



(RESEARCH ARTICLE)



## The impact of human capital dimensions on organizational performance in Yemeni Islamic banks: Motivation is a modified variable

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### Abstract

The study aims to know the direct positive effect of the dimensions of human capital represented by education, learning, experience, creativity and innovation on organizational performance. The study also aims to know the indirect positive effect of the dimensions of human capital represented by education, learning, experience, creativity and innovation on organizational performance when using a modified variable mitigation. Data were collected through questionnaires for 180 employees in Islamic banks in the Republic of Yemen in the financial departments, accounting departments, and audit departments in the banks under study, which were conducted for a period of three months in some Islamic banks in the private sector in the Republic of Yemen. This study uses structural equation model analysis from the Partial Least Squares program through the Smart Plus 4 programs. Through the results of the study, we conclude that the study showed that education and learning do not have a positive and direct effect on organizational performance, and that the relationship between education and organizational performance is negative. The results also showed that experience positively and directly affects organizational performance, and that the relationship between experience and organizational performance is positive. Through analysis, the study showed that innovation positively and directly affects organizational performance, and that the relationship between innovation and organizational performance is positive. The study showed that motivation does not directly and positively affect organizational performance, and that the relationship between innovation and organizational performance is positive. Through analysis, the study showed that motivation does not positively and indirectly affect organizational performance when using motivation as a modifying variable, and that the indirect relationship between motivation and organizational performance is negative. Through analysis, the study showed that teaching and learning do not have a positive, indirect effect on organizational performance when using motivation as a modifying variable, but the indirect relationship between teaching, learning and organizational performance is positive. Through analysis, the study showed that innovation does not positively and indirectly affect organizational performance when using motivation as a modifying variable, and that the indirect relationship between innovation and organizational performance is negative.

**Keywords:** Education; Learning; Experience; Creativity; Innovation; Organizational performance; Reduction; Islamic banks; Asmarat Pls 4; Republic of Yemen.

### 1. Introduction

Specifically, in accordance with Holy Qur'an 95:4, the Almighty created humans of the highest caliber as the ideal form of creation, signifying that humans are the Almighty's finest and most honorable creation. We get a profound glimpse of HIS knowledge through the physical makeup of humans, their potential, their souls, and their minds (Dhar, 2019a). A human resource is someone who use their knowledge, potential, and talent to work as a labor force for a company, industry, or economy. It is very difficult to manage other physical resources without this human resource. Any organization's capacity to survive and grow depends on how well its people perform, as people are in charge of all

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other resources (Dhar and Hoque, 2015). It will be extremely difficult for any firm to manage other physical resources in this competitive global and knowledge-based economy without the flawless execution of human capital, an integrated component of intellectual capital (Akintoye et al., 2015). Human civilization must transition from commodity-based capital to intellectual capital via innovative capacities or it is to quickly go extinct. Humanity, also known as Ashrafu'l Makhluqat or homo sapiens, must be sufficiently driven to embrace innovation in order to improve organizational performance in light of the rapid advancement of technology (Dhar, 2019 a,b). With the exception of Bangladesh, the majority of recent studies on human capital and its link to performance have focused on different industries within different nations (Asiaei et al., 2018; Felício et al., 2014; Lajili et al., 2017; Mastromarco and Simar, 2017; Rahim et al., 2017). Bangladesh only discloses information on its human resources in its yearly reports. Nonetheless, Bangladesh's banking industry dominates the country's economy. Among the mentioned businesses, banking is one of the top sectors where human resources are frequently used and reported in yearly reports (Amin and Aslam, 2017; Ullah and Karim, 2015). Furthermore, according to Sarkar et al. (2016), banks in Bangladesh uphold the majority of human resource procedures. This is supported by trustworthy data that can be found in reports that have been published. Compared to other economic divisions, the intellectual grade of the entire crew is higher. In contrast, the website of Bangladesh's oldest and largest stock exchange, the Dhaka Stock Exchange (DSE), focuses on reporting on topics like an overview of the business, products and services, management and human resources, corporate governance, investor relations, corporate social responsibility, and financial features. A total of 564 companies and 22 industry sectors are listed on the DSE (Mitra et al., 2017). Therefore, the goal of the current study is to ascertain how, among the listed Islamic banks under the Dhaka Stock Exchange (DSE), motivation modifies the relationship between human capital and organizational performance through innovative capability. The following is the schedule for the remaining phase of this research: Section 2 outlines the pertinent literature on organizational performance, human capital and its dimensions, and gap analysis; Section 3 concentrates on the research model and hypotheses based on dependent, independent, mediating, and moderating variables; Section 4 denotes methodology (sampling and measurement); Section 5 details data analysis; and Section 6 concludes with recommendations for further research.

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## 2. Literature Review

### 2.1. Human Capital

Baker first presented the concept of human capital in 1964. Becker noted that great corporate behavior is influenced by the existence of high levels of human capital. In the knowledge-based economy, the human capital idea is still very much in effect (Fitzsimons, 2015). According to this hypothesis, having information gives people access to more sophisticated cognitive abilities, which increases their potential efficiency and production (Gillies, 2014). There is a trade-off between financial and human capital (Bowman and Swart, 2007). Top management must prioritize the beneficial application of collective knowledge while keeping an eye on the organization's people resources in order to reap the full benefits of human capital. The organization wants to incorporate its human capital in order to create a unique resource for dynamic development (Karimi, 2014). There is a trade-off between financial and human capital (Bowman and Swart, 2007). Top management must prioritize the beneficial application of collective knowledge while keeping an eye on the organization's people resources in order to reap the full benefits of human capital. The organization wants to incorporate its human capital in order to create a unique resource for dynamic development (Karimi, 2014). 2011), which guarantees both a wider range of prospects and commercial success (Pena, 2004). (Davidsson and Honig, 2003). The significance of analytical reasoning, systems integration, and experimentation was stressed by earlier scholars. According to them, a business should concentrate on employee skill development in order to increase knowledge and make use of intellectual capital. Human capital generates the greatest outcomes for an organization's success through employee creativity and innovation, learning, experience, education, and knowledge (Sharabati et al., 2010).

### 2.2. Organizational Performance

Maximizing wealth for stakeholders is the aim of a business organization (Becker and Fuseli, 1998). Based on studies by Cabrita and Bontis (2008), Dhar (2019a,b), Dhar et al. (2017, 2018), Karimi (2014), Sharabati et al. (2010), and Shih et al. (2010), three important indicators of company success are human efficiency, profitability, and market evaluation. According to Karimi (2014), human productivity is the relationship between input (what is put into the firm) and output (result). The input may be evaluated via training and compensation, and the output can be evaluated through profit per employee. Furthermore, there are two methods to assess the output: one approach is to look at the actual products and services produced, and the other way is to look at individuals in relation to important financial achievements. Profitability occurs when income exceeds expenses. Growth in sales and profits are two metrics that may be used to evaluate profitability. Profit growth is the result of combining development and profitability, whereas

sales growth is the rise in sales over a certain time period (Dhar et al., 2017). When a company's market value exceeds its book value, market valuation is implied. According to Karimi (2014), market valuation may be defined as the ratio of the book value of net assets to the average share price multiplied by the number of outstanding common shares, or total market capitalization.

### 2.3. Human Capital and Organizational Performance

Numerous resources that organizations hold have an impact on how well they function (Yaseen et al., 2016). Accordingly, human capital supports not only the expansion of the national economy (Neeliah and Seetana, 2016) but also the performance of organizations from the viewpoints of entrepreneurial competence, innovation, and motivation (Chen and Chang, 2013). Social scientists define human capital as the grouping of knowing and skilled individuals (Demartini and Paoloni, 2011). Chen and Chang (2013) and Felicio et al. (2014) have noted that the performance of enterprises is positively impacted by knowledge and skill individuals. About 30,000 individuals are employed by Bangladesh's 960 Islamic banks in a variety of roles (Akhtaruzzaman, 2016), and the effectiveness of these banks is largely dependent on how well they use their human capital (Kamal, 2019). Employee motivation and performance are critical components of any organization's long-term success (Kontoghiorghes, 2016; Shin and Konrad, 2017). Belenon and Schankerman (2015) focused on motivation and human capital, whereas Turner (2011) employed motivation as a moderating variable between social capital and organizational performance. Furthermore, there exists a close relationship between organizational success and innovation, distribution, acquisition, and utilization of new information (Zhou et al., 2017). Scholars have highlighted the importance of an individual's knowledge employed in an organization, which is recognized as human capital. This is one of the primary resources for innovation and can act as a powerful mediator between intellectual capital and organizational performance, even though a number of factors have previously been measured as applicable antecedents of innovation (Osman, 2014). Though most recent research has focused on the potential impact of human capital on organizational performance, previous studies rarely examined the moderating effect of motivation between human capital and organizational performance through innovation capability among Bangladesh's Islamic banks (Chatterjee, 2017; Currie and MacLeod, 2017). Therefore, the premise of current research is that the organizational performance of Bangladesh's Islamic banks may be influenced by the elements of human capital knowledge and experience, education and learning, and creativity and invention through the mediating role of innovation capabilities and the moderating role of motivation.

### 2.4. Research Model and Hypotheses

According to empirical data, human capital improves an organization's performance (Karimi, 2014), while some data suggest the opposite (Yaseen et al., 2016). Nonetheless, there is currently a chance to investigate how Bangladesh's Islamic banks' performance is impacted by their human resources. The following theories attempt to ascertain the truth about this matter:

#### 2.4.1. *Ducation and Learning*

Performance and advanced education level are favorably connected (Felicio et al., 2014). However, traditional schooling does not appear to be a controlling factor of success throughout the business process or in terms of the growth of activities, according to (Davidsson and Honig ,2003). Thus, it is important to provide support for the subsequent hypothesis:

#### 2.4.2. *Experience and Expertise*

Work, management, and entrepreneurial experience are linked to the organization's operations (Felicio et al., 2014). According to (Davidsson and Honig's ,2003) research, job experience causes people's harmonization of knowledge to become separated. Conversely, explicit information—developed in educational settings and implicit knowledge developed via experience—are necessary for the creation of new knowledge, according to (Cohen and Levinthal ,2000). Therefore, the following hypothesis has to be tested in the study:

#### 2.4.3. *Innovation and Creativity*

Innovation, as defined by Karimi (2014) and Sharabati et al. (2010), is a process that involves implementing a novel concept. The universe of ideas and human activity are connected via innovation. The three most often used metrics for evaluating inventive activity are patent counts, invention counts, and RandD expenditures. Conversely, creativity denotes the ability to generate original ideas or the capacity to reconsider preexisting concepts. For a company to function better, innovation and originality might also be emphasized (Yates-Mercer and Bawden, 2002). As a result, the following theory is put forth:

#### 2.4.4. Innovation Capability

The capacity to innovate is becoming essential to the operation of the company (Rajapathirana and Hui, 2017). It is widely acknowledged that an organization's capacity for innovation is closely related to its intellectual capital since its knowledge base makes use of this capital to achieve long-term success (Osman, 2014). Furthermore, according to some academics, innovation capability depends on information that enables businesses to improve or create new technologies (Wonglimpiyarat, 2010). For service organizations with technology-focused innovation capability (TFIC), client-focused innovation capability (CFIC), and marketing-focused innovation capability (MFIC), Hogan et al. (2011) employed a "three-dimensional innovation capability scale." Furthermore, a firm's success and its capacity for innovation are positively correlated (Zhou et al., 2017). Since banking is a service-based sector, it is possible to investigate how innovation skills affect Bangladesh's Islamic banks' performance. The following theories seek to ascertain the truth about this matter:

#### 2.5. Motivation

According to Van Iddekinge et al. (2018), motivation and cognitive capacity interact to determine performance. Performance rises as a result of motivation (Hackney, 2017; Menges et al., 2017). Employee motivation is viewed by management in almost all firms as a successful strategy to increase worker productivity. According to the idea of human resource management, the business has alternatives for developing its human resources, and motivation is a key component. Zhu et al. (2016) assert that employee performance and motivation are critical components of an organization's long-term success. Therefore, the study's goal is to employ motivation as a moderator and provide evidence for the relationship between motivation and organizational performance by utilizing the following underlying hypothesis:

Research on the moderating effect of motivation between human capital and organizational performance through innovation capability might be conducted based on the literature. The research model based on the gap in the literature is suggested by Fig. 1.

#### 2.6. Hypothesis development

- H1: Teaching and learning positively and directly affect organizational performance.
- H2: Experience positively and directly affects organizational performance.
- H3: Innovation positively and directly affects organizational performance.
- H4: Motivation positively and directly affects organizational performance.
- H5: Experience positively and indirectly affects organizational performance when using motivation as a modified variable.
- H6: Teaching and learning positively and indirectly affect organizational performance when using motivation as a modified variable.
- H7: Innovation positively and indirectly affects organizational performance when using a modified motivation variable

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### 3. Methodology

#### 3.1. Sampling

The study applied simple random sampling. Through this sampling technique, residents and managers of different branches of different Islamic banks in the Republic of Yemen have equal chances of being selected for the study. The total population was 900 branch managers among 23 Islamic banks in . Sample Size Determination Table From a limited population, 185 managers were selected as a sample to reflect the perspective of the overall population as well as to achieve the purpose of this research as 173 completed analyzable questionnaires were returned.

#### 3.2. Measurement

Based on earlier research, a five-point Likert scale questionnaire was used to improve reliability and simplicity of response. The study used three dimensions of human capital: "learning and education, experience and expertise, and innovation and creativity," which were based on research by Karimi (2014) and Sabbati et al. (2010); three dimensions of organizational performance: "human productivity, profitability, and market evaluation," which were based on research by Turner (2011) and Osman (2014); and three dimensions of the ability to innovate as a mediator. The information provided by the respondents, human capital practices (learning and education), human capital practices (experience and expertise), human capital practices (innovation and creativity), innovation ability, motivational

influence, and organizational performance were the six sections of the questionnaire that were based on these dimensions.

#### 4. Data Analysis

A descriptive analysis was produced using the Statistical Package for the Social Sciences (SPSS) version 25 based on the data that were gathered. From the collected data, structural equation modeling (SEM) was utilized to assess the model's validity and dependability as well as to identify the important relationship between the dependent, mediating, moderating, and independent variables. SEM was used to closely examine the research hypotheses. The statistical program SmartPLS version 4 was utilized to assess the measurement model (internal), which is related to the validity and dependability of the measures, as well as the structural model (external), which describes the relationships (paths) between the research constructs (Alavifar et al., 2012; Hair et al., 2017; Masruki et al., 2020; Yaseen et al., 2016). There are no female directors in the Republic of Yemen's Islamic banks. Of the participants, about 79.1% had a master's degree, and 55.0% were between the ages of 40 and 49. Eighty-six percent of them have worked for ten years or more.

#### 5. Results

##### 5.1. Measurement model

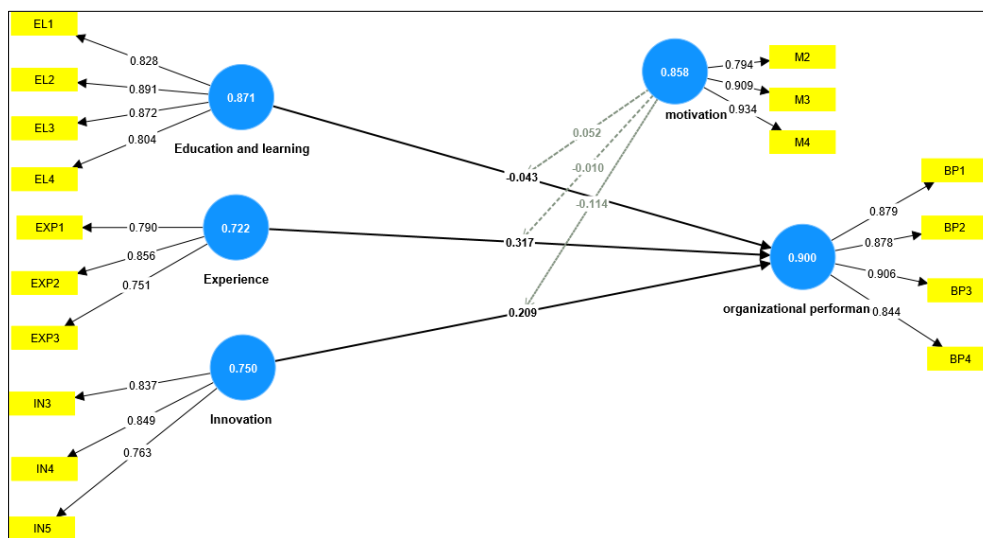


Figure 1 The PLS algorithm of the measurement model

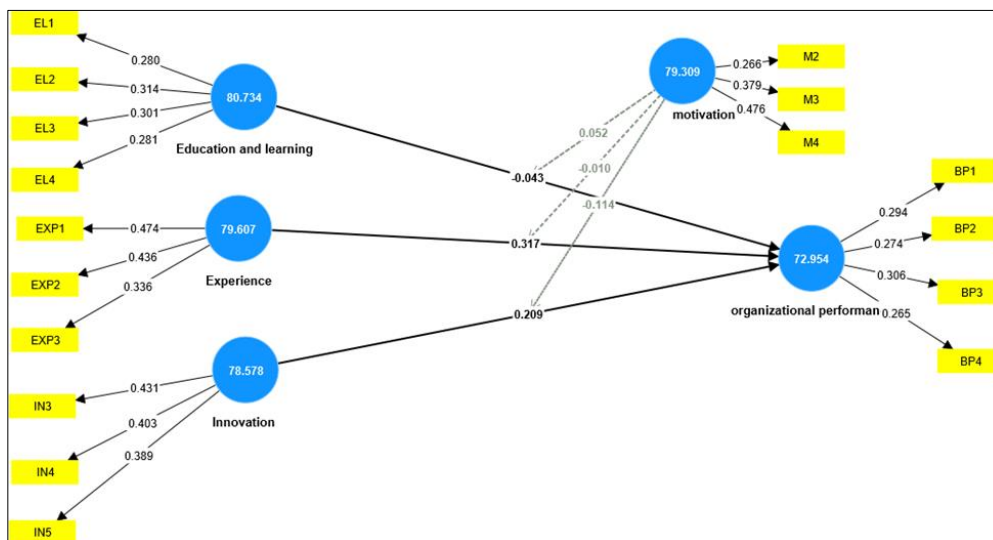


Figure 2 The PLS algorithm of the measurement model

## 5.2. Measurement model

It is necessary to assess each assessment item's construct reliability, individual item-wise reliability, discriminant, and convergent validity. Internal consistency of the scale and individual item-wise dependability were used to analyze reliability measurements. Reliability of a specific item must be assessed in terms of the standards that load each item into the original variable. Every item's Cronbach's alpha loading value must be greater than or equal to 0.7. A concept that accounts for more than half of the variance of its indicators is said to explain an average variance extracted value of 0.50 or greater. By examining the average variance retrieved and the composite reliability, convergent validity was evaluated. Acceptable composite reliability values fall between 0.70 and 0.90 (Hair et al., 2017; Yaseen et al., 2016).

**Table 1** The values Outer loadings and Construct reliability and validity ) Cronbach's alpha , Composite reliability (rho\_a) , Composite reliability (rho\_c) , Average variance extracted (AVE)

Study variables	Items	Outer loadings	Outer weights	% of variance explained by a factor of unidimensionality	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
organizational performance	BP1	0.879	0.294	72.954	0.871	0.874	0.912	0.721
	BP2	0.878	0.274					
	BP3	0.906	0.306					
	BP4	0.844	0.265					
Education and learning	EL1	0.828	0.280	80.734	0.722	0.735	0.842	0.640
	EL2	0.891	0.314					
	EL3	0.872	0.301					
	EL4	0.804	0.281					
Experience	EXP1	0.790	0.474	79.607	0.750	0.753	0.857	0.668
	EXP2	0.856	0.436					
	EXP3	0.751	0.336					
Innovation	IN3	0.837	0.431	78.578	0.858	0.925	0.912	0.776
	IN4	0.849	0.403					
	IN5	0.763	0.389					
motivation	M2	0.794	0.266	79.309	0.900	0.903	0.930	0.769
	M3	0.909	0.379					
	M4	0.934	0.476					

Table 1 demonstrates the correlation matrix of the model constructs. Moreover, it demonstrates the square roots of the average variance extracted. For stipulating that, square roots of average variance extracted are more than the correlation between construct and other constructs, discriminant validity was measured. (Yaseen et al., 2016). The Cronbach's alpha values for all variables were greater than 0.07, and the Cronbach's alpha values were (education and learning, experience and expertise, innovation, creativity, organizational performance) respectively (0.871, 0.722, 0.750, 0.858, 0.900). While the composite reliability values (rho\_a) for the study variables were greater than 0.07, which are (0.874, 0.735, 0.753, 0.925, 0.903), respectively, while the composite reliability values (rho\_c) were all greater than 0.07, which are (0.912, 0.842, 0.857, 0.912, 0.930), respectively. Also, the average values of variance extracted (AVE) for financial analysis, financial management, financial performance, financial planning, and corporate

social responsibility were greater than 0.05 and reached (0.510, 0.721, 0.640, 0.668, 0.776, 0.769), respectively. This It demonstrates the strength and validity of reliability.

**Table 2** Discriminant validity

	<b>Education and learning</b>	<b>Experience</b>	<b>Innovation</b>	<b>motivation</b>	<b>organizational performance</b>	<b>motivation x Experience</b>	<b>motivation x Education and learning</b>
Education and learning							
Experience	0.795						
Innovation	0.669	0.776					
motivation	0.713	0.678	0.711				
organizational performance	0.449	0.636	0.603	0.510			
motivation x Experience	0.338	0.358	0.275	0.218	0.257		
motivation x Education and learning	0.502	0.304	0.353	0.316	0.262	0.729	
motivation x Innovation	0.308	0.215	0.317	0.264	0.280	0.686	0.776

All variables had Cronbach's alpha values larger than 0.07; the values were (0.871, 0.722, 0.750, 0.858, 0.900) for education and learning, experience and expertise, innovation, creativity, and organizational performance, respectively. The research variables had composite reliability values (rho\_a) of 0.874, 0.735, 0.753, 0.925, and 0.903, respectively, more than 0.07, while the composite reliability values (rho\_c) of 0.912, 0.842, 0.857, 0.912, and 0.930, respectively, were all greater than 0.07. Additionally, the average values of variance extracted (AVE) for organizational performance, innovation, creativity, experience and expertise, and teaching and learning were all greater than 0.05 and reached (0.510, 0.721, 0.640, 0.668, 0.776, 0.769), in that order. This demonstrates the reliability's validity and strength.

**Table 3** Heterotrait-monotrait ratio (HTMT) – List

<b>Relationship</b>	<b>Heterotrait- monotrait ratio (HTMT)</b>
Experience <-> Education and learning	0.795
Innovation <-> Education and learning	0.669
Innovation <-> Experience	0.776
motivation <-> Education and learning	0.713
motivation <-> Experience	0.678
motivation <-> Innovation	0.711
organizational performance <-> Education and learning	0.449
organizational performance <-> Experience	0.636
organizational performance <-> Innovation	0.603
organizational performance <-> motivation	0.510

A table showing the degree of relationship between the study variables, all of which are greater than 0.5. The relationship between experience <-> teaching and learning was (0.795), the relationship between innovation <-> teaching and learning was (0.669), the degree of the relationship between innovation <-> experience was (0.776), and the percentage of the relationship between motivation <-> teaching and learning (0.713). The relationship between motivation <-> experience was (0.678), and the relationship between motivation <-> innovation was (0.711). The relationship between organizational performance <-> teaching and learning (0.449) was the only relationship that was not good. The relationship between organizational performance <-> experience is (0.636), while the relationship between organizational performance <-> innovation is (0.603), and the relationship between organizational performance <-> motivation is (0.510).

**Table 4** Fornell-Larcker criterion

	Education and learning	Experience	Innovation	motivation	organizational performance
Education and learning	0.849				
Experience	0.638	0.800			
Innovation	0.538	0.580	0.817		
motivation	0.619	0.552	0.573	0.881	
organizational performance	0.398	0.524	0.496	0.466	0.877

Table Four The average variance extracted (AVE) method was used in this investigation to look at the items' connection with one another. The results demonstrate that values greater than 0.50 indicate good convergent validity. Factor loading values higher than 0.50 also indicate valid content validity. To summarize, considerable dependability is indicated by composite reliability (CR) values larger than 0.70 and alpha values greater than 0.70. Table 1 displays these numbers. In this study, Fornell Larcker was also used to look at the correlation between the variables. The results showed that the values related to the variable itself and the other variables had a stronger relationship. These results validated the validity of the discriminant function. Table 2 displays these numbers. In this study, cross-loadings were used to analyze the correlation between the variables. The results showed that the independent variable's values were greater than the dependent variables' values. These results validated the validity of the discriminant function. These numbers are displayed in the table.

**Table 5** Cross loadings

	organizational performance	Education and learning	Experience	Innovation	motivation
BP1	<b>0.879</b>	0.343	0.482	0.417	0.439
BP2	<b>0.878</b>	0.311	0.428	0.441	0.384
BP3	<b>0.906</b>	0.379	0.517	0.470	0.396
BP4	<b>0.844</b>	0.362	0.403	0.410	0.420
EL1	0.321	<b>0.828</b>	0.490	0.404	0.466
EL2	0.361	<b>0.891</b>	0.540	0.486	0.531
EL3	0.345	<b>0.872</b>	0.572	0.523	0.574
EL4	0.323	<b>0.804</b>	0.565	0.410	0.532
EXP1	0.471	0.602	<b>0.790</b>	0.513	0.532
EXP2	0.433	0.460	<b>0.856</b>	0.483	0.400
EXP3	0.334	0.452	<b>0.751</b>	0.375	0.372
IN3	0.427	0.373	0.455	<b>0.837</b>	0.428
IN4	0.400	0.446	0.514	<b>0.849</b>	0.501



IN5	0.386	0.509	0.453	<b>0.763</b>	0.479
M2	0.282	0.499	0.393	0.465	<b>0.794</b>
M3	0.401	0.539	0.504	0.468	<b>0.909</b>
M4	0.503	0.593	0.537	0.571	<b>0.934</b>

Table 4 demonstrates that the loading factor value for the latent variable indicators is higher than the loading values of the other latent variables. That is, the discriminant validity of latent variables is good.

**Table 6 R2**

	<b>R-square</b>	<b>R-square adjusted</b>
organizational performance	0.362	0.341

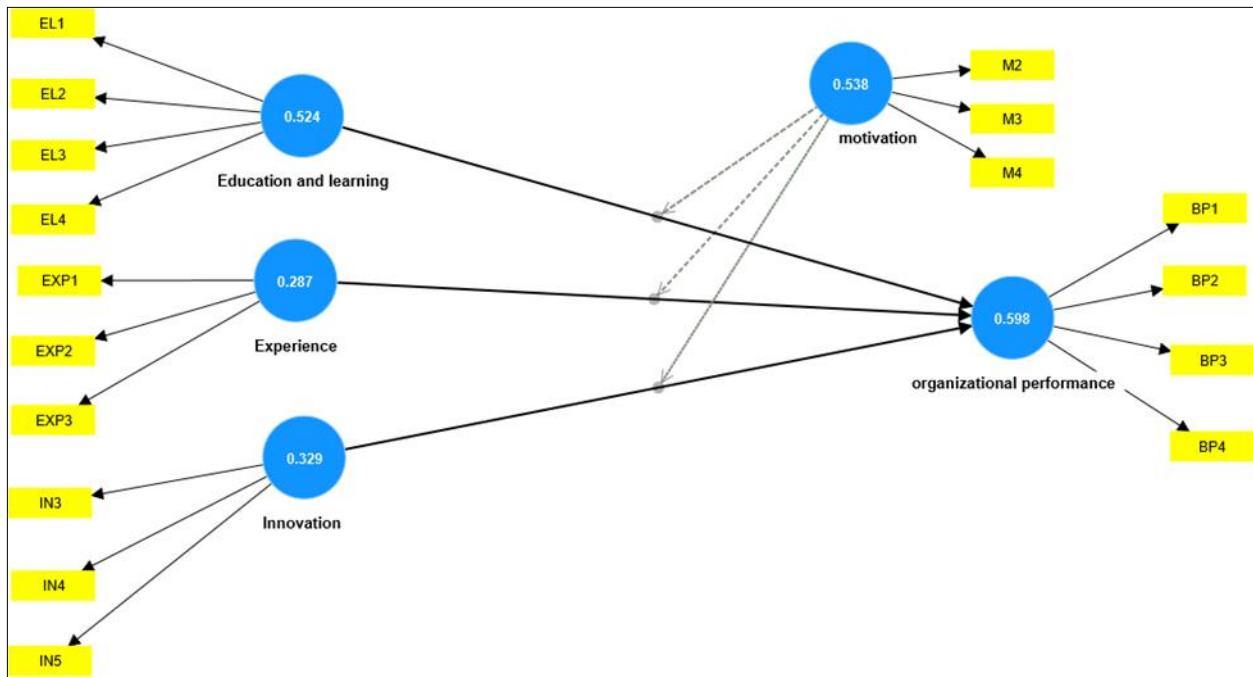
The coefficient of determination of a variable (R2) is the fraction of its variance that can be attributed to all external sources, taking into account evaluation (R2), effect size (f2), and predictive significance (R2). Furthermore, (Hare et al., 2017) suggested that selection values should be based on appropriate cut-off values for the parameters, such as 0.75 strong, 0.50 moderate, and 0.25 weak. The table data support the coefficient of determination, indicating a respectable level of forecast accuracy. Using the R2 factor, the relationship between the modifying variables motivation (M) and organizational performance (BP) was examined. The R2 value is considered average because it is less than 0.75. It hit 0.362. This is an important result. The relationship of the latent dependent variable to the independent variable is shown through the effect size. Whether or not a particular moderating variable is included in the model under consideration determines the difference in R2 between the main effects (Hair, et al., 2013). For each model, the cutoff values for strong connectivity are 0.35, medium connectivity is 0.15, and weak connectivity is 0.02.

**Table 7 F2**

	<b>Organizational performance</b>	<b>Measuring the size of effects</b>
Education and learning	0.001	Small
Experience	0.074	Large
Innovation	0.038	Large
motivation	0.025	Large
organizational performance		
motivation x Experience	0.000	Small
motivation x Education and learning	0.002	Small
motivation x Innovation	0.013	Medium

F2 is a measure of effect size that indicates how much an exogenous variable contributes to the R2 of an endogenous variable. (Cohen ,1988) suggested the following thresholds for F2: 0.02 (small), 0.15 (medium), and 0.35 (large).

Q2



**Figure 3** The PLS algorithm of the measurement model.

**Table 8** SSO , SSE,  $Q^2$  ( $=1-SSE/SSO$ )

	SSO	SSE	$Q^2$ ( $=1-SSE/SSO$ )
Education and learning	848.000	848.000	0.000
Experience	636.000	636.000	0.000
Innovation	636.000	636.000	0.000
Motivation	636.000	636.000	0.000
organizational performance	848.000	624.230	0.264

These numbers show the correlation between each model. (Al-Shaar et al., 2011) state that ( $Q^2$ ) is a measure of predictive importance that assesses the degree to which all internal thought indicators generated by the model are predictive. A blindfolded approach is used to calculate this number (Wong, 2013). Verified replication and community-validated methods can be used to calculate the  $Q^2$  value (Sarstedt et al., 2014). Make the political decision first. If the  $Q^2$  values of any endogenous latent variable are greater than zero, the path model provides a reasonable level of prediction accuracy for that construct (Sarstedt et al., 2014). The dependent variable “organizational performance” in Table 7 has a  $Q^2$  value of 0.264, indicating a prediction accuracy of 47.6% for this construct in the model. This indicates that the path model provides a reasonable level of prediction accuracy for the concept of “organizational performance.” Table 8 shows that the endogenous latent variable “organizational performance” has a second quartile value of 0.264, indicating a predictive accuracy of 47.6% for this model component. This shows the average prediction accuracy of the path model for the notion “organizational performance”.

### 5.3. The structural model

Research model was analyzed using Partial Least Square structural equation modeling (SmartPLS 3.2) tool which assesses psychometric properties of measurement model. Moreover, it evaluates parameters of structural model. SmartPLS develops componentbased approach to structural equation model by using bootstrapping method. Moreover, SmartPLS path model entails of two essentials: Inner model (measurement model) and outer model (structural model) (Yaseen et. al, 2016).

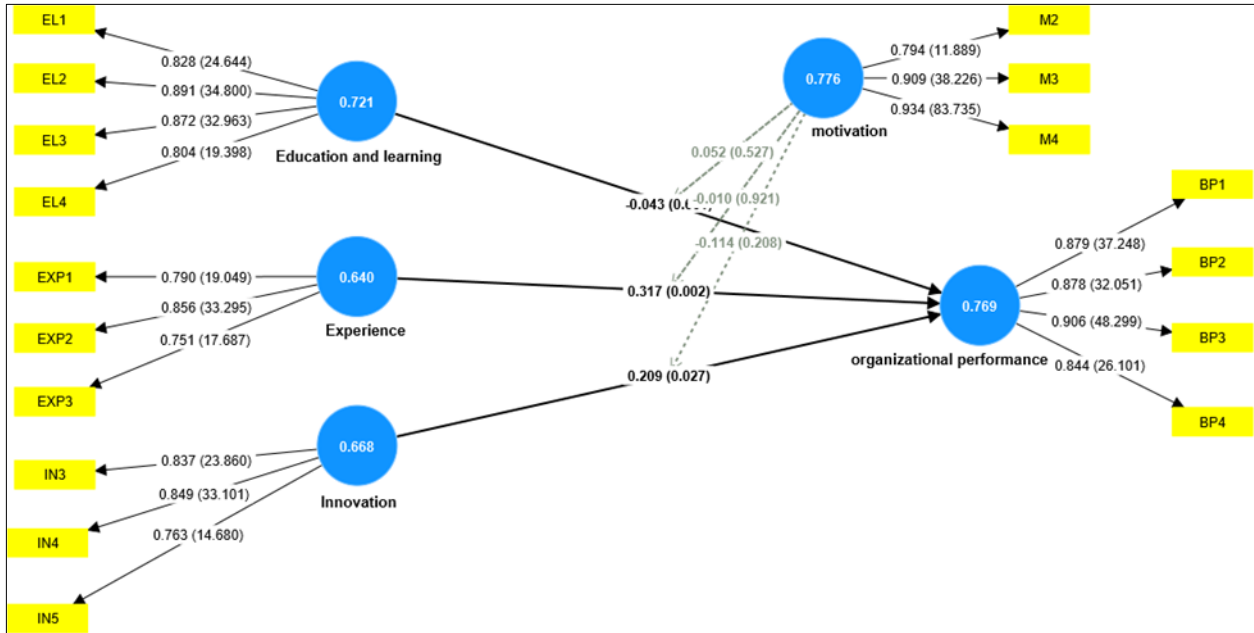


Figure 4 The PLS algorithm of the measurement model

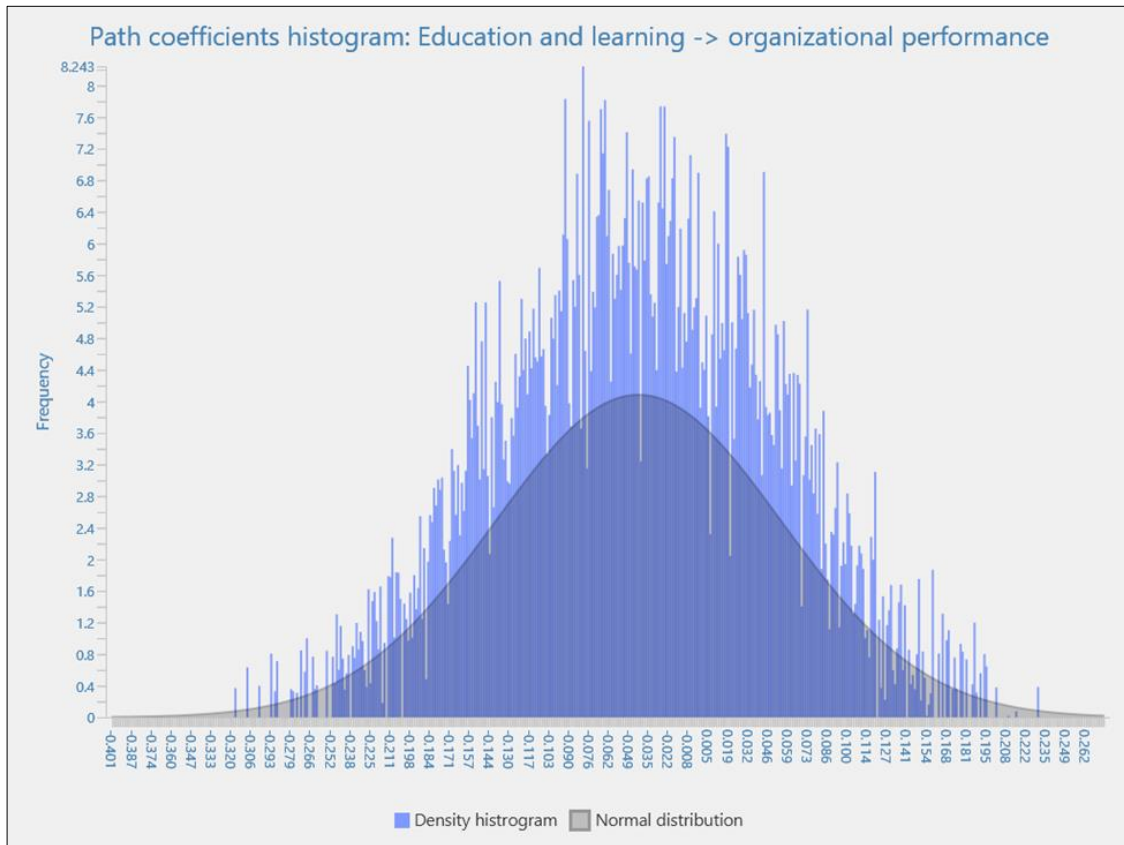


Figure 5 Path coefficients

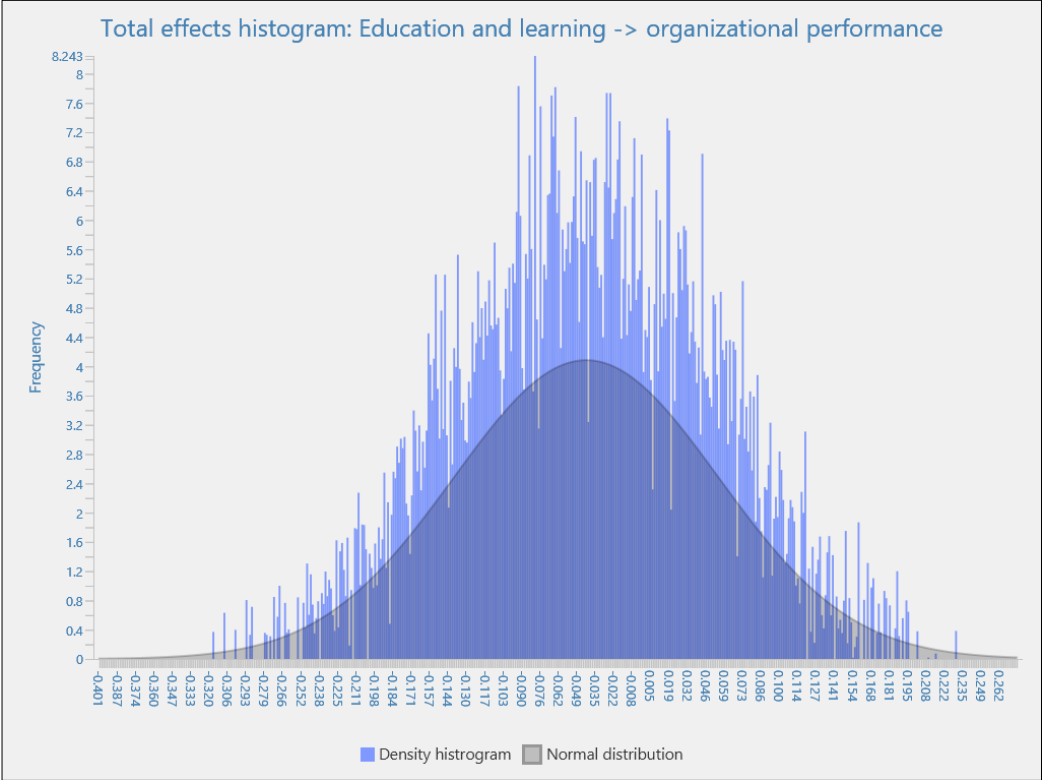


Figure 6 Total effects

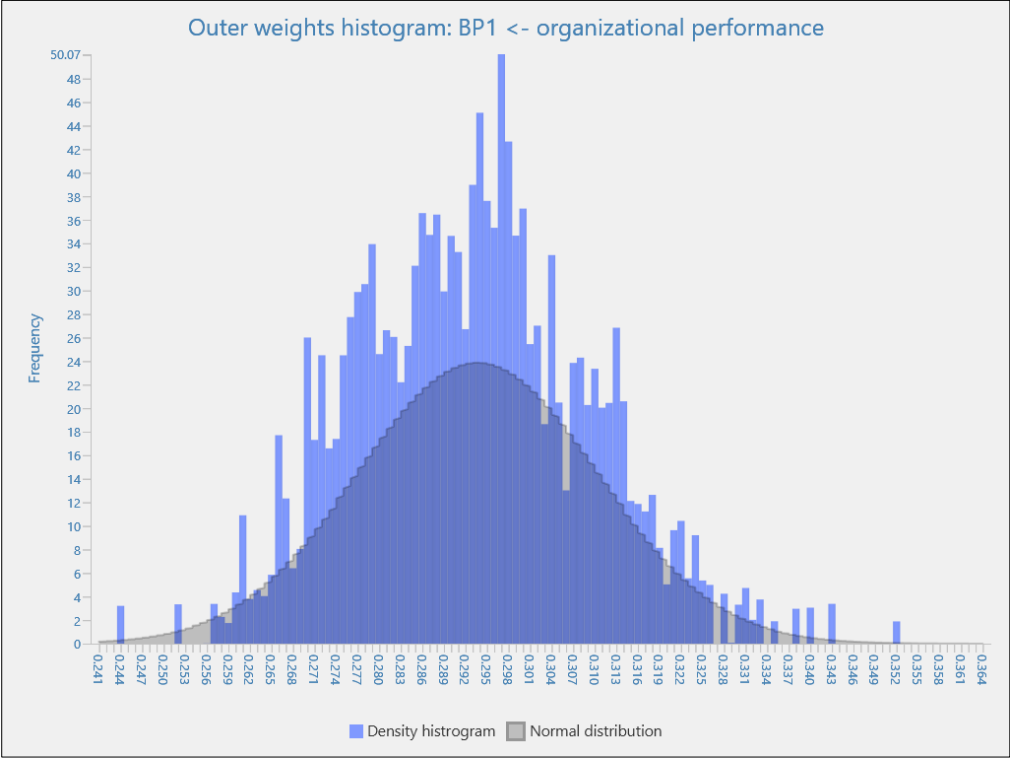


Figure 7 Outer weights

**Table 9** Mean, STDEV, T values, p values For study paragraphs

	beta	Sample mean (M)	2.5%	97.5%	Bias		beta	Sample mean (M)
BP1	0.879	0.879	0.828	0.920	0.000	0.024	37.248	0.000
BP2	0.878	0.876	0.814	0.922	-0.001	0.027	32.051	0.000
BP3	0.906	0.905	0.864	0.937	-0.001	0.019	48.299	0.000
BP4	0.844	0.843	0.773	0.899	-0.001	0.032	26.101	0.000
EL1	0.828	0.826	0.750	0.881	-0.002	0.034	24.644	0.000
EL2	0.891	0.890	0.833	0.932	-0.001	0.026	34.800	0.000
EL3	0.872	0.870	0.808	0.912	-0.002	0.026	32.963	0.000
EL4	0.804	0.801	0.708	0.870	-0.003	0.041	19.398	0.000
EXP1	0.790	0.788	0.695	0.855	-0.002	0.041	19.049	0.000
EXP2	0.856	0.854	0.797	0.898	-0.001	0.026	33.295	0.000
EXP3	0.751	0.751	0.660	0.824	-0.001	0.042	17.687	0.000
IN3	0.837	0.835	0.754	0.892	-0.002	0.035	23.860	0.000
IN4	0.849	0.849	0.792	0.892	0.000	0.026	33.101	0.000
IN5	0.763	0.759	0.638	0.843	-0.003	0.052	14.680	0.000
M2	0.794	0.792	0.643	0.897	-0.002	0.067	11.889	0.000
M3	0.909	0.907	0.854	0.946	-0.002	0.024	38.226	0.000
M4	0.934	0.935	0.911	0.955	0.001	0.011	83.735	0.000

Table 5 shows all the values of the study items, where the beta values for all the study items were greater than 0.5. Also, all the beta values for the items of the study variables are positive, and this indicates that the relationship is positive between all items of the study variables, and that the values of the sample mean (M) are greater than its constant with a value of 0.7, and this is evidence of the validity and reliability of all items of the study. As observed through the analysis All T values are greater than 2 and P values are less than 0.05, which means that there is a positive effect and a direct and positive relationship between education and learning, experience and expertise, innovation, creativity, and organizational performance. There is also a direct relationship between education and learning, experience and expertise, innovation, Creativity and organizational performance when motivation is a moderating variable .

**Table 10** Hypothesis testing

	beta	Sample mean (M)	Standard deviation (STDEV)	Bias	2.5%	97.5%	T statistics ( O/STDEV )	P values	decision
Education and learning -> organizational performance	-0.043	-0.042	0.098	0.000	0.234	0.149	0.439	0.661	Not Supported
Experience -> organizational performance	0.317	0.312	0.101	0.005	0.123	0.521	3.157	0.002	Supported

Innovation -> organizational performance	0.209	0.214	0.095	0.004	0.020	0.389	2.206	0.027	Supported
motivation -> organizational performance	0.176	0.182	0.095	0.007	-0.025	0.351	1.855	0.064	Not Supported
motivation x Experience -> organizational performance	-0.010	-0.017	0.104	-0.006	-0.202	0.199	0.100	0.921	Not Supported
motivation x Education and learning -> organizational performance	0.052	0.055	0.082	0.003	-0.121	0.204	0.633	0.527	Not Supported
motivation x Innovation -> organizational performance	-0.114	-0.096	0.091	0.019	-0.309	0.046	1.259	0.208	Not Supported

Fig. 2 and 3 indicate on total effect, mediating effect, path coefficients and p-values of the research model similar to Hayes (2009). Fig. 4 focus on the effect of dimensions of human capital on organizational performance where it shows there are significant effects between learning and education and experience and expertise on organizational performance. However, innovation and creation show the opposite effect. Fig. 5 emphasis on moderating effect, based on Dawson (2014) where it illustrates that motivation decreases the positive relationship between human capital and performance. Table 7 shows that with regard to the first hypothesis, which states, "Teaching and learning positively and directly affect organizational performance." Through the analysis, the study showed that teaching and learning do not positively and directly affect organizational performance, and that the relationship between improvement and organizational performance is negative, as (Beta value = -0.043; T = 0.439; P > 0.05) According to these results, the hypothesis was rejected and it is an unacceptable and unsupported hypothesis. Considering the second hypothesis, which states: "Experience positively and directly affects organizational performance." Through the analysis, the study showed that experience positively and directly affects organizational performance, and that the relationship between experience and organizational performance is positive, as (Beta value = 0.317; T = 3.157; P < 0.05) According to these results, the hypothesis was accepted and it is an acceptable hypothesis supported. Considering the third hypothesis, which states: "Innovation positively and directly affects organizational performance." Through the analysis, the study showed that innovation positively and directly affects organizational performance, and that the relationship between innovation and organizational performance is positive, as (Beta value = 0.209; T = 2.206; P < 0.05) According to these results, the hypothesis was accepted and it is an acceptable hypothesis supported. Regarding the fourth hypothesis, which states: "Motivation positively and directly affects organizational performance." Through the analysis, the study showed that motivation does not positively and directly affect organizational performance, and that the relationship between innovation and organizational performance is positive, as (Beta value = 0.176; T = 1.855; P > 0.05) According to these results, the hypothesis was rejected and it is an unacceptable and unsupported hypothesis. Regarding the fifth hypothesis, which states: "Experience positively and indirectly affects organizational performance when using motivation as a modified variable." Through the analysis, the study showed that motivation does not positively and indirectly affect organizational performance when using motivation as a modified variable, and the relationship is not The directness between motivation and organizational performance is negative, as (beta value = -0.010; T = 0.100; P > 0.05). According to these results, the hypothesis was rejected, and it is an unacceptable and unsupported hypothesis. Regarding the sixth hypothesis, which states: "Teaching and learning positively and indirectly affect organizational performance when using motivation as a modified variable." Through the analysis, the study showed that teaching and learning do not positively and indirectly affect organizational performance when using motivation as a modified variable. However, The indirect relationship between teaching, learning and organizational performance is positive (beta value = 0.052; T = 0.633; P > 0.05). According to these results, the hypothesis was rejected and it is an unacceptable and unsupported hypothesis. Regarding the seventh hypothesis, which states: "Innovation positively and indirectly affects organizational performance when using motivation as a modified variable." Through the analysis, the

study showed that innovation does not positively and indirectly affect organizational performance when using motivation as a modified variable. Also, the relationship is not The direct relationship between innovation and organizational performance is negative, as (beta value = -0.114; T = 1.259; P > 0.05). According to these results, the hypothesis was rejected, and it is an unacceptable and unsupported hypothesis.

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## 6. Conclusion

Through the results of the study, we conclude that the study showed that education and learning do not positively and directly affect organizational performance, and that the relationship between education and organizational performance is negative. The results also showed that experience positively and directly affects organizational performance, and the relationship between experience and organizational performance is positive. Through analysis, the study showed that innovation positively and directly affects organizational performance, and that the relationship between innovation and organizational performance is positive. The study showed that motivation does not positively and directly affect organizational performance, and that the relationship between innovation and organizational performance is positive. Through analysis, the study showed that Motivation does not positively and indirectly affect organizational performance when using motivation as a modified variable, and the indirect relationship between motivation and organizational performance is negative. Through analysis, the study showed that teaching and learning do not positively and indirectly affect organizational performance when using motivation as a modified variable, but the indirect relationship between teaching and learning and organizational performance is positive. Through analysis, the study showed that innovation does not positively and indirectly affect organizational performance when using motivation as a modified variable, and the indirect relationship between innovation and organizational performance is negative.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

There are no conflicts of interest and this scientific paper belongs to us to be disclosed.

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