

Talent Management Practices on Employee Engagement: Empirical Perspective from Institution of Higher Learning

(Amalan Pengurusan Bakat dalam Pengambilan Pekerja: Perspektif Empirikal dari Institusi Pengajian Tinggi)

Mohammed Sani Abdullahi

(Department of Business Administration, Yusuf Maitama Sule University Kano, Nigeria)

Adams Adeiza

(Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan)

Umair Ahmed

(College of Graduate Studies, Arabian Gulf University Bahrain)

Nadeem Khalid

(Executive Education Center, KIMEP University, Kazakhstan)

Zainab Lawan Gwadabe

(Department of Business Administration, Yusuf Maitama Sule University Kano, Nigeria)

Olawole Fawehinmi

(Faculty of Business, Economics, and Social Development, Universiti Malaysia Terengganu)

ABSTRACT

The purpose of this research is to investigate the effect of talent management (TM) practices on employee engagement (EE) in Malaysia Private Universities (MPU). The present research applied a cross-sectional research approach, and the study data were collected from 314 academics from MPU. Partial Least Square-Structural Equation Modelling (PLS-SEM) was employed to evaluate the study hypotheses. The findings showed that TM practices: talent recruitment practice (TRP), training and development practice (T&DP), and compensation practice (CP) has a significant effect on EE. This research is one of its kind conducted in MPU. Therefore, this research makes significant contributions to the existing literature by investigating the effect of TRP, T&DP, CP on EE, and also the findings of the research serve as a guide to the universities management to formulate their institutional policies to inspire their employees to engage in their task effectively which can enable the universities to fulfil their specified mission and vision.

Keywords: Talent management practices; training and development practice; talent recruitment practice; employee engagement; compensation practice.

ABSTRAK

Tujuan penyelidikan ini adalah untuk mengkaji kesan amalan pengurusan bakat (PB) terhadap pengambilan pekerja (PP) di Universiti Swasta Malaysia (USM). Kajian ini menggunakan pendekatan kajian keratan rentas, dan data kajian dikumpul daripada 314 ahli akademik dari USM. Pemodelan Persamaan Struktur Kuasa Dua Terkecil Separa (PLS-SEM) telah digunakan untuk menilai hipotesis kajian. Penemuan menunjukkan bahawa amalan PB, amalan pengambilan bakat (APB), amalan latihan dan pembangunan (AL&P), dan amalan pampasan (AP) mempunyai kesan yang signifikan terhadap PP. Penyelidikan ini adalah salah satu daripada jenisnya yang dijalankan di USM. Oleh itu, kajian ini memberi sumbangan besar kepada literatur sedia ada dengan menyiasat kesan APB, AL&P, AP ke atas PP, dan juga penemuan kajian ini menjadi panduan kepada pengurusan universiti untuk menggubal dasar institusi mereka dan memberi inspirasi kepada pekerja mereka untuk menjalankan tugas mereka dengan berkesan dan seterusnya membolehkan universiti memenuhi misi dan visi yang ditetapkan.

Kata kunci: Amalan pengurusan bakat; latihan dan amalan pembangunan; amalan pengambilan bakat; penglibatan pekerja; amalan pampasan.

INTRODUCTION

Organisations require highly motivated, enthusiastic, focused and committed or engaged workers in their workforce because employees with a higher job engagement will contribute much more to organisation competitiveness and performance (Singh et al. 2016). Bal et al. (2013) observed that highly motivated and engaged

workers are likely to have interest in their job and are profoundly linked to the goals of their organisation while disengaged workers are much more anxious with time rather than commitment during their work. Engaged workers are linked to their jobs energetically and efficiently, which in turn has a beneficial impact on organisational success indicators (Kahn 1990). This is extremely important, therefore, for organisations

to concentrate on improving employee engagement (EE) for sustainable efficiency in a highly competitive environment, talent management (TM) practices have to be in place to boost the morale of the employees (Ahmed & Islam 2018).

TM is a term constantly in the thought and minds of practitioners and managers, as recruiting, developing and retaining of skilled workers in a highly competitive business environment becomes more challenging (Supraptiningsih et al. 2018). This condition is troublesome in the sense of Malaysia as the Global Competitiveness Report tends to rate the country low in terms of labour efficiency and development of people (World Economic Forum 2012). A country's international competitiveness and development of a knowledge community relies on its population having a large and sustained educational sector. Any institution offering higher education is powered by a high-quality academic's that are valuable asset to the institution. In addition, recruiting and retaining high-quality academics is very critical for educational institutions as a low retention rate may have monetary and academic implications (Rensselaer Polytechnic Institute 2012). Furthermore, there is no educational institution that can guarantee sustainability and efficiency over the long term without a well-qualified and dedicated academics (Pienaar & Bester 2008). Academic workers at institutions of higher learning play a vital role in providing the best quality service and represent the expertise of the institutions. Specifically, their behaviours and attitudes can have a substantial effect on clients and student's perception and satisfaction of the standard of service (Burke et al. 2013). In order to establish the relationship, Saks (2006) argued that a theoretical basis is suitable to explain EE in the reciprocal standards of social exchange theory (SET), which explains the shared relationship between two parties. Kahn's (1990) model suggested some psychological factors that are essential to EE but it was not explicitly discuss why employees should be sensitive with different extent of engagement to those specific factors. In addition, the SET norms which define the mutual relationship between two parties have provided a clearer hypothetical basis for explaining and understanding EE (Karatepe 2011). However, according to Van De Voorde and Beijer (2015) if workers obtain economic benefits via TM practices, they feel obligated to reimburse the institution because of their mutual understanding with the employer, and furthermore, Song Lim et al. (2014) confirmed that one of the directions in which workers can reimburse their institution is through a high degree of engagement.

Despite EE contribution in achieving institutional or organisational goals, the vacuum has not yet been filled due to poor or lack of EE and proper consideration of TM practices. There has been a trendy resistance to invest in TM practices of workers in organisations, this is because it is assumed that personnel's employed based on merit principles or system are assumed to be

satisfied and happy (Johari et al. 2013). EE is an aspect that need attention by the management or leadership of MPU because an increase in EE will not happen by itself, but with the participation of both the management and their employees as well (Johari et al. 2013). Gupta and Shaheen (2017) stated that employees in numerous growing nations are considered as a device to perform responsibilities without pleasing their emotions or job requirement. As a result, it reduces their interest and hobby in the work and they are attempting to keep away from acting consistently with the organisation will (Gupta & Shaheen 2017).

Therefore, this research considers talent recruitment practice (TRP), training and development practice (T&DP) and compensation practice (CP) as the dimensions of TM practice toward EE. In view of the connection reviewed by SET (Sak 2006), the studies that use TM practices and its dimension such as Supraptiningsih et al. (2018), Wadhwa and Tripathi (2018) was not conducted in Malaysia rather other continent like (Indonesia, India, Kenya Uganda etc), and the studies conducted in Malaysia by Krishnan et al. (2020), Payambarpour and Hooi (2015) and Isa and Ibrahim (2014) are in other sectors not in MPU which happen to be the scope of the research, and also several scholars underlines the notion that studies on academic staff in higher educational environment which involve TRP, T&DP CP and EE are still relatively scarce given the growing significance of such professional group (Hurlimann et al. 2013). Riccio (2010) hold that institutions of higher learning, as information creators should value and support their staff TM in order to stay competitive and crucial in a knowledge-based economy. Therefore, this research bridges the gap by investigating the effect of TM practices (TRP, T&DP and CP) on EE in the context of MPU. Thus, to understand the effects of TM practices on EE in the context of MPU, the following questions are investigated:

- RQ₁ What is the effect of TRP on EE in MPU?
- RQ₂ What is the effect of T&DP on EE in MPU?
- RQ₃ What is the effect of CP on EE in MPU?

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

TALENT RECRUITMENT PRACTICE AND EMPLOYEE ENGAGEMENT

Recruitment relates itself to an organisation as a key source of competitive edge, and appropriate recruitment strategy might help an organisation compete effectively for complex human capital (Shailashree & Shenoy 2016). Achieving the organisation's goals is extremely dependent on the level or quality of human capital and in order to achieve such resources, each institution must have a structured recruitment of workers based on the

organisation's core activities. The failure or success of workers to engage in meeting the organisations demands is heavily dependent on the organisation's recruitment process for potential and prospective workers (Mathis & Jackson 2006). On the recruitment process, the employer puts a substantial premium on the job analysis and job description based on required standards, foremost of which the recruitment of people is one of the employer's top priorities. It deals with creating a pool of qualified, skilled and talented applicants out of which right person for the job can be picked out, for him/her to be engage toward achieving positive result (Marites 2012). The human resource department in most organisations handles the recruitment function in order to run organisation efficiently and effectively as well as to recruit and select the qualified ones for employment.

The recruitment process at universities is a big dilemma because it affects the performance of the students either positively or negatively. Studies often revealed that to boost student achievement one of the most important factors is teacher expertise (Darling-Hammond & Ball 1998). The deficiencies of recruitment process would predictably result to staffing shortages affecting the personnel engagement and the outcomes in terms of providing quality education. Serious repercussions in terms of recruitment of those unfit for the job can be avoided if the institution will apply some theories and best practices of recruitment (Miano 2019). This relationship is built on SET and RBV theory which argue that employer should express involvement to T&D of their employees, with that employees that feel their employers are much more interested in assisting them to meet their personal objectives will reciprocate by been engaged in their job toward achieving positive result, and also organisation that manage its talents will make the talents to be effectively engage in his/her job to attain positive result and be more loyal to the organisation as well (Homans 1958; Penrose 1959). An empirical studies conducted by De Silva and Tharanganie (2018) and Alnawaiseh and Almasarweh (2020) revealed that TRP has a significant effect on EE. According to Armstrong (2008) if the TR mechanism is not corrupted, the organisation can recruit workers that can be dedicated to the organisation values. These tests suggest that empirical findings linked to TM practice (TRP) indeed yielded nuanced outcomes. Therefore, TRP-EE relationship studies need to be carried out in new contexts. In line with that the following hypothesized hypothesis is stated:

H₁ TRP has a significant effect on EE.

TRAINING AND DEVELOPMENT PRACTICE ON EMPLOYEE ENGAGEMENT

The level of EE with the job can be improved by providing the workers in the organisation a well-designed T&D program. TM practitioners are more concern in conducting T&D session for their employees so that

employee's level of work engagement can be increased (Albrecht et al. 2015). T&DP is indeed the corporate investment designed to improve employee's appropriate skills and capabilities so they can perform much better to accomplish organisational goals. T&DP programs/system are organized by organisation to improve the work-related skills and talents of workers, which can assist employees deal with different kind of difficulties in an organisation (Karatepe 2013). In addition, TM practices researches has described T&DP to be one of EE most powerful predictors (Huang et al. 2018). For example, Kahn (1990) revealed that organisations may provide their workers with tools through the T&DP program and make them believe that they have all the capacity to perform better, which in effect helps to increase the engagement level. However, the T&DP system can help to build committed employees towards their jobs, which ultimately assist to increase the emotions of availability (Presbitero 2017). In addition, earlier empirical studies have discovered that training has a direct connection with employee psychological health, and also improved employee psychological health will contribute to EE level (Gruman & Saks 2011). Empirical study conducted by Siddiqui and Sahar (2019), Sendawula et al. (2018), Aktar and Pangil (2018) and Nagesh et al. (2019) on different endeavour proved that T&DP has a significant effect on EE. Aktar and Pangil (2018) stated that through T&DP employees gain self-efficacy which gradually engage them with their work. Similarly, the study of Albrecht (2012) confirmed that employee's self-efficacy makes the job meaningful in their mind which consequently make the employee's engaged with their work.

Several studies have been carried out over the past decade in the context of developed economy to assess the connection between T&DP and EE. When organisation conducts various kinds of T&DP program, whether formal or informal, it enhances EE level and work performance (Shuck et al. 2011). However, the study of Schaufeli and Salanova (2010) showed that different T&DP programs can be used to promote EE in an organisation. In this occasion, the study of Luthans et al. (2010) agreed with the finding of Schaufeli and Salanova (2010), and suggest that the T&DP system can be utilized as a workplace tool to boost the level of EE. The organisations that spend money for employee's T&DP are likely to maintain pleasant working environment where EE is ensured (Kahn 1990). This positive partnership between T&DP and EE is also clarified under SET which postulate that workers with proper T&DP will perceive that their organisation is heavily investing in their growth, with that they will reciprocate by putting high commitment level to their function in their job (Schaufeli & Salanova 2010). Based on one sided outcome, the interaction should be resolved by conducting further research in a different context. Therefore, the hypothesis is established as follow:

H₂ T&DP has a significant effect on EE.

COMPENSATION PRACTICE AND EMPLOYEE
ENGAGEMENT

Compensation package is another important precedent for EE, including both monetary rewards and non-monetary benefits earned by workers as a consequence of an employment contract (Milkovich & Newman 2005). Furthermore, Maisoni et al. (2019) stated that CP is a significant EE factor that encourages employees to put additional effort to their individual and organisational growth that involves financial and non-financial incentives, and perhaps encourages employees to accomplish more and also concentrate so much on personal growth and jobs. According to Bhatnagar (2007) CP is indeed the collection of benefits offered to employees of organisations in a context of salaries, wages, promotions, work opportunities, bonuses, good working atmosphere, retirement funds and life insurance policies, that are often provided to them based on their efficiency. The EE level relies on the attractive compensation and benefits received by employee (Anitha 2014). Top or edge-performing workers tend to be distinctly compensated and honoured for their remarkable work, particularly when the compensation is performance-related (Anitha 2014). A study showed that the degree of incentives and recognition can be a significant part of the job experience and a good predictor of commitment whenever results-related compensation culture takes precedence at work (Milkovich & Newman 2005).

A well-designed compensation plan for the workers make them engaged with the work effectively in order to achieve sound result. A study conducted by Mesepy (2016), Hoole and Hotz (2016) and Owor (2016) revealed that the connection between CP and EE is substantial and positive. Sattar et al. (2015) revealed that desired reward package has a positive influence of making employee's engaged with the organisation. Furthermore, a study by Choo et al. (2013) on the front-desk employees in Malaysia shows that CP is one of the key predictors that increase EE level at workplace. If employees are given their desired compensation package they will be

highly engaged with the work toward achieving positive result. From the other direction, the absence of desired or adequate compensation package may contribute to a fatigue of work for employees (Owor 2016).

Compensation package positively changes the psychology of the employee's which make them engaged in the workplace (Vandenberghe & Tremblay 2008). Moreover, Saks (2006) stated that CP is one of the antecedents which is considered to improve EE level in the workplace. Besides, Maslach and Leiter (2008) suggest that CP is such an arena of work life by which employees are influenced more, therefore, when organisations expect to enhance EE level then the organisations should work on the compensation packages they offered to the employees. More importantly, Kahn (1990), the introducer of the EE concept stated that EE level is the function of perceived rewards they received from the organisation. In a recent studies conducted by Maisoni et al. (2019), Ahmed and Islam (2018), De Silva and Tharanganie (2018) and Inayat (2018) revealed that CP has a significant effect on EE. According to SET, employees feel compelled to respond with higher commitment to achieve successful outcome after obtaining a sound compensation package (Saks 2006). In order to prove the stated result which is in line with the stated relationship, there is need for further research in a different context. So, the hypothesis evolves as follow:

H₃ CP has a significant effect on EE.

RESEARCH MODEL AND THEORETICAL FOUNDATION

Figure 1 showed an operating model which links TM practices with EE. It was adapted from Mensah (2015) and El Masri and Suliman (2019) frameworks. The model and the study is built on resources base view (RBV) theory and SET. Penrose (1959) developed RBV theory and revealed that the theory is based on TM and postulated that talent had been the only resource of organisations which essentially established a basis for a competitive

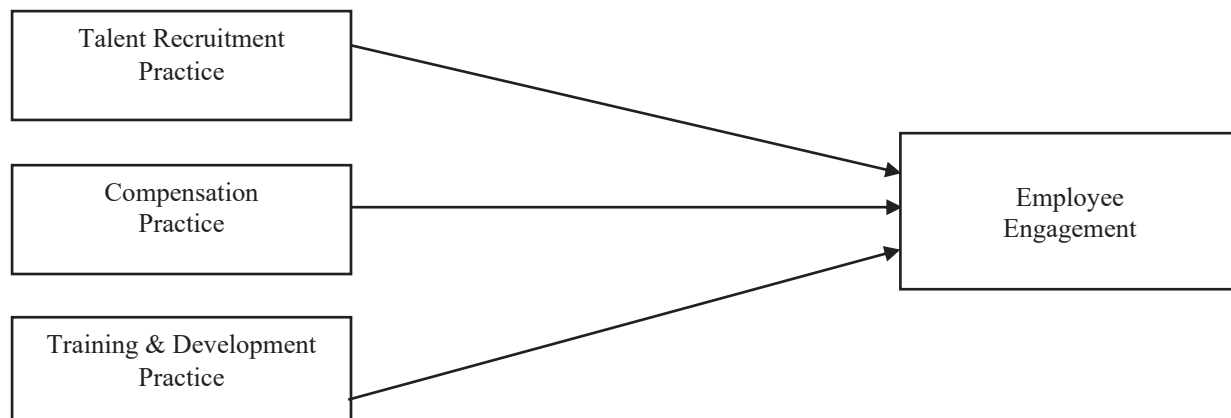


FIGURE 1. The conceptual model

edge and organisations would therefore concentrate on talent and talent-derived skills (engagement).

In relation to RBV theory of the organisation it indicates that talent was the only resource that might help organisations in sustaining its EE toward achieving its competitive advantage and therefore, organisations must focus in recruiting, developing and retaining their talented workforce (Rabbi 2015). Similarly, from the perspective of SET developed by Homans (1958), argues that TM practices make contributions to productive exchange relationships between employer and employees, particularly whenever the requirements of staff are taken into consideration, upon which employees respond positively with favourable behaviour and attitudes (Davies & Gould-Williams 2005). The theories help to explain the relationship between TM practices (TRP, T&DP & CP) and EE. Therefore, the observed theories provide a sound direction to the research.

RESEARCH METHODOLOGY

This research employed cross-sectional approach and the unit of analysis are MPU academic staff, and the study population consists of 10, 473 respondents which are captured from MPU that have un-expired license as at 31st January 2019 as provided by (Ministry of Higher Education 2019). Simple random and stratified sampling technique were utilized in this study which enable each respondent in the population to have an equal chance to be chosen as a subject in a sample, and it enable the researcher to apportion the study sample representing each stratum of the study population without any bias respectively.

In order to assess the sample size of the survey, Krejcie and Morgan (1970) table were used, with that 371 academic staff from the research population were captured. The sample size was subsequently increased by 50% which resulted to 557 academic staff to address the non-response issue and to lessen the sample size error (Hair, et al. 2010). A Questionnaire were employed as a tool for data collection and the data were retrieve from the study respondents through Google Form and it was send via email to the focused respondents. The Google Form (E-mail) questionnaire is established as the most widely used approach in various economic and business surveys study and the legitimate objective of the Google Form (E-mail) questionnaire is to cover a wide geographical area (Sekaran & Bougie 2013). A total of 557 questionnaires were administered to the focus research respondents whereby a total of 314 questionnaires were appropriate filled out and returned. Furthermore, they were no missing data or outlier after applying data cleaning and screening test, based on that the research advance with 314 appropriate questionnaires with a response rate of 56.37% for the final estimate of the research hypotheses.

MEASURES

This research used 4 constructs of 25 items that make up the research framework, with that EE was evaluated with 8 items adapted from Schaufeli et al. (2002). TRP was evaluated with 5 items adapted from Slavković et al. (2018). T&DP was evaluated with 6 items adapted from Singh (2004), and CP was evaluated with 6 items adapted from Singh (2004) and Teseema and Soeters (2006). A pilot test was carried out in which validity and reliability were evaluated on the instrument, in terms of validity 4 academic experts and professionals from the industry were selected to confirm the validity of the instrument, which includes the physical appearance, relevance of the items, accessibility, language clarity and themes, with this validity of the items were achieved (Straub 1989).

Reliability (internal consistency) among the items was also tested with 40 randomly selected academics with similar features which were not part of the targeted respondents through Cronbach's Alpha (α) reliability (Johanson & Brooks 2010). The result showed that Cronbach's α for EE was 0.841, Cronbach's α for TRP was 0.916, Cronbach's α for T&DP was 0.882, and Cronbach's α for CP was 0.883. This demonstrates that the items are accurate and robust as they Cronbach's α are greater than 0.70 (Hair et al. 2010). In consequence, a valid and reliable questionnaire were launched to collect data from a large sample.

COMMON METHOD VARIANCE

Podsakoff and Todor (1985) noted that Common method variance (CMV) problems occur when self-reported measure is taken from the same sample in research. Therefore, one of the common approach of detecting this problem is the single factor test of Harman. This is achieved by bringing all the constructs into a factor analysis of the components (Podsakoff & Heart 1986). CMV occur when a single factor emerges from the factor analysis, or one general factor accounts for the majority of the covariance among the measures (Podsakoff & Todor 1985). The outcome returned a six-factor solution in our analysis, with a total variance explained of 70.80% and the first factor explained only 23.35% which indicates that CMV is not an issue to the study data.

DATA ANALYSIS AND FINDINGS

In addition, the present study utilized SPSS version 23.0 to analysed the respondents profile, the preliminary analysis while PLS-SEM through Smart-PLS version 3.0 software were utilized to analyse the measurement and structural model (Chin 1998).

DESCRIPTIVE STATISTICS

The participants completed the survey questionnaire which involves items on TM practices, EE and demographic details like gender, marital status, nationality, ethnicity, age, area of specialization, working experience, academic qualification, academic position and staff income were also provided by the participants. Therefore, 314 responses received were found to be valid for analysis. Based on that, 208 males (66.2%) were the most represented gender in the survey. In total, 217 married participants (69.1%) were the most represented marital status in the survey. In total, 288 Malaysia (91.7%) was the most represented nationality in the survey. In total, 171 Malay (54.5%) was the most represented ethnicity in the survey. In total, 103 participants with 41–50 years (32.8%) were the most represented age group in the survey. In total, 64 participants (20.4%) were the most represented participants that specialized in information technology in the survey. In total, 115 participants with 11–20 years (36.6%) have the highest working experience in the survey. In total, 173 participants with doctorate degree (55.1%) have the highest academic qualification in the survey. In total, 78 participants with senior lecturer position (24.8) have the must academic position in the survey, while 93 participants with RM3000-RM6000 (29.6) have the highest income in the survey. Therefore, Table 1 revealed the demographic profile of the participants.

TABLE 1. Respondents profile

Characteristics	Frequency	Percentage (%)
Gender:		
<i>Male</i>	208	66.2
<i>Female</i>	106	33.8
<i>Total</i>	314	100
Marital Status:		
<i>Single</i>	69	22
<i>Married</i>	217	69.1
<i>Others</i>	28	8.9
<i>Total</i>	314	100
Nationality :		
<i>Malaysia</i>	288	91.7
<i>Others</i>	26	8.3
<i>Total</i>	314	100
Ethnicity		
<i>Malay</i>	171	54.5
<i>Indian</i>	52	16.6
<i>Chinese</i>	65	20.7
<i>Others</i>	26	8.2
<i>Total</i>	314	100

cont.

cont.

Age:		
<i>< 31years</i>	42	13.4
<i>31 – 40years</i>	90	28.7
<i>41 – 50years</i>	103	32.8
<i>51 – 60years</i>	58	18.5
<i>61years & Above</i>	21	6.7
<i>Total</i>	314	100
Area of Specialization		
<i>Engineering</i>	58	18.5
<i>Medical Sciences</i>	48	15.3
<i>Information Technology (IT)</i>	64	20.4
<i>Business</i>	53	16.9
<i>Social Sciences</i>	36	11.5
<i>Humanities</i>	28	8.9
<i>Others</i>	27	8.5
<i>Total</i>	314	100
Working Experience:		
<i>< 11years</i>	81	25.8
<i>11 – 20years</i>	115	36.6
<i>21 – 30years</i>	68	21.7
<i>31 – 40years</i>	36	11.5
<i>41years & Above</i>	14	4.5
<i>Total</i>	314	100
Academic Qualification		
<i>Doctorate Degree</i>	173	55.1
<i>Master Degree</i>	109	34.7
<i>Bachelor Degree</i>	32	10.2
<i>Others</i>	-	-
<i>Total</i>	314	100
Academic Position:		
<i>Professor</i>	45	14.3
<i>Assistant Professor</i>	26	8.3
<i>Associate Professor</i>	27	8.6
<i>Senior Lecturer</i>	78	24.8
<i>Lecturer</i>	64	20.4
<i>Assistant Lecturer</i>	38	12.1
<i>Tutor</i>	29	9.2
<i>Others</i>	07	2.3
<i>Total</i>	314	100
Income		
<i>< RM3000</i>	25	8
<i>RM3000-RM6000</i>	93	29.6
<i>RM6001-RM9000</i>	88	28
<i>RM9001-RM12000</i>	55	17.5
<i>RM12001 & Above</i>	53	16.9
<i>Total</i>	314	100

Source: Field Survey (2021)

MEASUREMENT MODEL EVALUATION

This research followed the approach developed by Hair et al. (2014) to evaluate the measurement model, by which convergent validity (CV) and the discriminant validity (DV) were examined. CV can be accomplished by looking at the factor loading of items via the content validity of the measurement model (Hair et al. 2010). This research makes use of factor loading with a substantial value of 0.6 (Hair et al. 2010). Based on the findings in Figure 2 and Table 2, thus, it is shown that 4 items (TDP4, TDP5, TDP6 & CP6) were deleted as a result of low factor loading which are less than 0.6. The factor loading of the remaining items varies from 0.651 to 0.915 which are above the recommended value of 0.6 (Hair et al. 2014). The CV can further be evaluated by composite reliability (CR) and the extracted average variance (AVE). The proposed threshold value for CR is set at 0.7 and above, while the AVE is set at 0.5 and above (Chin 2010). The finding outcome in Table 2 indicated that the latent variable (LV) value of CR and AVE was above the threshold value of 0.7 and 0.5 simultaneously as suggested (Hair et al. 2014). The DV was measured using Fornell and Larcker (1981) approach after the CV was achieved. The AVE square root of LV should be above the LV correlations to attain the DV (Fornell & Larcker 1981). The result in Table 3 showed that for all latent variables as shown in bold, the square root of the AVE's are higher than the correlation values, with that the DV was achieved. Therefore, the measurement model of this research was achieved.

STRUCTURAL MODEL EVALUATION

The hypothesized relation was subsequently examined by running the PLS algorithms and bootstrapping after the measurement model was developed. These findings are summarized in Figures 3 and Table 4. Firstly, the study carried out collinearity assessment among the exogenous constructs and the result in Table 3 showed that there is no collinearity problem because all VIF values are below the recommended value of 5 (Hair et al. 2010). Hair et al. (2014) indicated that R^2 has been the most essential criterion for evaluating the structural model, provided that the predictive-oriented PLS-SEM approach is designed to clarify the variance of the LV outcome. The R^2 value of 0.75, 0.50 and 0.25 was considered to be substantial, moderate and weak range respectively (Hair et al. 2014). Based on the outcome of the PLS algorithm, the study R^2 value is 0.432. Figure 2 showed that TRP, T&DP and CP comprises of 43.2% of the EE variation, which meant moderate range as recommended by Hair et al. (2014). Stone-Geisser test of predictive significance (Q^2) was used in this research via the blindfolding technique (Geisser 1974). A further method for evaluating GoF in PLS-SEM is the Stone-Geisser predictive relevance test

TABLE 2. Items loadings, composite reliability and average variance extracted

Constructs and Items	loadings	Cronbach's Alpha	CR	AVE
EE		0.870	0.897	0.523
EE1	0.691			
EE2	0.655			
EE3	0.730			
EE4	0.739			
EE5	0.776			
EE6	0.752			
EE7	0.723			
EE8	0.713			
TRP		0.781	0.851	0.536
TRP1	0.597			
TRP2	0.665			
TRP3	0.732			
TRP4	0.841			
TRP5	0.801			
T&DP		0.741	0.853	0.662
TDP1	0.860			
TDP2	0.865			
TDP3	0.704			
TDP4	Deleted			
TDP5	Deleted			
TDP6	Deleted			
CP		0.776	0.848	0.529
CP1	0.780			
CP2	0.756			
CP3	0.640			
CP4	0.751			
CP5	0.702			
CP6	Deleted			

Note: EE =Employee engagement; TRP =Talent recruitment practice; T&DP =Training and development practice; CP=Compensation practice.

TABLE 3. Results of discriminant validity (Fornell-Larcker Method) and VIF

	CP	EE	T&DP	TRP	VIF
CP	0.728				1.653
EE	0.565	0.723			
T&DP	0.621	0.504	0.813		1.728
TRP	0.324	0.479	0.38	0.732	1.186

Note: EE =Employee engagement; TRP =Talent recruitment practice; T&DP =Training and development practice; CP=Compensation practice. Diagonals depict the AVE square root while the off-diagonals depict the correlations

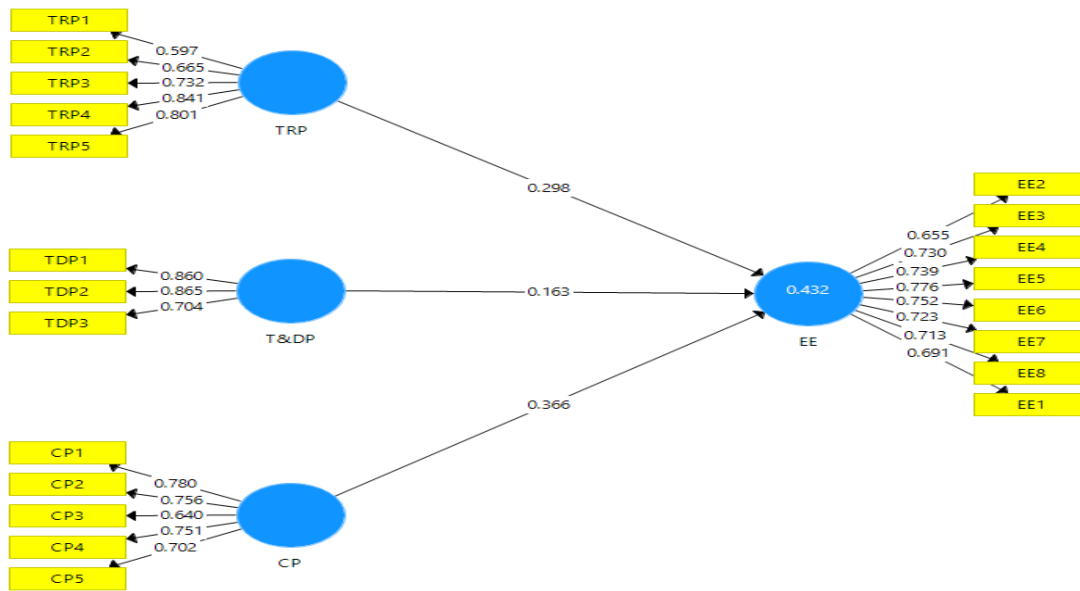


FIGURE 2. The measurement model

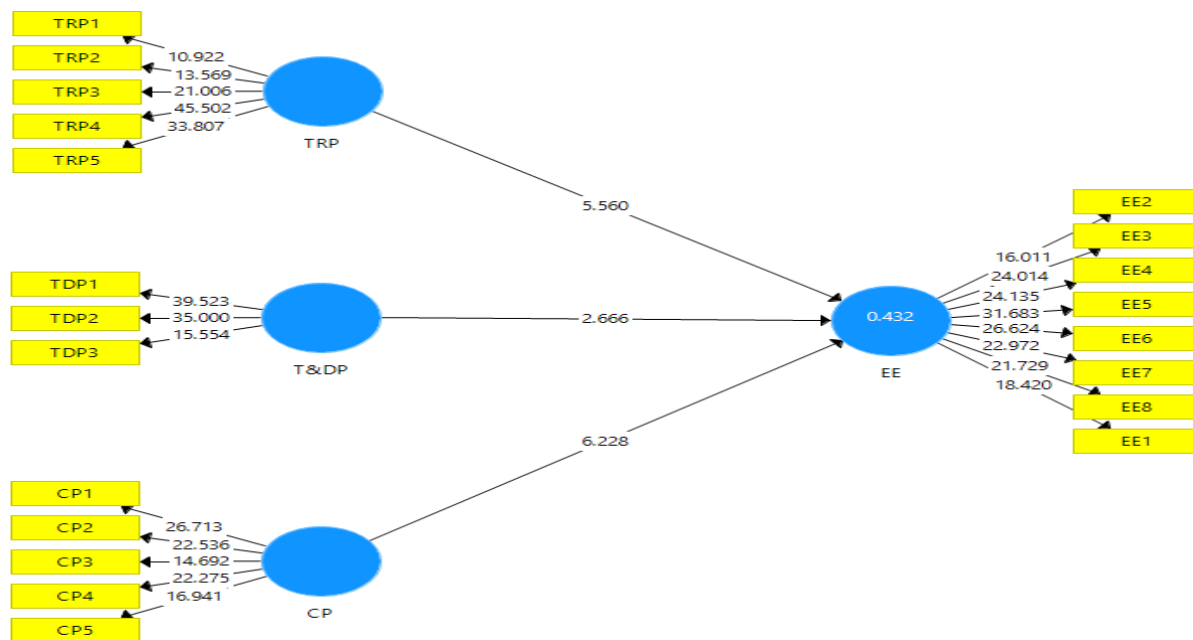


FIGURE 3. The PLS-SEM bootstrapping direct relationship

TABLE 4. Results of structural path model of direct effects

Hypothesized Paths	Path Coefficient	Std. Error	T-Value	P-Value	Decision
TRP -> EE	0.558	0.048	11.741	0.000	Supported
T&DP -> EE	0.125	0.052	2.429	0.015	Supported
CP -> EE	0.124	0.055	2.264	0.024	Supported

Note: EE =Employee engagement; TRP =Talent recruitment practice; T&DP =Training and development practice; CP=Compensation practice.

(Duarte & Raposo 2010). A cross validated redundancy value has also been used to determine the research model Q^2 (Geisser 1974). The Q^2 is considered to be adequate when the Q^2 of the research model is higher than zero (Henseler et al. 2009). The cross-validation redundancy value of EE is 0.218. Therefore, it is concluded that the model has an adequate Q^2 (Henseler et al. 2009).

The analysis of the structural model assesses the path coefficients, which explain the strengths of the interaction between the exogenous and endogenous variables. This research utilized a resampling method to bootstrap in order to identify the standard errors and t-statistics. The bootstrap approach uses a technique of confidence assessment which differs from that of a normal calculation. The findings in Figure 3 and Table 4 showed that all the 3 direct hypotheses have a significant effect. Briefly, the significant ties involve, (1) TRP \rightarrow EE ($\beta = 0.298$, t-value = 5.560, $p \geq 0.001$) H_1 ; (2) T&DP \rightarrow EE ($\beta = 0.163$, t-value = 2.666, $p \geq 0.01$) H_2 ; and (3) CP \rightarrow EE ($\beta = 0.366$; t-value = 6.228, $p \geq 0.001$) H_3 respectively. Therefore, the findings supported the 3 stated hypotheses.

DISCUSSION

The hypothesized hypothesis 1 related to the effect of TRP on EE in MPU. The study outcome in Figure 3 and Table 4, revealed that TRP has a significant effect on EE. This implies that university (MPU) attraction for recruitment of talent and skill employees are much more likely to have a higher engagement level when they are placed in the right role or position, and also recruitment of suitable workers for suitable roles has close relations and ties to the growth of the institution. Therefore, effective TRP system has a positive effect on increasing quality of work. In a nutshell recruitment of talented academic staff in MPU will enable employees to get involve (engaged) in their work effectively which will also enable the institution to achieve performance and promote its image as well. The study outcome is in line with numerous past studies of De Silva and Tharanganie (2018), Shailashree and Shenoy (2016) and Alnawaiseh and Almasarweh (2020) which stated that TRP has positive effect on EE. The study result is also supported by RBV theory. RBV theory established a possibility toward linking recruitment and managing talent resource of the institution to its competitive advantage, and hence, a positive EE outcome enable the institutions (MPU) to achieve high result over time (Rabbi 2015). This firm theory based on TM postulated that talent was the only institutional resource that ultimately offered a foundation for lasting competitive edge and therefore institutions should concentrate on talents and their potentials (engagement) obtain from the talents, since talents help the institution to achieve its competitive edge. Consequently, this research indicates that when a person-organisation suits with employee skills and experience by matching work requirements, MPU employees may

show higher levels of commitment to their respective institution (Shailashree & Shenoy 2016).

The hypothesized hypothesis 2 related to the effect of T&DP on EE in MPU. The study outcome in Figure 3 and Table 4, showed that T&DP has a significant effect on EE. The result implies that when academic staff of MPU are provided with standardized training and development (T&D) opportunities, their get motivated and build up confidence towards been engaged with their work. The finding of the research is compatible with the previous studies of Siddiqui and Sahar (2019), Sendawula et al. (2018), Aktar and Pangil (2018) and Nagesh et al. (2019) which stated that T&DP has substantial on EE. The result is supported by SET (Blau, 1964), which is based on the norms of reciprocity in social relationships, it is argued that employees are propelled to demonstrate positive engagement in an institution when they sense that their employer recognizes and values them by providing adequate T&D opportunities (Kuvaas & Dysvik 2010).

The hypothesized hypothesis 3 related to the effect of CP on EE in MPU. The research outcome in Figure 3 and Table 4, indicated that CP has a significant effect on EE, and the result is supported by SET. This implies that CP is a predictor of EE in MPU. This indicate that if CP is provided to academic staff by their employer (MPU) it will energize them to take their task or responsibilities diligently. The research finding concur with the studies of Ahmed and Islam (2018) and Maisoni et al. (2019) and Inayat (2018) and De Silva and Tharanganie (2018) which revealed that CP has a substantial effect on EE. Theoretically, SET (Blau 1964), provided a theoretical support for the relationship between CP and EE. The SET argued that, in a social relationship the reciprocity and good gesture between two parties govern the entire relationship. In this regard, if the institution provides its staff with appropriate compensation (both financial and non-financial), then such employee will tend to reciprocate by putting more effort to achieve positive engagement and result.

CONCLUSION AND IMPLICATIONS

This research is unique in its review of the relationship between TM practices and EE among MPU (educational sector) academic staff. Furthermore, as mentioned above, this research tried to address certain research questions. Results of the research showed that TM practices (TRP, T&DP, and CP) significantly affect EE. TRP contributed the most, followed by T&DP and CP. To sum up, the substantial contribution of the 3 variables, they provide an important insight towards EE attainment. Theoretical consequences for EE construct exist. EE has been the subject of several institution or practitioners but very limited academic research has explored EE's theoretically and operationally, especially in the MPU and in the education sector of Malaysia in general (Joo & Mclean 2006).

With regard to the theoretical contribution, the current study provides additional empirical literature in the area of TM practices that includes TRP, T&DP and CP, and also in EE perspective for the consumption of MPU in particular, Malaysia educational sector in general and other sectors as well. This research explicitly established a model for explaining the relationship between TM practices (TRP, T&DP, and CP) and EE. Previous researches (Vuong & Sid 2020; Alzyoud 2018; Johansen & Sowa 2019) focused on a set of HRM practices to predict EE, rather than relying on TM practices to improve EE, which is more recent used variable. Theoretically, the current research provides additional knowledge in-respect of EE predictors by showing that all the 3 TM practices (TRP, T&DP, and CP) are strongly EE predictors. The outcome of this research further broadens the understanding of knowledge reviewing that if the direct relationship between the predictors and the endogenous variables are poor or weak only then mediator variable will play an essential part in explaining and solving certain issues. Practically, the findings contribute by helping the university management or university policymakers to develop their TM policies which become a major impetus to make workers more motivated, committed, and enthusiastic as they discharge their duties or responsibilities to achieve their specified goals for the university. In extension, the performance of the university depends on EE excellence by creating and adopting new methods, strategies, and skills. Consequently, to achieve its specified mission and vision, university should exert efforts and enhance human capital to encourage their commitment and engagement behaviour.

LIMITATIONS AND SUGGESTIONS FOR FUTURE STUDIES

The limitations need to be taken into account for future research to address them. The drawback of this study is that it only focuses on 3 TM practices as the major predictors of EE. In this regard, the future research may include other essential practices such as workforce management, succession planning, talent review and performance management to serve as additional predictors to EE, and at the same introduce mediating variable such as employee satisfaction in order to strengthen the variance of EE substantially, and also expand the current research model that may enhance the percentage of explained variances as well.

The current research only considers academic staff as the unit of analysis and also the research was conducted under the context of Malaysia educational sector, particularly MPU. Hence, future research should expand the scope by considering non-academic staff and at the same time consider public, foreign universities or other sectors within Malaysia and beyond in order to have a generalizable and comparing result. This research

applies a cross-sectional approach in which data was gathered at once during the research period. Such kind of techniques does not allow the researcher to create a causal relationship among the essential variables of the research. In line with that, the question on whether TRP, T&DP or CP substantially affect long-term EE remains unanswered or unaddressed. Therefore, the longitudinal effect of TRP, T&DP and CP on EE should be explored in future researches.

REFERENCES

- Ahmed, S. & Islam, S.R. 2018. Influence of human resource management practices on employee engagement in developing economy. *Journal of Business* 5(2): 29-44.
- Aktar, A. & Pangil, F. 2018. Mediating role of organisational commitment in the relationship between human resource management practices and employee engagement: Does black box stage exist? *International Journal of Sociology and Social Policy* 38(7-8): 606-636.
- Albrecht, S.L. 2012. The influence of job, team and organisational level resources on employee well-being, engagement, commitment and extra-role performance: Test of a model. *International Journal of Manpower* 33(7): 840-853.
- Albrecht, S.L., Bakker, A.B., Gruman, J.A., Macey, W.H. & Saks, A.M. 2015. Employee engagement, human resource management practices and competitive advantage: An integrated approach. *Journal of Organisational Effectiveness: People and Performance* 2(1): 7-35.
- Alnawaiseh, M.B. & Almasarweh, M.S. 2020. The relationship between GHR recruitment and employee engagement in Jordanian public universities. *International Journal of Scientific & Technology Research* 9(1): 590-595.
- Alzyoud, A.A.Y. 2018. The influence of human resource management practices on employee work engagement. *Foundations of Management* 10(1): 251-256.
- Anitha, J. 2014. Determinants of employee engagement and their impact on employee performance. *International Journal of Productivity and Performance Management* 63(3): 308-323.
- Bal, P.M., Kooij, D.T. & De Jong, S.B. 2013. How do developmental and accommodative HRM enhance employee engagement and commitment? The role of psychological contract and SOC strategies. *Journal of Management Studies* 50(4): 545-572.
- Bhatnagar, J. 2007. Talent management strategy of employee engagement in Indian ITES employees: Key to retention. *Employee relations* 29(6): 640-663.
- Blau, P.M. 1964. *Exchange and Power in Social Life*. New York: Transaction Publishers.
- Burke, R.J., Koyuncu, M., Fiksenbaum, L. & Tekin, Y. 2013. Antecedents and consequences of work engagement among frontline employees in Turkish hotels. *Journal of Transnational Management* 18(3): 191-203.
- Chin, W.W. 1998. The partial least squares approach to structural equation modelling. *Modern Methods for Business Research* 295(2): 295-336.
- Chin, W.W. 2010. How to write up and report PLS analyses. In *Handbook of Partial Least Squares*, 655-690. Berlin, Heidelberg: Springer
- Choo, L.S., Mat, N. & Al-Omari, M. 2013. Organisational Practices and employee engagement: A Case of Malaysian

- electronic manufacturing firm. *Business Strategy Series* 14(1): 3-10.
- Darling-Hammond, L. & Ball, D.L. 1998. Teaching for high standards: What policymakers need to know and be able to do. CPRE Joint Report Series.
- Davies, F.M. & Gould-Williams, J.S. 2005. Using social exchange theory to predict the effects of HRM practice on employee outcomes. *Public Management Review* 7(1): 1-24.
- De Silva, M.T.T. & Tharanganie, M.G.G. 2018. The impact of talent management initiatives on employee performance: The mediating role of employee engagement in the banking sector, Sri Lanka. *International Journal of Business & Management* 6(7): 235-248.
- Duarte, P.A.O. & Raposo, M.L.B. 2010. A PLS model to study brand preference: An application to the mobile phone market. In *Handbook of Partial Least Squares*, 449-485. Berlin, Heidelberg: Springer.
- El Masri, N. & Suliman, A. 2019. Talent management, employee recognition and performance in the research institutions. *Studies in Business and Economics* 14(10): 127-140.
- Fornell, C. & Larcker, D.F. 1981. Evaluating structural models with unobservable variable and measurement. *Journal of Chemical Information and Modeling* 53(9): 1689-1699.
- Geisser, S. 1974. A predictive approach to the random effect model. *Biometrika* 61(1): 101-107.
- Gruman, J.A. & Saks, A.M. 2011. Performance management and employee engagement. *Human Resource Management Review* 21(2): 123-136.
- Gupta, M. & Shaheen, M. 2017. The relationship between psychological capital and turnover intention: Work engagement as mediator and work experience as moderator. *Jurnal Pengurusan* 49: 117-126.
- Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. 2010. *Multivariate Data Analysis: A Global Perspective*. London: Pearson Education.
- Hair, J.F., Hult, G.T.M., Ringle, C.M. & Sarstedt, M. 2014. *A Primer on Partial Least Square Structural Equation Modeling (PLS-SEM)*. Thousand Oaks: Sage.
- Henseler, J., Ringle, C.M. & Sinkovics, R.R. 2009. The use of partial least squares path modeling in international marketing. *Advances in International Marketing* 20(1): 277-319.
- Homans, G.C. 1958. Social behaviour as exchange. *American Journal of Sociology* 63(6): 597-606.
- Hoole, C. & Hotz, G. 2016. The impact of a total reward system of work engagement. *SA Journal of Industrial Psychology* 42(1): 1-14.
- Huang, Y., Ma, Z. & Meng, Y. 2018. High-performance work systems and employee engagement: Empirical evidence from China. *Asia Pacific Journal of Human Resources* 56(3): 341-359.
- Hurlimann, A., March, A., Robins, J. 2013. University curriculum development—stuck in a process and how to break free. *Journal of Higher Education Policy and Management* 35(6): 639-651.
- Inayat, A. 2018. Impact of compensation on employee engagement: (Evidence from telecom sector of Pakistan). *International Journal of Research and Innovation in Social Science* 2(9): 80-85.
- Isa, A. & Ibrahim, H.I. 2014. Talent management practices and employee engagement: A study in Malaysian Glcs. *International Journal of Business, Economics and Law* 4(1): 64-70.
- Johansen, M.S. & Sowa, J.E. 2019. Human resource management, employee engagement, and nonprofit hospital performance. *Non-profit Management and Leadership* 29(4): 549-567.
- Johanson, G.A. & Brooks, G.P. 2010. Initial scale development: sample size for pilot studies. *Educational and Psychological Measurement* 70(3): 394-400.
- Johari, J., Adnan, Z., Yean, T.F., Yahya, K.K. & Isa, S.N. 2013. Fostering employee engagement through human resource practices: A case of manufacturing firms in Malaysia. *Jurnal Pengurusan* 38: 15-26.
- Joo, B.K. & Mclean, G.N. 2006. Best employer studies: A conceptual model from a literature review and a case study. *Human Resource Development Review* 5(2): 228-257.
- Kahn, W.A. 1990. Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal* 33(4): 692-724.
- Karatepe, O.M. 2011. Do job resources moderate the effect of emotional dissonance on burnout? *International Journal of Contemporary Hospitality Management* 23(1): 44-65.
- Karatepe, O.M. 2013. High-performance work practices and hotel employee performance: The mediation of work engagement. *International Journal of Hospitality Management* 32: 132-140.
- Krejcie, R.V. & Morgan, D.W. 1970. Determining sample size for research activities. *Educational and Psychological Measurement* 30(3): 607-610.
- Krishnan, R.C., Said, A.M.A., Razak, M.R.A. & Ahmed, E.M. 2020. Talent management practices impact on Malaysian SMIs manager's job performance. *International Journal of Learning and Intellectual Capital* 17(1): 1-26.
- Kuvaas, B. & Dysvik, A. 2010. Exploring alternative relationships between perceived investment in employee development, perceived supervisor support and employee outcomes. *Human Resource Management Journal* 20(2): 138-156.
- Luthans, F., Avey, J.B., Avolio, B.J. & Peterson, S.J. 2010. The development and resulting performance impact of positive psychological capital. *Human Resource Development Quarterly* 21(1): 41-67.
- Maisonni, H., Yasri, Y. & Abror, A. 2019. Effect of organisational culture, leadership and compensation on employee engagement in Coca-cola Amatil Indonesia Central Sumatra. In *2nd Padang International Conference on Education, Economics, Business and Accounting (PICEEBA)*, Atlantis Press.
- Marites, C. 2012. *Human Resources Management Principles and Practices*. Mandaluyong, City: Cacho Hemanos, Inc.
- Maslach, C. & Leiter, M.P. 2008. Early predictors of job burnout and engagement. *Journal of Applied Psychology* 93(3): 498-512.
- Mathis, R.L. & Jackson, J.H. 2006. Human resource management: Manajemen sumber daya manusia. *Terjemahan Dian Angelia, Jakarta, Salemba Empat*.
- Mensah, J.K. 2015. A coalesced framework of talent management and employee performance: For further research and practice. *International Journal of Productivity and Performance Management* 64(4): 544-566.
- Mesepy, S.S. 2016. The impact of reward and recognition on employee engagement at pt. Bank Sulutgo, Manado. *Periodic Scientific Journal of Efficiency* 16(1): 289-301.
- Miano, L.C. 2019. Recruitment and selection process vis-à-vis practices of a State University in Quezon Province:

- Implications for effective hiring process. *International Journal of Social Science and Humanities Research* 7(4): 62-69.
- Milkovich, G.T. & Newman, J.M. 2005. Compensation. 8th edition, Boston, MA: McGraw-Hill.
- Nagesh, P., Sridevi, K. & Shetty, P. 2019. The study on factors affecting employee engagement. *International Journal of Engineering Research & Technology* 8(6): 426-430.
- Owor, J.J. 2016. Human resource management practices, employee engagement and organisational citizenship behaviours (OCB) in selected firms in Uganda. *African Journal of Business Management* 10(1): 1-12.
- Payambarpour, S.A. & Hooi, L.W. 2015. The impact of talent management and employee engagement on organisational performance. *International Journal of Management Practice* 8(4): 311-336.
- Penrose, E.T. 1959. *The Theory of the Growth of the Firm*. Oxford: Oxford University Press.
- Pienaar, C. & Bester, C.L. 2008. The retention of academics in the early career phase: Empirical research. *SA Journal of Human Resource Management* 6(2): 32-41.
- Podsakoff, P.M. & Organ, D.W. 1986. Self-reports in organisational research: Problems and prospects. *Journal of management* 12(4): 531-544.
- Podsakoff, P.M. & Todor, W.D. 1985. Relationships between leader reward and punishment behavior and group processes and productivity. *Journal of Management* 11(1): 55-73.
- Presbitero, A. 2017. How do changes in human resource management practices influence employee engagement? A longitudinal study in a hotel chain in the Philippines. *Journal of Human Resources in Hospitality & Tourism* 16(1): 56-70.
- Rabbi, F. 2015. Talent management as a source of competitive advantage. *Asian Economic and Social Society* 5(9): 208-214.
- Rensselaer Polytechnic Institute. 2012. Faculty retention proves a major challenge for universities, Available at <http://www.sciencedaily.com/releases/2012/02/120216144240.htm>.
- Riccio, S.J. 2010. *Talent management in higher education: Identifying and developing emerging leaders within the administration at private colleges and universities*. The University of Nebraska-Lincoln.
- Saks, A.M. 2006. Antecedents and consequences of employee engagement. *Journal of Managerial Psychology* 21(7): 600-619.
- Schaufeli, W.B. & Salanova, M. 2010. How to improve work engagement, In *Handbook of Employee Engagement: Perspectives, Issues, Research and Practice*, edited by S.L. Albrecht, 399-415. Cheltenham: Edward Elgar.
- Schaufeli, W.B., Salanova, M., González-Romá, V. & Bakker, A.B. 2002. The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies* 3(1): 71-92.
- Sendawula, K., Nakyejwe Kimuli, S., Bananuka, J. & Najjemba Muganga, G. 2018. Training, employee engagement and employee performance: Evidence from Uganda's health sector", *Cogent Business & Management* 5(1): 1470891.
- Shailashree, V. & Shenoy, S. 2016. Study to identify the relationship between recruitment, selection towards employee engagement. *International Journal of Scientific Research and Modern Education* 1(2): 149-155.
- Siddiqui, D.A. & Sahar, N. 2019. The Impact of Training & Development and Communication on Employee Engagement—A Study of Banking Sector. *Business Management and Strategy* 10(1): 23-40.
- Singh, K. 2004. Impact of HR practices on perceived firm performance in India. *Asia Pacific Journal of Human Resources* 42(3): 301-317.
- Singh, S.K., Burgess, T.F., Heap, J. & Al Mehrzi, N. 2016. Competing through employee engagement: a proposed framework. *International Journal of Productivity and Performance Management* 65(6): 831-843.
- Slavković, M., Pavlović, G. & Simić, M. 2018. Employee recruitment and its relationship with employee satisfaction: Verifying the mediating role of the employer brand. *Ekonomski Horizonti* 20(2): 127-139.
- Song, J.H., Lim, D.H., Kang, I.G. & Kim, W. 2014. Team performance in learning organisations: mediating effect of employee engagement. *The Learning Organisation* 21(5): 290-309.
- Straub, D.W. 1989. Validating instruments in MIS research. *MIS Quarterly* 13(2): 147-169.
- Supraptiningsih, O.P., Brasit, N. & Mardiana, R. 2018. Effects of talent management, leadership style and motivation on employee performance in information technology industries in West Jakarta and West Java, Indonesia. *Scientific Research Journal* 6(11): 20-26.
- Tessema, T.M. & Soeters, J.L. 2006. Challenges and prospects of HRM in developing countries: Testing the HRM-performance link in the Eritrean civil service. *The International Journal of Human Resource Management* 17(1): 86-105.
- Van De Voorde, K. & Beijer, S. 2015. The role of employee HR attributions in the relationship between high-performance work systems and employee outcomes. *Human Resource Management Journal* 25(1): 62-78.
- Vandenberghe, C. & Tremblay, M. 2008. The role of pay satisfaction and organisational commitment in turnover intentions: A two-sample study. *Journal of Business Psychology* 22: 275-286.
- Vuong, B. & Sid, S. 2020. The impact of human resource management practices on employee engagement and moderating role of gender and marital status: An evidence from the Vietnamese banking industry. *Management Science Letters* 10(7): 1633-1648.
- Wadhwa, S. & Tripathi, R. 2018. Driving employee performance through talent management. *International Journal of Environment, Workplace and Employment* 4(4): 288-313.
- World Economic Forum. 2012. Global Competitiveness Report 2012-2013. Available at https://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2012-13.pdf
- Mohammed Sani Abdullahi
Department of Business Administration
Yusuf Maitama Sule University Kano, Nigeria
Kofar Nassarawa, 3220 Kano State, NIGERIA.
E-Mail: abdulmohdsani@gmail.com
- Adams Adeiza (corresponding author)
Global Entrepreneurship Research and Innovation Center – GERIC
Faculty of Entrepreneurship and Business
Universiti Malaysia Kelantan

City Campus, 16100 Kota Bharu, Kelantan, MALAYSIA.
E-Mail: adams.a@umk.edu.my

Umair Ahmed
Department of Innovation and Technology Management
College of Graduate Studies
Arabian Gulf University Bahrain
Al-Manamah, 26671 Salmaniyah Area, BAHRAIN.
E-Mail: umairahm@gmail.com

Nadeem Khalid
Executive Education Center
KIMEP University
Abay Ave 2, 050010 Almaty, KAZAKHSTAN.
E-Mail: nadeem.khalid.phd@gmail.com

Zainab Lawan Gwadabe
Department of Business Administration
Yusuf Maitama Sule University Kano, Nigeria
Kofar Nassarawa, 3220 Kano State, NIGERIA.
E-Mail: zainabgwadabe@yahoo.com

Olawole Fawehinmi
Faculty of Business, Economics, and Social Development
Universiti Malaysia Terengganu
21030 Kuala Terengganu, MALAYSIA.
E-Mail: olawolefawehinmi@umt.edu.my