

# Investigating how E-training and E-leadership influence Employee Performance: Testing the Mediation of Work Motivation

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## Abstract

Keeping in view the research objectives current study tested the relationship of E-training and E-leadership on employee performance directly and indirectly through work motivation as a mediator. Total seven relationships were proposed. Five direct relationships and two indirect relationships were tested. For testing, the relationships data were collected from 212 bank employees working in the Kingdom of Bahrain. The target sample was selected through simple random sampling, data screening was done through SPSS23 and the model was assessed through structural equation modeling through Smart PLS3. Current research found a significant positive effect between the relationship of E-training, E-leadership towards employee performance, and work motivation. While the effect of work motivation was insignificant factor in predicting employee performance. The current study also found an insignificant mediating effect of work motivation on the relationship between E-training, E-leadership, with employee performance. Furthermore, current research has implications for policymakers and practitioners.

**Keywords:** *E-training, E-leadership, Work motivation, Employee performance, Structural Equation Modeling.*

## Introduction

Initially COVID-19 is known as the corona virus, which became a global pandemic. This made many regions in isolation and adversely affected the economy [1] Such a situation forced people to work online and maintain their performance [2, 3]. Due to tough competition in this global era, companies face challenges to be at fore-front for providing satisfactory services to customers. The Covid-19 situation triggered tough competition in the business world in achieving remarkable performance in the current era. There are many ways for this research for the improvement of employee performance in the telecom industry of the Kingdom of Bahrain [4, 5]. One of the critical aspects is E-training, as for many years the Internet usage has affected the people's lives, especially in getting training. This has remarkably contributed a birth to have E-training due to the non-availability of physical training due to the pandemic situation of Covid-19. E-training is a better input for human resource development, especially for employees in the banking sector [6-12].

After E-training, the most important aspect is E-leadership; organizations should emphasize the worth of changing and adopting leadership strategies for the employees [13-15]. After E-leadership, the third aspect which can improve employee performance is work motivation. Motivation is a driving force that encourages the employee to achieve organizational goals with better-expected results [16]. Literature has supported that work motivation has a significant role in enhancing performance [17]. Keeping in view the importance, the current research aimed to assess the effectiveness of E-training, E-leadership, and work motivation towards employee performance in current pandemic situation of Covid-19 that focus more on online [18-22].

### **Literature review and Hypothesis development Employee Performance**

Employee performance is a crucial benchmark for knowing whether the job has been done accordingly. Employee performance is the outcome of assigned work [23]. Through performance, management defines the goals and standards for future performance to better organizational success [23, 24]). Hence, employee performance has a more significant role in the organization's success [24, 25], especially for the banking sector, which is a sensitive service industry sector where only performance has a greater impact on the organization and customer base and customer satisfaction.

### **E-Training**

There are similarities in E-training and E-learning in different ways. Especially in terms of delivery methods and technological use, expect that training is for a shorter time and learning is for long-term design to learn specific skills and achieve goals [4, 26, 27]. E-training can be defined as learning from a distance by using the Internet to impart the essential knowledge on different selected areas [28]. While examining the literature regarding the effect of E-training on employee performance, research by [29] stated that there is significant positive effect of E-Training on employee performance. This means that effective the E-training better will be the employee performance. Besides this, research in the petrochemical industry by [30] also found that E-training significantly affects employee performance. This shows that when there is more E-training as per requirement of the jobs, it helps in increasing employee performance.

### **There is positive significant effect of E-training on employee performance**

Beside the effect of E-training on employee performance. E-training has a substantial role in work motivation. E-training or E-learning has been proved as a sense of motivation among staff [31]. Hence E-training will bring a new atmosphere in a variety of learning development. Some of the benefits of e-training are shortening learning time and cost savings; e-learning as a facility of interaction, overall bring motivation at work which is narrated as work motivation [32-36].

### **H2: There is a significant positive effect of E-Training on work motivation E-Leadership**

Due to digitalization industrial world has become revolutionary that gives birth to leadership, which can be labeled e-leadership [37]. E-leadership theories studies show leadership in the work environment that can help technology communication networks [14]. E-leadership performs different responsibilities and roles, which can be used to

communicate with their employees either in the same or in different offices [37]. [38] also found a significant but negative association between E-leadership and team performance. Leadership approaches are useful in project-based learning; hence E-leadership remains a helpful resource for the increase of performance. Based on the pieces of evidence in the literature, it seems that E-leadership has a significant positive effect on employee performance [39-43].

#### **There is a positive effect of E-Leadership on employee performance**

Work motivation serves as a point of strength for the encouragement of employees for organizational and individual goals [44]. Vast literature such as [45]; [46]; [47] referred to work motivation that it is associated with leadership. The study by [48] found significant positive effect between leadership and work motivation.

#### **H4: There is a positive effect of E-Leadership on work motivation Work Motivation**

All forms of desire, hope, and drive for work is known as work motivation. Work motivation also emphasizes the effect of external elements and attention towards individuals' personality characteristics for the achievement of the organization's goals [49]. Motivation is directly associated with employee performance. Employees with a higher level of motivation can help to increase performance. [16]; [49]; [50] found that work motivation is associated with employee performance. This shows that when there is a higher level of work motivation, there is definitely a higher level of employee performance.

#### **H5: There is a positive effect of work motivation on employee performance.**

According to [50] stated that indirect link between leadership and staff performance was mediated through organizational culture, Work environment [51], Conflict [52], work motivation [47]. But the relationship between E-leadership, E-training and employee performance through work motivation yet to be explored. So therefore, current research has hypothesized as;

#### **H6: Will work motivation mediate the relationship between E-Training and Employee performance**

#### **H7: Will work motivation mediate the relationship between E-Leadership and Employee performance**

#### **Method**

Structural equation modeling was used in this research. In structural equation modeling, two approaches were used to assess the model, i.e., assessment of measurement model and the structural model. For this, data were collected from bank employees in the Kingdom of Bahrain. For this data were collected from the 212 bank employees working in banking sector of the Kingdom of Bahrain. Target audiences were selected through simple random sampling.

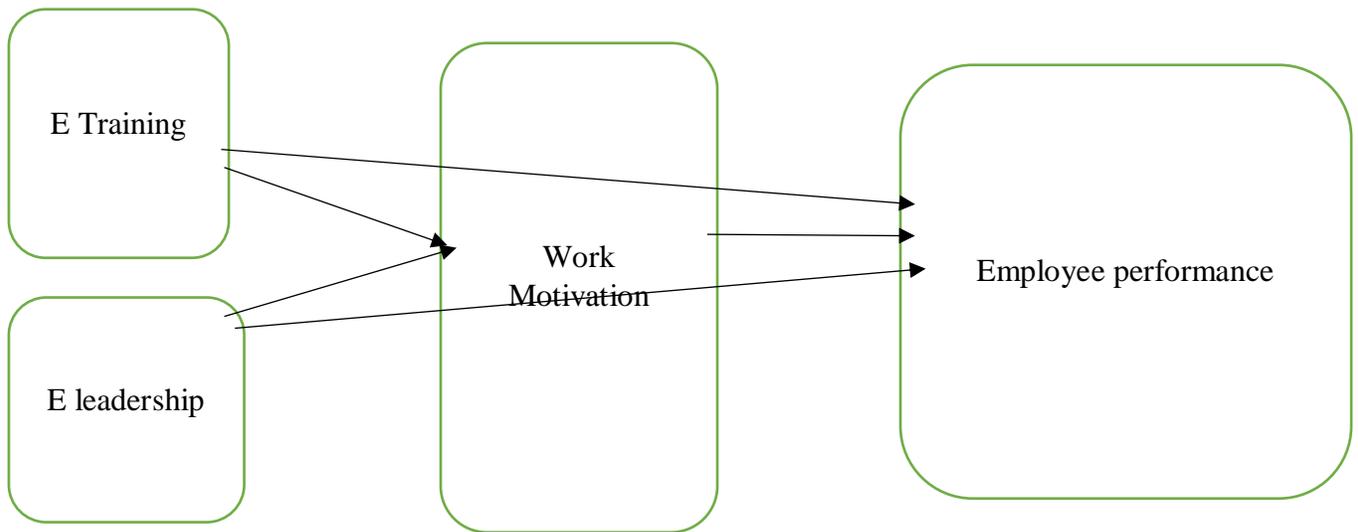


Figure1 Fra me work

## Results

Current research adopted two key approaches recommended by [53] for assessment of the model, widely used techniques are named as 1) assessment of Measurement model and 2) assessment of structural model [54],

### Assessment of measurement model

Before the assessment of the structural model, this research attempted to assess the reliability and validity of the constructs to check whether instrument items are reliable and valid under the assessment of the measurement model. For reliability and validity, current research assessed average variance extract, composite reliability, loading of each item used to measure the variable role in the research framework. By following the recommendation of [55], validity is achieved when the construct has a composite reliability score of 0.70 and above. Besides this, convergent validity can be achieved when the average variance extract (AVE) the score is 0.50 and above [56]. Along with this, each factor loading was also assessed and found satisfactory results. Table 1 summarizes the composite reliability, AVE, and loading factors. Current study found AVE score 0.553 to 0.804, CR value were 0.896 to 0.966. Besides this, while assessing item loadings, the current study found items loading above 0.50.

Hence based on the results in table 1, current research achieved sufficient reliability.

Table 1

## Assessment of reliability and validity

Construct AVE	Loading	CR	
<b>Employee Performance</b>		<b>0.896</b>	
<b>0.553</b>			
EP1	0.675		
EP2	0.680		
EP3	0.744		
EP4	0.790		
EP5	0.759		
EP6	0.784		
EP7	0.765		
<b>E-Leadership</b>		<b>0.923</b>	<b>0.600</b>
EL1	0.767		
EL2	0.707		
EL3	0.757		
EL4	0.773		
EL5	0.718		
EL6	0.800		
EL7	0.817		
EL8	0.850		
<b>E-Training</b>		<b>0.913</b>	<b>0.640</b>
ET1	0.790		
ET2	0.819		
ET3	0.897		
ET4	0.856		
ET5	0.787		
ET6	0.621		
<b>Work Motivation</b>		<b>0.966</b>	<b>0.804</b>
WM1	0.925		
WM2	0.935		
WM3	0.935		
WM4	0.926		
WM5	0.92		
WM6	0.796		
WM7	0.847		

Besides assessment of reliability and validity measures, current research also assessed discriminant validity by following the recommendation of [55, 56] for square root of AVE, and HTMT<sub>inference</sub> were assessed [31]. HTMT values were recommended as less than HTMT<sub>0.85</sub> and HTMT<sub>0.90</sub>.

Table 2

Square root of AVE

WM	EL	ET	EP
E leadership	0.775		
E Training	0.713	0.800	
Employee performance	0.708	0.803	0.744
Work Motivation	0.803	0.518	0.532
	0.897		

All bold values show square root of AVE

Table 3

HTMT Criteria

WM	EL	ET	EP
E leadership	---	--	
E Training	0.809	--	
Employee performance	0.780	0.893	--
Work Motivation	0.632	0.556	0.583

Based on HTMT criteria, all values were found less than  $HTMT_{0.90}$  by following the HTMT criteria, and current research achieved the desired level of discriminant validity.

Along with this, current research also assessed the overall effect of exogenous variables on endogenous variables through R-square ( $R^2$ ). Current research also assessed each independent variable's effect size ( $f^2$ ) on the dependent variable. Table 4 represent  $R^2$  values, and table 5 shows  $f^2$  values.

Table 4

R-Square values  $R^2$

Construct	$R^2$	Adjusted $R^2$
Employee Performance	0.686	0.682
Work Motivation	0.379	0.373

R-square values in current research show the total variation in the endogenous variable. There is a 68.6% variation in employee performance by all independent variables, and a 37.9% variation in work motivation. **Table 5**

Table 5

Construct Effect	Effect size ( $f^2$ )	
	EP	WM
E Leadership WM	0.073	0.179 low on EP, medium on
E-Training WM	0.534	0.025 strong on EP, low on
Work motivation	0.014	low on EP

[57] recommended the effect size values effect size of 0.02 is known as low, 0.15 treated as medium, and 0.35 known as large.

Based on the current research results, E-training has found a strong effect on employee performance, low effect on work motivation, while E leadership has a low effect on employee performance and a medium effect on work motivation. Besides this, only work motivation has a very low effect on employee performance.

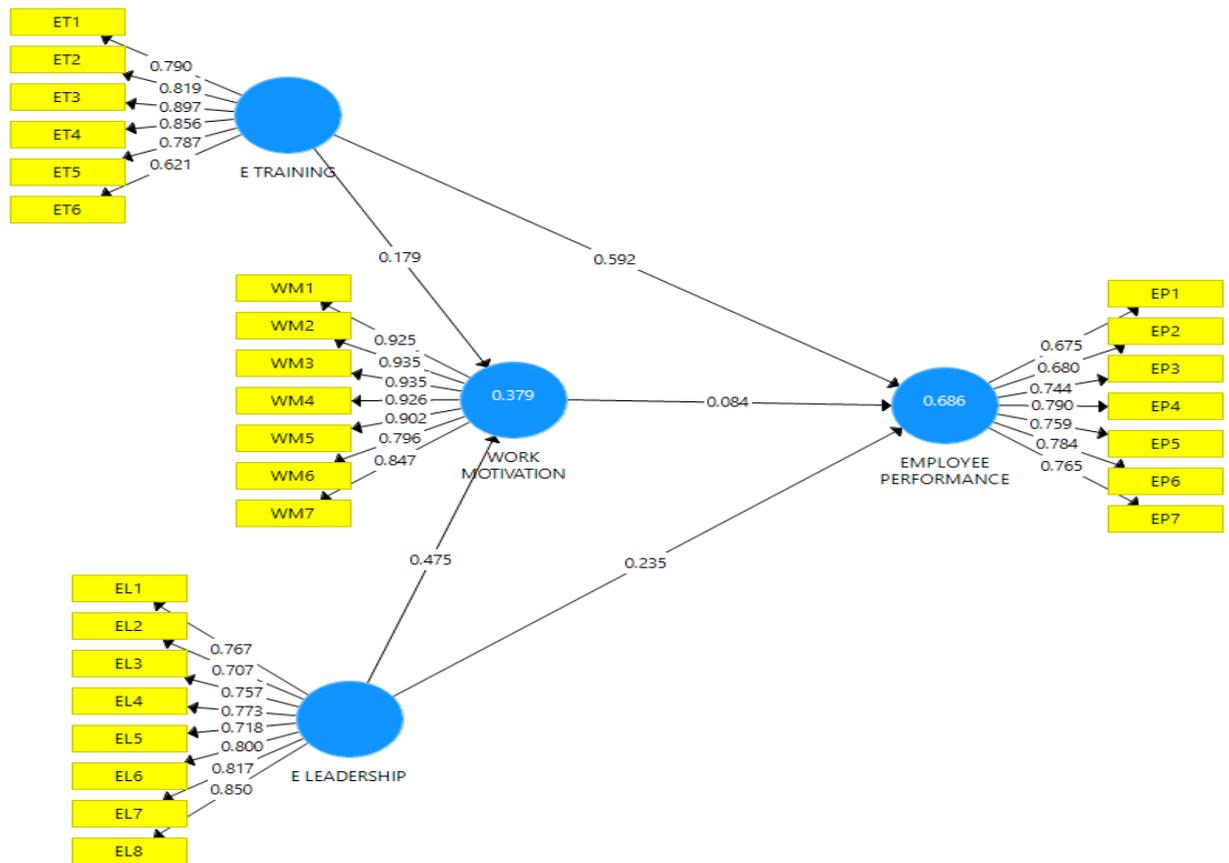


Figure 2; Measurement Model

**Assessment of structural model**

After assessment of measurement model, current research assessed structural model for testing the hypothesis. Current research found significant positive relationship between E-training and employee performance in H1= ( $\beta= 0.592$ ,  $t$  value= 11.253,  $p$  value

= 0.000), between training and work motivation in H2= ( $\beta = 0.179$ , t value= 2.148, p value = 0.032), between E-leadership and employee performance in H3= ( $\beta = 0.235$ , t value= 3.870, p value= 0.000). Relationship between E leadership and work motivation in H4= ( $\beta = 0.475$ , t value= 5.951, p value = 0.000) while relationship between work motivation and employee performance also found positive insignificant results in H5= ( $\beta = 0.084$ , t value = 1.666, p value= 0.096). Beside direct relationship assessment current study also assessed mediating effect of work motivation on relationship between E-training and employee performance in H6= ( $\beta = 0.015$ , t value = 1.258, p value= 0.208) hence results were positive insignificant which means work motivation has not mediated the relationship between E training and employee performance.

During the mediating effect of work motivation on the relationship between E-leadership and employee performance in H7= ( $\beta = 0.04$ , 1.534, p value = 0.125), work motivation also not mediated the relationship between E-leadership and employee performance. The current research was based on seven hypotheses, four direct hypotheses, H1, H2, H3, H4, found significant positive results based on the results (H1, H2, H3, H4) were accepted. H5 was positive but insignificant in comparison, so H5 was not accepted. While mediation was proposed in H6 and H7, the current study found positive but insignificant results. Based on these findings, the current study found that work motivation has not mediated the proposed relationships in H6 and H7; hence H6 and H7 were not accepted.

Table 6

Assessment of structural model

Path Decision	Beta	SD	T value	P value
H1:ET→EP accepted	0.592	0.053	11.253	0.000
H2:ET→WM accepted	0.179	0.083	2.148	0.032
H3: EL→EP accepted	0.235	0.061	3.870	0.000
H4: EL→WM accepted	0.475	0.080	5.951	0.000
H5: WM→EP rejected	0.084	0.050	1.666	0.096
H6: ET→WM→EP rejected	0.015	0.050	1.258	0.208
H7: EL→WM→EP rejected	0.040	0.012	1.534	0.125

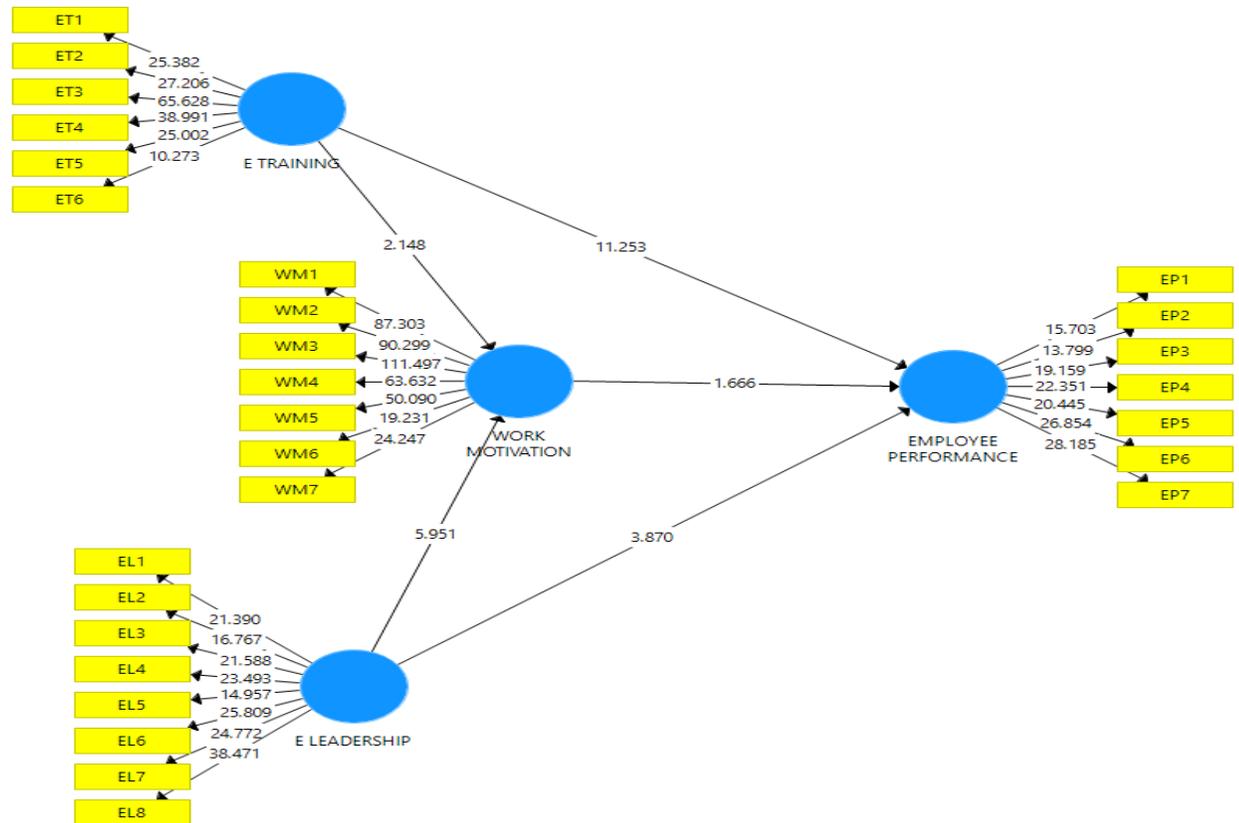


Figure 3: Structural Model

### Discussion

Results have shown that E-training is positive significantly linked with employee performance. The literature supports the results of current research by [29] that the main theme of E-training remains to enhance employee performance. [58] categorize E-training as one of the key aspect of human resource management. E-training provides several benefits to the employees for improving their performance [57].

Current research found positive significant influence of E-training on work motivation. Findings are supported by literature that due to the increase in E-training, there was a significant increase in work motivation [58]. E-training helps motivate employees for enhanced performance [59].

E-leadership influence on employee performance was found as positively significant. The findings of current research are confirmed with literature by [60] that E-leadership is a helpful factor in optimizing employee performance.

Besides this, current research also found a positive significant effect of E-leadership on work motivation. Thus, finding of this research reinforces that technology affects leadership style, which onward influences employee work motivation and performance [48]. Additionally, leadership and technology combine to become resourceful to motivate and monitor employees [1].

While effect of work motivation on employee performance was found positive but insignificant. Though motivation is closely related toward performance ([16]. But current research has witnessed opposite results in terms of significance, which shows that there may be contextual differences or some undiscovered factors that make the effect of motivation insignificant to employee performance. These factors can be a need-based job

where employees perform only because the job is their need; they do not concern whether they are motivated. Some are only satisfied with salary regardless of work motivation, and they perform well. Hence significant results of current research are an addition to the literature as a body of knowledge.

Furthermore to the discussion on mediation path coefficients in H6 and H7 were positive H6 ( $\beta = 0.015$ ) and in H7 ( $\beta = 0.04$ ) while p values in H6: (p value = 0.208) and in H7 (p-value = 0.125) both hypotheses were proved as insignificant and were not accepted so findings show that work motivation has not mediated the proposed relationship of E-training, E-leadership on employee performance. Work motivation will not change the high/low E-training or E-leadership effects on human resource performance.

### Implications

The current research aimed to see E-training and E-leadership as organizational factors and work motivation as individual factors towards employee performance. Results on this research model are significant between E-training, E-leadership towards employee performance, and work motivation, while work motivation towards employee performance was not significant. Furthermore, mediation was not significant in current research. Theoretically and practically, this empirical evidence has shown that E-training and E-leadership positively improve workers' work motivation and employee performance. Current research findings have significant implications for both organization and individual employees, as this research model is a combination of organizational and individual factors assessment on employee performance. Policymakers and practitioners can design policy and work structures to achieve a better and enhanced level of employee performance.

### Conclusion

Conclusively, the research findings show the significance of E-training and E-leadership towards work motion and employee performance. This shows that when organizational factors are performing strongly and remarkably, employees become motivated with work and deliver higher performance. In the pandemic situation of Covid-19 when the organization supports employees through proper training and effective leadership, employees perform well and become resourceful factors in achieving organizational and employee goals.

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