CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 Introduction

This chapter presents the analysis of this study. The analysis is conducted using SPSS and AMOS. SPSS is used to examine the descriptive analysis. Analyses of missing values, outliers, normality, and multicollinearity are conducted using SPSS. The exploratory factor analysis (EFA) is conducted in this study. Using AMOS, the confirmatory factor analysis (CFA) as well as the measurement model of the variables is conducted. The structural model is conducted to test the hypotheses and explained in this chapter.

4.2 Data Analysis

The data analysis of this study was conducted using two software. The statistical package of social science (SPSS) version 25.0 is used to conduct, reliability analysis, data screening which includes the missing value, outliers, normality, multicollinearity. The descriptive information of the respondents was presented in tables using the SPSS. Further, the exploratory factor analysis was conducted using SPSS. AMOS version 26.0 as embedded in Structural Equation Modeling (SEM) was used to assess the measurement model and the structural model. AMOS was also used to examine the hypotheses of this study which predict that the HRM practices and self-efficacy

will have a significant effect on the performance of academic staff. It also predicted that the nepotism would moderate the effect of the HRM practices and self-efficacy on the performance of academic staff in Jordan.

4.2.1 Validity of the Instruments

In chapter 3, the validity process of the instrument was checked and discussed. Additional validities are conducted in this chapter by conducting the EFA, CFA, and measurement model. Pallant (2016) indicates that there are several steps that must be conducted before proceeding with the data analysis. The steps that are related to the validity include the sample size, and the EFA of the instruments.

Sample size between 30 and 500 responses is sufficient for any academic research as pointed out by Sekaran and Bougie (2016). However, when using the SEM, Hair et al. (2017) considered a response between 100 to 150 is the minimum sample size required. On the other hand, Kline (2015) pointed out that a number of 200 responses is typically used in studies that involve the use of SEM. In this study, the sample size is 248 which is greater than 200 as recommended by Kline (2015).

Another method to identify the sufficiency of the sample size is by conducting the EFA. EFA first examines the sufficiency of the sample size then the correlation among the items to justify the need for EFA and lastly, the Kaiser-Meyer-Olkin (KMO) measure should be greater than 0.60 and Sampling Adequacy and Bartlett's Test of Sphericity of 0.05 or less are indicators that the sample size is sufficient for the purpose of analysis (Pallant, 2016). EFA of this study is discussed in next sections.

Sample size of this study is 248 and it is greater than the recommended sample size by Hair et al. (2017) between 100-150 and greater than the recommended sample size of 200 response by Kline (2015). Thus, it meets the assumption of sample size of CFA. In the next sections, discussion of these analyses and the sample size is given.

4.3 Response Rate

Based on the sample size of this study, a total of 354 questionnaire were distributed to the three universities based on stratified sample techniques. The academic staff in these universities were emailed a link of the questionnaire. A cover letter was written in the email explaining the purpose of the questionnaire and asking the academic staff to answer the questionnaire. The contact information of the staff was obtained online from the websites of the universities. As a result, a total of 273 responses were collected. The collected questionnaires were screened, and it is found that six of the responses were empty. This is possible because the "required" option in online questionnaire was not activate. This is because Hair et al. (2017) suggested that this option might reduce the response rate. Thus, these six responses were deleted. This makes the total number of responses is 267 which constitutes a response rate of 75.4%.

4.3.1 Respondents Profile

This study collected the data from academic staff working in three universities in Jordan. The profile of the respondents is presented in Table 4.1. It seeks to find information of the respondents that are related to their gender, age, educational level, title in the university, experience as an academic staff and experience with the current

university. In addition, the profile of the respondents includes the position of the academic staff.

Gender of the respondents is presented in Table 4.1. It shows that the highest percentage of respondents are males with count of 178 and percentage of 71.8%. Female accounts to 28.2% or 70 of the respondents. This shows that the sample of this study is dominated by males, and this could be due to the notion that academic staff in Jordan are males oriented.

For the age of the respondents, Table 4.1 shows that 41.5% or 103 of the respondents are in the age between 31 to 40 years followed by 32.7% or 81 of the respondents are in the age between 41 to 50 years. A total of 10.5% or 26 of the respondents are in the age group of 51 to 60 years. Respondents with the age less than 30 accounted to 9.7% or 24 while those who are older than 61 accounted to 5.6% or 14 of the respondents. This shows that almost 74.2% of the respondents are in the middle of their career.

Table 4.1: Profile of the Respondents

Variable	Group	Number	Percent
Gender	Male	178	71.8%
	Female	70	28.2%
Age	30 years of less	24	9.7%
	31-40 years	103	41.5%
	41-50 years	81	32.7%
	51-60 years	26	10.5%
	61 and above	14	5.6%
Education	Master	25	10.1%
	PhD	223	89.9%
Title	Lecturer	65	26.2%
	Assistance Prof.	83	33.5%
	Associate Prof.	64	25.8%
	Professor	36	14.5%
Experience	5 years or less	20	8.1%
	6-10 years	29	11.7%
	11-15 years	112	45.2%

Variable	Group	Number	Percent
	16-20 years	55	22.2%
	21-25 years	18	7.3%
	More than 25 years	14	5.6%
Length of working in the university	5 years or less	22	8.9%
	6-10 years	32	12.9%
	11-15 years	109	44.0%
	16-20 years	53	21.4%
	21-25 years	19	7.7%
	More than 25 years	13	5.2%
Position	Academic Staff	176	71.0%
	Head of department	34	13.7%
	Deputy dean	24	9.7%
	Dean	14	5.6%

In term of education, the highest percentage of the respondents are holders of PhD degree with count of 223 and percentage of 89.9% followed by holders of master's degree with count of 25 and percentage of 10.1%. This can be due to the fact that this study examines the factors that affect the performance of academic staff and they supposed to be holder of PhD and master's degree to be entitled to teach in a university. The title of the respondents is also presented in Table 4.1. It indicates that 83 or 33.5% of the respondents are assistant professor followed by 26.2% or 65 of the respondents are lecturers. A total of 64 or 25.8% are Associate Prof while 14.5% or 36 are professors.

In term of experience of working as academic staff, Table 4.1 shows that 112 or 45.2% of the respondents has been working as academic staff for a period between 11 to 15 years followed by 55 or 22.2% of the respondents has been working between 16-20 years. A total of 8.1% or 20 of the respondents indicates that they have working experience of less than 5 years. Respondents with experience between 21-25 years accounted to 18 or 7.3% while those with experience more than 25 years accounted to 14 or 5.6%.

Similarly, a question was asked to know the length of working with the university and 109 or 44.0% of the respondents indicates that they have worked with the university between 11-15 years followed by 53 or 21.4% of the respondents have worked with the university between 16-20 years, 32 or 12.9% of the respondents have worked in their universities for a period between six to 10 years, 22 or 8.9% of the respondents have worked less than 5 years with the same university. A total of 7.7% or 19 of the respondents worked for 21-25 years while 13 or 5.2% of the respondents have worked for more than 25 years.

Positions of the respondents are presented in Table 4.1. It shows that the academic staff accounted to 176 or 71.0% of the respondents. This is followed by 34 or 13.7% of the respondents are in the position of head of department. Those who are working as deputy dean accounted to 24 or 9.7% of the respondents while those who are working as dean accounted to 14 or 5.6% of the respondents.

4.4 Data Screening

Hair et al. (2017) and Pallant (2016) suggested that researchers need to examine the data for their goodness. This is because the accuracy and the goodness of the data affect the result of the study. High quality data produce high quality and correct result. Researchers such as Hair et al. (2017) and Pallant (2016) agreed that there are several analyses that need to be conducted prior to the regression analysis. These analyses include the analysis of missing values which is conducted by frequency analysis in SPSS. The second analysis is the outliers. This analysis is conducted by examining the boxplots of the variables.

Other analysis include the normality of the data and it is conducted using the skewness and Kurtosis values as well as the shape of the histograms and the and the multicollinearity. The next sections discuss each analysis.

4.4.1 Missing Data and Outliers

Missing values are value that are not filled in the questionnaire. Hair et al. (2017) indicates that a response missing more than 15% of the answer should be removed while a response with less than 15% of the missing value can be replaced by the mean score value. In this study, eight of the responses were missing more than 15% and they were removed. Other responses miss less than 15% of the answers and they were replaced by the mean score. Thus, the complete responses are 259 (267-8=259).

For the outliers, there are two level of assessing the outliers. The univariate outliers can be examined using the boxplot of the variables. The univariate outliers were checked and there were seven responses were considered outliers due to the fact that the mean score is far from the center. Thus, these seven responses were removed from the dataset. The second stage of checking for outliers is the multivariate outliers, which is determined based on the Mahalanobis distance. Responses that have a Mahalanobis distance of less than 0.001 were considered as outliers. This is in line with the suggestion of Kline (2015) and Pallant (2016). Findings of the analysis showed that four of the responses carried a $p<0.001$. They were treated as multivariate outliers and removed from the dataset. After removing eight response because of missing value and 11 response due to outliers, the complete and usable responses accounts to 248. Boxplots of all the variables are given in Appendix C.

4.4.2 Normality Test

According to Pallant (2016) normality can be assessed using the value of skewness and kurtosis. A value of skewness and kurtosis less than absolute two (2) is considered normally distributed. Table 4.2 shows the valid responses included in this study are 248. It shows also that there are no missing values in the responses. The mean score value of the variables is shown as well as the median, mode, Skewness, and Kurtosis.

The table below that the mean score value of the variable ranged between 3.59 for past experience (PE) followed by the 3.55 for research performance (RP), 3.53 for emotional cues (EC) and 3.50 for the vicarious experience (VP). The lowest value of mean score is 2.98 for recruitment and selection (RES) followed by 3.16 for both the performance appraisal (PA) and teaching performance (TP). It can be seen that the mean score value of the variable is close and there are no big differences between the mean score value of the variables.

Table 4.2: Result of Normality Analysis

	PE	VE	VP	EC	NEP	RES	TD	PA	PRO	TP	RP
Valid	248	248	248	248	248	248	248	248	248	248	248
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	3.59	3.22	3.50	3.53	3.41	2.98	3.23	3.16	3.27	3.16	3.55
Median	4.00	3.25	3.66	4.00	4.00	2.50	3.37	3.00	3.75	3.42	3.90
Mode	4.00	3.00	4.50	4.00	4.00	2.00	4.00	3.00	4.00	4.57	4.00
Skewness	-1.0	-.20	-.47	-.55	-.48	.12	-.30	-.03	-.39	-.12	-.76
Std. Error of Skewness	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15
Kurtosis	-.04	-.91	-.76	-.84	-1.06	-1.51	-1.15	-1.03	-.91	-1.51	-.58
Std. Error of Kurtosis	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30

In term of the median, the highest value of 4.00 is associated with past experience (PE), emotional cues (EC) and nepotism (NEP). This is followed by 3.90 for research performance (RP). The lowest value is 2.50 for recruitment and selection (RES) and 3.00 for the performance appraisal (PA). for mode, it can be seen in Table 4.2 that the mode of ranged between 4.57 for teaching performance (TP) and 2.00 for recruitment and selection (RES).

In term of normal distribution, Field (2009) suggested a graphical analysis of normality. In which a normality metrics of variables can be assessed to check the normal distribution. In this study, the normality metrics was created using standard residual. It can be seen in Figure 4.1 that the graphical view of a normal probability plot is within a normal probability plot. Pallant (2016) indicates that the points should be placed within a sensibly straight diagonal line from bottom left to top right. The Figure accordingly shows the points establishing an estimated straight diagonal line. As can therefore be assumed, there are no significant deviations from normality.

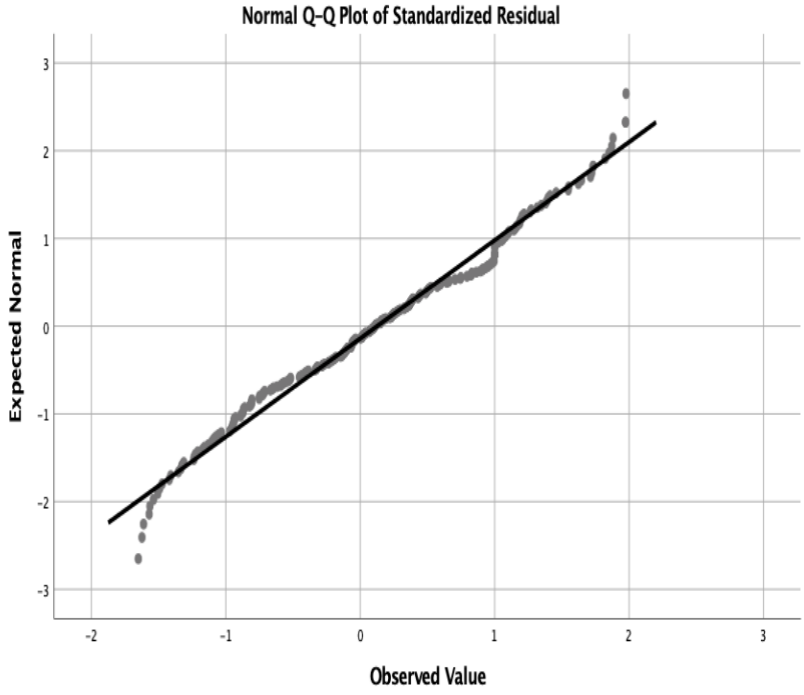

Figure 4.1: Normal Q-Q of Regression Standard Residual

For assessing the normality, Kline (2016) suggested that Skewness and Kurtosis are widely used indicators for assessing the univariate normal distribution of the data. Hair et al (2017) and Kline (2016) indicates that the value of Skewness between -2 and +2 and the value of kurtosis between -7 and +7 indicates that the data is normally distributed. In Table 4.3, it can be seen that the mean score value of the variables is normally distributed. The highest value of Skewness is -1.0 for past experience (PE) while the highest value of Kurtosis is -1.51 for teaching performance (TP). Thus, the mean score of the variables is normally distributed. Histograms of the variables is given in Appendix D.

For the items of the variables, Table 4.3 shows that all the items have normal distributed because the value of Skewness and Kurtosis are within the normal distribution range.

Table 4.3: Skewness and Kurtosis Values

Item	Skewness	Kurtosis	Item	Skewness	Kurtosis
PRO1	-.518	-1.016	EC1	-1.507	1.058
PRO2	-.451	-1.091	EC2	-1.582	1.097
PRO3	-.456	-1.043	EC3	-1.672	1.196
PRO4	-.495	-.947	EC4	**-1.779**	1.322
PA1	.018	-.942	VP1	-1.283	1.314
PA2	-.031	-1.070	VP2	-1.554	1.898
PA3	-.069	-1.091	VP3	-1.502	1.730
PA4	-.050	-1.040	VP4	-1.582	1.573
TD2	.028	-1.426	VP5	-1.468	1.491
TD3	.006	-1.365	VP6	-1.442	1.276
TD4	-.074	-1.365	VE1	-1.363	1.741
RES1	.033	-1.538	VE2	-1.408	1.111
RES2	-.043	-1.515	VE3	-1.488	1.250
RES3	-.123	-1.480	VE4	-1.555	1.957
RES4	-.106	-1.488	PE2	-1.716	1.387
NEP8	-1.189	1.293	PE3	-1.543	1.782
NEP1	-1.330	.927	PE4	-1.552	2.818
NEP3	-1.079	.728	PE5	-1.565	2.855
NEP4	-1.141	1.152	PE6	-1.458	1.472
NEP5	-1.138	.879	PE7	-1.534	1.696
NEP6	-1.278	1.761	RP1	-1.319	1.788
TP1	-1.210	1.169	RP2	-1.521	1.154
TP3	-1.189	1.472	RP3	-1.535	1.334
TP4	-1.256	1.602	RP4	-1.287	1.818

Item	Skewness	Kurtosis	Item	Skewness	Kurtosis
TP5	-1.182	1.008	RP5	-1.473	1.579
TP6	-1.263	1.302	RP8	-1.345	1.447
TP7	-1.147	1.283	RP9	-1.347	1.750
PE8	-1.227	1.075			

The Table above shows that the value of skewness for the all the items are less than absolute 2 and full within the range between -2 to +2. The highest value of Skewness is 1.779 for the item EC4 from emotional cues. This value is within the range of -2 to +2 indicating that the items have normal distribution in term of skewness. For the Kurtosis, the acceptable value is between -7 to +7. The Table shows that the highest value of Kurtosis is 2.855 for the item PE3 from past experience followed by 2.818 for PE4 from the past experience variable.

It can be seen that the normality of the data has been confirmed from skewness and kurtosis as well as from the graphical representation of the data. The histograms indicates that the distribution of the data is normal. Accordingly, it can be concluded in this study that the data is normally distributed.

4.4.3 Multicollinearity Test

Multicollinearity is an issue that occurs when the correlation between the variables higher than 0.90 (Hair et al., 2017). Hair et al. (2017) suggested that the criteria to examine the multicollinearity is by checking the tolerance and the variation inflation factor (VIF). Value of tolerance are expected to be greater than 0.10 and the value of VIF are expected to be less than 10 to conclude that there is no multicollinearity. Table 4.4 shows that the value of tolerance is greater than 0.10. with the lowest value accounts to 0.469 (Verbal Persuasion). The largest value of VIF is

2.054 (Vicarious Experience) which is less than 10. Thus, the two conditions are achieved, and multicollinearity is not an issue among the variables of this study.

Table 4.4: Result of Multicollinearity Analysis

Variable	Tolerance>0.10	VIF<10
Past experience	.556	1.799
Vicarious Experience	.487	2.054
Verbal Persuasion	.469	2.131
Emotional Cues	.606	1.649
Nepotism	.796	1.256
Selection and Recruitment	.621	1.611
Training and development	.544	1.837
Performance Appraisal	.646	1.548
Promotion	.498	2.008
Teaching Performance	.763	1.310

Dependent variable: Research Performance

The Table above shows that the variables of this study have acceptable correlation since the value of the VIF and tolerance is within the acceptable range, this indicates that the correlation among the independent variable is acceptable. Since the value of VIF accounted to less than 10 and the tolerance accounted to greater than 0.10, this led to a conclusion that the data of this study is free from the issue of multicollinearity and the correlation among the variable is acceptable and it is not a concern in this study.

4.5 Factor Analysis Results and Interpretations

Exploratory factor Analysis (EFA) is one of the analyses in SPSS. It takes a large set of variables and looks for a way that the data may be 'reduced' or summarised using a smaller set of factors or components. It is conducted by looking for 'clumps or groups among the inter correlations of a set of variables (Pallant, 2016). Since the items of the questionnaire were adapted and adjusted, and changes

have been made to the original items based on the validation of experts, the EFA was necessary to ensure that the items are related to the measurement. In this section, the EFA of each of the variables that have components is conducted. For example, the EFA of self-efficacy, HRM practices and performance of academic staff is conducted because they are multidimensional construct while the nepotism is a unidimensional construct and EFA for this variable is not conducted since it has a single dimension.

4.5.1 EFA of Self-Efficacy

The EFA was conducted on all the items of self-efficacy. All the 23 items of the variables were included to measure the self-efficacy. Correlation between the items exceeded 0.30 demonstrating the need for EFA (Pallant, 2016). The Kaiser-Meyer-Oklin (KMO) value was 0.944, exceeding the recommended value of 0.60 (Kaiser, 1991) and the Barlett's Test of Sphericity (Bartlett et al., 2001) grasped statistical significance (0.000), supporting the factorability of the correlation matrix and the adequacy of the sample for the purpose of analysis. Table 4.5 shows the KMO and Bartlett's test of self-efficacy.

Table 4.5: KMO and Bartlett's Test of Self-efficacy

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.944
Bartlett's Test of Sphericity	Approx. Chi-Square	5803.246
	df	253
	Sig.	.000

Principal components analysis demonstrated the presence of four components with eigenvalues exceeding 1, explaining 78.765% of the variance. Table 4.6 shows the total variance explained of self-efficacy and it shows that the eigenvalues are

greater than 1 for four variables indicating that there are four components of self-efficacy.

Table 4. 6: Total Variance Explained of Self-Efficacy

	Initial Eigenvalues			Rotation Sums of Squared Loadings		
Component	Total	% Of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.821	51.397	51.397	6.885	29.933	29.933
2	3.554	15.452	66.849	4.129	17.953	47.887
3	1.574	6.843	73.692	3.956	17.199	65.086
4	1.167	5.073	78.765	3.146	13.680	78.765
5	.560	2.435	81.201			
6	.531	2.308	83.508			
7	.412	1.790	85.299			
8	.372	1.617	86.915			
9	.359	1.562	88.477			
10	.334	1.454	89.931			
11	.290	1.261	91.192			
12	.273	1.186	92.378			
13	.244	1.062	93.440			
14	.227	.988	94.428			
15	.206	.894	95.322			
16	.189	.823	96.146			
17	.175	.763	96.909			
18	.168	.730	97.639			
19	.146	.634	98.273			
20	.131	.568	98.840			
21	.107	.467	99.307			
22	.091	.394	99.701			
23	.069	.299	100.000			

Extraction Method: Principal Component Analysis.

An inspection of the scree plot revealed a clear break after the fourth component. Figure 4.2 shows the scree plot of the components of self-efficacy. It shows that there are four components. There is a break after the component number 4. All the components from 1 to 4 have high eigenvalues of more than 1. While after the

component 4, the curve shows that the eigenvalues are less than 1. Thus, 4 components will be considered in this study.

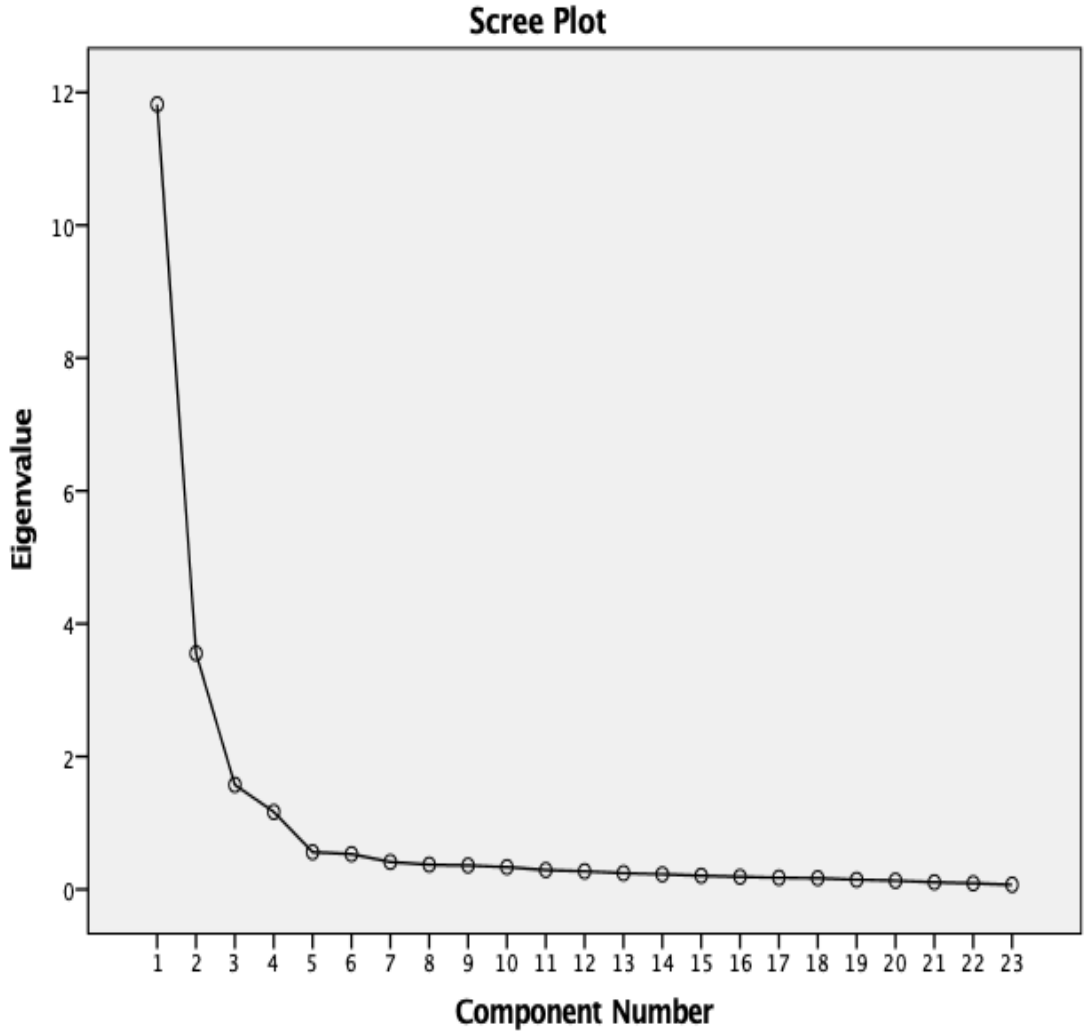

Figure 4.2: Scree Plot of the Self-efficacy

All the items have factor loading, on their respective components, greater than 0.50. This has resulted in 4 components namely Past Experience (PE), Vicarious Experience (VE), Verbal Persuasion (VP), and Emotional Cues (EC). Table 4.7 shows the rotated matrix along with the components and their items and the loading of each item.

Table 4.7: Rotated Component Matrix of Self-Efficacy

	Component			
	PE	**VP**	**EC**	**VE**
PE2	.904			
PE1	.892			
PE4	.890			
PE5	.885			
PE7	.882			
PE3	.878			
PE8	.872			
PE6	.870			
VP3		.802		
VP4		.771		
VP1		.723		
VP5		.709		
VP2		.703		
VP6		.663		
EC2			.844	
EC3			.827	
EC4			.806	
EC1			.735	
EC5			.654	
VE4				.806
VE2				.794
VE3				.793
VE1				.715

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

From the Table above, it can be seen that the items have loaded well on its respective components with loading greater than 0.50. Thus, the remaining items will be subject to the loading in AMOS-SEM and will be evaluated for achieving the required loading and indices.

4.5.2 EFA of HRM Practices

The EFA of HRM practices was conducted using SPSS. All the items of the HRM practices were included. A total of 16 items were used to measure the HRM practices. The correlation matrix showed that the coefficient between the items is greater than 0.30 indicating the need to conduct the EFA (Pallant, 2016). KMOvalue of the EFA of HRM practices is 0.914, exceeding the recommended value of 0.60 (Kaiser, 1991) and the Barlett's Test of Sphericity (Bartlett et al., 2001) grasped statistical significance (0.000), supporting the factorability of the correlation matrix and the adequacy of the sample for the purpose of analysis. Value of KMO is given in Table 4.8.

Table 4.8: KMO and Bartlett's Test of HRM Practices

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.914
Bartlett's Test of Sphericity	Approx. Chi-Square	5844.466
	df	120
	Sig.	.000

The EFA was conducted using the principal components analysis which showed that there are four components with eigenvalues exceeding 1, explaining 91.922% of the variance. Table 4.9 shows the total variance explained and it shows that the eigenvalues is greater than 1 for four variables indicating that there are four components of HRM practices.

Table 4.9: Total Variance Explained of HRM Practices

	Initial Eigenvalues			Rotation Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	9.083	56.771	56.771	3.835	23.966	23.966
2	2.464	15.401	72.172	3.666	22.915	46.881
3	1.641	10.254	82.426	3.613	22.582	69.463
4	1.519	9.495	91.922	3.593	22.459	91.922
5	.251	1.569	93.490			
6	.176	1.097	94.587			
7	.133	.829	95.416			
8	.126	.785	96.202			
9	.118	.739	96.940			
10	.105	.656	97.597			
11	.087	.546	98.143			
12	.079	.495	98.638			
13	.068	.425	99.063			
14	.060	.378	99.441			
15	.047	.293	99.734			
16	.043	.266	100.000			

Extraction Method: Principal Component Analysis.

To confirm that the components are four, the scree plot of the EFA was examined. The scree plot in Figure 4.3 shows that there is a clear break after the fourth component indicating that these four components are the measuring the HRM practices.

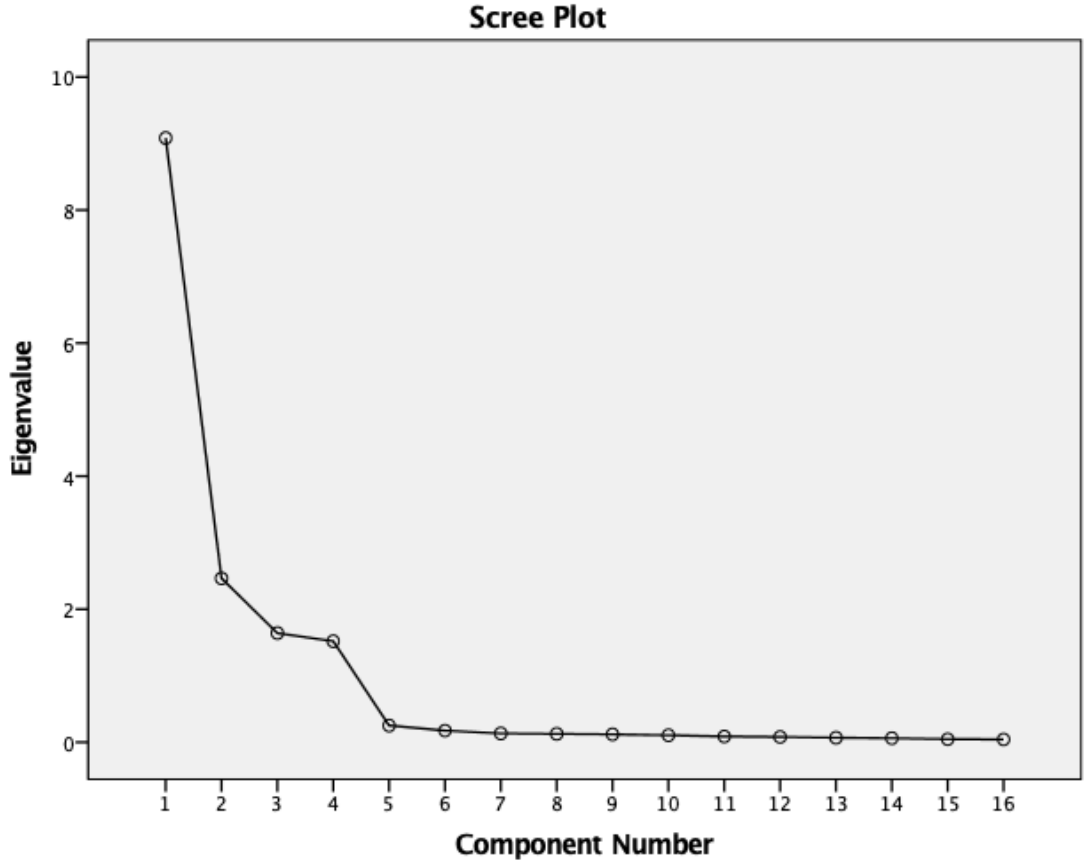

Figure 4.3: Scree Plot of the HRM Practices

Based on the scree plot, the number of components is four and it was decided to retain these four components. All the 16 items of HRM practices showed acceptable loading exceeding 0.50 and none of the items were deleted. This has resulted in four components that are the recruitment and selection (RES), training and development (TD), performance appraisal (PA), and promotion (PRO). Table 4.10 shows the rotated component matrix of HRM practices.

Table 4.10: Rotated Component Matrix of HRM Practices

	Component			
	RES	**PA**	**TD**	**RPO**
RES2	.920			
RES3	.911			
RES1	.909			
RES4	.904			
PA2		.909		
PA3		.898		
PA4		.884		
PA1		.882		
TD2			.883	
TD3			.874	
TD1			.870	
TD4			.861	
PRO3				.887
PRO2				.879
PRO1				.865
PRO4				.842

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

In the AMOS-SEM, the confirmatory factor analysis will be conducted to confirm the relatedness of the items to their respective variables.

4.5.3 EFA of Performance of Academic Staff

The EFA of the performance of academic staff was conducted by including all the items of performance of academic staff to measure the variable. A total of 17 items were included and the analysis showed that there is correlation between the items larger than 0.30 which supports the need for EFA (Pallant, 2016). The value of KMO as shown in Table 4.11 reached 0.954 exceeding the value of 0.60 (Kaiser,

1991). In addition, the Table 4.11 shows also that the Barlett's Test of Sphericity (Bartlett et al., 2001) grasped statistical significance (0.000), supporting the factorability of the correlation matrix and the adequacy of the sample for the EFA analysis.

Table 4.11: KMO and Bartlett's Test of Performance of Academic Staff

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.954
Bartlett's Test of Sphericity	Approx. Chi-Square	4088.188
	df	120
	Sig.	.000

In conducting the EFA of performance of academic staff, the principal components analysis was deployed, and it showed that there are two components with eigenvalues exceeding 1 and explaining 77.054% of the variation in performance of academic staff. This percentage is accepted since it is larger than 0.50 (Hair et al., 2017). Table 4.12 shows the total variance explained and the eigenvalues of the components of performance of academic staff.

Table 4.12: Total Variance Explained of Performance of Academic Staff

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.253	64.080	64.080	6.580	41.126	41.126
2	2.076	12.974	77.054	5.748	35.928	77.054
3	.485	3.028	80.082			
4	.461	2.883	82.966			
5	.388	2.428	85.394			
6	.325	2.033	87.427			
7	.288	1.798	89.225			
8	.262	1.637	90.862			
9	.258	1.615	92.477			
10	.227	1.419	93.896			
11	.211	1.317	95.213			
12	.186	1.164	96.377			
13	.175	1.096	97.473			
14	.163	1.021	98.494			

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
15	.138	.864	99.358			
16	.103	.642	100.000			

Extraction Method: Principal Component Analysis.

The two components confirmed in the scree plot as shown in Figure 4.4 where there is a clear break after the second component indicating that there are two components of performance of academic staff.

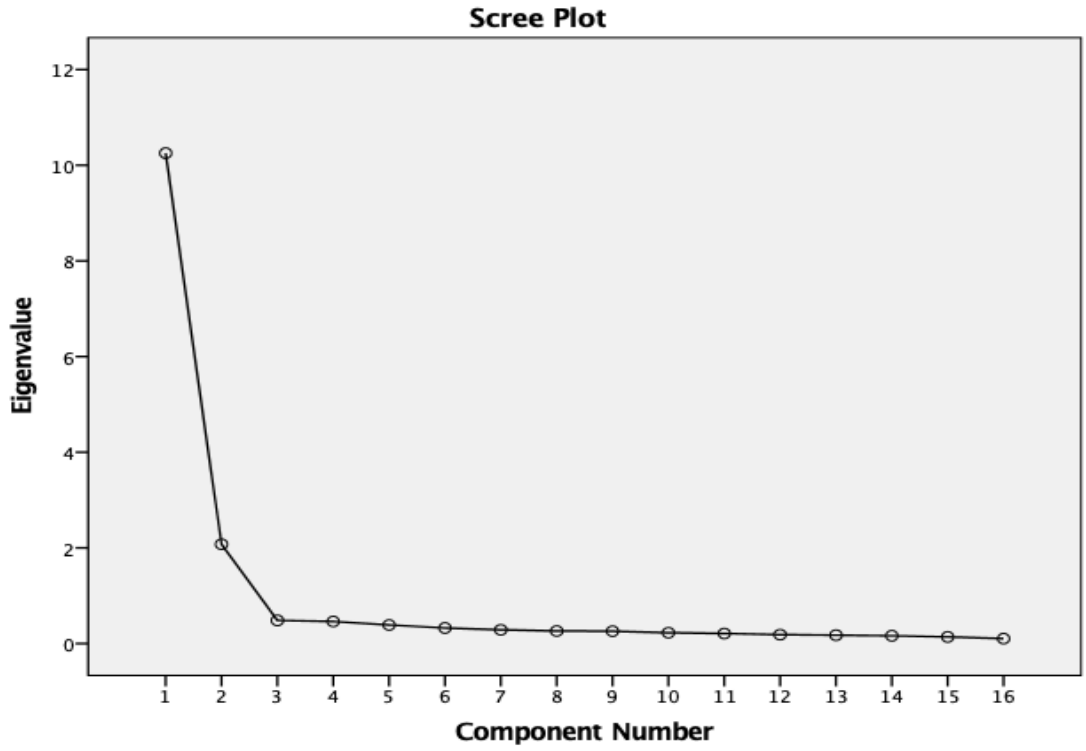

Figure 4.4: Scree Plot of the Performance of Academic Staff

The factor loading of all the items exceed 0.50 except for item RP10 which has loading less than 0.50 and removed from the matrix. Table 4.13 shows the rotated component matrix of the performance of academic staff.

Table 4.13: Rotated Component Matrix of Performance of Academic Staff

	Component	
	RP	**TP**
RP6	.843	
RP4	.843	
RP5	.841	
RP7	.833	
RP3	.809	
RP2	.803	
RP8	.774	
RP9	.771	
RP1	.745	
TP4		.876
TP5		.841
TP7		.841
TP6		.838
TP2		.824
TP3		.811
TP1		.795

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

After removing one item of the research performance, the total remaining items is 16 as shown in Table 4.13. This confirmed that the performance of academic staff consists of two components namely the research performance (RP) and teaching performance (TP). In the next section, the analysis of the AMOS-SEM is conducted.

4.5.4 Structural Equation Modeling

This study is using AMOS to analyse the data. Hair et al. (2017) and Awang (2014) suggested that there are three levels when it comes to deploying AMOS in an analysis. The first level is the Confirmatory Factor Analysis (CFA). In this level, the variables individually are checked for factor loading and achieving the indices. The

purpose of CFA is to assess the loading between each factor and observed variables and it examines the construct reliability and validity (Hair et al., 2010).

CFA measures the concept of the constructs in reliable and valid way. However, it does not assess the relationship between the constructs (Harrington, 2009). For this reason, there is a need for the measurement model, which is the second level of AMOS. The measurement model is conducted, and it includes all the variables together. The first and second level are pre-requisites for the third level (Kline, 2015). The third level is the structural model. In this level, the hypotheses of this study are tested.

4.5.5 The Assessment Criteria of Model Fit

In order to assess the fit indices, the output of CFA must be investigated. There are many indices in CFA. However, the majority of the CFA experts suggested examining some key indices (Hair et al., 2010). Mainly, indices are classified into three main groups namely; absolute fit indices, incremental fit indices, and parsimony indices (Awang, 2014). Awang (2014) pointed out that researchers have no general agreement on which fit indices to use. However, some researchers recommended the use of at least one fitness index from each category of model fit (Awang, 2014; Hair et al., 2010). Table 4.14 shows the index category and the level of acceptance for each index.

Table 4.14: Index Category and the Level of Acceptance for each Index

Name of Category	Name of Index	Level of Acceptance
Absolute fit	PCLOSE	P>0.05
	Mean square error of approximation (RMSEA)	RMSEA<0.08
	Root Mean Square Residual (RMR)	RMR<0.08
	Goodness fit index (GFI)	GFI>0.90
Incremental fit	Adjusted goodness fit index (AGFI)	AGFI>0.90
	Comparative fit index (CFI)	CFI >0.90
	Tuker Lewis index (TLI)	TLI>0.90
	Normed fit index (NFI)	NFI>0.90
	Incremental fit index (IFI)	IFI>0.90
Parsimonious fit	Chisq /df or CMIN/DF	<5.0

Source: Awang (2014)

Thus, in this study, five indices were selected, and they represent the three categories. From absolute fit category, indices of RMSEA are chosen. From the increment fit, CFI and IFI and TLI are selected. Lastly, from the parsimonious fit category, chisq/df or CMIN/DF is selected. This selection agrees with the selection of Awang (2014). Hair et al. (2010) pointed out that if three of the indices achieved the required level, researchers are permitted to proceed with further analysis.

4.6 The Confirmatory Factor Analysis

The confirmatory factor analysis was conducted in this study for each of the construct. Two main steps need to be conducted. First is the achievement of the fit index and second is the factor loading, which is expected to be greater than 0.60 (Awang, 2014; Hair et a., 2010). The procedure is first to check the indices and factor

loading. Next, the modification index is deployed to enhance the goodness of the fit indices.

As shown in the conceptual framework, this study consists of two independent variables namely, HRM practices and self-efficacy. The dependent variable is the performance of academic staff. Each of this variable has subs. Hair et al. (2010) indicates that the loading or the regression weight of the sub on the main variables should be greater than 0.60. In this study each of the main and sub and their item were assessed based on the value of 0.60. Items that have lower value of 0.60 should be deleted to enhance the goodness of the fit indices (Hair et al., 2010).

For the variable, nepotism, it has eight items, and it is the moderator in this study. It is assessed in the measurement model to find the correlation between the items of nepotism and the variable itself with other variables. In the next section, the process of examining the measurement model is discussed.

4.7 Measurement Model

The measurement model specifies the rules governing how all the latent variables are measured together in terms of the observed variables, and it describes the measurement properties of the observed variables. Thus, measurement model is concerned with the relations between observed and latent variables (Hair et al., 2010). According to Hair et al. (2010), the measurement model is evaluated based on criteria such as the regression weight and the achievement of the indices.

Self-efficacy is one of the independent variables and it has four dimensions. The regression weight of the dimension accounted to .89 for vicarious experience (VE) followed by .84 for verbal persuasion (VP), .73 for emotional cues (EC)and .67 for

past experience (PE). For all the items of the variables, the regression weight was greater than 0.60 except for some items which need to be deleted to enhance the goodness of fit indices. From self-efficacy, item PE1 from past experience (PE) was removed. This confirmed that self-efficacy is measured using four components that are the past experience (PE), vicarious experience (VE), verbal persuasion (VP), and emotional cues (EC).

HRM practice is the second independent variable of this study, and it includes four dimensions. The dimensions have regression weight on the HRM practice higher than 0.60. For instance, the promotion (PRO) has a regression weight of 0.78 followed by training and development (TD) with regression weight of 0.77. The regression weight of performance appraisal (PA) is 0.65 while the lowest regression weight is 0.64 for recruitment and selection (RES). One item from training and development (TD1) was removed because the regression weight is less than 0.60.

For the dependent variable, performance of academic staff (PAS), it has two dimensions. The teaching performance (TP) and the research performance (RP). Both dimensions have well regression weight of 0.89 for the teaching performance (TP) and 0.81 for research performance (RP). However, items were deleted from research performance and teaching performance. Items RP6 and RP7 from research performance and item TP2 from teaching performance were deleted due to low regression weight.

For the nepotism (NEP), it is the moderating variable of this study, and it is expected to moderate the effect of HRM practices and self-efficacy on the performance of academic staff. There are eight items for nepotism and these items has

good regression weight on nepotism except for the NEP2 and NEP7 which has low regression weight, and it was removed.

These above discussions of the measurement model shows that the loading of items on the dimension and the loading of the dimension on their variable is accepted. Figure 4.5 shows the measurement model.

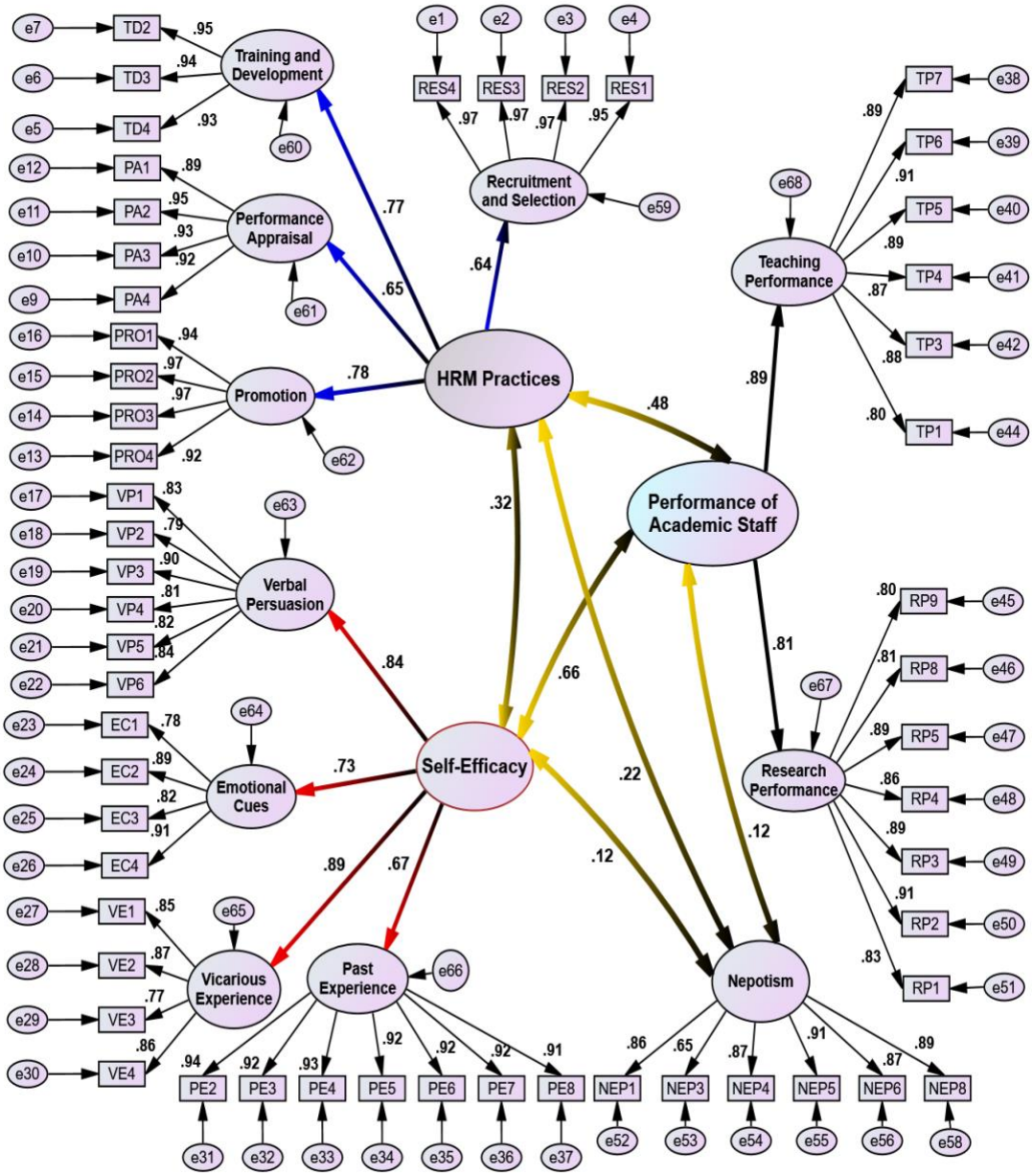

Figure 4.5: Measurement Model

The above Figure shows the measurement model of this study. It includes the independent variables, dependent variable, and the moderating variable. To enhance the fit indices, items were removed. In the EFA, the item RP10 from research performance and the item EC5 from emotional cues were removed. In the measurement model, the items TD1 from training and development, PE1 from past experience, RP6 and RP7 from research performance, TP2 from teaching performance, NEP2 and NEP7 from the moderating variable nepotism were removed. This has resulted in a good and acceptable values of the indices as shown in Table 4.15.

Table 4.15: Fit Measurement Criteria of Measurement Model

Fit Measurement Criteria	Score	Accepted score
RMSEA	0.058	≤ 0.08
CMIN/DF	1.841	≤ 3
CFI	.928	≥ 0.9
TLI	.923	≥ 0.9
IFI	.928	≥ 0.9
PCLOSE	.121	> 0.05

The RMSEA achieved the required level of less than 0.08. Value of CMIN/DF is 1.841 and it is less than the recommended value of 3. For CFI (.928), TLI (.923), and IFI (.928), these indices achieved the required level of greater than 0.90. PCLOSE is greater than 0.05. Thus, it can be concluded that all the values scored well and achieved the required level. This indicates that the measurement model is well accepted, and researcher can proceed to the structural model. In the next section, the discussion of the structural model is given.

4.7.1 Convergent and Construct validity of First Order

Convergent validity is defined as "a set of indicators that is supposed to measure a construct" (Kline, 2015). It is assessed using factor loading (FL), Cronbach's Alpha (CA), Composite Reliability (CR), and average variance extracted (AVE). In Table 4.16, the FL for all the items is greater than 0.60 and CR is greater than 0.70 for all the variables. CA was discussed in previous section, and it is greater than 0.70. For the convergent validity, the AVE is greater 0.50 indicating that the items are able to explain more than 50% of the variation in the variable. Table 4.16 shows the FL, CR and AVE. It shows that all the value were achieved. Thus, the instrument is reliable and valid for the purpose of this study.

Table 4. 16: Factor Loading, Reliability and Convergent Validity

Variable	Items	FL>0.60	CR>0.70	AVE>0.50
Selection and recruitment	SER4	.966	0.974	0.926
	SER3	.973		
	SER2	.967		
	SER1	.947		
Training and development	TD4	.924	0.955	0.876
	TD3	.934		
	TD2	.949		
Performance appraisal	PA4	.924	0.960	0.857
	PA3	.933		
	PA2	.953		
	PA1	.893		
Promotion	PRO4	.922	0.974	0.904
	PRO3	.971		
	PRO2	.969		
	PRO1	.940		
Teaching Performance	TP7	.897	0.956	0.757
	TP6	.907		
	TP5	.888		
	TP4	.867		
	TP3	.887		
	TP2	.829		
	TP1	.812		
Research Performance	RP9	.781	0.948	0.721
	RP8	.799		
	RP5	.886		
	RP4	.856		
	RP3	.886		
	RP2	.902		

Variable	Items	FL>0.60	CR>0.70	AVE>0.50
	RP1	.828		
Past performance	PE6	.920	0.976	0.855
	PE5	.924		
	PE4	.935		
	PE3	.917		
	PE2	.942		
	PE8	.910		
	PE7	.926		
Verbal persuasion	VP6	.842	0.931	0.693
	VP5	.822		
	VP4	.805		
	VP3	.896		
	VP2	.789		
	VP1	.837		
Emotional cues	EC4	.908	0.914	0.726
	EC3	.820		
	EC2	.891		
	EC1	.784		
Vicarious experience	VE1	.846	0.905	0.704
	VE4	.863		
	VE3	.773		
	VE2	.870		
	NEP7	.917	0.950	0.731
	NEP6	.848		
	NEP5	.934		
	NEP4	.862		
	NEP3	.673		
	NEP1	.851		
	NEP8	.875		

It can be seen from Table 4.16 that all the criteria of measurement model were achieved. Next, the discriminant validity is examined.

4.7.2 Discriminant validity

Researchers agreed that the discriminant validity is achieved when the square root of AVE is greater than the cross loading of the variables (Awang, 2014; Hair et al., 2010). In other words, when the numbers that are highlighted in green in Table 4.17 are greater than their rows and columns, then it can be concluded that the discriminant validity is achieved. Table 4.17 shows that the discriminant validity of

the variables was achieved. This is because the value in bold are greater than its row and column indicating that the discriminant validity is achieved.

Table 4. 17: Discriminant Validity

PE	RES	TD	PA	PRO	TP	RP	VE	VP	EC	NEP
0.925										
0.188	**0.962**									
0.299	0.123	**0.933**								
-0.041	0.355	0.460	**0.932**							
0.081	0.521	0.564	0.544	**0.892**						
0.602	0.235	0.331	0.217	0.304	**0.911**					
0.309	0.380	0.338	0.194	0.260	0.611	**0.873**				
0.640	0.182	0.203	0.176	0.236	0.520	0.408	**0.886**			
0.535	0.252	0.192	0.183	0.302	0.584	0.472	0.743	**0.901**		
0.453	0.187	0.161	0.184	0.282	0.646	0.533	0.636	0.779	**0.881**	
-0.005	0.185	0.146	0.195	0.132	0.146	0.177	0.068	0.131	0.293	**0.892**

Note: PE: Past experience, RES: Recruitment and Selection, TD: Training and development, PA: performance appraisal, PRO: Promotion, TP: Teaching Performance, RP: Research Performance, VE: Vicarious experience, VP: Verbal persuasion, EC: Emotional cues, NEP: Nepotism.

4.8 Structural Model Analysis and Hypotheses Testing

The third level of SEM-AMOS is the structural model. In this level, the hypotheses are tested and the r-square of the model is presented. Hair et al. (2010) indicates that the structural model is assessed by the R-square and the coefficient. Figure 4.5 shows the structural model of this study. The R-square of the dependent variable performance of academic staff is 0.62 indicating that the independent variables such as HRM practices and self-efficacy can explain 62% of the variation in the performance of academic staff. These values of R-square are acceptable and considered excellent as pointed out by Hair et al. (2017), R-square value between 0.25 to 0.50 is considered good while R-square value between 0.50 to 0.75 are considered excellent.

The main purpose of assessing the structural model is to test the hypotheses of this study. This study has developed a direct effect hypotheses and moderating hypothesis. The testing of each type of hypotheses was conducted separately. For the direct effect hypotheses, it includes ten hypotheses. Two main hypotheses and eight sub hypotheses. The direct effect hypotheses are as follows:

H1: HRM practices has a positive significant effect on the performance of academic staff in public universities.

H1a: recruitment and selection have a significant positive effect on performance of academic staff in Jordan.

H1b: Training and development has a significant positive effect on the performance of academic staff in Jordan.

H1c: Promotion has a signficnat positive effect on the perfomance of academic staff in Jordan.

H1d: performance appraisal has a significant positive effect on the performance of academic staff in Jordan.

H2: Self-efficacy affects positively the performance of academic staff in Jordan.

H2a: Past experience affects positively the performance of academic staff in Jordan.

H2b: Vicarious experience has a significant positive effect on the performance of academic staff.

H2c: Verbal persuasion affects significantly and positively the performance of academic staff in Jordan.

H2d: Emotional cues has a signficnat positive effect on performance of academic staff in Jordan.

The structural model of the direct effect hypotheses is shown in Figure 4.6. It shows that the loading of items and dimensions are greater than 0.60 eliminating the need to delete any of the items. It shows also that the correlation between HRM practices and self-efficacy accounted to 0.35 which is acceptable and indicates that there is no issue of multicollinearity among the independent variables of this study.

The loading of the items of all variables is greater than 0.60. In addition, the dimension of HRM practices showed that it has high regression weight of more than 0.60. Similarly, for the dimension of self-efficacy and performance of academic staff, they have regression weight greater than 0.60. The nepotism is the moderator, and it is not included in this model. However, a model of moderator is given in later sections.

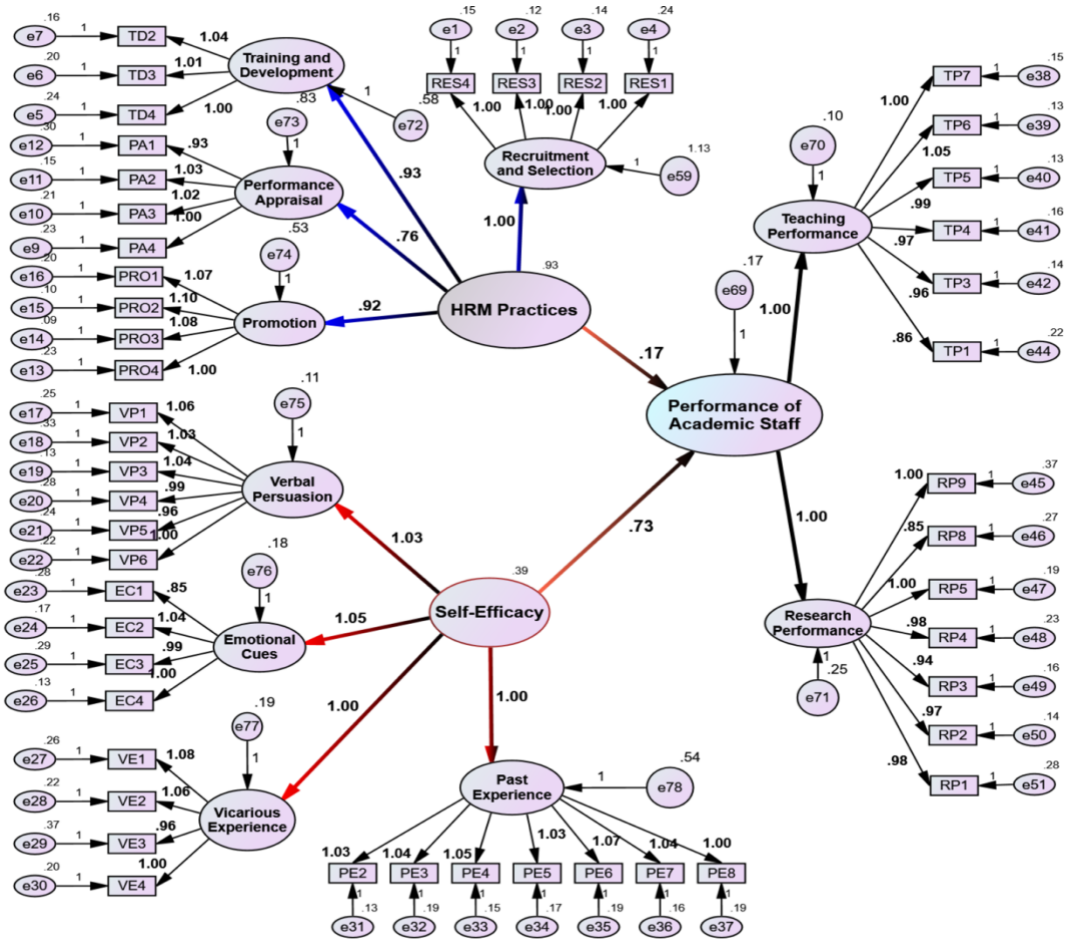

Figure 4.6: Structural Model

For the indices, all the indices were achieved for the structural model. The value of RMSEA accounted to 0.061 which is less than 0.08. Additionally, the CMIN/DF is 1.938 and it is less than the recommended value of 3. For the CFI (0.938), TLI (0.931), and IFI (0.938) they achieved the required value of greater than 0.90. PCLOSE is 0.219 which is greater than 0.05 and achieved the required level. Thus, as shown in Table 4.18, all the values of the fit measurement criteria of structural model have achieved the required level and they are acceptable.

Table 4.18: Fit Measurement Criteria of Structural Model

Fit Measurement Criteria	Score	Accepted score
RMSEA	0.061	≤ 0.08
CMIN/DF	1.938	≤ 3
CFI	.938	≥ 0.9
TLI	.931	≥ 0.9
IFI	.938	≥ 0.9
PCLOSE	.219	> 0.05

For testing the hypotheses of this study, the output of the structural model is deployed. In this study, there are two main direct hypotheses with four sub hypotheses of each. The first hypothesis of this study (H1) proposed that the HRM practices will have a positive effect on the performance of academic staff "H1: HRM practices has a positive significant effect on the performance of academic staff in public universities". The findings show that the effect of HRM practices on performance of academic staff is positive and significant (B=.171, C. R=3.996, P<0.001). Thus, the increase in HRM practices will lead to a positive impact on the performance of Jordanian academic staff. Accordingly, H1 is supported.

The first sub hypothesis predicted that the effect of selection and recruitment on the performance of academic staff is positive and significant "H1a: recruitment and selection have a significant positive effect on performance of academic staff in Jordan". The findings show that the effect is positive and significant (B=.521, C. R=6.131, P<0.001). Thus, the increase in selection and recruitment will increase the performance of academic staff. Thus, H1a is supported.

The second sub hypothesis assumed that the effect of training and development affects performance of academic staff positively and significantly "H1b: Training and development has a significant positive effect on the performance of academic staff in Jordan. The findings show that the training and development has significant impact on

the performance of academic staff (B=.323, C. R=4.196, P<0.001). According, universities that conduct training and development will enhance the performance of academic staff. Thus, H1b is supported.

The third sub hypothesis proposed that promotion as a practice of HRM has a positive impact on the performance of academic staff "H1c: Promotion has a signficnat positive effect on the perfomance of academic staff in Jordan". The findings show that promotion is critical for the peformance of academic staff in Jordan and it has a signficnat effect on the performance of Jordanian academic staff (B=.282, C. R=4.129, P<0.001). Thus, the enhancement of the promotion will increase the performance of Jordanian academic staff. Thus, H1c is supported.

The fourth sub hypothesis of HRM practice proposed that the performance appraisal affects the performance of academic staff "H1d: performance appraisal has a significant positive effect on the performance of academic staff in Jordan". The result of testing the hypotheses showed that the effect of performance appraisal affects the performance of academic staff (B=.181, C. R=2.312, P=0.014). The increase in the performance appraisal leads to an increase in the performance of Jordanian academic staff. Thus, H1d is supported.

The second main hypothesis (H2) predicted that the effect of self-efficacy on performance of academic staff is positive and significant "H2: Self-efficacy affects positively the performance of academic staff in Jordan". The result of hypotheses testing show that the effect of self-efficacy on performance of academic staff is positive and significant (B=.726, C. R=9.555, P<0.001). Thus, this indicates that the increase in self-efficacy increase the performance of academic staff. Accordingly, H2 is supported.

Past experience was proposed to affect the performance of academic staff "H2a: Past experience affects positively the performance of academic staff in Jordan". The findings show that the effect of past experience (PE) has insignificant effect on performance of academic staff (B=.351, C. R=4.110, P<0.001). Thus, past experience has a significant effect on the performance of academic staff. Accordingly, H2a is supported.

Vicarious experience was proposed to have a direct positive effect on the performance of academic staff "H2b: Vicarious experience has a significant positive effect on the performance of academic staff". The findings showed that the effect of vicarious experience on performance of academic staff is insignificant (B=.072, C. R=-.240, P=0.810). Vicarious experience does not affect the performance of academic staff. Accordingly, H2b is rejected.

The third sub hypothesis of the self-efficacy proposed that the verbal persuasion will affect directly and positively the performance of academic staff "H2c: verbal persuasion affects significantly and positively the performance of academic staff in Jordan". The findings indicate that the verbal persuasion has a significant effect on the performance of academic staff (B=.259, C. R=2.519, P=0.012). This indicates that the verbal persuasion is critical for the performance of academic staff. The increase in the verbal persuasion will lead to an increase in the performance of Jordanian academic staff. Thus, H2c is supported.

Emotional cues is proposed to affect positively the performance of academic staff "H2d: Emotional cues has a signficnat positive effect on performance of academic staff in Jordan". The findings support the hypothesis and show that the effect of emotional cues has a significant and positive effect on performance of

academic staff (B=.492, C. R=4.929, P<0.001). Thus, the hypothesis (H2d) is supported and the increase in emotional cues will lead to an increase in the performance of Jordanian academic staff.

4.9 Moderating Effect of Nepotism

Nepotism is proposed as a moderator between HRM practices, self-efficacy, and performance of academic staff. To test the moderator, Hair et al. (2010) proposed that the moderator can be tested by multiplying the indicators of the independent variable with the indicator of the moderator to produce the moderating effect. In this study, the HRM practices as the independent variable was multiplied with the moderator; nepotism to create the moderating effect (Nepotism*HRM practice). Similarly, the moderating effect of nepotism between self-efficacy and performance of academic staff was created (Nepotism*Self-efficacy). In Figure 4.7, the moderating effect of nepotism between HRM practices and performance of academic staff is shown.

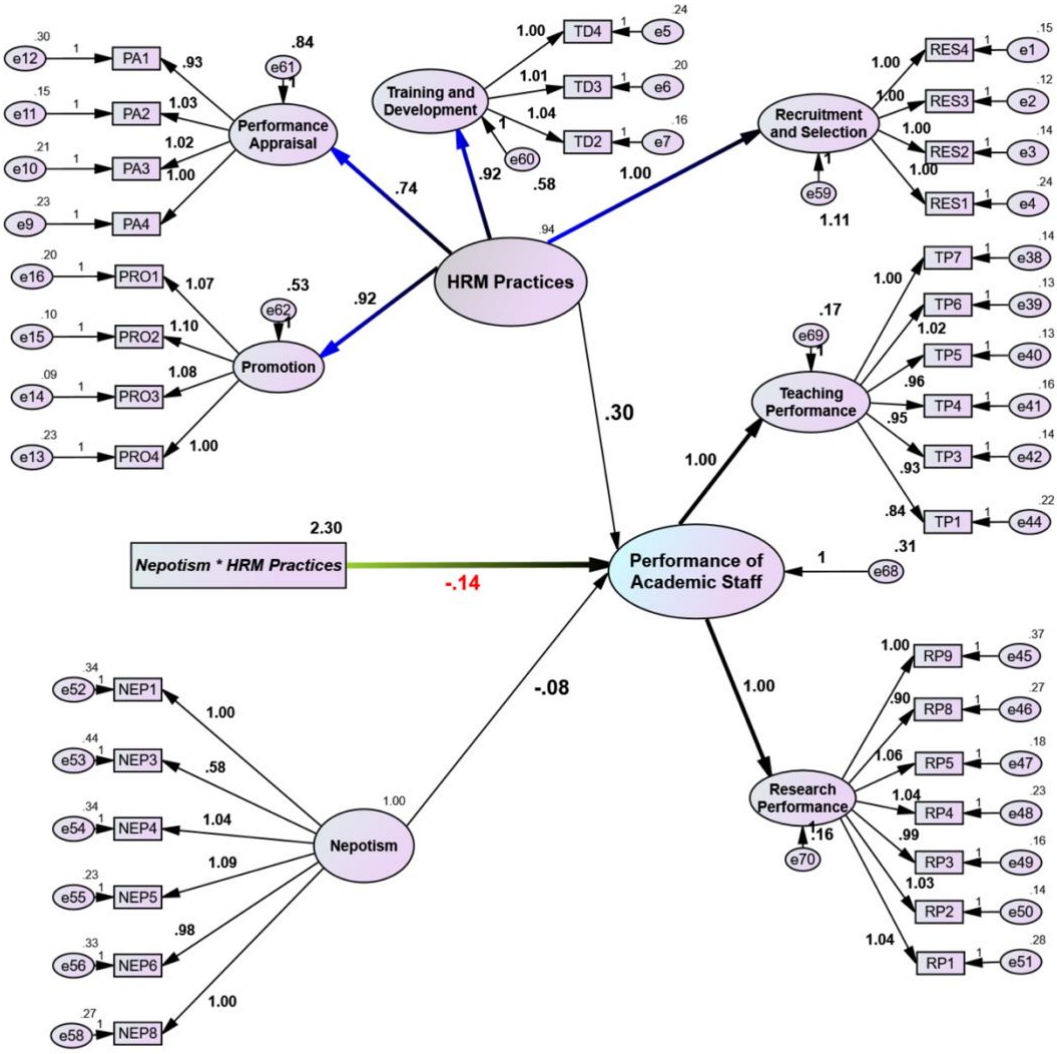

Figure 4.7: Structural Model of Nepotism as a Moderator between HRM Practices and Performance of Academic Staff

The above Figure shows that the loading of all items is greater than 0.60. In addition, the loading or the regression weight of the dimensions is greater than 0.60 indicating that there is no issue of loading. The correlation between variable is less than 0.90 which indicates that there is no multicollinearity among the variables of this study.

The indices of the structural model of the moderator were also assessed. Table 4.17 shows the result of fit measurement criteria of the moderating model. It shows that the value of RMSEA is 0.067 which is less than 0.08. CMIN/DF accounts to 2.033 and it is acceptable because it is less that the accepted score of 3. CFI (0.943), TLI (0.939), and IFI (0.943) are acceptable because they are greater than the accepted score of 0.90. Table 4.19 shows the fit measurement criteria of the moderator nepotism between HRM practices and self-efficacy with performance of academic staff.

Table 4.19: Fit Measurement Criteria of Moderator Nepotism between HRM Practices and Performance of Academic Staff

Fit Measurement Criteria	Score	Accepted score
RMSEA	0.067	≤ 0.08
CMIN/DF	2.033	≤ 3
CFI	.943	≥ 0.9
TLI	.939	≥ 0.9
IFI	.943	≥ 0.9
PCLOSE	.312	> 0.05

To examine the hypotheses, the study proposed that the nepotism will moderate the effect of HRM practices on performance of academic staff

"H3: High nepotism will reduce the positive effect of HRM practices on performance of academic staff".

The findings showed that the moderating effect (Nepotism* HRM Practices) has significant effect on the performance of academic staff with coefficient of -0.14 as shown in Figure 4.7 and critical ratio of 2.417. The p-value is less than 0.05 indicating that the hypotheses is supported. The increase in nepotism will decrease the effect of HRM practices on performance of Jordanian academic staff. Thus, H3 is supported.

To better explain the hypothesis, Table 4.20 shows the results of testing the moderating effect of nepotism between HRM practices and the performance of academic staff.

Table 4.20: Results of Moderating Effect of Nepotism between HRM Practices and Performance of Academic Staff

Relationship	Estimate (B)	S. E	C.R	P value	Result
HRM Practices→ Performance of Academic staff	0.204	0.054	3.725	0.000	Significant
Nepotism* HRM Practices→ Performance of Academic staff	-0.143	0.057	2.471	0.016	Significant
Nepotism → Performance of Academic staff	-0.084	0.043	1.963	0.049	Significant

Figure 4.8 is extracted from the structural model of the moderator, and it is given here to ease the explanation of the moderator. As shown in the figure, the moderator nepotism, the independent variable is HRM practices, and the moderating effect which is the result of multiplying the moderator with the independent variable (Nepotism*HRM practices) as well as the dependent variable is performance of academic staff are shown. It shows that the moderating effect is negative and significant indicating that nepotism is a moderating variable.

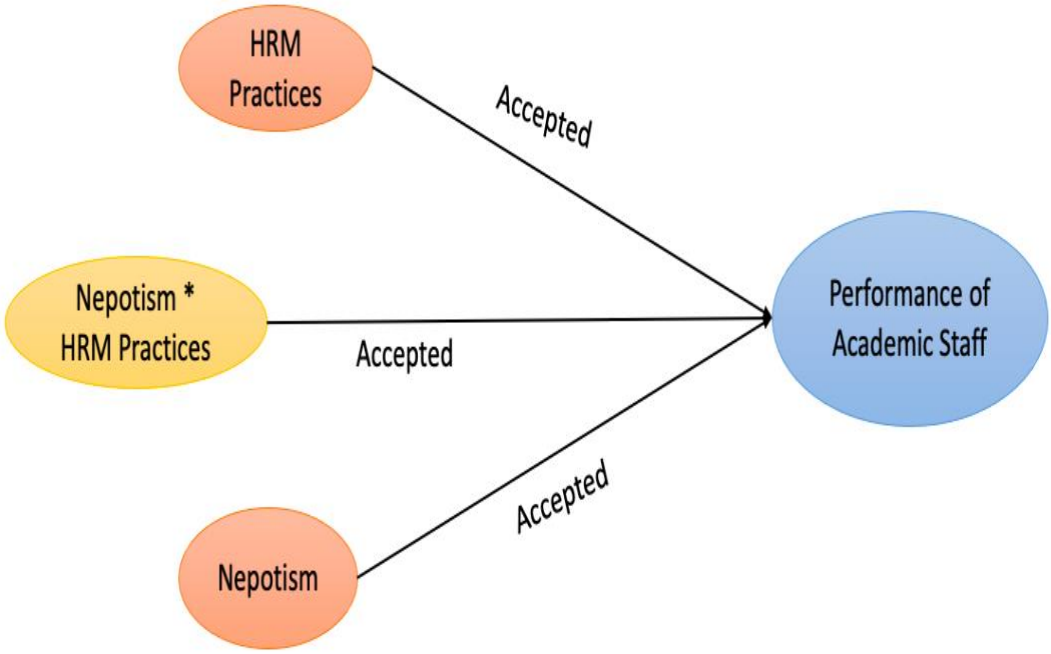

Figure 4.8: Moderating effect of Nepotism between HRM practices and Performance of academic staff

For the moderating effect of nepotism between self-efficacy and performance of academic staff, the study proposed that nepotism will negatively moderate the effect of self-efficacy on performance of academic staff.

"H4: High nepotism will reduce the positive effect of self-efficacy on performance of academic staff".

Figure 4.9shows the moderating effect of nepotism between self-efficacy and performance of academic staff. It shows that the loading of all items is greater than 0.60. In addition, the loading or the regression weight of the dimensions is greater than 0.60 indicating that there is no issue of loading. The correlation between variable is less than 0.90 which indicates that there is no multicollinearity among the variables.

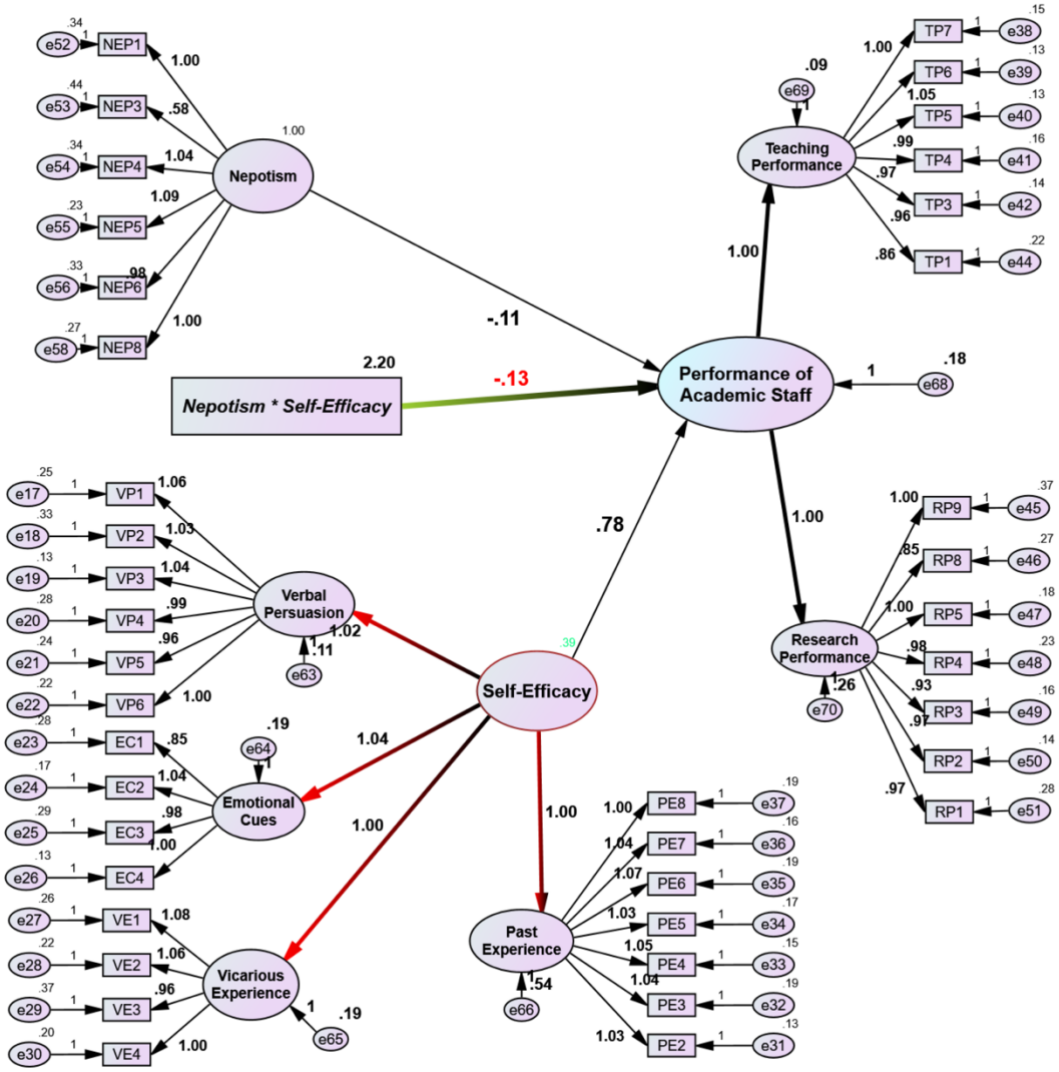

Figure 4.9: Moderating Effect of Nepotism between Self-Efficacy and Performance of Academic Staff

The indices of the structural model of the moderator were also assessed. Table 4.21 shows the result of fit measurement criteria of the moderating model. It shows that the value of RMSEA is 0.069 which is less than 0.08. CMIN/DF accounts to 2.041 and it is acceptable because it is less that the accepted score of 3. CFI (0.939), TLI (0.934), and IFI (0.939) are acceptable because they are greater than the accepted

score of 0.90. Table 4.21 shows the fit measurement criteria of the moderator nepotism between self-efficacy and performance of academic staff.

Table 4. 21: Fit Measurement Criteria of Moderator Nepotism between Self-Efficacy and Performance of Academic Staff

Fit Measurement Criteria	Score	Accepted score
RMSEA	0.069	≤ 0.08
CMIN/DF	2.041	≤ 3
CFI	.930	≥ 0.9
TLI	.934	≥ 0.9
IFI	.939	≥ 0.9
PCLOSE	.312	> 0.05

The findings showed that nepotism negatively moderated the effect of self-efficacy on performance of academic staff. In Table 4.22, the table was extracted from the results of the moderating effect of nepotism. The table shows the results of testing nepotism as a moderator between self-efficacy and performance of academic staff.

Table 4.22: Results of Moderating Effect of Nepotism between Self-Efficacy and Performance of Academic Staff

Relationship	Estimate (B)	S. E	C.R	P value	Result
Self-efficacy → Performance of Academic staff	0.779	0.079	9.861	0.000	Significant
Nepotism* Self-efficacy → Performance of Academic staff	-0.129	0.023	5.606	0.006	Significant
Nepotism → Performance of Academic staff	-0.107	0.036	2.975	0.002	Significant

The coefficient of the effect (Nepotism*Self-efficacy) is -0.129 and the p-value of the effect is 0.006 which is less than 0.05 indicating that the nepotism has negatively moderated the effect of self-efficacy on the performance of Jordanian academic staff. Thus, H4 is supported. For better illustration of the moderating effect

of nepotism between self-efficacy and performance of academic staff, Figure 4.10 shows the diagram of the moderation.

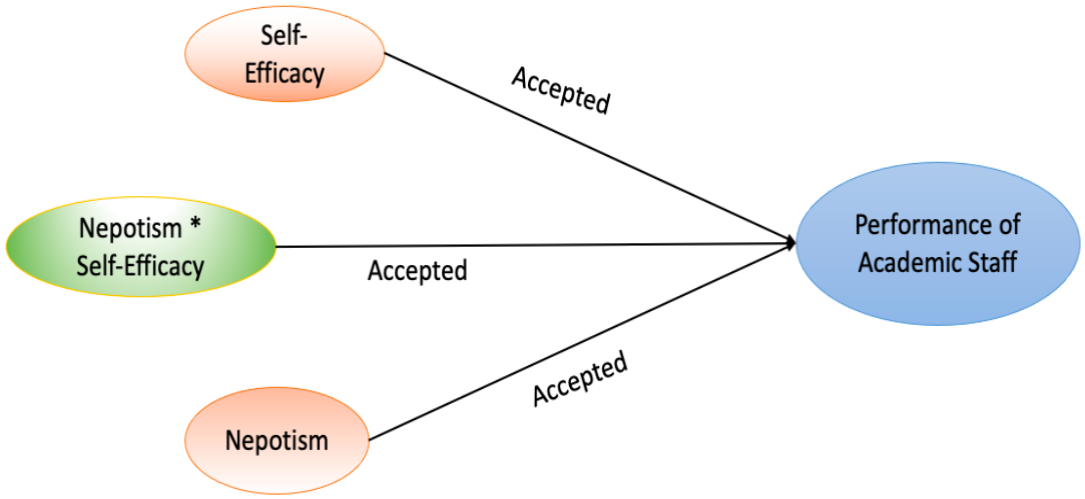

Figure 4.10: Moderating effect of Nepotism between Self-Efficacy and Performance of Academic Staff

Additional findings indicates that nepotism has a negative direct effect on the performance of academic staff. This indicates that nepotism is critical for the academic staff and the increase in nepotism will lead to a reduction in the performance of academic staff.

4.10 Summary

This chapter presented the data analysis of this study. The chapter presented the reliability and the validity analysis. It also conducted the preliminary analysis to clean and cleanse the data. The profile of the respondents was presented as well as the exploratory factor analysis. The analysis was conducted using SPSS and AMOS. Using AMOS, the measurement model and the structural model were assessed.

The result showed that HRM practices and its components recruitment and selection, training and development, promotion, and performance appraisal are significant predictors of the performance of academic staff. In addition, the findings showed that self-efficacy and its components past experience, verbal persuasion and emotional cues are important predictors of performance of academic staff. Nepotism moderated the effect of HRM practices and self-efficacy on performance of academic staff and it has a significant negative direct effect on the performance of academic staff. The variables of this study were able to explain 62% of the variation in the performance of academic staff. Next chapter discusses the findings and conclusion of this study.