

The Relationship Between High-Performance Work System (HPWS) Practices, Motivation and Employee Performance among Support Staff at Public Universities in Sabah

Musnin Mattersah^{1*}

¹Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia

*Corresponding author's email:
erasand@ums.edu.my

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ABSTRACT

This paper aims at examining the relationship between High-Performance Work System (HPWS) practices (recruitment and selection, training and development and performance appraisal) and employee performance at individual level of analysis. The objective of the research is also to examine and explain the mediation effect of employee work motivation on the relationship between HPWS practices and employee performance. Data were collected via questionnaire from 344 support staff of public universities in Sabah who participated in this research. The hypotheses were tested using Partial Least Squares (PLS) Structural Equation Modelling (SEM) 3.0 analysis. Findings indicate that training and development significantly influence employee performance directly. Findings also indicate that recruitment and selection and performance appraisal have indirect positive effect on employee performance through the mediator employee motivation. Statistical results show that among the independent variables involved, training and development practice is the most significant predictor of employee performance. The result also revealed that employee motivation has strong influence to employee performance. It was also found that employee motivation mediates the relationship between High-Performance Work System Practices (recruitment and selection and performance appraisal) and employee performance.

INTRODUCTION

Human resource is one of the most important elements in any business and its strategy to achieve long term success. In today's world, due to increasing competitive environment, organizations are continuously improving their employee performances by improving their human resource management practices (Malik Shahzad Shabbir, 2014). Human capital plays an ever increasing and important role in the sustainability and the success of an organization in the past, present and most likely in the future as well. Organizations need the knowledge, skills, abilities as well as the experience that people have in order for them to sustain and continuously improve.

It is crucial for organizations to strengthen their human capital through the adoption of the new system approach known as High Performance Work System (HPWS) which provides ways to the organization to make their employees more productive. The notion of High-Performance Work Systems advocates a claim that work system does exist in which an organization benefits from its workers' greatest performance through their knowledge, skill and commitment. This eventually leads to greater performance. HPWS are systems of managerial practices that increases the workers' empowerment and enhance the knowledge and skills that motivate them in the accomplishment of jobs with the advantage of workplace greater empowerment (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Gollan, 2005; Lawler, 2005).

It is undeniable that workers or employees in an organization are the most valuable assets that exist. In today's world of rapid change, knowledge capital must be retained in order for organizations to be productive and responsive to the needs of their stakeholders (Muslim Amin et al., 2014). As research institutions, public universities need to attract, retain and develop their employees to be well trained and motivated.

It is believed that HPWS practices can enhance employee performance especially in academic institution of higher learning which depends largely on knowledge capital. Malaysian universities need to employ effective HRM practices known as HPWS practices such as recruitment and selection, training and development and performance appraisal in order to attract, retain, motivate and develop their knowledge workers including academicians, administration and support staff (Muslim Amin et al., 2014; Muhammad Zia-ur-Rehman et al., 2009; Tessema & Soeters, 2006). Therefore the primary aim of this study was to measure the relationship between HPWS practices in motivating their staff towards achieving their organization's goals. Researchers have found that there is a positive link between HPWS with employees' and organizational performance (Muslim Amin et al., 2014; Qureshi et al., 2006; Tessema & Soeters, 2006) and that effective application of HPWS practices enables university employees to be committed to their work for better performance of both individual and organizations (Shahzad et al., 2008; Yasir Tanveer, 2011; Tessema & Soeters, 2006). Implementation of appropriate HPWS practices for universities' employees will ultimately promote universities' performance in terms of research quality, academic reputation of faculty, academic program quality, research contribution to society, preparation of future leaders as well as quality of graduates (Muslim Amin et al., 2014).

HPWS practices including recruitment and selection, training and development, as well as performance appraisal will significantly influence the behaviour of the employees or the staff in such a way that they will perform better due to the enhancement of their knowledge, skills and abilities. Nevertheless, there is little empirical research work done in examining the relationship between high-performance work systems and employee performance. As far as this research is concern, there is limited study conducted in examining the relationship between high-performance work system

practices and employee performance in public universities in Sabah. Most of the studies and researchers in the Western world focused on firms and organizations as a whole rather than giving attention to individual employees within the organization (Datta, Guthrie, & Wright, 2005; Sushila, 2007).

PROBLEM STATEMENT

As far as the study on the HRM practices – performance link, literature indicates that past studies have more focused on the HRM practices on university performance with academicians as the center of focus (Muslim Amin et al., 2014) and lack of study examining on the support staff. Such study is highly needed and meaningful because the employee or staff perception is important for the organization to realize the desired outcomes from its human resource management activities (Paul & Anantharaman, 2003).

Public universities in Malaysia consist of several categories and levels of workers or staffs. There are academic staff which consists of professor, associate professor, senior lecturer, lecturer; administrative officers from grade 41 to 54; and support staff whose grades ranging from 1 to 38. As higher learning institutions, public universities do not only depend on the level of position such as the academic staff as well as administrative officers. As a matter of fact, support staffs do have major responsibilities towards the attainment of universities' goals and targets. Many other important jobs and tasks beside teaching and learning are handled and performed by these groups of support staff. The support staff complements the academic group.

In teaching and learning matters for instance, the machines in the laboratories are operated and handled by the support staff in a designation called the Lab Assistants. Filing system and the document keeping system in the offices are performed and taken care by the Administrative Assistants. Besides,

there are many other crucial responsibilities in the universities which require their skills and capabilities to handle. In other words, good performance as well as the success of universities also depends highly on support staffs' performance. Therefore, this study is conducted to examine the relationship between HPWS practices and employee performance with the concentration on support staff at public universities in Sabah. This is because the literature reveals that there is a lack of study on these groups of workers especially in this region.

LITERATURE REVIEW

High-Performance Works System (HPWS) Practices

Apparently, one of the most important developments in the literature especially in Strategic Human Resource Management (SHRM) which links HR strategy and performance is the growth in studies of what is called High-Performance Work Systems (HPWS). Datta et al. (2005) noted that High-Performance Work Systems (HPWS) are defined as systems of human resource practices 'designed to enhance employee's skills, commitment and productivity in such a way that employees become a source of competitive advantage'. They emphasized that "it is a specific combination of HR practices, work structures, and processes that maximizes employee knowledge, skill, commitment, and flexibility" (Datta et al., 2005). It was claimed that this system composed of several interrelated parts that complement one another to reach the goals of an organization.

Based on empirical analysis done, the major features of HRM practices associated with the HPWS are recruitment and selection, training and development, performance appraisal, compensation and benefits (rewards), flexible job assignments, teamwork, communication, promotion policy, employee initiatives and innovation, employee

involvement and participation, employment security, career opportunity, organization structure, grievance procedure, flexibility of rules and practices, and status distinction (Boxall & Macky, 2007; Chow, 2005; Guthrie, 2001; Ichniowski et al., 1997; Huselid, 1995; MacDuffie, 1995).

In this study, three human resource management practices considered as HRM 'Best Practices' as what has been called by many researchers were illustrated as the independent variables assumed to have effect on the employee performance. These three HRM practices that are recruitment and selection, training and development, and performance appraisal are among the core features of HPWS practices as have been mentioned by many researchers in the literatures.

HPWS Practices and Employee Performance

Based on the extensive literature review, this research proposes that HPWS practices have a positive relationship to employee performance. It is found that selective recruiting procedures, training and development and performance appraisal enhances workforce skills. To bring a few example of relevant research concerning the positive association between present independent variables and performance, studies done by Huselid (1995), MacDuffie (1995) and Appelbaum et al. (2000) have ascertained that comprehensive employee recruitment and selection procedures, training and development as well as performance management systems are associated with employee performance and superior organizational outcomes.

It is proven that staffing selectivity is positively related to firm performance (Huselid & Becker, 1998) and that recruiting and selecting the right individuals on the right

positions contribute to higher productivity and significantly increased company's market value (Paauwe, 2004) while extensive formal and informal training provided by the organization influence employees' development and enhance their work ability (Huselid, 1995). A study by Dimba (2010) ascertained that training and development have a significant effect on performance.

Shaira (2012) emphasized that the establishment of performance goals and providing continuous feedbacks on employee performance will further enhance both employee as well as firm's performance. A study conducted by Tessema and Soeters (2006) in Eritrean Civil Service has empirically proven that three HPWS practices that are recruitment and selection, training and development and performance evaluation practices show statistically significant positive impact in explaining the change in performance.

HPWS Practices and Employee Motivation

This research also proposes that HPWS practices have a positive effect on employee work motivation. Research by Norasmah *et al.* (2010) confirmed that HRM practices of staff recruitment and selection and performance appraisal have significant positive relationship with employee attitudes (motivation). Safa (2015) revealed that perceived high-performance works system practices have significantly associated with motivation. Furthermore, a study conducted by Dimba (2010) has revealed that the use of HR best practices in training and development, and performance appraisal has a significant positive influence on employees' motivation. A study conducted by Tessema and Soeters (2006) has also confirmed the positive relationship between HPWS practices and employee motivation.

Employee Performance and Employee Motivation

A study conducted by Dimba (2010) has revealed that motivation has a positive association with performance in which for every unit increase in motivation, there is a corresponding 30 percent increase in firm performance. Moreover, a study conducted by Rabia Inam Khan et al., (2015) has confirmed a positive significant relationship between employee motivation and employee performance.

HPWS Practices and Employee Performance mediated by Employee Motivation

Empirical study has revealed that HR best practices does not directly influence organizational performance, rather it influences employee motivation which ultimately leads to performance. The result of research conducted by Dimba (2010) support previous findings which proposed that motivation affect both employee and organizational performance. The researcher verified that employee motivation mediated the relationship between Strategic Human Resource Management Practices and organizational performance.

HYPOTHESIS DEVELOPMENT

Based on the literature review discussed above, the following hypotheses were developed:

- H₁: There is a significant relationship between recruitment and selection and employee performance.
- H₂: There is a significant relationship between training and development and employee performance.
- H₃: There is a significant relationship between performance appraisal system and employee performance.

- H₄: There is a significant relationship between recruitment and selection and employee motivation.
- H₅: There is a significant relationship between training and development and employee motivation.
- H₆: There is a significant relationship between performance appraisal and employee motivation.
- H₇: There is a significant relationship between employee motivation and employee performance.
- H₈: Employee motivation mediates the relationship between recruitment and selection and employee performance.
- H₉: Employee motivation mediates the relationship between training and development and employee performance.
- H₁₀: Employee motivation mediates the relationship between performance appraisal and employee performance.

METHODOLOGY

Sampling Technique

In the present study, convenient sampling was applied in which respondent or the samples of the population were given self-administered questionnaire as they come from different departments. "Convenience sampling" technique, a form of non-probability sampling, is used for the data selection to make research process faster by obtaining a large number of completed questionnaires quickly and economically from the public universities. Since there are many departments involved in this research, a proportionate method was used in order to get equal distribution and diverse perspective of different classification of job position as the respondent are from different units, institutes,

centres and faculties with distinct focus and nature of jobs. This study was carried out by distributing sets of questionnaires to the targeted respondents who are the support staffs through the Human Resource Manager from each respective department.

Sampling Size

The sample size for this study is from Universiti Malaysia Sabah (UMS) and Universiti Teknologi MARA (UiTM) Sabah branch. The support staff who are in the lower level of management position ranging from Grade 1 to 38 were interviewed. Overall, there are 1,295 support staff who are currently working in UMS main campus at the time the data was obtained from the Human Resource Department, Registrar Office (as at 27 April 2015). The total number of UiTM Sabah branch support staff at the time the research being conducted were 150. Therefore the population of this study was 1,445. Krejcie and Morgan (1970) stated that 95% confidence level with 5% margin and error, therefore the minimum number of samples needed for this analysis is 306.

Data Collection Method

The questionnaires to the respondents were distributed to the Departments, Faculties, Centres, Institutes and Units (DFCIU) in UMS Main Campus and UiTM Sabah Campus through their respective Human Resource Managers (Assistant Registrars). Every department was given sets of questionnaire survey to be filled up by the support staff. The survey questionnaires were collected from respective departments after two weeks. However, the process of data collection took ten days since there were many departments in two different organizations involved in this research. Besides, the process took place during the end of year whereby many universities staff took annual leave and went for vacation.

The collection of data from the sample was through a personally administered questionnaire. Out of 700 questionnaires distributed to the staff, 360 were collected. A response rate of 51.4%. In total, 16 incomplete questionnaires were excluded from the analysis. All 344 were used for analysis. This figure exceeds the minimum respondents of 306 (Krejcie and Morgan, 1970)

Data Analysis Method

Descriptive statistics of the variables which include the mean and the standard deviation were analysed using Statistical Package for Social Science (SPSS 22). The analysis of the study was performed by using Partial Least Squares (PLS) SEM 3.0 in three steps. Firstly, the factor structure of the measurement items was confirmed and the model's reliability was established. Then, the step followed by examination of hypothesized relationship in the structural model. Finally, the mediation analysis on the relationship between independent variables and dependent variable in the model has subsequently been performed.

The first stage in the analysis considered the measurement properties of constructs which include two types of validity assessed under the reflective measurement model which is Convergent Validity and Discriminant Validity (Hair et al., 2014). The measurement of the construct validity includes internal consistency (reliability), convergent validity and discriminant validity. After establishing the reliability and validity of the latent variable in the measurement model, the structural model (also known as inner model) is assessed to test the relationship between exogenous variable and endogenous variable.

Measurement Instrument

The study adopted and modified the instruments proposed by several researchers. The questionnaires were divided into 4

sections. Section A will cover the demographic profiles of respondents. Section B would be the items related to High-Performance Work System (HPWS) practices (recruitment and selection, training and development, and performance appraisal). There were six items in the questionnaire for Section C which was about the mediating variable of employee motivation. Then, followed by Section D that are items in regards to employee performance.

The measurement items related to HPWS practices are based on research by Muslim Amin et al., (2014) and Marwat et al., (2009). The employee motivation items are based on the work of Nida Zafar et al., (2014) and Rabia Inam Khan et al., (2015). The questionnaire items of employee performance were adopted and modified from the works of O. Janssen and N. W. Van Yperen (2004). The questionnaire was designed on a five point-Likert scale measurement with options; 5 for strongly agree, 4 for agree, 3 for neither agree nor disagree, 2 for disagree, and 1 for strongly disagree.

RESULT AND FINDINGS

Profile of the Respondents

Table 1 Demographic profile

| Demographic | Category | Frequency | Percentage (%) |
|--------------------------|---------------------|-----------|----------------|
| Public University | UMS | 280 | 81.4 |
| | UiTM Sabah | 64 | 18.6 |
| Gender | Male | 162 | 47.1 |
| | Female | 182 | 52.9 |
| Support Group | Support 1 (17 – 38) | 316 | 91.9 |
| | Support 2 (1 – 16) | 28 | 8.1 |
| Length of Service | 1 – 5 years | 117 | 34 |
| | 6 – 10 years | 159 | 46.3 |
| | 11 – 15 years | 30 | 8.7 |
| | 16 – 20 years | 26 | 7.6 |
| | 21 and above years | 12 | 3.6 |

Table 1 shows frequency distribution of respondents with respect to the demographic variable i.e. public university, gender, supporting group and length of service in respective organization. The table shows that out of 344 respondents, 280 were Universiti Malaysia Sabah's (UMS) staff representing 81.4% and 64 staff of Universiti Teknologi MARA Sabah branch representing 18.6%. Thus, this figure represents that the majority of the respondents are UMS Staff. Meanwhile,

162 were male representing 47.1% and 182 or 52.9% were female. Thus, this figure shows that the majority of the respondents were female. Support Group 1 and Support Group 2 staff whose grade of positions are 1 to 16 and 17 to 38, represent 91.9% and 8.1% of respondents respectively. Thus, this figure represents that the majority of the respondents are Support Group 1. In terms of working experience, the table also indicates that out of 344 respondents, 117 (34%) were within the range

of 1 – 5 years of service, 159 (46.3%) were within the range of 6 – 10 years, 30 (8.7%) were within the range of 11 – 15 years, 26 (7.6%) were within the range of 16 – 20 years, and 12 (3.6%) were above 21 years length of service. Majority of the respondents involved in this study were within 6 – 10 years of service.

Assessment of the Measurement Model

In assessing the measurement of the model, confirmatory factor analysis (CFA) was conducted to assess the internal consistency or reliability, convergent validity and discriminant validity of the scales (Hair et al., 2014). Table 2 postulated the AVEs and the composite reliabilities (CR) for the investigated variables. All the AVEs exceeded 0.5, which was suggested by Bagozzi and Yi, (1988). All the constructs have met the satisfactory level of

composite reliabilities (CR) which exceeded 0.7, thus convergent validity was achieved. Table 3 indicates that all constructs exhibit sufficient or satisfactory discriminant validity (Fornell & Lacker, 1981) where all the square root of AVE (diagonal) is larger than the correlations (off-diagonal) for all reflective constructs. Table 4 illustrated the result of cross loading. The table shows that all indicators load high on its own constructs but low on the other constructs. This indicates discriminant validity was achieved as the constructs are distinctly different from each other and all indicators loaded highly on their respective constructs.

Thus, it can be concluded that the measurement model was satisfactory in view of the evidences of adequate reliability, convergent validity and discriminant validity.

Table 2 Measurement model

| Construct | Items | Loadings | AVE | CR |
|---------------------------|-------|----------|-------|-------|
| Employee Motivation | EM1 | 0.839 | 0.657 | 0.905 |
| | EM3 | 0.848 | | |
| | EM4 | 0.748 | | |
| | EM5 | 0.779 | | |
| | EM6 | 0.835 | | |
| Employee Performance | EP1 | 0.851 | 0.767 | 0.930 |
| | EP2 | 0.883 | | |
| | EP3 | 0.920 | | |
| | EP4 | 0.848 | | |
| Performance Appraisal | PA1 | 0.857 | 0.637 | 0.897 |
| | PA2 | 0.858 | | |
| | PA3 | 0.773 | | |
| | PA4 | 0.771 | | |
| | PA6 | 0.722 | | |
| Recruitment and Selection | RS2 | 0.728 | 0.612 | 0.824 |
| | RS3 | 0.867 | | |
| | RS4 | 0.743 | | |
| Training and Development | TD1 | 0.768 | 0.669 | 0.910 |
| | TD3 | 0.770 | | |
| | TD4 | 0.836 | | |
| | TD5 | 0.863 | | |
| | TD6 | 0.846 | | |

Note: EM2, EP5, PA5, PA7, RS1 and TD2 were deleted due to low loadings

Table 3 Discriminant validity

| Latent Variable Correlations (LVC) (Square root AVE >LVC?) | | | | | Discriminant Validity met? | |
|---|--------------|--------------|--------------|--------------|----------------------------|-----|
| | EM | EP | PA | RS | TD | |
| EM | 0.811 | | | | | Yes |
| EP | 0.497 | 0.876 | | | | Yes |
| PA | 0.365 | 0.221 | 0.798 | | | Yes |
| RS | 0.318 | 0.274 | 0.456 | 0.782 | | Yes |
| TD | 0.309 | 0.330 | 0.634 | 0.498 | 0.818 | Yes |

Note: The square root of AVE values is shown on the diagonal and printed in italics and bold; off-diagonal represent the latent variable correlations (LVC)

Table 4 Cross-loadings

| | Employee Motivation | Employee Performance | Performance Appraisal | Recruitment and Selection | Training and Development |
|-----|---------------------|----------------------|-----------------------|---------------------------|--------------------------|
| EM1 | 0.839 | 0.458 | 0.339 | 0.278 | 0.317 |
| EM3 | 0.848 | 0.422 | 0.362 | 0.227 | 0.257 |
| EM4 | 0.748 | 0.306 | 0.285 | 0.298 | 0.231 |
| EM5 | 0.779 | 0.363 | 0.219 | 0.200 | 0.179 |
| EM6 | 0.835 | 0.444 | 0.258 | 0.286 | 0.251 |
| EP1 | 0.424 | 0.851 | 0.240 | 0.267 | 0.330 |
| EP2 | 0.419 | 0.883 | 0.221 | 0.268 | 0.289 |
| EP3 | 0.457 | 0.920 | 0.191 | 0.232 | 0.328 |
| EP4 | 0.442 | 0.848 | 0.122 | 0.195 | 0.205 |
| PA1 | 0.362 | 0.232 | 0.857 | 0.413 | 0.523 |
| PA2 | 0.325 | 0.222 | 0.858 | 0.410 | 0.543 |
| PA3 | 0.180 | 0.095 | 0.773 | 0.385 | 0.548 |
| PA4 | 0.197 | 0.151 | 0.771 | 0.280 | 0.529 |
| PA6 | 0.309 | 0.127 | 0.722 | 0.309 | 0.420 |
| RS2 | 0.196 | 0.190 | 0.278 | 0.728 | 0.266 |
| RS3 | 0.300 | 0.267 | 0.365 | 0.867 | 0.437 |
| RS4 | 0.237 | 0.172 | 0.430 | 0.743 | 0.454 |
| TD1 | 0.248 | 0.325 | 0.427 | 0.349 | 0.768 |
| TD3 | 0.296 | 0.152 | 0.585 | 0.411 | 0.770 |
| TD4 | 0.228 | 0.342 | 0.499 | 0.408 | 0.836 |
| TD5 | 0.218 | 0.296 | 0.533 | 0.439 | 0.863 |
| TD6 | 0.285 | 0.197 | 0.573 | 0.439 | 0.846 |

Assessment of the Structural Model

After establishing the reliability and validity of the latent variable in the measurement model, the structural model (also known

as inner model) is assessed to test the relationship between exogenous variable and endogenous variable.

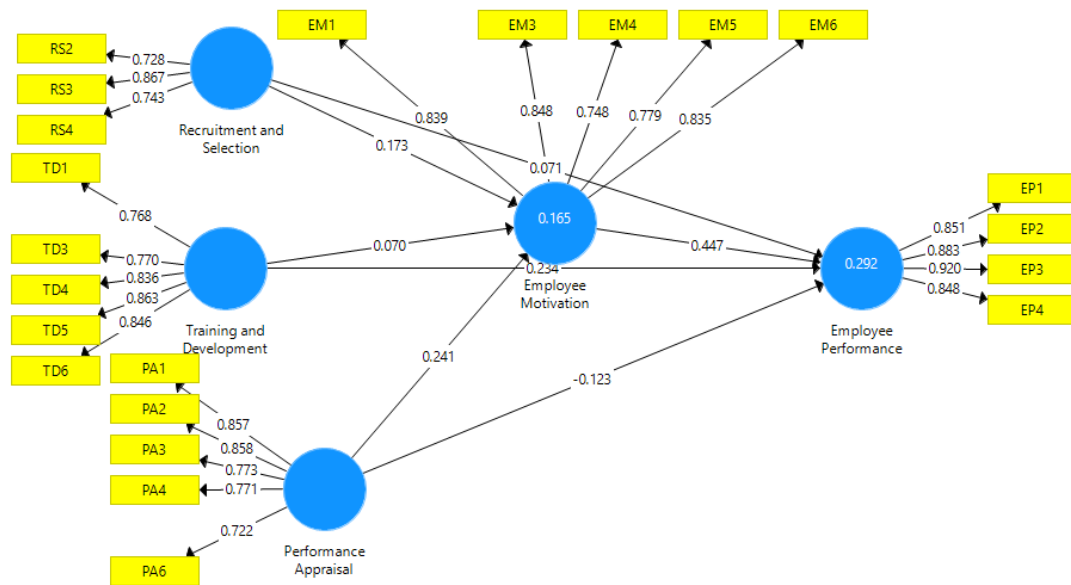


Figure 1 PLS path model estimation

Figure 1 presented the results of the structural model and hypothesis testing. Examination of this theoretical model involved five constructs measured at three levels of structural relationships. All constructs drawn on a reflective measurement model set-up.

examining their path coefficients and related *t*-statistics via the PLS Algorithm function and bootstrapping procedure. Based on the assessment of the path coefficient as shown in Table 5, five relationships were found to have *t*-value ≥ 1.645 , thus significant at 0.01 and 0.05 levels of significant.

In SmartPLS, the relationships between constructs can be determined by

Table 5 Structural model and hypotheses testing

| Hypotheses | Relationship | Std Beta | SE | t-value | p-value | Result |
|----------------|---|----------|-------|---------|---------|---------------|
| H ₁ | Recruitment and Selection -> Employee Performance | 0.071 | 0.062 | 1.149 | 0.126 | Not Supported |
| H ₂ | Training and Development -> Employee Performance | 0.234 | 0.061 | 3.833 | 0.000 | Supported |
| H ₃ | Performance Appraisal -> Employee Performance | -0.123 | 0.066 | 1.876 | 0.031 | Supported |
| H ₄ | Recruitment and Selection -> Employee Motivation | 0.173 | 0.059 | 2.941 | 0.001 | Supported |
| H ₅ | Training and Development -> Employee Motivation | 0.070 | 0.072 | 0.973 | 0.166 | Not Supported |
| H ₆ | Performance Appraisal -> Employee Motivation | 0.241 | 0.068 | 3.563 | 0.000 | Supported |
| H ₇ | Employee Motivation -> Employee Performance | 0.447 | 0.053 | 8.443 | 0.000 | Supported |

The result indicates that recruitment and selection ($\beta=0.173, t=2.941$ at $p <$ performance appraisal ($\beta = 0.241, t = 3.563$ at $p < 0.01$) were

positively related to employee motivation, which explains 16.5% of variances in employee motivation. Thus, H₄ and H₆ were supported.

The relationship between recruitment and selection and employee motivation was significant indicating that recruitment and selection has direct influence on employee motivation. In other words, a 100% change in recruitment and selection bring 17% change in employee motivation. Meanwhile, the relationship between performance appraisal and employee motivation was also significant indicating that there is direct influence between the variables. It denotes that a 100% change in performance appraisal bring 24% change in employee motivation.

H_5 was rejected as training and development ($\beta = 0.07, t = 0.973$ at $p > 0.05$) due to insignificant result indicating that training and development have no direct influence on employee motivation. In other words, a 100% change in training and development brings zero per cent (0%) change in employee motivation. It also implies that training and development do not have strong influence on employee motivation. The R^2 value of 0.165 is below the 0.26 value as suggested by Cohen (1988). However, the value is above 0.13 which indicates a moderate model.

Furthermore, the predictors of employee motivation ($\beta = 0.447, t = 8.443$ at $p < 0.01$), training and development ($\beta = 0.234, t = 3.833$ at $p < 0.01$) are positively related to employee performance, which explains 29.2% of variances in employee performance. Thus, H_2 which states that "There is a significant relationship between perceived training and development and employee performance", and H_7 which states "there is a significant relationship between perceived employee motivation and employee performance" are supported. The predictor of recruitment

and selection ($\beta = 0.07, p > 0.05$) has insignificant result, therefore hypothesis H_1 was rejected. The result shows that the predictor performance appraisal ($\beta = -0.12, t = 1.876$ at $p < 0.05$) is negatively significant to employee performance. Therefore, H_3 which states "There is a significant relationship between perceived performance appraisal and employee performance" is supported. The R^2 value of 0.292 is above the 0.26 value as suggested by Cohen (1988) which indicates a substantial model.

Mediating Analysis

Mediation is a situation in which a mediator or intervening variable to some extent absorbs the effect of an exogenous on an endogenous construct in the PLS path model (Hair et al., 2014). A significant mediator variable may to some extent absorb a cause-effect relationship (Hair et al., 2014). From a theoretical perspective, the most common application of mediation is to explain why a relationship between an exogenous and endogenous construct exists (Hair et al., 2014).

Hair et al. (2014) proposed that when testing mediating effects, researchers should rather follow Preacher and Hayes (2004, 2008) and bootstrap the sampling distribution of the indirect effect, which works for both simple and multiple mediator models. The model implies that employee motivation mediates the relationship between perceived High-Performance Work System practices and staff performance. To evaluate the mediating effect of employee motivation, first of all, we need to exclude the mediating variable from the path model and run the bootstrapping.

Table 6 Mediating analysis

| Hypotheses | Relationship | Std Beta | SE | t-value | Results |
|-----------------|----------------|----------|-------|---------|-----------------|
| H ₈ | RS -> EM -> EP | 0.077 | 0.025 | 3.059* | Mediated |
| H ₉ | TD -> EM -> EP | 0.031 | 0.033 | 0.94 | Not Mediated |
| H ₁₀ | PA -> EM -> EP | 0.108 | 0.032 | 3.325* | Mediated |

*Significant at $p < 0.01$

Table 6 shows that employee motivation mediates the relationship between recruitment and selection and employee performance and the relationship between performance appraisal and employee performance indicating support for H₈ and H₁₀. The result also shows that employee motivation does not mediate on the relationship between training and development and employee performance. Thus, hypothesis H₉ was rejected.

CONCLUSION AND FUTURE RESEARCH

This study was designed to investigate the relationship between HPWS practices and the performance of the employees in public universities in Sabah specifically in Universiti Malaysia Sabah and Universiti Teknologi MARA Sabah Campus. The result revealed that HPWS practices were found to have significant relationship with employee performance. Among all independent variables involved in this study, the variable training and development was the most vital role in employee performance. Moreover, 29.2% of the total variance in employee performance was explained by the independent variables which were recruitment and selection, training and development and performance appraisal, and by the mediating variable of employee motivation. Hence it shows that HPWS practices play a very important role in improving the performance of the staff in public universities in Sabah. As far as the individual HPWS practices are concerned, the researcher found that HR practices like training and development have significant direct impact on the performance of the staff while the other practices such as recruitment and selection and performance appraisal did not affect employee performance directly but

were indirectly significant via the mediating role played by employee motivation.

In addition, public universities should also give appropriate concern on the motivational aspect of the staff as the result of the study indicated that employee motivation has significant direct effect to employee performance which contributes the strongest influence and plays important role in mediating the relationship between HPWS practices and employee performance. As the result confirms the significant mediating effect of employee motivation on the relationship between recruitment and selection and employee performance and on the relationship between performance appraisal and employee performance, public universities in Sabah need to organize appropriate programme that will lead to motivate staff so that their motivation can be well maintained and the ultimate aim of universities output and productivities are realized and achievable.

It is suggested that future research should include more public universities in Malaysia. In addition, similar research could also be conducted in private universities as both public and private universities are expected to produce high-quality knowledge capital (Muslim Amin et al., 2014). Furthermore, future research should involve more levels of universities staff including academic as well as administration staff. Besides, other HPWS practices such as compensation, information sharing, job definition, communication, and career plan should also become the research variables in order to get clearer picture of the important performance determinants. In addition to that, researchers are suggested to insert other variables such as contextual

factor as mediator on the relationship between HPWS practices and employee performance. Researchers may also include other HR outcomes to test the impact on employee performance as well as to examine the potential mediating role they have on employee performance.

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