, Lepak, Hu, & Baer, 2012). The rationale for this finding is that a proper and effective RS leads to an increase in ER. In other words, strong RS can be seen as a competitive advantage for service organisations because it is one of the most important instruments for attracting and retaining top talent. However, as a result of the findings, some key points about rewards have been

clarified in accordance with the fairness principle. The employee expects to receive a good return for their efforts which is rewarding and must be commensurate with their efforts in order to be motivational. In a developing country like Nigeria, where the average pay is low, the reward system is crucial. Employee performance and retention will be affected by implementing a compensation structure that includes a good bundle of incentives and allowances.

H2 stated that JC is positively and significantly related to ER. In short, nursing employees believed their retention quality health service and in their own abilities to successfully engage in realizing such service through sound job conditions. In order to attain health excellence, it is critical to improve a favourable working condition in order to diminish employee intentions to leave the sector. These findings are consistent with those of other studies (Ashraf, 2019; Sikawa, 2018; Raziq & Maulabakhsh, 2015; Stradinger, 2015; Vanaki & Vagharseyyedin, 2009).

H3 and H4 stated that RS and JC are positively and significantly related with EE. The findings in Table 6 revealed that RS and JC are significantly related with EE. This research suggests that when RS and JC are both favourable, nursing personnel' engagement is likely to improve. When EE improves, the formation of desirable good behaviours improves their overall motives, which in turn promotes their favourable attitude of keeping their existing job. The result of the current study findings is consistent with the previous studies which indicates that rewards and compensation, work condition are related with EE which in turn affect and ER (Malik *et al.*, 2018; Jackson & Fransman, 2018; Mabaso & Dlamini, 2018; Chen *et al.*, 2017; Kundu & Lata, 2017; Al-Kasasbeh, 2016; Bussin & Toerien, 2015; Bedarkar & Pandita, 2014; Jacobs *et al.*, 2014; Sousa-Lima, Michel, & Caetano, 2013; Balakrishnan *et al.*, 2013; Beukes & Botha, 2013). Schneider, Macey, Barbera and Martin (2009) suggested that organisations should engage their employees if they want their market share.

H5 stated that EE significantly mediates the relationship between RS and ER. According to the findings of this study, (EE) plays a partial mediating role in the relationship between RS and ER. In essence, the magnitude and significance of the result of the mediation is positively affected to justify the position of the EE. The findings are in line with those of earlier empirical studies (e.g. Alessandri, Consiglio, Luthans, & Borgogni, 2018; Kapil & Rastogi, 2017; Fletcher, 2016; Karatepe & Olugbade, 2016; Anitha, 2014). The most likely explanation for these findings was that in organisations, an EE enhanced with passion, dedication and alignment with the organisation's plans and goals, which has a positive influence on ER. The finding agrees with past studies such as Karatepe and Olugbade (2016), Aktar *et al.* (2015) which shows that EE mediates the relationship between high performances and employee performance. The findings of Abdullahi *et al.* (2021) and Mohd, Saludin and Hanafi (2018) established that EE mediates relationships between HR and compensation practices and EP.

H6 stated that EE significantly mediates the relationship between JC and ER. EE mediates the link between JC and ER, according to the findings of the study. However, the stakeholders of public hospitals should ensure that the nursing staff is provided with a safe working environment, allowing them to become involved and retain their existing positions. EE also appears to play a significant impact in increasing ER in the nursing environment according to the findings. However, there is limited literature to compare with the current study's findings. In this regard, it may claim that its empirical findings reveal a very important dimension in the health sector, notably among nursing employees, who strive for excellence in health as a service sector. The findings of the research are supported by previous studies (Sikawa, 2018; Kundu & Lata, 2017; Arnoux-Nicolas *et al.*, 2016). Furthermore, according to the SET theory, a satisfactory exchange can be performed without sacrificing the perceived desires of the group involved (Albrecht *et al.*, 2015; Krot & Lewicka, 2012). Consequently, the use of EE to mediate the interaction between RS, JC and ER is rational and justifiable. However, in the context of Nigerian public hospitals, EE plays a mediating role in the RS, JC and ER

relationships. According to the findings, if public hospital management effectively implements reward compensation and JC systems, employees will feel obligated to respond with a high level of engagement and employee engagement is a function of their perceived notion of the benefits they receive that enable them to continue working.

6. Conclusions and implications for theory and practice

The results from the analysis in this study have identified RS as positively and significantly associated with ER in the setting of Nigerian public hospitals. The study concludes that nursing personnel place a high value on the awards they receive, which helped them retain their jobs. When these rewards are not provided, the majority of nursing employees show their dissatisfaction by leaving their positions. This study found that RS has significantly associated with EE. This study also succeeded in demonstrating the application of the SET, in which RS is directly related to ER and EE partially mediates the relationship between RS and ER. The findings observed that RS not only improves in ER, but also boosts behaviour and attitudes of nursing employees via the partial mediating effect of EE. This demonstrated that rewards are vital for boosting trust and involvement in public hospitals and that RS should not be disregarded because today's workforce is increasingly intrinsically motivated. The researchers discovered a substantial positive association between RS, EE and ER, as well as the ability of RS to predict EE and ER. The findings of this study show that JC is critical for maintaining consistent retention. The outcomes of this study also revealed that JC is linked to EE in a significant way. In this regard, the current study has provided vital evidence that JC in the public health sector can have a considerable influence on the EE and ER of Nigerian nursing employees. The role of EE as a mediating factor in the link between JC and ER was also established in this study.

The current study theoretically explains the relationship between RS, JC and ER by employing a crucial intervening role of EE which was previously ignored. Furthermore, this study significantly extended the SET theory which acts in a constructive way toward nursing employees and generates reciprocity. Moreover, this study was beneficial in that it revealed the impact that RS and JC may have on EE and ER. These findings are crucial because they may help the healthcare sector improve their ER strategies, especially in dynamic and competitive business situations where organisations are challenged to retain personnel from a limited skilled workforce. Looking from a managerial perspective, the model explored the RS, JC and its effect on ER. The findings of this study offer useful insights to nursing employees and health practitioners. Several implications from the managerial perspective will be very useful for practical purposes as evaluation tools on how effective their current implementation of RS and JC in influencing the ER. However, in view of RS, JC and EE which was reported to have the strongest effect on ER, efforts to improve retention should focus on these constructs. However, stakeholders and managers should proactively seek ways to satisfy employees' incentives and working conditions to promote their demand in order to increase the higher level of nursing ER.

6.1 Limitations and suggestions for further studies

The study contains a number of limitations, which provides a number of opportunities for additional research. However, this study uses EE as a mediating variable to primarily focus on the link between RS, JC and ER. Furthermore, other research may take into account additional HR practices as well as demographic factors like employment experience and educational background as a moderating factor. Another limitation of the study is that, due to the nature of the research, the conclusions cannot be applied to all industries. The findings, however, lay the framework for future research that should take into account other industries and investigate the extent to which different other HR strategies may be adopted using EE to

retain talented individuals. In order to complement the current study, a larger sample size should be used in a future study to include the southern portion of the country for comparison purposes in order to gain a better knowledge of the amount of RS and JC application in these regions with various cultures and traditions. Aside from that, a comparative study involving other businesses would be very useful in gaining a better understanding of the elements that influence retention in various cultural situations. The theoretical framework of this study may be more applicable in different settings as a result of this. Because different organisations have diverse structures and work environments, different ER findings may emerge.

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