

A Conceptual Study on the Role of Human Resources Practices on Employee Performance in the Yemeni Universities

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ABSTRACT

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The main objective of the current study is to conceptualize a framework that contains relationships between Compensation and benefits, Training and development, Performance appraisal, and Job satisfaction as Human Resources Practices with Employee Performance in the Yemeni Universities. To achieve this objective, 30 respondents were selected to participate in a pilot study. The results of the current study shows that the framework that contain Compensation and benefits, Training and development, Performance appraisal, and Job satisfaction with Employee Performance showed a sufficient Reliability and Validity, as the results of the Cronbach Alpha of the items scale were all above 0.7, while the Pearson Correlation between the variables were all significant at the level of 0.05.

Contribution/Originality: The study has contributed to the body of the literature in Yemen by further investigating the human resources practices variables and job performance in the higher education institutes in Yemen. The study highlighted the importance of good human resources practices to the employee's satisfaction which as a result leads to a better job performance.

1. Introduction

University education acts as a way of developing persons with academic and mental attitude, which will aid in the development of high-level labor to man the many sectors of the economy (Kalra et al., 2021). Vom Bruck (2019) asserted that a country's academic and professional life is dependent on good advanced education, particularly college education that produces excellent outcomes that meet international standards (Vom Bruck, 2019). According to research, excellent education may be defined by the following factors: entrepreneurial training, academic qualification, financial, moral, and

many more (Hasbay & Altindag, 2018). The difficulty in gaining admission to higher education stems from the anticipated increase in demand for it, as well as the consequent requirement to achieve the Ministry of Higher Education and Scientific Research's (MHESR) goals in Yemen. Job performance can be characterized as a conduct estimated through the level. Job performance, an emphasis on specialists' efficiency, is a standout amongst the most essential dependent variables of industrial and organizational psychology today (Riggio, 2017).

Kurtessis et al. (2017), stated on the subject of meta-analytic shows that job performance is a multidimensional build that comprises of two measurements or practices, to be specific: in-part/task performance and optional work practices or non-task/extra-role (Kurtessis et al., 2017). The prior accomplishes the known desires from a worker by the association as a major aspect of his/her job or part, and the last features the control of the representatives including; pro-social conduct (Berliana et al., 2021) and organizational citizenship behaviors (Podsakoff et al., 2014; Yadav & Rangnekar, 2015).

Furthermore, outstanding job performance cannot be attained without investigating a variety of factors that can assist employees in improving their performance (Karem et al., 2019). It is apparent that developments in the world of business have strengthened an organization's reliance on employee performance because people are an organization's most valuable asset, with the ability to cast a favourable or unfavourable impression on the organization's success (Aboazoum et al., 2015). Every organisation must therefore take every precaution to guarantee that its employees perform at the highest level of their abilities.

Similarly, according to Kalra et al. (2021), job performance is assigned depending on to an institution's system aspects as well as individual variables (Kalra et al., 2021). In essence, elements connected to the company as well as the characteristics of individuals themselves determine job performance. To accomplish that success, the academic workforce should capability to increase level of Job satisfaction (Berliana et al., 2018; Hill & Alexander, 2017) and that is closely related to Human resource management practices (Said et al., 2015). Therefore, the main objective if this study is to conceptualize a framework of the relationships between Compensation and benefits, Training and development, Performance appraisal, and Job satisfaction, with Job performance of three universities in Yemen.

2. Literature Review

2.1. Compensation and benefits

Compensation is a benefits system that a company makes available to individuals to prepare to perform various tasks and tasks within the company. Equitable and appropriate rewards are provided to the persons so that they are valued. The rewards must also be consistent with their skills, abilities and contribution to the group (Kristal et al., 2020). Fulmer and Li (2022) found that salary growth effects on turnover were greatest for high performers, i.e. high salary growth significantly reduced turnover for high performing employees. Lack of proper recognition and lack of competitive compensation system is some reasons for employee turnover in an organization (Fulmer & Li, 2022). Any pecuniary or non-pecuniary payoff delivered to an employee for his efforts is called compensation. "Compensation plays an important role in employees'

motivation and thus enhances organizational effectiveness. Many factors need to be addressed while compensating any employee; i.e. personal needs, work performance, relationship with coworkers, and relationship with managers. Compensation may be used to encourage company loyalty, keep competent workers, boost or sustain satisfaction, encourage peak performance, and decrease turnover” (Dayanandan, 2017).

Based on previous research, this study hypothesizes that compensation and benefits have a favorable impact on work performance, and compensation and benefits are proven to be a major predictor of job performance (Akter & Husain, 2016; Darma & Supriyanto, 2017; Dayanandan, 2017; Fulmer & Li, 2022; Kadir et al., 2019). For example, according to the findings of Akter, Sachu, and Ali (2012)'s research involving 180 employees from 12 commercial banks in Bangladesh, reward plays a major role in motivating employees to perform their tasks better so that they can contribute and produce too many opinions which can enhance organizational performance in the form of monetary and non-monetary benefits as there is a positive relationship. This will undoubtedly boost the performance of both the person and the company. Furthermore, the researchers contended that employees are more likely to exert maximal effort if they feel their business acknowledges and rewards their achievements (Akter et al., 2012).

2.2. Training and development

The primary purpose of human resources management is to guarantee achievements of the goals of the organization by talented workforce and developing motivated through imparting need-based training. Training refers to methods used to provide new or advanced employees with knowledge, skills, behaviors and other abilities they need to perform their jobs. Training is meant to modify individual's skills or attitudes. Training also contributes to the development of positive behaviors toward growth and change (Rahayu et al., 2019). Adomi and Famola (2020) said that the impact of HRM on job performance depends on the employees ' response to HRM practices, which means that the effect will move towards understanding employees through HRM practices (Adomi & Famola, 2020).

Training is a good way to meet the primary goal, employee 's skills and knowledge within the firm and programs of training are predicted to serve many benefits, including improved employees' performance, increased productivity, and employee development. Training programmes are seen as a costly investment and there is growing concern about the cost and effectiveness of training. It is important to have a very good understanding the factors involved in establishing an effective training program high costs of training and program development. According to the findings of previous studies, training and development have a beneficial impact on work performance. This is clear from an examination of empirical data such as (Niati et al., 2021). This study thus hypothesizes that training, growth and success impact the performance of work positively

2.3. Performance appraisal

This study predicts that Performance Appraisal impact employment performance positively. The results of these studies are clear from empirical data such as (Arinaitwe et al., 2021). This study thus assumes that education and development have a beneficial impact on employment success.

For example, based on the empirical findings of (Niati et al., 2021), performance appraisal has significant relationship with job performance. The scholars conducted the research in various banks at Rawalpindi and Islamabad area at Pakistan involving 150 respondents to measure the influence of performance appraisal on employee job performance. The researchers discovered that performance appraisal should be done accordingly because most of the decisions relating promotion, incentives, recognition or training will be made after the appraisal process. And it is proven that performance appraisal influence job performance among employees and it determines the decision making of rewarding and training for employees. On the other hand, another research which is conducted by Saeed et al. (2018) revealed that the performance appraisal system satisfaction and high motivation will increase employee's job performance as a fair performance appraisal will influence employee job performance directly. A fair performance appraisal will develop a sense of satisfactory among employees that will motivate them to enhance their performance. This research was conducted in banking industry at Sahiwal, Pakistan comprising 200 employees.

Purohit (2017) had conducted the research in Pune, India encompassing 35 employees. The results had been concluded with the outcomes that performance appraisal will give positive influence on employee's performance if it is conducted effectively. According to the researcher, the employees indicated that the current design of performance appraisal in the bank is unsatisfactory and that is the reason the performance appraisal system is considered as ineffective which decrease the employee performance (Smith et al., 2017).

2.4. Job satisfaction

The relationship between job satisfaction and job performance at work has sparked considerable interest and has been the topic of several academic studies over the years. Many current writers are still researching this relationship since it is a critical topic for many organizations' human resource and management systems (Yanchovska, 2021).

Employees who are satisfied with their work environment are more likely to stay motivated (Crespi-Vallbona & Mascarilla-Miró, 2018), which impacts people's motivation to do much more than expected, to be more ambitious, and to undertake more innovations. In general, a person's attitude toward life, whether professional or personal, has a significant influence on their surroundings. Positive emotions, friendliness, and a cheerful demeanor provide a positive example for others, whether they are family members, friends, or coworkers (Al-Hodiany & Misztal, 2022). As a result, a contented employee may have a tremendous impact on the company's culture and working environment. Furthermore, a pleased employee is less likely to leave the firm or be absent without a reason, which has a beneficial impact on long-term employee retention and performance in an organization (Yanchovska, 2021).

Many studies have shown a correlation between job dissatisfaction and a number of negative characteristics in an employee behavior, such as greater turnover and absenteeism, as well as a deliberate desire to destroy the company (Bednarska & Szczyt, 2015).

Employee unhappiness might have ramifications in other areas of the workplace. Higher levels of stress, intense emotional weariness, burnout, low productivity, and a lack of commitment are all possible outcomes. Employees that are dissatisfied are typically

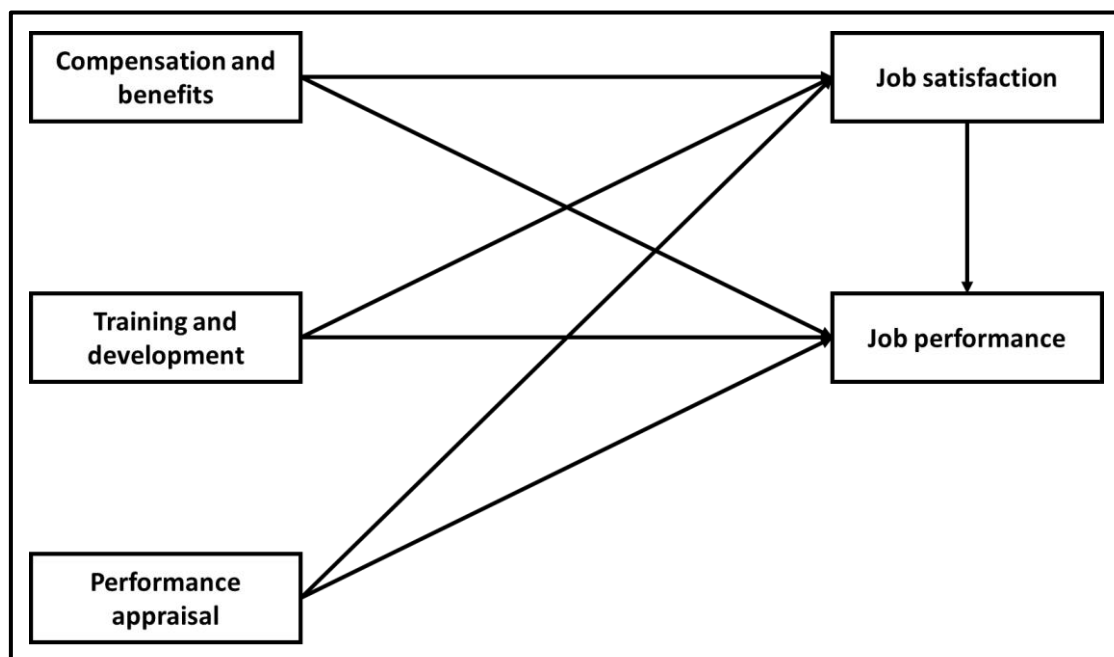
thoughtless and unaware of their commitments, client needs, or deadlines; their lack of motivation leads to laziness and decreased personal productivity. Employees that perform below their capabilities can be a big challenge for businesses (Yanchovska, 2021).

Many researches have been undertaken in the past to determine the extent of relation between two variables, but the findings have been inconsistent and disputed. One of the most influential studies, published in 1955 by Brayfield and Crockett (1955), indicated that there is no substantial association between job satisfaction and performance. This research was followed by numerous more influential reviews that vary greatly in their specificity and amount of optimism stated in connection to the presence of a link between satisfaction and performance. Dennis Organ suggested in 1988 that the inability of earlier surveys to show a relationship between work happiness and job performance was due to a restricted definition of job performance, which was frequently confined to executing a specific task. The author believed that the relationship between work satisfaction and job performance would be greater if the notion was defined more widely.

2.5. Overview of the Research Framework

Following a study of the theoretical and empirical literature, a conceptual framework was created. This conceptual framework has been designed to link the underlying ideas which assist identify the issues of researchers, develop queries and discover relevant material. A conceptual framework also illustrates the link between the separate variables (compensation and benefits, training and development, performance appreciation and performance) and the job satisfaction as mediator and the employee performance variable in this study. Figure 1 shows the relationship between the variable of this study.

Figure 1: Research Framework



3. Research Methodology

The target demographic of interest in this study was all administrative personnel at Aden University, University of Science and Technology, and Hadhramout University Yemen. They came from all the Universities faculties, centers and divisions located in the Aden Campus. These categories were selected because they are responsible of the day-to-day tasks and all administrative jobs, besides, to check the performance from administrative staff perspective. According to the HR in the selected universities, the target population is 1315, 1206, and 267 respectively. While the population originates from three different universities located in different parts of the country, it has general features, including language, geography, cultural norms and religion. It has the same qualities. Therefore, the researcher will follow quantitative research methods in this study, by employing the means of survey questionnaire. To conceptualize the research framework and to check the validity and reliability of research instrument, researcher developed a survey questionnaire from the literature. Therefore, a total of 48 items has been developed for this study as shown in [Table 1](#).

Table 1: Questionnaire Development

| | Variables | Section | No. of questions before Pre-test | No. of questions after Pre-test | Sources |
|---|---------------------------|---------|----------------------------------|---------------------------------|---|
| 1 | Compensation and benefits | (1) | 7 | 7 | Prieto-Pastor and Martin-Perez (2015) |
| 2 | Training and development | (2) | 9 | 9 | Prieto-Pastor and Martin-Perez (2015) |
| 3 | Performance appraisal | (3) | 5 | 5 | Prieto-Pastor and Martin-Perez (2015) |
| 4 | Job satisfaction | (4) | 16 | 16 | Muindi (2011) , |
| 5 | Job performance | (5) | 11 | 11 | Jiang, Zhao and Jiongbin Ni (2017) |

4. Findings

Pilot analysis is an important aspect of the research questionnaire design which must be carried out prior to the primary data collection process to ensure that the design of the questionnaire is error-free which ensures correct findings and errors are not missing ([Sekaran & Bougie, 2016](#)). A pilot analysis was then conducted for the purpose of this study prior to using the survey questionnaire. The goal of this pilot study was to ensure that interviewees understood the questions and that no ambiguity was released when answering the questionnaire and reading the statements.

A questionnaire On-line was distributed among the administrative staff in the three selected universities in Yemen. According to [Zikmund, Babin, Carr & Griffin, \(2013\)](#), the sample size for the pilot study should be between 1-1.5 percent of the sample size to be utilised in the study ([Zikmund et al., 2013](#)). [Whitehead, Julious, Cooper and Campbell, \(2016\)](#) proposed a range of 25-100 subjects in the sample to be utilized ([Whitehead et](#)

al., 2016). For [Kieser and Wassmer \(1996\)](#) the proper sample to be used in the pilot study should be between 30-40 ([Kieser & Wassmer, 1996](#)). Therefore, 30 administrative staff responded to the questionnaires and then the survey was closed to be distributed fully for the final analysis. They were given some information about the survey for easy use and also provided for follow-up contact information. After the initial process has been handled, the researchers make mutable telephone calls and follow-up visits to chicks associates to advance the study. The questionnaire has been circulated to correct respondents. SPSS was used for the simple statistical analysis. In the following section, the useful data obtained in pilot survey using SPSS 28.0 are descriptively analyzed.

R – Square as the coefficient of determination or the coefficient of multiple determination for multiple regression is a statistic metric that assesses the degree of closeness between data and fitted regression. As can be seen in [Table 2](#), R square = .583 indicates that 58.3 percent of the model exposes all of the response data variance around its mean. In general, the greater the R-square, the more appropriate the model.

Table 2: The Model Summary of the Study

| Model No. | (R) | (R2 Square) | Adjusted R2 | Sig. |
|-----------|-------|-------------|-------------|------|
| 1 | .763a | .583 | .516 | .000 |

Predictors: (constant), (Compensation and benefits, Training and Development, Performance Appraisal and Job Performance) (N=38)

For the validity test, the researcher will follow The Harman single-factor analysis, which requires loading all the measures in a study into an exploratory factor analysis, with the assumption that the presence of CMV is indicated by the emergence of either a single factor or a general factor accounting for the majority of covariance among measures ([Podsakoff et al., 2016](#)).

Given that the data collected in this study is from a single source, common method variance (CMV) is a possible concern even though a few procedural remedies have been taken before distributing the questions. CMV is defined as a systematic error variance that is shared among variables which are measured from the same sources or methods. Testing on the threats of CMV is crucial when the data is collected via self-administered questionnaire and particularly when the predictor and criterion variables are obtained from the same person ([Podsakoff et al., 2016](#)). CMV may threaten the validity of the constructs and creates a systematic bias in a study ([Tehseen et al., 2017](#)).

In order to reduce the CMV, this study opts for both procedural and statistical remedies before and after data collection. For statistical remedies, Harman's single factor test and full collinearity technique are used to test the CMV. Harman's single-factor test is conducted to determine whether a single factor surfaces from the principal component analysis, or if a distinct factor explains the majority of covariance among the variables in the un-rotated factor analysis ([Podsakoff et al., 2003](#)).

There are three statistical measures that are also generated by IBM SPSS to help assess the factorability of the data: Kaiser-Meyer-Olkin (KMO), the measure of sampling adequacy (MSA), and Bartlett's test of sphericity (BTS) ([Bartlett, 1954](#); [Kaiser, 1974](#); [Pallant, 2016](#)). The KMO MSA and the BTS were used to determine whether factor analysis is suitable. A small KMO value indicates that factor analysis may not be a good

option. Therefore, a KMO value of more than 0.5 is required for factor analysis. The KMO index ranges from 0 to 1, with .6 suggested as the minimum value for a good factor analysis (Pallant, 2016). On the other hand, Kaiser classified MSA values as meritorious if it is above 0.80, middling if it is in the 0.70s, mediocre if it is in the 0.60s, miserable if in the 0.50 and unacceptable if it is under 0.50 (Kaiser, 1974). Bartlett's test of sphericity (BTS) should be significant ($p < .05$) for the factor analysis to be considered appropriate (Pallant, 2016).

4.1. Reliability of the scale

The Cronbach's alpha is an internal consistency test to be used in this pilot study, to examine the reliability of the measured items used in the questionnaire. The test is to evaluate the level of understanding and the consistency of the respondent's answers of the entire questionnaire distributed. Reliability is defined by Malhotra and Birks (2007) as the degree and the tendency of measurement to consistently reproduce results if the recurrence of a process measurement transpired. It is also the degree of consistency of measurement items in one instrument, therefore a scale that is free from random error is reported to have high reliability score (Pallant, 2016).

Based on Sekaran and Bougie (2016) description on internal consistency reliability, it evaluates consistency of elements in a construct to ensure that it measures accordingly. The Cronbach's alpha is used to provide the statistics of the said measurement. The analysis is crucial to ensure the reliability of the measurement used and its capability to describe the results of the research. The valid measurement of the construct should be at a coefficient of scale above 0.7 (Hair et al., 2019). The results of the test are shown in Table 3.

Table 3: The reliability statistics for all Items

| Variables | Items | Cronbach Alpha | Decision |
|---------------------------|-------|----------------|----------|
| Compensation and benefits | CB1 | 0.738 | Achieved |
| | CB2 | 0.735 | Achieved |
| | CB3 | 0.735 | Achieved |
| | CB4 | 0.782 | Achieved |
| | CB5 | 0.753 | Achieved |
| | CB6 | 0.702 | Achieved |
| | CB7 | 0.793 | Achieved |
| Training and development | TD1 | 0.750 | Achieved |
| | TD2 | 0.704 | Achieved |
| | TD3 | 0.808 | Achieved |
| | TD4 | 0.691 | Achieved |
| | TD5 | 0.712 | Achieved |
| | TD6 | 0.732 | Achieved |
| | TD7 | 0.845 | Achieved |
| | TD8 | 0.751 | Achieved |
| | TD9 | 0.724 | Achieved |
| Performance appraisal | PA1 | 0.888 | Achieved |
| | PA2 | 0.895 | Achieved |
| | PA3 | 0.873 | Achieved |
| | PA4 | 0.875 | Achieved |
| | PA5 | 0.884 | Achieved |
| Job satisfaction | JS1 | 0.889 | Achieved |
| | JS2 | 0.895 | Achieved |

| | | | |
|-----------------|------|-------|----------|
| | JS3 | 0.920 | Achieved |
| | JS4 | 0.896 | Achieved |
| | JS5 | 0.892 | Achieved |
| | JS6 | 0.892 | Achieved |
| | JS7 | 0.908 | Achieved |
| | JS8 | 0.888 | Achieved |
| | JS9 | 0.890 | Achieved |
| | JS10 | 0.891 | Achieved |
| | JS11 | 0.894 | Achieved |
| | JS12 | 0.893 | Achieved |
| | JS13 | 0.903 | Achieved |
| | JS14 | 0.899 | Achieved |
| | JS15 | 0.900 | Achieved |
| | JS16 | 0.892 | Achieved |
| Job performance | JP1 | 0.949 | Achieved |
| | JP2 | 0.940 | Achieved |
| | JP3 | 0.941 | Achieved |
| | JP4 | 0.940 | Achieved |
| | JP5 | 0.938 | Achieved |
| | JP6 | 0.942 | Achieved |
| | JP7 | 0.939 | Achieved |
| | JP8 | 0.941 | Achieved |
| | JP9 | 0.943 | Achieved |
| | JP10 | 0.939 | Achieved |
| | JP11 | 0.970 | Achieved |

The validity of this study has been checked twice, including the primary review of literature which provided the source of the questionnaire. Similarly, item analyzes, particularly for correlations between several different variables, have been carried out. The main goal is to categorize integrated data into a smaller number of elements with many broad variables. The whole analysis examines the numerical essence, framework and the interconnection of the variables of the similar skill.

4.2. Validity test

4.2.1. Compensation and benefits

The KMO MSA and the BTS were used to determine whether factor analysis is suitable. Table 4 shows that the KMO value for Compensation and benefits factors is 0.767, higher than 0.7, which is considered middling.

Table 4: KMO and Bartlett's Test for Compensation and benefits factor

| KMO and Bartlett's Test | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .767 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 844.881 |
| | df | 15 |
| | Sig. | .000 |

The observed BTS value (844.881) large and its associated significance value is very low ($P < 0.001$) that can be considered good (Hair et al., 2019). Further, Eigenvalues indicate the amount of variance explained by each component.

Table 5 and Table 6 exhibit the result of the extracted components for “Compensation and benefits” factors. Seven items were retained by one factor using the latent root criterion which explains about 38% of the variance. The results revealed that there are 7 distinct factors, with the largest factor accounting for only 36.89% of the variance, which is less than 50% from the cutoff value as suggested by Podsakoff et al. (2003).

Table 5: Total Variance Explained of Compensation and benefits factor

| Total Variance Explained | | | | | | |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 2.720 | 38.857 | 38.857 | 2.720 | 38.857 | 38.857 |
| 2 | 1.735 | 24.782 | 63.640 | | | |
| 3 | 1.043 | 14.895 | 78.535 | | | |
| 4 | .949 | 13.552 | 92.087 | | | |
| 5 | .224 | 3.195 | 95.282 | | | |
| 6 | .190 | 2.721 | 98.002 | | | |
| 7 | .140 | 1.998 | 100.000 | | | |

Extraction Method: Principal Component Analysis.

Table 6: Component Matrix of Compensation and benefits factor

| Component Matrixa | |
|-------------------|-----------|
| | Component |
| | 1 |
| CB1 | .844 |
| CB2 | .894 |
| CB3 | .877 |
| CB4 | .842 |
| CB5 | .886 |
| CB6 | .891 |
| CB7 | .888 |

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

4.2.2. Training and development

The KMO MSA and the BTS were used to determine whether factor analysis is suitable. Table 7 shows that the KMO value for Training and development factors is 0.842, higher than 0.7, which is considered middling. The observed BTS value (129.733) large and its associated significance value is very low ($P < 0.001$) that can be considered good (Hair et al., 2019). Further, Eigenvalues indicate the amount of variance explained by each component.

Table 7: KMO and Bartlett's Test for Training and development factor

| KMO and Bartlett's Test | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .842 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 129.733 |
| | df | 36 |
| | Sig. | .000 |

Table 8 and Table 9 exhibit the result of the extracted components for “Training and development” factors. Nine items were retained by one factor using the latent root criterion which explains about 40% of the variance. The results revealed that there are 9 distinct factors, with the largest factor accounting for only 36.89% of the variance, which is less than 50% from the cutoff value as suggested by Podsakoff et al. (2003).

Table 8: Total Variance Explained of Training and development factor

| Component | Total Variance Explained | | | | | |
|-----------|--------------------------|---------------------|--------------|-------------------------------------|---------------|--------------|
| | Total | Initial Eigenvalues | | Extraction Sums of Squared Loadings | | |
| | | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.685 | 40.944 | 40.944 | 3.685 | 40.944 | 40.944 |
| 2 | 1.038 | 11.535 | 52.479 | | | |
| 3 | 1.000 | 11.106 | 63.585 | | | |
| 4 | .731 | 8.124 | 71.709 | | | |
| 5 | .681 | 7.563 | 79.272 | | | |
| 6 | .585 | 6.495 | 85.767 | | | |
| 7 | .535 | 5.942 | 91.709 | | | |
| 8 | .418 | 4.646 | 96.355 | | | |
| 9 | .328 | 3.645 | 100.000 | | | |

Extraction Method: Principal Component Analysis.

Table 9: Component Matrix of Training and development factor

| Component Matrixa | |
|-------------------|-----------|
| | Component |
| | 1 |
| TD1 | .696 |
| TD2 | .752 |
| TD3 | .831 |
| TD4 | .794 |
| TD5 | .786 |
| TD6 | .652 |
| TD7 | .775 |
| TD8 | .675 |
| TD9 | .710 |

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

4.2.3. Performance appraisal

The KMO MSA and the BTS were used to determine whether factor analysis is suitable. Table 10 shows that the KMO value for Performance appraisal factors is 0.782, higher

than 0.7, which is considered middling. The observed BTS value (93.471) large and its associated significance value is very low ($P < 0.001$) that can be considered good (Hair et al., 2019). Further, Eigenvalues indicate the amount of variance explained by each component.

Table 10: KMO and Bartlett's Test for Performance appraisal factor

| KMO and Bartlett's Test | | |
|--|--------------------|--------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .782 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 93.471 |
| | df | 10 |
| | Sig. | .000 |

Table 11 and Table 12 exhibit the result of the extracted components for “Performance appraisal” factors. Seven items were retained by one factor using the latent root criterion which explains about 47% of the variance. The results revealed that there are 5 distinct factors, with the largest factor accounting for only 36.89% of the variance, which is less than 50% from the cutoff value as suggested by Podsakoff et al. (2003).

Table 11: Total Variance Explained of Performance appraisal factor

| Total Variance Explained | | | | | | |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 1.469 | 47.384 | 47.384 | 1.469 | 47.384 | 47.384 |
| 2 | .518 | 10.353 | 79.737 | | | |
| 3 | .415 | 8.305 | 88.042 | | | |
| 4 | .341 | 6.812 | 94.853 | | | |
| 5 | .257 | 5.147 | 100.000 | | | |

Extraction Method: Principal Component Analysis.

Table 12: Component Matrix of Performance appraisal factor

| Component Matrix ^a | |
|-------------------------------|-----------|
| | Component |
| | 1 |
| PA1 | .835 |
| PA2 | .815 |
| PA3 | .884 |
| PA4 | .879 |
| PA5 | .848 |

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

4.2.4. Job satisfaction

The KMO MSA and the BTS were used to determine whether factor analysis is suitable. Table 13 shows that the KMO value for Job satisfaction factors is 0.740, higher than 0.7, which is considered middling. The observed BTS value (387.658) large and its associated significance value is very low ($P < 0.001$) that can be considered good (Hair et

al., 2019). Further, Eigenvalues indicate the amount of variance explained by each component.

Table 13: KMO and Bartlett's Test for Job satisfaction factor

| KMO and Bartlett's Test | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .740 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 387.658 |
| | df | 120 |
| | Sig. | .000 |

Table 14 and Table 15 exhibit the result of the extracted components for "Job satisfaction" factors. Sixteen items were retained by one factor using the latent root criterion which explains about 46% of the variance. The results revealed that there are 16 distinct factors, with the largest factor accounting for only 36.89% of the variance, which is less than 50% from the cutoff value as suggested by Podsakoff et al. (2003).

Table 14: Total Variance Explained of Job satisfaction factor

| Total Variance Explained | | | | | | |
|---------------------------------|----------------------------|---------------|--------------|--|---------------|--------------|
| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 7.461 | 46.633 | 46.633 | 7.461 | 46.633 | 46.633 |
| 2 | 1.153 | 7.206 | 53.839 | | | |
| 3 | 1.100 | 6.875 | 60.714 | | | |
| 4 | 1.017 | 6.355 | 67.069 | | | |
| 5 | .947 | 5.920 | 72.988 | | | |
| 6 | .685 | 4.281 | 77.269 | | | |
| 7 | .601 | 3.755 | 81.024 | | | |
| 8 | .565 | 3.534 | 84.557 | | | |
| 9 | .489 | 3.057 | 87.615 | | | |
| 10 | .414 | 2.586 | 90.201 | | | |
| 11 | .357 | 2.229 | 92.431 | | | |
| 12 | .303 | 1.894 | 94.325 | | | |
| 13 | .273 | 1.706 | 96.031 | | | |
| 14 | .264 | 1.651 | 97.682 | | | |
| 15 | .201 | 1.259 | 98.940 | | | |
| 16 | .170 | 1.060 | 100.000 | | | |

Extraction Method: Principal Component Analysis.

Table 15: Component Matrix of Job satisfaction factor

| Component Matrixa | |
|--------------------------|--------------------|
| | Component 1 |
| JS1 | .670 |
| JS2 | .643 |
| JS3 | .691 |
| JS4 | .717 |
| JS5 | .761 |
| JS6 | .720 |
| JS7 | .712 |

| | |
|------|------|
| JS8 | .818 |
| JS9 | .818 |
| JS10 | .755 |
| JS11 | .733 |
| JS12 | .771 |
| JS13 | .687 |
| JS14 | .704 |
| JS15 | .705 |
| JS16 | .692 |

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Job performance

The KMO MSA and the BTS were used to determine whether factor analysis is suitable. Table 16 shows that the KMO value for Job performance factors is 0.866, higher than 0.7, which is considered middling. The observed BTS value (417.077) large and its associated significance value is very low ($P < 0.001$) that can be considered good (Hair et al., 2019). Further, Eigenvalues indicate the amount of variance explained by each component.

Table 16: KMO and Bartlett's Test for Job performance factor

| KMO and Bartlett's Test | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .866 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 417.077 |
| | df | 55 |
| | Sig. | .000 |

Table 17 and Table 18 exhibit the result of the extracted components for “Job performance” factors. Eleven items were retained by one factor using the latent root criterion which explains about 49% of the variance.

Table 17: Total Variance Explained of Job performance factor

| Total Variance Explained | | | | | | |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 4.631 | 49.376 | 49.376 | 4.631 | 49.376 | 49.376 |
| 2 | .964 | 8.760 | 78.136 | | | |
| 3 | .569 | 5.169 | 83.305 | | | |
| 4 | .389 | 3.539 | 86.844 | | | |
| 5 | .328 | 2.981 | 89.825 | | | |
| 6 | .276 | 2.506 | 92.331 | | | |
| 7 | .212 | 1.925 | 94.256 | | | |
| 8 | .200 | 1.816 | 96.072 | | | |
| 9 | .160 | 1.454 | 97.526 | | | |
| 10 | .155 | 1.405 | 98.930 | | | |
| 11 | .118 | 1.070 | 100.000 | | | |

Extraction Method: Principal Component Analysis.

Table 18: Component Matrix of Job performance factor

| Component Matrixa | |
|-------------------|-----------|
| | Component |
| | 1 |
| JP1 | .775 |
| JP2 | .856 |
| JP3 | .880 |
| JP4 | .849 |
| JP5 | .902 |
| JP6 | .880 |
| JP7 | .903 |
| JP8 | .873 |
| JP9 | .860 |
| JP10 | .923 |
| JP11 | .643 |

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The results revealed that there are 11 distinct factors, with the largest factor accounting for only 36.89% of the variance, which is less than 50% from the cutoff value as suggested by [Podsakoff et al. \(2003\)](#).

5. Conclusion

The main objective if this study is to conceptualize a framework of the relationships between Compensation and benefits, Training and development, Performance appraisal, and Job satisfaction, with Job performance of three universities in Yemen. To achieve this objective 38 respondents participated in a pilot study that contain two analysis, Cronbach Alpha and Factor Analysis. The researcher has found that all of the developed items in the survey questionnaire have scored a sufficient level of Reliability and Validity. Therefore, these results stressed that this framework can be used in an empirical study to extract further results on the relationship between the variables.

In this study, several limitations were surrounding the process of conducting the study, as following:

- i. This study was limited to small sample size, which are participants from three Yemeni Universities. Including other respondents from other universities will increase the results if the future study.
- ii. Another limitation of this study was the type of sectors of this study; this study focused on a government-owned universities, implementing the research framework of this study on the private universities would come back with different and varied results.
- iii. Geographically, this study focused on the Yemeni case only.
- iv. This study was conducted during a short period of time, redoing the same study with the same framework for longer period of time would enhance the results
- v. This study was limited to single mode of research methods, which was the quantitate research methods, interviewing the staff and analyze their opinion on the factors affecting employee engagement and employee performance

using qualitative research methods would be another or additional way to perform this study.

- vi. This study was limited to validate the conceptual framework, an empirical study would result into a better understanding on the relationship between the variables, which will be the researchers' next step.

Ethics Approval and Consent to Participate

The researchers used the research ethics provided by the Research Ethics Committee of Universiti Sultan Zainal Abidin – (UniSZA). All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional research committee. Informed consent was obtained from all participants according to the Declaration of the selected institutes.

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Conflict of Interests

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

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