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# Do employee attitudes mediate the relationship between strategic human resource management practices and organizational effectiveness? A SEM based investigation using **SMART-PLS** software

#### Mohammad Tahseen Sleimi, Okechukwu Lawrence Emeagwali

Faculty of Business and Economics, Girne American University, Cyprus (Northern)

corresponding e-mail: moh(dot)sleimi[at]gmail(dot)com address: Faculty of Business and Economics, Girne American University, Technopark Building TO203 Girne

Abstract: This research set out to test the mediating of employee attitudes on the relationship between SHRM (Society for Human Resource Management) practices and organizational effectiveness in Palestinian banking sector. Using structural equation modeling (SEM) it is investigated a random sample of 357 Palestinian banks' employees selected in a random manner in 16 Palestinian governorates. The partial least square approach has been used depending on SMART-PLS software. Results show the existence of direct and indirect significant path between SHRM practices and organizational effectiveness. However, the indirect relationship through the mediating role of employee attitudes was stronger than the direct one. To sum up, results indicate that employee attitudes partially mediate the relationship between SHRM practices and organizational effectiveness.

JEL Classifications: M12, M50

Keywords: Strategic human resource management (SHRM) practices, employee attitudes, organizational effectiveness

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#### Introduction

At the beginning of 1980s, academics and researchers started to recognize HR management as an important tool which leads to major improvements within the organizations (Jackson, Schuler, & Jiang, 2014). This importance actually comes from the role that HR management can play as a competitive advantage for achieving better organizational effectiveness, by understanding individuals' needs and behaviors as one of the main organizational resources (Schuler & Jackson, 1987).

Most of literature studies displayed that SHRM (Society for Human Resource Management) management practices guide to better performance (Katou & Budhwar, 2006). Hence, organizations which adopt the best SHRM management practices in selecting and recruiting, training, performance appraisal and rewards systems can attain better organizational performance (Aycan, Al-Hamadi, Davis, & Budhwar, 2007). Thus, within a quick environmental change, unstable political situation, hypercompetition and globalization, it is become obligatory for organizations nowadays to enhance their SHRM practices so as to compete effectively. Additionally, literature studies suggested for follower researches to mediate the relationship between SHRM management practices and organizational effectiveness through employee attitudes, which gives an opportunity to

measure the relationship with and without the mediating variable to clarify the whole picture of the nature of the intended relationship (Katou, 2012).

An important question here is: how organizations can implement a suitable SHRM practices in the aim of achieving and sustaining organizational effectiveness as a superior competitive advantage against other competitors? To answer this question and to provide the strategy in the same relationship, better understanding to this subject, this research represents the first advanced conceptual model which links the SHRM practices with organizational effectiveness using data from banks which are operating in Palestine. This linkage includes the direct relationship between SHRM practices and organizational effectiveness and the indirect or moderating role of employee attitudes in this relationship. This research is an attempt to recognize the impact of independent variable, which is represented in SHRM practices, on the dependent variable which is represented by organizational effectiveness that organizations hope to improve and enhance. Research framework clarifies the linkage between SHRM and organizational effectiveness through the mediating role of employee attitudes and also recognizes the role of business strategy in the same relationship.

### Literature and hypothesis development

## SHRM practices and organizational effectiveness

According to literature studies, SHRM has an important effect on organizational performance and, accordingly, a special effect on organizational effectiveness (Wang, Chen, Wang, & Zang, 2005). According to Michael Porter in his competitive strategy approach, it is argued that an organization can improve its overall effectiveness by understanding individuals' behaviors and needs in order to link them with SHRM practices; this means SHRM practices can be considered as a competitive advantage with a suitable design (Porter, 1998). For organizations, it is important to understand employees' behaviors and needs firstly, after that it will be easier for them to design their SHRM perfectly in order to increase the opportunity to attain the desired level of organizational effectiveness. Actually, the hypothesis number (1) will achieve this linkage and it will be helpful to understand individuals' behaviors and needs.

## Hypothesis (1):

H<sub>0</sub>: There is no significant impact of SHRM practices on organizational effectiveness.

To classify SHRM practices, this research found several classifications and the wide variety of terms which describe HR functions and practices. For instance, Delaney & Huselid (1996) in their study classified HR practices into the seven major functions which are incentive compensations, grievance selectivity, training, decentralization decision making, internal labor market and vertical hierarchy. Another classification was made by Pfeffer (1998) who classified HR practices to the functions including the employment security, selective hiring, self-managed teams, high compensation contingent on performance, training to provide a skilled and motivated workforce, reduction of status differentials, and information sharing. Mathis & Jackson (2011) in their book, which is considered as one of the most valuable human resources books for university student, categorized human resource function into five functions: staffing, total rewards, employee/labor relations, training and development and performance management. To conclude, there are several valuable classifications for SHRM, each one of them includes HR function in a different way in order to attain the same aim. In this research five SHRM practices have been chosen as following: recruitment and hiring, training and development, performance appraisal, pay and compensation system and flexible work arrangements. This selection has been done

according to Rugimbana & Akong'o Dimba (2010) study which categorized SHRM in appropriate and consistent manner.

## The mediating role of employee attitudes in the relationship between SHRM and organizational effectiveness

In spite of the fact that, the main relationship between the independent and the dependent variables in this research have been explored over the past years, actually this relationship still ambiguous and it is still difficult to explain the nature of the causality relationship between these variables (Katou, 2012). Thereby, after exploring literature studies about the impact of SHRM on organizational effectiveness, a critical gap still remains (Wright & Gardner, 2003). According to Purcell (2003), in order to vanish this gap it is necessary for researchers to examine "how" this impact happened instead of "what" is the impact made.

In order to answer the question "how" would SHRM lead to enhance organizational effectiveness? Literature studies have been examined the effects of several related variables on the main relationship between SHRM and organizational effectiveness (Huselid & Becker, 1996; Wright & Gardner, 2003). Hence, several studies have been admitted that investigating the relationship between SHRM and organizational effectiveness directly will be inaccurate; this is actually due to excluding the role of the mediating variable. So, for better understanding of this relationship, these studies proposed that follower researchers need to include the intervening variables and to analyze the relationship between SHRM and organizational effectiveness as sequential forward causality steps rather than the just direct relationship between the independent and the dependent variable (Becker & Gerhart, 1996).

Depends on this debate, several mediating variables have been proposed in literature. For instance, according to Becker & Gerhart, (1996) and Wright & Snell (1998) employee attitudes mediate the relationship between SHRM and organizational effectiveness and it will be helpful to predict how appropriate practices can affect organizational effectiveness. Purcell & Hutchinson (2007) and Youndt, Snell, Dean, & Lepak (1996) argued that employee attitudes and behaviors are the complementary variables which influence the relationship between SHRM and organizational effectiveness.

To sum up, after reviewing literature studies about the same subject, several studies have been suggested to include employee attitudes as a mediator variable which mediates the relationship between SHRM and organizational effectiveness. Katou (2012) suggested for further research to examine the same relationship through the mediating role of employee attitudes which may contribute to understanding that SHRM could enhance organizational effectiveness. According to all these results and suggestions, the researcher developed hypotheses number 4, 5 and 6 as follow:

## Hypothesis 2:

H<sub>0</sub>: Employee attitudes doesn't mediate the relationship between SHRM practices and organizational effectiveness.

#### Research methodology

The main aim of this research is to examine the impact of SHRM practices on organizational effectiveness through the mediating role of the employee attitudes within the Palestinian banking sector. Count on this aim, the positivism approach is considered as the most suitable way that is able to attain researches aims because it explains researches' causal relationships or the impact/s of one factor/s on another factor/s

(Malhotra, Birks, & Inc., 2000). Consequently, deductive and quantitative approaches were used to gather research data; this means the questionnaire is the primary instrument that is used to collect research data (Johnson & Clark, 2006). Thus, suitable statistical measurements were used to test research hypothesis in order to generalize the results.

For this research the simple random sampling is used to determine the sample size. By using this type of sample, each element within research population possesses a similar opportunity of being chosen to be represented in the sample (Saunders, 2011). For business management studies and researches, researchers usually use 95% confidence level and 3% to 5% error of margin (Lewis, Thornhill, & Saunders, 2007). As study population is considered a small population of 5300 employees in number, the needed sampling size is 357 (De Vaus, 2013).

A special questionnaire was adapted to measure research variables, by distributing those questions for several respondents and asking them to answer these questions from their point of view to collect research data. According to Lewis et al. (2007) achieving an accepted level of reliability and validity for social science researches isn't easy and for overcoming this obstacles, researchers can depend on ready and widely accepted questionnaires, for this reason, final form of research instrument contained seven three types of variables has been adapted to attain research objectives. This questionnaire contains 34 items that measure research variables.

To insure research reliability, pilot test has been measured using SPSS v23 program. reliability test and if-item-deleted test on them. While reliability test clarifies how questionnaire paragraphs are closely related as a group. If-item-deleted test give the researcher the opportunity to exclude any questions which has a negative impact on instrument reliability. After performing Cronbach's alpha test for each group of variables and for the instrument as whole. All of results is more than the lowest level of accepted for Cronbach's alpha test which is 0.70 (Collis & Hussey, 2013). This means the internal consistency of research tool is accepted for the instrument in total and for each group of questions that are related to one variable.

#### Data analysis

SMART PLS software has been chosen as one of the most popular research for structural equation modeling (SEM) analysis. Business research in recent years have shown a greater dependency on structural equation modeling (SEM) as one of the best mainstream methods to analyze topics of business management field (Sarstedt, Ringle, Smith, Reams, & Hair, 2014). For using SEM, there are pair of methods; the first one is the covariancebased techniques (CB-SEM) while the other is the variance- based partial least squares (PLS-SEM) (Hair, Sarstedt, Ringle, & Mena, 2012). Nowadays, (PLS-SEM) is considered as one of the best new alternative to (CB-SEM) (Henseler, Ringle, & Sinkovics, 2009). Moreover, (PLS-SEM) has received several improvements recently such as; confirmatory analysis, impact-performance matrix analysis, non-linear effects, and moderating and mediating effects (Hair et al., 2012).

Structural equation modeling contains two different models which are the inner model and the outer model; the inner model or structural model identifies the dependent and independent latent variables relationships while the outer model identifies the latent variables relationships with their observed indicators (Sarstedt et al., 2014). (Note: latent variables are the variables that are known as factors or constructs and also they aren't able to be observed directly (Wong, 2013). Depending on SEM assumptions, latent variables are either exogenous or endogenous. Latent variables are called exogenous when they have one or more headed arrows that moving out of them only, in this situation; latent variables are representing independent variables. For this research, SHRM practices and employee attitudes represent the exogenous latent variables. Meanwhile, latent variables are called endogenous when they have leastwise headed arrows that moving into them, in this situation, latent variables are dependent variables which represent organizational effectiveness (Astrachan, Klein, & Smyrnios, 2002).

Lately, SEM has two measurement indicators; the formative and the reflective indicators (Edwards & Bagozzi, 2000). To observe the whole picture; it is necessary to highlight the difference between these two indicators. Formative indicator is considered as a function of the indicators of a latent variable, his means that changing in construct (latent) variables can be determined depending on the changes on their indicators (Sarstedt et al., 2014). However, reflective indicator is considered as a function of latent variable. This means that changing in construct (latent) variables can determine the changes in the values of its indicators (Hair et al., 2012). As a result, all research indicators are reflective.

## Exploratory factor analysis (initial test)

An initial test needed to be applied using SMART-PLS software to exclude any reflective indicator with low loadings with their corresponding construct. Based on research questionnaire, there are (34) reflective indicators. The software has been illustrated that adjusted to 300 maximum iterations with stop criterion of 7. As it can be seen from figour 1 below, the result of the initial test revealed that (1) out of (34) model indicators which is (SHR.PA3) has recorded low loadings on their corresponding construct. In the aim of achieving better validity and reliability for the model all of these indicators will be excluded from the final form of the structural model.

SHR FWA1 SHR.FWA2 SHR.FWA3 SHR.PA1 OE.ADP1 **\0.550** SHR.PA2 0.782 OE.ADP2 100.0 SHR.PA3 0.761 0.610 OF ADP3 0.558 0.358 SHR.PCS1 0.706 0.791 OE.ADP4 0.709 0.578 SHR.PCS2 -0.489-0.713 .0.584 OE.FLX1 0.749 0.751 0.685 OE.PRO1 0.423 SHR.RH1 0.488 0.757 OE.PRO2 0.450 SHR.RH2 0.42 OF.PRO3 .0.513 SHR.RH3 0.573 SHR.TD1 SHR.TD2 0.580 0.782 0.761 0.467 0.492 0.619 0.558 0.613 0.701 EXT.MOT2 EXT.MOT3 INT.MOT1 INT.MOT2 INT.MOT3 SAT1 SAT5

FIGURE 1. THE STRUCTURAL EQUATION MODELING (INITIAL)

## Assessing reflective measurement models Reliability indicator

TABLE 1. THE INDICATOR RELIABILITY

SHRM	EA	OE
0.612		
0.557		
0.789		
0.602		
0.613		
0.787		
0.475		
0.594		
0.747		
0.419		
0.493		
0.448		
0.444		_
0.512		
	0.762	_
	0.558	
	0.707	_
	0.709	
	0.712	
	0.749	
	0.684	
	0.641	
		0.618
		0.760
		0.466
		0.487
		0.612
		0.702
		0.559
		0.617
		0.580
		0.784
		0.795
	0.612 0.557 0.789 0.602 0.613 0.787 0.475 0.594 0.747 0.419 0.493 0.448	0.612 0.557 0.789 0.602 0.613 0.787 0.475 0.594 0.747 0.419 0.493 0.448 0.444 0.512 0.762 0.558 0.707 0.709 0.712 0.749

Large value of communality (closer to one) indicates variables to be better fitted with the factor solution and vice versa, loadings of 0.40 or more are acceptable and means that there is a suitable fit. By looking for table 1 above, all of the values inside the table are over the cut-off point (0.4), this means there is no problem with these data according to communality test. So, no one of these items has high probability to load a particularly on other variables (Hulland & of Business, 1999).

### Internal consistency reliability

In partial least square approach for structure equation model (PLS-SEM) composite reliability value will be addressed to examine the internal consistency for the reflective constructs, by which the outer loadings for the interchangeable reflective indicators will be considered what made it more appropriate to test the internal consistency in the reflective

measurement models comparing to the Cronbach's Alpha test which assumes that the indicators loadings in the population are identical adding to its sensitivity to the number of the interchangeable indicators for one construct. Table below clarifies values of composite reliability for each construct. As all of these values are more than 0.7, an accepted level of internal consistency reliability have been recorded (Hair et al., 2012).

TABLE 2. THE COMPOSITE RELIABILITY

Construct (Latent variable)	Composite reliability
SHRM	0.862
Employee attitudes	0.884
Organizational effectiveness	0.880

## Convergent validity

This test usually used to examine the amount of indicator correlations between one indicator and the others indicators of the same construct within the real-world situation. Convergent validity can be addressed depending on Average Variance Extracted (AVE) value for each construct separately. Table 3 below shows these values as follow:

TABLE 3. AVERAGE VARIANCE EXTRACTED (AVE)

Construct (Latent variable)	Average Variance Extracted (AVE)
SHRM	0.526
Employee attitudes	0.531
Organizational effectiveness	0.588

According to Sarstedt et al. (2014) the cut-off point here is 0.5 for the average variance extracted. So, values equal or higher than 0.5 are accepted statistically and this means that the construct has the ability to explain more than 0.5 of the variance of related items. As it can be seen from table 3 above, all AVE values are within the acceptable level of convergent validity.

## Discriminant validity

This test considered as the second sub-type for construct validity. Discriminate validity used usually to examine the amount of relatedness between research variables through calculating the whole possible correlations values between research variables (Henseler, Ringle, & Sarstedt, 2015).

TABLE 4. CROSS LOADING MATRIX

	EA	OE	SHRM
SAT1	0.55	0.356	0.413
SAT2	0.623	0.301	0.342
SAT3	0.583	0.322	0.282
SAT4	0.776	0.287	0.333

TABLE 4. CROSS LOADING MATRIX

	ГЛ	٥٢	CHDM
CATE	EA	OE 0.400	SHRM
SAT5	0.79	0.488	0.281
EXT.MOT1	0.619	0.377	0.476
EXT.MOT2	0.767	0.393	0.468
EXT.MOT3	0.872	0.364	0.273
INT.MOT1	0.798	0.461	0.276
INT.MOT2	0.619	0.44	0.332
INT.MOT3	0.694	0.312	0.257
OE.ADP1	0.249	0.76	0.351
OE.ADP2	0.427	0.553	0.21
OE.ADP3	0.334	0.695	0.211
OE.ADP4	0.472	0.701	0.484
OE.FLX1	0.388	0.706	0.494
OE.PRO1	0.458	0.754	0.378
OE.PRO2	0.458	0.697	0.224
OE.PRO3	0.481	0.655	0.367
SHR.FWA1	0.253	0.311	0.552
SHR.FWA2	0.219	0.335	0.524
SHR.FWA3	0.381	0.488	0.744
SHR.PA2	0.466	0.49	0.563
SHR.PA3	0.312	0.344	0.891
SHR.PCS1	0.322	0.477	0.775
SHR.PCS2	0.342	0.247	0.508
SHR.PCS3	0.379	0.296	0.549
SHR.RH1	0.488	0.414	0.701
SHR.RH2	0.393	0.4	0.758
SHR.RH3	0.305	0.327	0.509
SHR.TD1	0.393	0.414	0.521
SHR.TD3	0.39	0.434	0.575

In order to confirm the discriminant validity, an appropriate pattern for the indicators' loadings should be observed in which the interchangeable indicators are relatively highly loaded on their corresponding construct and weakly loaded on the other constructs (Voorhees, Brady, Calantone, & Ramirez, 2016). Table 4 above demonstrates the Cross-Loading matrix giving a discriminate evidence among the constructs.

#### Fornell-Larcker criterion

Fornell-Larcker (1981) criterion is considered one of the best tests to measure discriminant validity depending on cross loadings values. The idea here is to compare square root value of the average variance extracted (AVE) for each construct with its correlation values with other constructs in the structural mode. The favorable result can be achieved when value of the average variance extracted (AVE) for each construct is greater than its correlation values with other constructs (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014).

Table 5 above shows that AVE values for each construct is higher than its correlated values with other constructs, so discriminant validity has been accepted depending on Fornell-Larcker Criterion.

TABLE 5. FORNELL- LARCKER CRITERION

	EA	OE	SHRM
EA	0.751		
OE	0.644	0.745	
SHRM	0.737	0.693	0.577

#### Structural model assessment

Structural model assessment is the second step for ensuring that the quality of research model is satisfactory. PLS-SEM technique is somehow different from CB-SEM, while CB-SEM has a standard goodness-of-fit statistic, and efforts to establishing a corresponding statistic have proven highly problematic, PLS-SEM hasn't (Henseler & Sarstedt, 2013), and instead of that, for accessing structural model it is necessary to depend on model ability to predict the endogenous constructs using; and the path coefficients, coefficient of determination (R<sup>2</sup>), and cross-validated redundancy (Q<sup>2</sup>) (Henseler & Sarstedt, 2013).

## Coefficient of determination (R<sup>2</sup>)

Values of R<sup>2</sup> for each endogenous construct represents measure of the model's predictive accuracy and also the variance explained in each of the endogenous constructs (Sarstedt et al., 2014). This value is ranging from zero to one, as the value of R<sup>2</sup> going up, this means more predictive accuracy (Hair, Ringle, & Sarstedt, 2011). For business management researchers, researchers must consider R<sup>2</sup> values of endogenous latent variables in research structural model as follow; 0.75 as high, 0.50 as moderate (Hair et al., 2011), or 0.25 as low. As the idea of using PLS-SEM approach is to reveals the endogenous latent variables' variance, the key target constructs' level of R<sup>2</sup> should be high. By looking figure 1, the coefficient of determination R<sup>2</sup> is (0.572) for the endogenous latent variable (OE). This result means that 57.2% of total variance of OE can be explained by three exogenous variables which are (SHRM, and EA). Moreover, the coefficient of determination R<sup>2</sup> is (0.564) for the exogenous latent variable (EA). This result means that 56.4% of total variance of EA can be explained by (SHRM) exogenous variables.

#### Effect size

This test in fact is used to evaluate the amount of contribution that each exogenous latent variable has over an endogenous latent variable's (R<sup>2</sup>) value. To put it differently, effect size is a test used to evaluate latent variables relationship strength or magnitude.

Table 6 below indicates effect size test of the effect size (f²) of projection each one of the exogenous variables that explain endogenous variable (OE) in the structural model.

The values of effect size can be marked as follow; (0.02; small, 0.15; medium, and 0.35; large) effect size. Depending on f<sup>2</sup> values, dropping any one of the exogenous variables (SHRM, and EA) that clarifies the endogenous variable (OE) has comparatively small effect size on R<sup>2</sup>. Moreover, f<sup>2</sup> values shows that dropping the exogenous variables SHRM that clarifies the endogenous variable (EA) has comparatively large effect size on R<sup>2</sup>.

TABLE 6. EFFECT SIZE F<sup>2</sup> VALUES

	EA	OE	SHRM
EA		0.027	
OE			
SHRM	0.562	0.029	

## Blindfolding test $(Q^2)$

The value of (Q<sup>2</sup>) is used to indicate the model's predictive relevance. Which suppose that the model must be able to adequately predict each endogenous latent construct's indicators (Hair et al., 2011). this value can be measured by using a blindfolding procedure (Wong, 2013). To measure (Q2) value, there are two different ways, the first one is crossvalidated redundancy while the second one is cross-validated communality. A study was made by (Sarstedt et al., 2014) recommended the first approach as the preferable one.

The cut-off point for cross-validated redundancy (Q2) values is zero, the path model's predictive accuracy is reasonable for that certain construct when cross-validated redundancy (Q<sup>2</sup>) values are more than zero for that particular endogenous latent variable. And vice-versa (Sarstedt et al., 2014).

TABLE 7. CROSS-VALIDATED REDUNDANCY (Q2)

	SSO	SSE	Q <sup>2</sup> (=1-SSE/SSO)
EA	1,760.000	1,399.433	0.205
OE	1,280.000	957.513	0.252
SHRM	2,240.000	2,240.000	

The result of Blindfolding test shows that (Q2) value for (EA, and OE) are 0.205 and 0.252 respectively. Since (Q2) values for all endogenous latent variables are greater than zero, the path model has a favorable predictive relevance.

#### Model fit test

The partial least squares approach for structural equation modeling (PLS- SEM) has no global goodness of fit index, so far, the threshold cut-off of the model fit criterion values have not been adequately understood, because of that the bootstrapping and blindfolding techniques are employed to overcome these issues (Hair, Ringle, & Sarstedt, 2013).

As well the reliability and validity test for the measurement models are conducted as first step (Hair et al., 2013). Usually the goodness of fit index is not reported, however, some researchers recommend considering SRMR and Normed Fit Index NFI as an indicators to examine model fit, which ensure the absence of misspecification in the model, as it compares between the actual correlation matrix that based on the real observations and the predicted one using the model, the value of SRMR should not exceed 0.08 while NFI value is ranging from 0 to 1, the closer the NFI to 1 means better fit (Hair et al., 2013). The SRMR value for the study model is 0.074 less than 0.08 which indicates a good of fit.

Moreover, NFI value is approximately 0.8 which represents acceptable fit for research model.

### Structural equation modeling results

After accessing reliability and validity criteria for all reflective measurement of research model and ensuring the integrity of research data, SMART-PLS Algorithm has been run after determining 300 maximum iterations with stop criterion of 7 using path weighting scheme to maximize the R<sup>2</sup> value for the model endogenous Latent variables i.e. organizational effectiveness (OE).

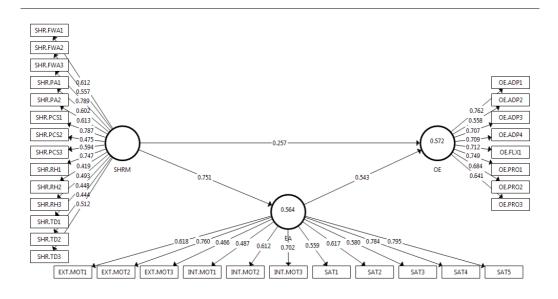


FIGURE 2. THE STRUCTURAL EQUATION MODELING (FINAL)

#### Path coefficients interpretation

This part clarifies the values of path coefficients using PLS-SEM. in this case, path coefficients represents standardized regression coefficients. To make a valuable comparison between the direct effect of exogenous latent variables on the endogenous latent variables (Hair et al., 2013). Moreover, this test depends on the values of standard deviation for each explanatory variable (Joe F Hair et al., 2012). Path coefficient values ranging from (+1) to (-1), closer value to (+1) means stronger positive relationship between the constructs while closer value to (-1) indicates stronger negative relationship. Consequently, zero value signifies that there is no relationship. For this research, the interpretation for the path coefficients would be as follow:

- **SHRM > OE:** according to this result, when SHRM increases one standard deviation from its mean that will lead to an increase in OE standard deviations by 0.257 from its

mean holding all other model's variable constant. Let's put it in different way, 25.7% of OE is accounting by SHRM when the others of independent variables are eliminated.

- SHRM > EA: when SHRM increases one standard deviation from its mean that will lead to an increase in EA standard deviations by 0.751 from its mean holding all other models variable constant. This indicates that SHRM practices explains 75% of the variability of EA.
- EA > OE: This indicates that EA practices explains 54.3% of the variability of organizational effectiveness (dependent variable).

## Path coefficients significance using bootstrapping test

Bootstrapping test will be used to examine Path Coefficients significance using Partial Least Square Approach for the Structural Equation modeling (PLS-SEM) depending on (T-statistics) and exert the T-test values. To test the statistical significance of the Path Coefficients in Partial Least Square Approach for the Structural Equation modeling (PLS-SEM), which it doesn't assume the normal distributions for the data, Bootstrapping procedure will be used in order to obtain the (T-statistics) and exert the T-test.

It is a resampling method by which numbers of subsamples (literature have recommended 5000 subsamples) are generated; the bootstrapping procedures involve random droppings and replacing for sets of observations from the original data in order to obtain the subsamples, then each of the subsamples is used to estimate the model and obtain the PLS-SEM results (i.e. Path coefficients, indirect effects, outer loadings, outer weight, etc.), and later these estimations will be used to derive the entire distributions (the means and standard deviations for the PLS-SEM results) and enabling the significance tests (Henseler, Ringle, & Sarstedt, 2015). Table 8 shows the T-statistics for the Path Coefficients using Bootstrapping methods.

TABLE 8. BOOTSTRAPPING RESULTS FOR THE OUTER WEIGHTS

	Original	Sample	Standard Deviation	T Statistics	P Values
	Sample (O)	Mean (M)	(STDEV)	( O/STDEV )	
EA -> OE	0.543	0.543	0.080	6.779	0.000
SHRM -> EA	0.751	0.761	0.027	27.819	0.000
SHRM -> OE	0.257	0.260	0.078	3.286	0.001

As all P-Values for path coefficients between exogenous variables (SHEM, and EA) and endogenous variable (EA) are less than (0.05). So, depending on the significance level of  $\alpha$ < 5% and as T-Statistics values are greater than 1.96 for all these relationships excluding (BS) and (OE), path coefficients of the structural equation modeling is statistically significant.

#### The mediation test

To investigate the mediation effect of employee attitudes on the relationship between the practices (exogenous) and organizational effectiveness (endogenous), Bootstrapping analysis was applied using 95% of confidence interval and subsamples in order to find out PLS-SEM means and standard deviations (Hair et al., 2013). The result of mediating effect of one variable over the relationship between the

exogenous and endogenous latent variable can take three different options (no mediating, full mediating, and partial mediating) depending on p-values and t-statistics. Table below explains these three options:

TABLE 9. T-TEST FOR THE SIGNIFICANT OF DIRECT AND INDIRECT FEECTS.

Existence of direct relationship between exogenous and endogenous	Existence of indirect relationship between exogenous and endogenous	Mediation effect
Significant	Significant	Partial
Significant	Not	No mediating effect
Not	Significant	Full mediating effect

As a result, the table below indicates p-values and t-statistics for the direct and indirect PLS-SEM model relationships as follow:

TABLE 10. T-TEST FOR THE DIRECT AND INDIRECT EFFECTS

	Original	Sample	Standard Deviation	T Statistics	P Values
	Sample (O)	Mean (M)	(STDEV)	( O/STDEV )	
		Dir	ect effect		
SHRM > OE	0.257	0.260	0.078	3.286	0.001
SHRM > EA	0.751	0.761	0.027	27.819	0.000
EA > OE	0.543	0.543	0.080	6.779	0.000
Indirect effect					
SHRM > OE	0.408	0.413	0.063	6.475	0.000

The result of this table indicates that there are a direct and indirect effects significant relationships between SHRM and OE depending on P-values and T-Statistics. To sum up, there is a partial mediating effect between SHRM and OE through EA. Depending on this result, (for hypothesis number 2) the null hypothesis has been rejected while the alternative hypothesis has been supported. Moreover, this test reveals that employee attitude has standardized indirect effect between SHRM and OE of 41.3% while (p = 0.00). This means that if SHRM effect on OE through EA increases one standard deviation from its mean that will lead to an increase in OE standard deviations by 0. 413 from its mean holding all other model variables are constant.

TABLE 11. Break DOWN OF TOTAL EFFECT OF THE RESEARCH

Exogenous variable	Endogenous variable	Direct Effect	Indirect Effect	Total Effect
SHRM	EA	0.751	0.000	0.751
SHRM	OE	0.257	0.408	0.665
EA	OE	0.543	0.000	0.543

Table 11 above shows that SHRM has a 0.257 direct effect on OE and 0.408 indirect effect on OE. This supports the same result for hypothesis number 2, EA partially mediate the relations between SHRM and OE.

## Multicollinearity test for structural equation modeling

Multicollinearity test is used to examine if there are high inter-correlations among the independent constructs within the structural model (inner model). This test in fact aims to approve the absence problematic multicollinearity, which inflates the standard deviations (the variance square root) for the exogenous variables and makes the significant tests (Tstatistic tests) for those variables unreliable. This test in fact has the ability to reveal any problem that may occurs if there is a noteworthy correlation among one of the exogenous variables dimensions with the endogenous variable.

TABLE 12. THE VIF VALUES FOR THE INDEPENDENT LATENT VARIABLES FOR EACH DEPENDENT VARIABLE

	EA	SHRM	OE
EA			1.694
SHRM	1.000		2.731
OE			

According to Hair, Black, Babin, & Anderson (2009) the values of variance inflation factor (VIF) shouldn't exceed 10. Moreover, the values between 5 and 10 are considered high and unfavorable. By looking again to thetable 12, all of variance inflation factor (VIF) values for all for the independent latent variables are less than (5). As a result, there is no problem with research data according to the multicollinearity test.

The previous analytical and statistical outcomes gave adequate answers for research questions and to test research hypotheses. Multiple regressions have been utilized to detect the impact of SHRM practices on organizational effectiveness within Palestinian banking sector. Lastly, SMART PLS software has been used to demonstrate the truth of research structural equation modeling. The theoretical and managerial implications of the results of the previous analysis will be discussed in the following chapter.

#### Conclusion

## SHRM practices and organizational effectiveness

The third hypothesis in this research investigate existence of significant positive relationship between SHRM practices (i.e. recruitment and hiring, training and development, performance appraisal, development and promotion and pay and compensation system) and organizational effectiveness. Multiple regression test result revealed that SHRM practices which represents the independent variable has signified positive relationship with organizational effectiveness (dependent variable). Moreover, value of adjusted R<sup>2</sup> was (0.572), this indicates that SHRM practices and EA explains 57.2% of the variability of organizational effectiveness. Moreover, SHRM has a positive direct relationship with OE of 0.257.

This result in fact support most of literature about the same objects, several studies previously linked SHRM practices as a superior force to enhance organizational effectiveness (Mathis & Jackson, 2011). According to Michael Porter on his competitive strategy approach, he argued that organization could improve overall effectiveness through understanding individual behaviors and their needs in order to link them with SHRM, so this mean SHRM practices could be as a competitive advantage with a suitable design (Porter, 1980) for instance, SHRM has an important effect on organizational performance and accordingly, a special effect on organizational effectiveness (Wang et al., 2005). As a result, it is clear that SHRM practices can represent the magic stick that able to attain the optimal level of organizational effectiveness.

## The moderating role of employee attitudes on the relationship between SHRM practices and organizational effectiveness

Research result clarifies that there is an indirect significant path between SHRM practices and organizational effectiveness through employee attitudes, and there is direct significant path between SHRM practices and organizational effectiveness. This indicates that employee attitudes partially mediate the relationship between SHRM practices and organizational effectiveness. But an important result here as follow: the indirect effect of SHRM on OE through employee attitudes is greater than the direct effect. This means that it is not enough for bank management to focus on SHRM and forgetting employee attitudes because its role toward completing the total affect over OW.

## SHRM practices and employee attitudes

To examine this hypothesis, multiple regression analysis has been performed to explore the relationship between SHRM practices and employee attitudes within Palestinian banking sector. The result indicated that SHRM practices had signifies positive relationship with employee attitudes. Moreover, the result approved that SHRM practices has a direct effect over EA of 0.751. Moreover, value of adjusted R<sup>2</sup> was (0.564), this indicates that SHRM practices explains 56.4% of the variability of EA.

The result of this hypothesis has been widely supported literature studies about the same assumption. For instance, according to Becker & Gerhart (1996) and Wright & Snell (1998) employee attitudes mediates the relationship between SHRM and organizational effectiveness and it will be helpful to predict how appropriate practices can affect organizational effectiveness. Purcell & Hutchinson (2007) and Youndt et al. (1996) argued that employee attitudes and behaviors is the complementary variables which influence the relationship between SHRM and organizational effectiveness.

#### Employee attitudes and organizational effectiveness

To verify the last hypothesis, again multiple regression has been applied to test the impact of employee attitudes on organizational effectiveness. Employee attitudes showed strong signifies positive relationship with organizational effectiveness, the direct effect was (0.543).

The idea for this hypothesis came from several literatures that suggest for follower researchers to include the intervening variables and to analyze the relationship between SHRM practices and organizational effectiveness as sequential forward causality steps rather than just direct relationship between the independent and the dependent variable (Becker & Gerhart, 1996). Despite this weak positive relationship between these two variables, the result of this hypothesis has been supported literature studies about the same relationship between employee attitudes and organizational effectiveness. For example, Purcell & Hutchinson (2007) and Youndt et al. (1996) argued that employee

attitudes are the complementary variables which influence the relationship between SHRM and organizational effectiveness.

TABLE 13. HYPOTHESES TESTING RESULT

Number	Description	Smart_PLS result
Hypothesis 1	H <sub>0</sub> : There is no significant impact of SHRM practices on organizational effectiveness.	Rejected
	H <sub>1</sub> : There is a significant impact of SHRM practices on organizational effectiveness.	Supported
Hypothesis 2	H <sub>0</sub> : Employee attitudes doesn't mediate the relationship between SHRM practices and organizational effectiveness.	Rejected
	H <sub>2</sub> : Employee attitudes mediate the relationship between SHRM practices and organizational effectiveness.	Supported (Partial)

### Research contributions and significance knowledge

This research gives a share to the existing knowledge regarding to SHRM and its relationship with organizational effectiveness by exploring the main SHRM practices and the other related variables, and how all these variables can affect organizational effectiveness. Nevertheless, SHRM and organizational effectiveness relationship have not been explored in the same mechanism in literature researches. On the other hand, no any study has been discussed the same relationships which are motioned above in Palestinian state. To sum up, this research will contribute the following:

- This research would be the first research which considers the impact of business strategies on SHRM and organizational effectiveness and carries out SHRM and organizational effectiveness relationship in term of the mediating role of employee attitudes.
- The benefits of this research exceed the Palestinian banking sector and it will be beneficial for other Middle East countries which are somehow similar to Palestine according to their culture and economic situations. Moreover, this research will be beneficial for researcher and academics as the new conceptual model will give practical implications for further research to measure SHRM practices and organizational effectiveness in such countries.
- This research indicates an important point as follow, the indirect effect of SHRM practices on OE through the moderating role of EA is greater than the direct one. This give an important note for top management to focus more on EA toward achieving better organizational effectiveness.

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