

## Examining the role of transformational leadership and entrepreneurial orientation on employee retention with moderating role of competitive advantage

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CHRONICLE

ABSTRACT

*Article history:*

Received: July 14 2019

Received in revised format: July 22 2019

Accepted: August 20, 2019

Available online: August 31, 2019

*Keywords:*

*Organizational Environment*

*Intrinsic Motivation*

*Transformational Leadership*

*Knowledge Management*

*Competitive Advantage*

*Structural equation modeling*

This study aims to investigate employee motivational and environmental factors and their effects on employee retention and organizational performance. Employee retention is predicted by organizational environment, intrinsic motivation, organizational learning, knowledge management, entrepreneurial orientation, external connect and explained  $R^2=76.3\%$  of the variance in employee retention. Therefore, organizational performance is predicted by competitive advantage and employee retention and explained  $R^2=19.9\%$  of the variance in organizational performance. Effect size analysis indicates that intrinsic motivation had substantial effect on size when compared with other exogenous variables. The predictive relevance of the model was found substantial revealed  $Q^2=40.5\%$  relevance to predict employee retention. The moderating role of the competitive advantage was confirmed and directs that the positive relationship between employee retention and organizational performance will be stronger when competitive advantage is higher. Finally, results showed that intrinsic motivation had the highest importance level when compared with other constructs. Therefore, manager and policy makers should take into consideration intrinsic motivation and transformational leadership in order to boost employee retention and organizational performance.

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### 1. Introduction

Constant searches for the determinants of employee retention and firm performance both have become a global challenge for organizations. It is beyond a doubt that right approach takes organizations to next level of prosperity growth and profitability. Examining the role of organizational environmental and motivational factors is important for the success of the organizations. Chully and Sandhya (2014) emphasized that transformational leadership is the core factor that boost organizational performance and employee motivation. Therefore, the role of organizational environment, intrinsic motivation, organizational learning, knowledge management and external connect is highly debated in the context of employee retention and firm performance (Deci & Ryan, 1985, 2000; Hanaysha, 2016; Kim, 2018; Marsick & Watkins, 1999; Martín Cruz et al., 2009). Although there is plethora of research that claims organization performance and employ retention, little has been discussed about competitive advantage (Mahdi & Almsafir, 2014). Therefore, this study fills this research gap and examines moderating role of competitive advantage between employee retention and employee performance.

A systematic literature review shows that organizational learning positively influence on employee attitude and beliefs. Salarian et al. (2015) asserted that organizational learning provides the right mechanism for enhancing, organizational effectiveness and offer a nurturing environment to employees. The importance of knowledge management is highlighted by Assis-Dorr et al.(2012) who stated that an accurate knowledge management strategy is important to retain employee and it could increase firm profitability. Similarly, external connected is seen in international context. For instance Boso et al. (2016) pre-

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sented that collaboration with international organizations improves quality of the products and services and boost organizational learning culture. Another study conducted by Haddoud et al. (2017) claims that technology helps organizations bring innovative products in market. In addition to that, it is also confirmed that external technology improves the employee performance (Haddoud et al., 2017). Moreover, innovativeness was seen in entrepreneurial orientation. Entrepreneurial orientation is identified as the introduction of simultaneous innovative, proactive and risk taking initiative (Stam & Elfring, 2008). Thus, examining the role of underpinning constructs contributes to employee retention and organizational performance literature (Chully & Sandhya, 2014). This study extends the body of knowledge on this subject and investigates the moderating role of complete advantage between employee retention and organizational performance. The details of these construct are presented in literature review section.

## 2. Literature review

### 2.1 Organizational learning (ORGL)

The concept of organization learning was developed by Senge (1990) in order to investigate firm performance. It is said that organizations that provide learning opportunities to its employees and continuously transform knowledge into practice have considered learning organizations (Freeman & McVea, 2001). Organizational learning is defined as the process and behavior that support to build learning culture within an organization. Author like Salarian et al. (2015) postulated that organization learning is a set of organizational characteristics which includes knowledge sharing, and knowledge acquisition. Organizational learning provides the right mechanism for enhancing, organizational effectiveness and offers a nurturing environment. In addition to that attractive place with mentoring leaders could enhance employee learning attitude (Hanaysha, 2016; Marsick & Watkins, 1999). Similarly, Lockwood (2007) stated that promoting organizational learning culture increases employee satisfaction and gains employee commitment for long term. Another study conducted by Ahmad and Marinah (2013) confirmed significant relationship between organizational learning and employee retention. Earlier studies indicated that organizational learning boosts employee commitment which in turn positively influences on employee retention (Ahmad & Marinah, 2013; Freeman & McVea, 2001; Hanaysha, 2016; Lockwood, 2007; Marsick & Watkins, 1999; Salarian et al., 2015). Thus, organizational learning is hypothesised as:

H<sub>1</sub>: Organizational learning has positive influence on employee retention.

### 2.2 Knowledge Management (KNLM)

In order to investigate the parameters of employee retention literature review was conducted on knowledge management. An accurate knowledge management strategy is important to retain employee and it increases firm profitability (Assis-Dorr et al., 2012). In organizational context, knowledge is identified either in tacit or explicit form. Knowledge which is based on intellectual, considered property of an individual and not available in published form is known as tacit knowledge. Therefore, explicit knowledge is a category of knowledge which is available in published form. Therefore, in this study knowledge management is studied in general context and combines two well-known types of knowledge management strategies including personalization and codification strategy (Ajith Kumar & Ganesh, 2011). Personalization knowledge strategy is used people-to-people method for exchange of knowledge (Davenport & Guest, 2001). Personalization knowledge strategy provides accurate guidance to employee. It is important tool to develop a positive change and its useful implementation (Jones et al., 2005). According to Scheepers et al. (2004), codification strategy, wherein knowledge transfers people-to-document and document-to-people. In this strategy a central repository is used to collect the organizational related information and all employees are allowed to access that repository (Scheepers et al., 2004). Similarly, Cole et al. (2006) stated that codification is a knowledge sharing process in which employees notify through handouts using a centralized organizational system. Several researchers agreed upon the need of optimal mix of knowledge management strategy (i.e. personalization and codification) in order to respond particular situation within an organization (Ajith Kumar & Ganesh, 2011; Cole et al., 2006). It is argued that effective knowledge management strategy yields better outcomes and enhance employee retention (Rusly et al. 2015; Sanders et al., 2017). Organizations follow dynamic knowledge sharing system have more satisfied employee (Sanders et al., 2017). Therefore, and back up with earlier studies of Ajith Kumar and Ganesh (2011); Desouza and Evaristo (2004); Scheepers et al. (2004) Sanders et al. (2017) knowledge management is hypothesized as:

H<sub>2</sub>: Knowledge management has positive influence on employee retention.

### 2.3 External Connect (EXCT)

In management literature external connect has been identified as external collaboration, external technology and external knowledge. Szyliowicz and Galvin (2010) postulated that firms' collaboration with their partner helps to gain competitive advantage. In addition to that good relationship between public and private institutions helps organizations remove barriers to enter into international market. Another study conducted by Boso et al. (2016) showed that collaboration with international organizations improves quality of the products and services and boosts organizational learning culture. Concerning with technology connect, author like Haddoud et al. (2017) who stated that technology helps organization accelerate and brings ease in employee tasks. Use of technology helps organizations bring innovative products in market. In addition to that, it is also

confirmed that external technology improves the employee performance (Haddoud et al., 2017). Similarly, external knowledge helps employee understand dynamics of volatile market and motivates them to perform job proactively (Chesbrough, 2012). Therefore, and back up with earlier studies of Chesbrough (2012), Haddoud et al. (2017), Szyliowicz and Galvin (2010), external connect is hypothesized as:

H<sub>3</sub>: External connects have positive influences on employee retention.

#### 2.4 Entrepreneurial Orientation (ENTO)

Entrepreneurial orientation provides opportunity to a firm to flourish and progress in long term. Entrepreneurial orientation is identified as the introduction of simultaneous innovative, proactive and risk taking initiative (Stam & Elfring, 2008). It is a corporate strategy wherein firm adopts entrepreneurial policies to avail new business opportunities. Earlier studies have confirmed that organizations having entrepreneurial culture have more satisfied employee (Covin et al., 2006; Stam & Elfring, 2008). Similarly, a strong connection is found between entrepreneurial orientation and firm performance (Covin et al., 2006). Author like Olson et al. (2001) highlight that employee common goals for instance and effective implementation of activities positively influence on entrepreneurial activities. Therefore, without common goals entrepreneurial orientation negatively influences on employee attitude. Thus, for organization performance coordination between employees and top leadership matters a lot. Several other studies have confirmed that organizations with entrepreneurial culture had the highest employee retention (Covin et al., 2006; Olson et al., 2001; Stam & Elfring, 2008). Following the above arguments, we hypothesized entrepreneurial orientation as:

H<sub>4</sub>: Entrepreneurial orientation has positive influence on employee retention.

#### 2.5 Organizational Environment (OREN)

Organizational environment is a specific climate of an organization where employees perform their duties (Danish et al., 2013). Organization environment plays a vital role in developing and implementing new strategies. In this regard employee motivation is the main factor fueled by organizational environment. It is argued that an adequate organizational environment impacts on employee satisfaction and enhances employee retention (Hanaysha, 2016). If employees work in safe environment, they feel more comfortable with their jobs. In addition to that comfortable and secure environment increase employee productivity which ultimately enhances firm performance. According to Danish et al. (2013) in order to compete in competitive market organization should design favorable work environment which in turn enhances employee retention and commitment towards organization. Several factors are presented in previous literature that develop good environment for instance safety, comfortable workplace and absence of noise. Supervisor support and team cohesion are some other factors that bring ease at workplace and enhance employee productivity. Authors like Khuong and Le Vu (2014) argued that in comfortable environment employee work effectively compared with those who work in uncomfortable place. Extending to this organizations having comfortable environment have the highest rate of employee retention (Khuong & Le Vu, 2014). Following above arguments and back up by Khuong and Le Vu (2014) Danish et al. (2013); Hanaysha (2016), we hypothesized organizational environment as:

H<sub>5</sub>: Organizational environment has positive influence on employee retention.

#### 2.6 Intrinsic Motivation (IMOT)

The roots of intrinsic motivation existed in self-determination theory which demonstrates human intrinsic and extrinsic motivation at workplace (Deci & Ryan, 1985). Intrinsic motivation is defined as “*the doing of an activity for its inherent satisfactions rather than for some separable consequence as well as doing something because it is inherently interesting or enjoyable*” (Deci & Ryan, 1985, 2000). In organizational context intrinsic motivation is seen as aesthetic values, enjoyment and interest in a particular task (Deci & Ryan, 2000). Author like Dewett (2007) revealed a significant relationship between intrinsic motivation and employee satisfaction which in turn positively influence on employee retention. Another research conducted by Martín Cruz et al. (2009) showed that intrinsic motivation significantly influences on employee motivation to perform a job accurately. Intrinsic motivation in workplace is studied by several researchers (Deci & Ryan, 1985, 2000; Kim, 2018; Martín Cruz et al., 2009). Intrinsic motivation significantly influences on employee retention and enhances organizational performance (Martín Cruz et al., 2009). Following above arguments, we hypothesized intrinsic motivation as:

H<sub>6</sub>: Intrinsic motivation has positive influence on employee retention.

#### 2.7 Transformational leadership (TRLE)

The concept of transformation leadership was introduced by Bass (1985) that indicated strong relationship between transformational and employee retention. Transformational leadership style has found influential enablers that impact on employee

behavior, attitude and work performance (Para-González et al., 2018). In transformational leadership style, employee get motivation by leaders which ultimately bring positive change in employee attitude, beliefs and values towards organizations (Rafferty & Griffin, 2004). Extending to this Para-González et al. (2018) argued that leader support enhance task performance, employee satisfaction and organization efficacy. Another study conducted by Yizhong et al. (2019) showed that organizations having transformational leadership style management have more coordination in team work compared organization following conventional management style. Extending to this, organization with transformational leadership styles have visionary and long lasting future (Yizhong et al., 2019). According to Nielsen, Randall, Yarker, and Brenner (2008) transformational leadership is where leader inspire, motivate and encourage subordinates to stay determine and passionate with job. Earlier studies have highlighted linkage between transformational leadership and employee retention (Bass, 1985; Nielsen et al., 2008; Para-González et al., 2018; Rafferty & Griffin, 2004; Yizhong et al., 2019). Therefore, transformational leadership is hypothesized as:

H<sub>7</sub>: Transformational leadership has positive influence on employee retention.

### 2.8 Employee Retention and organizational performance

Ahmad and Marinah (2013) asserted that organizational learning significantly influences on employee retention which in turn boosts firm performance. It is also said that attractive place with mentoring leaders could enhance employee satisfaction resulting the highest gain for employee retention (Hanaysha, 2016; Marsick & Watkins, 1999). Another study conducted by Lockwood (2007) stated that promoting organizational learning culture increases employee satisfaction and gains employee commitment for long term. Research has emphasized that employee satisfaction improves firm performance. Some academics argued that novelty is enough for an idea or solution to be judged creative. Researchers like Wang and Noe (2010) confirmed the relationship between employee retention and firm performance. Previous studies have highlighted strong linkage between employee retention and firm performance (Ahmad & Marinah, 2013; Dewett, 2007; Ha & Lo, 2018; Hanaysha, 2016; Hirst, Van Dick, & Van Knippenberg, 2009; Lockwood, 2007; Marsick & Watkins, 1999; Wang & Noe, 2010). Following above arguments, we hypothesized employee retention as:

H<sub>8</sub>: Employee retention has positive influence on organizational performance.

### 2.9 Competitive Advantage, employee retention and organizational performance

Competitive advantage is defined as a firm's ability wherein it generates higher amount of economic worth when compared with competitors (Mahdi & Almsafir, 2014). The competitive advantage is achieved where the rate of economic profit is higher than the rate of competitors. The capacity of the organization to coordinate and deploy its knowledge sources to create value as it pursues its vision for the future is the intellectual capital of the organization (Kaufmann & Schneider, 2004). Competitive advantage is the ability of the organization to acquire, integrate and reconfigure its resources in response to growing and changing customer demands. During recession companies focus on competitive advantage in order to survive in volatile market. The resource based view (RBV) proposes that sustained profitability of an organization depends on the creation, development and implementation of unique resources and capabilities (Barney, 2002). Organizations following creative and unique process have high rate of employee retention and more profitable (Arenas & Lavanderos, 2008; Urbano & Yordanova, 2008). Following the above arguments, we hypothesized competitive advantage as:

H<sub>9</sub>: The positive relationship between employee retention and organizational performance will be stronger when competitive advantage is higher.

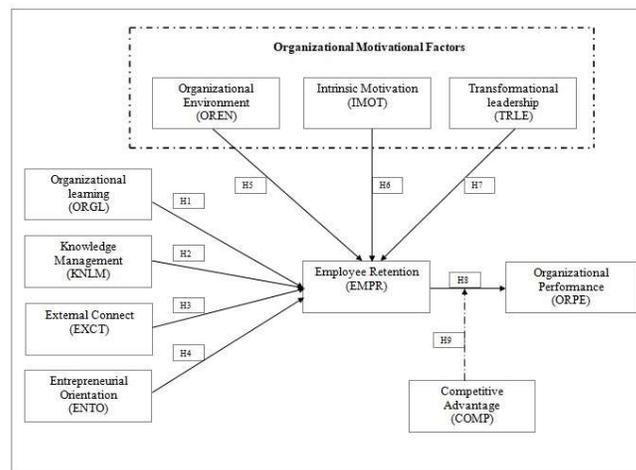


Fig. 1. The proposed research model

### 3. Methods

#### 3.1 Scale development

In order to test the proposed hypotheses, a survey questionnaire was developed comprising two parts namely: demographic and constructs items. The demographic part of the questionnaire contains respondent's age and gender information. Therefore, second part of the questionnaire holds construct items. All constructs items were adopted from the previous literature and then adapted into current research context. Instrument items for construct organizational learning were adapted from Salarian et al. (2015). Items of knowledge management were adapted from Ajith Kumar and Ganesh (2011). External connect items were adapted from Ferreras-Méndez et al. (2019). Entrepreneurial orientation items were adapted from Engelen et al. (2015). Organizational environment items were adapted from Hanaysha (2016). Constructs items for intrinsic motivation were adapted from Deci and Ryan (1985). Transformational leadership and employee retention constructs items were adapted from Perera (2019). Therefore, organizational performance items were adapted from Choi and Lee (2003). Finally, instrument items for the construct competitive advantage were adapted from Mahdi et al. (2019). All construct items were anchored on a 7-point Likert scale ranging 1 for strongly disagree to 7 for strongly agree. The reliability and validity of the items was tested using structural equation modeling.

#### 3.2 Sampling and data collection

The sample size of this study was selected following guideline provided by Rahi (2017). Rahi (2017) explained that study that incorporates factor analysis should have at least 200 valid responses and reduces the sampling error (Rahi, 2017; S. Rahi, 2018). For data collection, convenience sampling approach was used. Convenience sampling approach is appropriate as it covers veracity of the data. An administrative survey was conducted towards senior level managers working in Public sector organization in Saudi Arabia. Using convenience sampling approach 530 questionnaires were distributed among top level managers to examine factors that impact on employee retention and organizational performance. Out of 530, 349 questionnaires were returned to researcher. During initial screening 9 questionnaires were discarded due to incomplete answers. Thus, for inferential analysis 340 valid questionnaires were used with a response rate of 64%. Concerning with demographic variables, data showed that males were 83% compared with females with 17% out of 340 responses. Descriptive analysis also showed that the majority of the employees (78%) were highly educated and had Master's level education.

#### 3.3 Common method variance bias

The current study is investigated under quantitative research approach. Therefore, data is collected using single source. Earlier studies have highlighted that common method variance issue could arise where data is collected with single source (Ghani et al., 2017; Podsakoff et al., 2003). Thus, testing common method variance issue is important before inferential analysis. In order to confirm that common method variance is not likely issue in this study, Harman's single factor test is used (Podsakoff et al., 2003). The criterion is that "*the maximum co-variance explained by first factor should not be greater than 50%*" (Podsakoff et al., 2003). Results of Harman's single factor test revealed that the maximum covariance explained by single factor was only 18% which is less than threshold value 50%, confirming that this study is free from common method variance bias and adequate for structural equation modeling.

### 4. Data analysis

The present study proposed an amalgamated organizational model to investigate employee retention and organizational performance. Therefore, data analysis has been conducted using the latest statistical approach namely structural equation modeling technique (SEM). Structural equation modeling (SEM) is defined as "*statistical technique for testing and estimating causal relations using a combination of statistical data and qualitative causal assumptions*" (Samar & Mazuri, 2019). We followed two-stage approach for structural equation modeling including measurement model and structural model which is in line with Rahi (2017). The measurement model includes the assessment of construct reliability, validity, indicator reliability, convergent validity and discriminant validity of the constructs. Therefore, structural model estimates outlined path and their significance level. Smart PLS 3.27 software is used for structural equation modeling (Ringle et al., 2015).

#### 4.1 Measurement model

The first stage of the structural equation modeling is the assessment of measurement model wherein construct reliability was assessed with Cronbach's ( $\alpha$ ), composite reliability (CR). The criterion is that values of Cronbach's and composite reliability should be higher than 0.70 (Rahi & Ghani, 2018). Results of the measurement model showed that values of Cronbach's and composite reliability were higher than threshold value 0.70, indicating that construct has adequate reliability. The convergent validity of the constructs was assessed with indicator loading and average variance extracted (AVE). The criterion is that factor loadings should be greater than 0.6 as suggested by Chin (1998). Therefore, the values of average variance extracted should be higher than 0.5 in order to achieve convergent validity of the constructs (Fornell & Larcker, 1981). Smart-PLS algorithm revealed that factor loadings were greater than 0.6 indicating adequate reliability of the indicators. Similarly, average

variance extracted values were also higher than 0.5 confirming convergent validity of the constructs. The results of the measurement model are shown in Table 1.

**Table 1**

## Measurement model

Constructs Items	Loadings	( $\alpha$ )	CR	AVE
<i>Competitive Advantage (COMP)</i>				
COMP1: Our organizations has enough resources to compete	0.816	.798	.882	.713
COMP2: Our organization has capabilities to compete	0.834			
COMP3: Our organization has enough competency to survive in dynamic environment	0.882			
<i>Employee Retention (EMPR)</i>				
EMPR1: It would be difficult for me to leave this organization because	0.856	.856	.912	.776
EMPR2: I feel strong sense of belonging to this company	0.892			
EMPR3: My current organization encourage work life balance	0.895			
<i>Entrepreneurial Orientation (ENTO)</i>				
ENTO1: Developing forums that encourage competition and ideation opportunities within the organization	0.801	.802	.871	.628
ENTO2: A de-risking approach that encouraged compliance and alignment with the vision of the organization	0.776			
ENTO3: Measuring Return on Investments from new ideas before implementation	0.811			
ENTO4: Sharing innovative ideas and brain storming on feasibility and impact	0.781			
<i>External Connect (EXCT)</i>				
EXCT1: Our organization has leveraging external experts	0.936	.866	.905	.762
EXCT2: Our organization has talent acquisition	0.864			
EXCT3: Our organization has technology partners	0.814			
<i>Intrinsic Motivation (IMOT)</i>				
IMOT1: I feel a sense of achievement when I suggest new task ideas	0.976	.968	.979	.941
IMOT2: I feel satisfied using new technologies, processes and techniques	0.958			
IMOT3: While sharing creative ideas I feel satisfied	0.975			
<i>Knowledge Management (KNLM)</i>				
KNLM1: Our organization use storage facility such as an online repository to store project related knowledge.	0.807	.920	.944	.809
KNLM2: Our organization use multiple sources for knowledge acquisition	0.955			
KNLM3: our organization use systems and structures to code knowledge	0.935			
KNLM4: our organization use recording tacit for knowledge management	0.895			
<i>Organizational Environment (OREN)</i>				
OREN1: Amount of time devoted to training by the employees in a year	0.912	.890	.923	.750
OREN2: Trainings that extend beyond current area of work	0.838			
OREN3: Formal process for idea review and cost benefit analysis	0.941			
OREN4: Enabling employees to be 'future ready'	0.762			
<i>Organizational learning (ORGL)</i>				
ORGL1: Our organization introduces effective learning strategies	0.867	.881	.927	.808
ORGL2: Our organization creates continuous learning opportunities.	0.929			
ORGL3: The leader of our organizations support learning at the individual, team, and organization levels.	0.899			
<i>Organizational Performance (ORPE)</i>				
ORPE1: Organization with high performance have more satisfied employees	0.941	.894	.934	.826
ORPE2: Organization performance provides higher quality products in markets	0.874			
ORPE3: Organization performance is more efficient in using resources	0.910			
<i>Transformational leadership (TRLE)</i>				
TRLE1: Active listening and joint agreement on annual learning goals	0.913	.899	.930	.768
TRLE2: Experimentation and open discussion between employee and leader	0.855			
TRLE3: Transformational leadership articulate a common vision	0.865			
TRLE4: Leaders never reprimand to employee in public	0.871			

After confirming convergent validity of the constructs, discriminant validity was calculated to fulfill the requirement of the measurement model. Discriminant validity of the construct can be calculated using Fornell and Larcker criterion, cross loadings or Heterotrait-Monotrait Ratio (HTMT). Initially, discriminant validity was tested with Fornell and Larcker criterion (Fornell & Larcker, 1981). The criterion suggested that “the square root of average variance extracted should be greater than the correlations between the constructs” (Compeau, Higgins, & Huff, 1999; Fornell & Larcker, 1981). Findings of the measurement model indicate that all the values of average variance extracted were higher than other constructs correlation values and confirmed the discriminant validity of the constructs. Table 2 depicts results of discriminant validity using Fornell and Larcker criterion. Another alternative method to assess discriminant validity of the constructs is to check the cross loadings values of the construct with their corresponding construct values which is in line with Hair Jr et al. (2016). In order to achieve discriminant validity of the construct the values of outer loadings should be higher than other constructs outer loadings values indicating that construct is discriminant (Rahi et al., 2018). The results of the cross loadings revealed that outer loadings of the constructs were higher than corresponding outer loadings. These findings confirmed that scale is discriminant and valid for structural model assessment. The values of cross loadings can be seen in Table 3.

**Table 2**  
Discriminant validity using Fornell and Larcker's criterion

Variables	COMP	EMPR	ENTO	EXCT	IMOT	KNLM	OREN	ORGL	ORPE	TRLE
COMP	<b>0.844</b>									
EMPR	0.019	<b>0.881</b>								
ENTO	0.012	0.436	<b>0.792</b>							
EXCT	0.139	0.170	0.099	<b>0.873</b>						
IMOT	0.019	0.773	0.351	0.069	<b>0.970</b>					
KNLM	0.104	0.436	0.146	0.058	0.280	<b>0.900</b>				
OREN	0.053	0.467	0.226	0.047	0.296	0.258	<b>0.866</b>			
ORGL	0.016	0.459	0.223	0.106	0.323	0.182	0.273	<b>0.899</b>		
ORPE	0.133	0.406	0.244	0.151	0.281	0.213	0.317	0.214	<b>0.909</b>	
TRLE	0.056	0.658	0.304	0.108	0.517	0.376	0.453	0.295	0.357	<b>0.877</b>

Note: Bold values indicate the square root of AVE of each construct

**Table 3**  
Cross loadings for discriminant validity

	COMP	EMPR	ENTO	EXCT	IMOT	KNLM	OREN	ORGL	ORPE	TRLE
COMP1	<b>0.816</b>	-0.030	-0.005	0.142	-0.022	-0.092	0.031	0.017	0.116	0.051
COMP2	<b>0.834</b>	0.020	0.031	0.101	0.023	-0.094	0.058	0.009	0.105	0.066
COMP3	<b>0.882</b>	-0.036	0.006	0.108	-0.045	-0.077	0.046	0.015	0.115	0.028
EMPR1	-0.035	<b>0.856</b>	0.364	0.088	0.913	0.335	0.318	0.332	0.269	0.580
EMPR2	0.014	<b>0.892</b>	0.379	0.193	0.545	0.440	0.471	0.413	0.435	0.560
EMPR3	-0.029	<b>0.895</b>	0.410	0.174	0.562	0.381	0.451	0.473	0.374	0.597
ENTO1	0.007	0.360	<b>0.801</b>	0.103	0.291	0.166	0.146	0.166	0.262	0.254
ENTO2	0.009	0.335	<b>0.776</b>	0.047	0.283	0.157	0.126	0.161	0.212	0.272
ENTO3	-0.015	0.337	<b>0.811</b>	0.085	0.293	0.061	0.197	0.187	0.195	0.222
ENTO4	0.036	0.347	<b>0.781</b>	0.077	0.244	0.077	0.248	0.192	0.102	0.217
EXCT1	0.144	0.195	0.089	<b>0.936</b>	0.110	0.076	0.068	0.084	0.170	0.149
EXCT2	0.105	0.123	0.108	<b>0.864</b>	0.029	0.002	0.012	0.125	0.084	0.031
EXCT3	0.097	0.041	0.034	<b>0.814</b>	-0.070	0.088	0.011	0.058	0.124	0.050
IMOT1	-0.018	0.755	0.328	0.061	<b>0.976</b>	0.285	0.299	0.306	0.283	0.536
IMOT2	-0.028	0.751	0.348	0.068	<b>0.958</b>	0.266	0.294	0.315	0.270	0.478
IMOT3	-0.009	0.743	0.344	0.072	<b>0.975</b>	0.264	0.268	0.319	0.265	0.489
KNLM1	-0.093	0.376	0.138	-0.029	0.374	<b>0.807</b>	0.140	0.161	0.128	0.352
KNLM2	-0.091	0.435	0.151	0.096	0.228	<b>0.955</b>	0.287	0.156	0.228	0.347
KNLM3	-0.091	0.414	0.115	0.088	0.240	<b>0.935</b>	0.262	0.184	0.227	0.343
KNLM4	-0.099	0.331	0.122	0.041	0.162	<b>0.895</b>	0.227	0.152	0.173	0.308
OREN1	0.063	0.396	0.209	0.013	0.245	0.225	<b>0.912</b>	0.201	0.280	0.382
OREN2	0.045	0.493	0.242	0.081	0.354	0.225	<b>0.838</b>	0.327	0.278	0.473
OREN3	0.049	0.411	0.171	0.042	0.229	0.270	<b>0.941</b>	0.231	0.294	0.389
OREN4	0.019	0.248	0.135	0.006	0.136	0.148	<b>0.762</b>	0.130	0.239	0.272
ORGL1	0.035	0.415	0.202	0.060	0.329	0.134	0.284	<b>0.867</b>	0.208	0.271
ORGL2	0.010	0.422	0.213	0.117	0.279	0.187	0.238	<b>0.929</b>	0.181	0.273
ORGL3	-0.001	0.399	0.185	0.109	0.261	0.169	0.211	<b>0.899</b>	0.189	0.250
ORPE1	0.112	0.350	0.242	0.131	0.254	0.154	0.244	0.188	<b>0.941</b>	0.322
ORPE2	0.108	0.418	0.219	0.171	0.258	0.285	0.376	0.213	<b>0.874</b>	0.368
ORPE3	0.145	0.329	0.201	0.103	0.252	0.129	0.232	0.179	<b>0.910</b>	0.276
TRLE1	0.029	0.585	0.261	0.055	0.607	0.309	0.332	0.224	0.275	<b>0.913</b>
TRLE2	0.069	0.592	0.289	0.142	0.320	0.390	0.495	0.287	0.383	<b>0.855</b>
TRLE3	0.053	0.592	0.299	0.123	0.351	0.312	0.475	0.347	0.364	<b>0.865</b>
TRLE4	0.046	0.532	0.212	0.055	0.545	0.304	0.272	0.164	0.222	<b>0.871</b>

**Table 4**  
Heterotrait-Monotrait Ratio (HTMT)

Variables	COMP	EMPR	ENTO	EXCT	IMOT	KNLM	OREN	ORGL	ORPE	TRLE
COMP										
EMPR	0.045									
ENTO	0.050	0.526								
EXCT	0.155	0.178	0.103							
IMOT	0.041	0.840	0.398	0.086						
KNLM	0.122	0.490	0.169	0.095	0.296					
OREN	0.061	0.514	0.258	0.046	0.300	0.274				
ORGL	0.029	0.530	0.265	0.115	0.349	0.202	0.289			
ORPE	0.158	0.463	0.286	0.159	0.302	0.227	0.347	0.240		
TRLE	0.067	0.748	0.356	0.106	0.557	0.412	0.484	0.327	0.392	

Note: Heterotrait-Monotrait Ratio (HTMT) discriminate at (HTMT <0.9/ HTMT <0.85)

Finally, discriminant validity of the construct was tested with Heterotrait-Monotrait Ratio (HTMT) method. This method calculates discriminant validity using multitrait and multimethod matrix as suggested by Gold and Arvind Malhotra (2001). In order to achieve discriminant validity using HTMT method, criterion is that HTMT values should be less than HTMT 0.85 or 0.90 (Dastranj et al., 2018; Gold & Arvind Malhotra, 2001; Kline, 2011; Samar et al., 2017). Results of HTMT analysis showed that all correlation values were less than HTMT 0.85 or 0.90 which confirmed that construct is discriminant. Table 4 shows the results of Heterotrait-Monotrait Ratio.

#### 4.2 Structural model

The second stage of structural equation modeling is to estimate path with structural model. Structural model assessment incorporates evaluation of lateral multicollinearity with variance inflation factor (VIF), path-coefficients  $\beta$ , coefficient of determination  $R^2$ , and t-values using bootstrapping procedure (Rahi, 2017). Although vertical collinearity is confirmed it is necessary to check the lateral multicollinearity of the constructs. *Lateral multicollinearity issue is occurred when two variables that are hypothesized to be causally related measure the same construct.* Therefore, assessment of lateral multicollinearity is important before moving to path analysis. In order to assess multicollinearity issue the criterion is that VIF values should be less than 3.3 as suggested by Diamantopoulos and Siguaw (2006); Rahi (2017). Results of the structural model revealed that variance inflation factor values were less than threshold value 3.3 and confirmed that the current study is free from lateral multicollinearity issue. The results of variance inflation factor (VIF) can be seen in Table 5.

**Table 5**

Lateral multicollinearity evaluation

Variables	Employee Retention	Organizational Performance
COMP		1.000
EMPR		1.000
ENTO	1.191	
EXCT	1.022	
IMOT	1.508	
KNLM	1.193	
OREN	1.314	
ORGL	1.189	
TRLE	1.701	

#### 4.2.1 Hypothesis testing

In order to test the propose hypotheses, structural model is estimated using bootstrapping procedure. For bootstrapping procedure, a sample size of 5000 was selected which is in line with Samar Rahi and Abd. Ghani (2019). Bootstrapping procedure is important to confirm the normality of data. Assessment of structural model incorporates path coefficient ( $\beta$ ), standard deviations (SE) and t-statistics with their significance level. The results of the structural model are depicted in Table 6.

**Table 6**

Results of hypothesis

Hypothesis	Relationship	Direct effect ( $\beta$ )	SE	T-Statistics	Significance Level
H1	ORGL $\rightarrow$ EMPR	0.145	0.031	4.646	<b>0.000</b>
H2	KNLM $\rightarrow$ EMPR	0.140	0.033	4.313	<b>0.000</b>
H3	EXCT $\rightarrow$ EMPR	0.073	0.026	2.860	<b>0.004</b>
H4	ENTO $\rightarrow$ EMPR	0.110	0.028	3.900	<b>0.000</b>
H5	OREN $\rightarrow$ EMPR	0.120	0.039	3.120	<b>0.002</b>
H6	IMOT $\rightarrow$ EMPR	0.500	0.049	10.301	<b>0.000</b>
H7	TRLE $\rightarrow$ EMPR	0.208	0.047	4.421	<b>0.000</b>
H8	EMPR $\rightarrow$ ORPE	0.408	0.060	6.772	<b>0.000</b>

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$  (one-tailed)

The result of the structural equation modeling is exhibited in Table 6. Findings revealed that organizational learning had significant influence on employee retention and supported by H<sub>1</sub>: ( $\beta=0.145$ , t-value 4.646, significance  $p < 0.001$ ). The relationship between knowledge management and employee retention was significant and statistically supported by ( $\beta=0.140$ , t-value 4.313, significance  $p < 0.001$ ), thus confirming H<sub>2</sub>. Similarly, external connect had significant influence on employee retention and supported by H<sub>3</sub>: ( $\beta=0.073$ , t-value 2.860, significance  $p < 0.01$ ). Findings indicate that entrepreneurial orientation had significant influence on employee retention and supported by H<sub>4</sub>: ( $\beta=0.110$ , t-value 3.900, significance  $p < 0.001$ ). Motivational factor shows significant impact on employee retention. Results showed significant influence of organizational environment on employee retention ( $\beta=0.120$ , t-value 3.120, significance  $p < 0.01$ ) and confirms H<sub>5</sub>. In addition to that, we found significant relationship between intrinsic motivation and employee retention ( $\beta=0.500$ , t-value 10.301, significance  $p < 0.001$ ), thus confirming H<sub>6</sub>. Transformational leadership had significant influence on employee retention and supported by ( $\beta=0.208$ , t-value 4.421, significance  $p < 0.001$ ). Finally, the direct relationship of employee retention was tested with organizational performance. Results showed significant impact of employee retention on organizational performance ( $\beta=0.408$ , t-value 6.772, significance  $p < 0.001$ ), and confirmed H<sub>8</sub>.

#### 4.2.2 Assessing effect size ( $f^2$ ), predictive relevance $Q^2$ and coefficient of determination $R^2$

This study examines employee retention and organizational performance with human motivational and organizational learning factors. Therefore, findings of the structural model revealed that altogether organizational learning, knowledge management, external connect, entrepreneurial orientation, organizational environment, intrinsic motivation and transformational leadership explained  $R^2=76.3\%$  of the variance in employee retention. On the flip side, organizational performance was predicted by competitive advantage and employee retention and explained  $R^2=19.9\%$  variance in organizational performance. These findings confirmed that model has substantial power to predict employee retention. Coefficient of determination  $R^2=76.3\%$  collective variance of all exogenous variables on endogenous variable therefore it does not reveal individual effect size. Thus, individual effect size of underpinned factors was assessed with ( $f^2$ ). Effect size analyses indicate that intrinsic motivation had substantial effect size when comparing to other exogenous variables. This suggested that employee retention is the most important factor when determining employee retention. Transformational leadership was found second most important variable and had medium level of effect size. Concerning with other exogenous variables includes organizational learning, knowledge management, external connect, entrepreneurial orientation and organizational environment had showed small effect size in employee retention. Extension of the research model demonstrated that employee retention had medium level of effect size to observe organizational performance. Therefore, competitive advantage shows small effect size when determining organizational performance. Finally, the predictive relevance of the research model was estimated with  $Q^2$  using blind folding procedure. For predictive relevance, criterion is that the values of  $Q^2$  test should be greater than 0 indicate adequate predictive relevance of the model. Findings of the  $Q^2$  test indicated that employee retention had substantial 40.5% predictable relevance. These findings confirmed that the formulation of new organizational research model was adequate and statistically supported. The results of the effect size analysis including coefficient of determination  $R^2$ , predictive relevance  $Q^2$  and effect sizes ( $f^2$ ) are depicted in Table 7.

**Table 7**  
Effect size analysis( $f^2$ ) and predictive relevance  $Q^2$

Construct	Employee Retention			Decision
	$R^2$	$Q^2$	( $f^2$ )	
<b>Employee Retention</b>	0.763	0.405		
Entrepreneurial Orientation			0.043	Small
External Connect			0.023	Small
Intrinsic Motivation			0.715	Substantial
Knowledge Management			0.071	Small
Organizational Environment			0.048	Small
Organizational Learning			0.076	Small
Transformational Leadership			0.110	Medium
Construct	Organizational Performance			Decision
	$R^2$	$Q^2$	( $f^2$ )	
<b>Organizational Performance</b>	0.199	0.547		
Competitive Advantage			0.025	Small
Employee Retention			0.210	Medium

Note:  $f^2$ : 0.02, Small; 0.15, Medium; 0.35, Substantial

#### 4.3 Importance performance matrix analysis (IPMA)

A post hoc analysis namely Importance performance matrix analysis (IPMA) was conducted for managerial implications. Authors like Samar and Mazuri (2019) argued that importance performance matrix analysis adds an additional dimension into data analysis. Extending to this, assessing latent construct's importance and performance could reveal interesting findings for managers and policy makers. Importance performance matrix analysis estimate latent constructs by rescaling data from 1-to-100. Results of IPMA analysis show that intrinsic motivation had the highest importance score and considered most important factor to determine organizational performance. Therefore, transformational leadership is found second highest construct when predicting employee retention. Constructs like knowledge management, entrepreneurial orientation, organizational environment and organization leaning had intermediate level of importance to predict employee retention. External connect had showed least importance to predict employee retention whereas it has highest performance value. Importance and performance scores of IPMA analysis can be seen in Table 8.

**Table 8**  
Total effects and performance

Latent Constructs	Importance Index Value (Total effect of the latent variable Organizational Performance)	Performance (Index values)
Entrepreneurial Orientation	0.112	70.735
External Connect	0.071	68.113
Intrinsic Motivation	0.451	71.314
Knowledge Management	0.132	60.012
Organizational Environment	0.115	61.407
Organizational Learning	0.139	63.214
Transformational Leadership	0.208	59.808

The importance and performance of the latent construct is depicted in Fig.2. It can be seen that intrinsic motivation has the highest importance when comparing to other constructs. Therefore, the importance of transformational leadership, knowledge management, entrepreneurial orientation, organizational environment and organization leaning is also notable. Thus, intrinsic motivation, transformational leadership, knowledge management, entrepreneurial orientation, organizational environment and organization leaning are the core constructs that managers and policy makers should take into consideration. While focusing on these constructs managers can enhance employee retention in public sector organization.

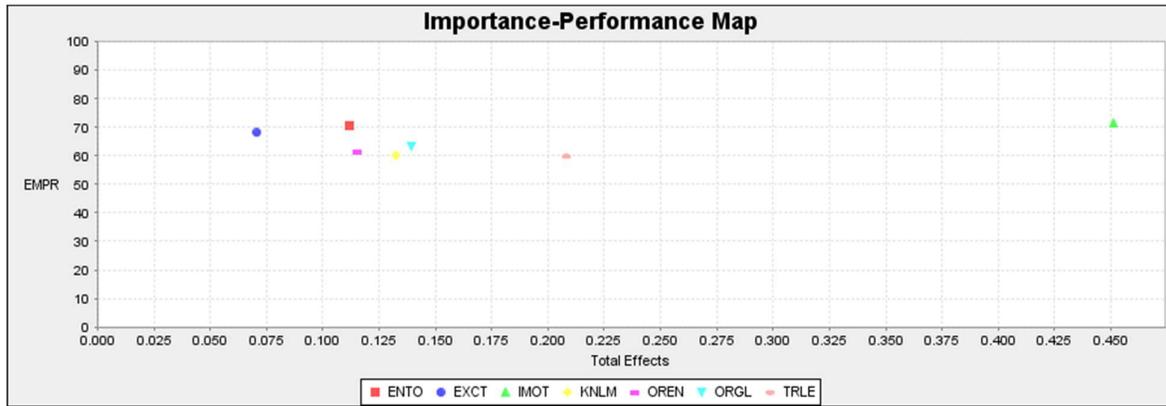


Fig. 2. Importance performance matrix analyses

4.4 Moderating analysis

Aside of direct relationships, this study incorporated competitive advantage as moderating variable. We have proposed that the positive relationship between employee retention and organizational performance will be stronger when competitive advantage is higher. For statistical analysis product indicator approach is adopted. Product indicator approach is adequate as it produce highest robustness (Rahi, 2017; SAMAR; RAHI, Othman Mansour, Alghizzawi, & Alnaser, 2019). Earlier studies have confirmed that product indicator approach revealed highest robustness (Ghani et al., 2017; Rahi, 2017; Samar & Mazuri, 2019). Therefore, interaction effect was estimated with bootstrapping procedure. The results of bootstrapping output confirmed H<sub>9</sub> indicated that the positive relationship between employee retention and organizational performance will be stronger when competitive advantage is higher ( $\beta = 0.110$ , t-value 1.765,  $p < 0.5$ ). The results of the moderating effect including path coefficient and T-values are exhibited in Fig.3.

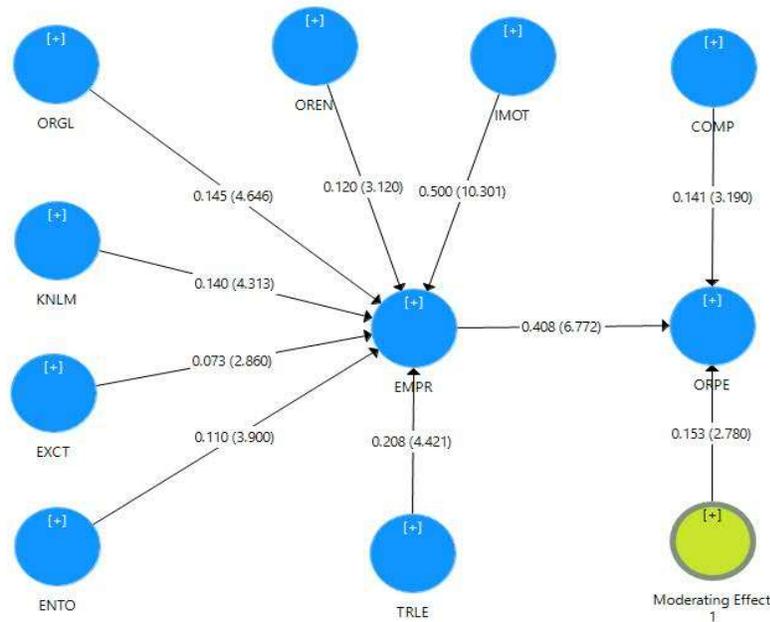


Fig. 3. Path Coefficients and T-values

Findings of the structural model have confirmed that competitive advantage moderated the relationship between employee retention and employee performance. Therefore, strength of the relationship is yet to be confirmed. In order to see relationship trend as to see whether it positively moderates or negatively is taken from simple slope analysis. Simple slope analysis shows that competitive advantage at +1SD has steeper and positive gradient when it is compared with competitive advantage at -1SD (less steep and positive). These findings confirmed that the positive relationship between employee retention and organizational performance will be stronger when competitive advantage is higher. The trend of the moderation can be seen in Fig.4.

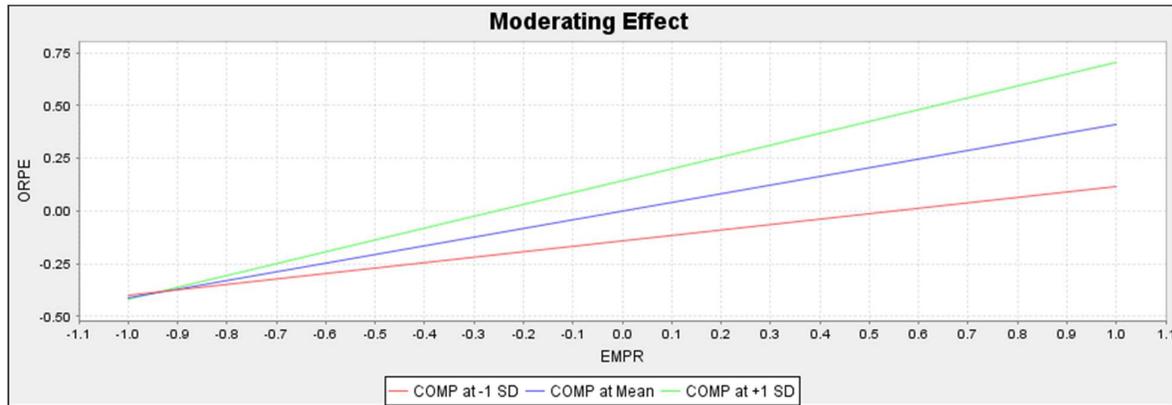


Fig. 4. Simple slope analysis

## 5. Discussion

This study sheds light on the relationship between organizational motivational factors and employee retention. The importance of motivational factors has been highlighted by several researchers (Desouza & Evaristo, 2004; Scheepers et al., 2004). Therefore, this study goes a step further and adds additional factors into research model for instance transformational leadership, entrepreneurial orientation and knowledge management. Findings of the structural equation modeling have shown that organizational learning significantly influence on employee retention and in line with previous studies Ahmad and Marinah (2013); Freeman and McVea (2001); Hanaysha (2016); Lockwood (2007); Marsick and Watkins (1999); Salarian et al. (2015). The relationship between knowledge management and employee retention was found significant and in line with Ajith Kumar and Ganesh (2011); Desouza and Evaristo (2004); Scheepers et al. (2004) Sanders et al. (2017). External connect has shown significant influence on employee retention and supported by previous research studies Chesbrough (2012), Haddoud et al. (2017), Szyliowicz and Galvin (2010). Results have indicated that entrepreneurial orientation had significant influence on employee retention and in line with (Covin et al., 2006; Olson et al., 2001; Stam & Elfring, 2008). Motivational factor showed significant impact on employee retention. Results have shown significant influence of organizational environment on employee retention and supported by Khuong and Le Vu (2014) Danish et al. (2013); Hanaysha (2016). Similarly, significant relationship between intrinsic motivation and employee retention was found and in line with Deci and Ryan (1985); Deci & Ryan, (2000); Kim (2018); Martín Cruz et al. (2009). Transformational leadership had significant influence on employee retention and supported by Bass (1985); Nielsen et al. (2008); Para-González et al. (2018); Rafferty and Griffin (2004); Yizhong et al. (2019). The direct relationship of employee retention was tested with organizational performance. Results have shown significant impact of employee retention on organizational performance and in line with Ahmad and Marinah (2013); Dewett (2007); Ha and Lo (2018); Hanaysha (2016); Hirst et al. (2009); Lockwood (2007); Marsick and Watkins (1999); Wang and Noe (2010). Finally, the moderating relationship of competitive advantage between employee retention and organizational performance was tested and found significant impact on organizational performance which is in line with Arenas and Lavanderos (2008); Urbano and Yordanova (2008). These findings confirmed that intrinsic motivation, transformational leadership, knowledge management, entrepreneurial orientation, organizational environment and organization leaning are the core constructs. While focusing on these constructs managers can enhance employee retention in public sector organizations.

## 6. Conclusion

This study has concentrated to examine causal relationship between transformational leadership and motivational factors and their effects on employee retention and performance. In this regard, employee retention was predicted by organizational environment, intrinsic motivation, organizational learning, knowledge management, entrepreneurial orientation and external connect. Advance levels of statistical tools were used for data analysis for instance structural equation modeling. Findings of structural equation modeling have revealed that altogether organizational environment, intrinsic motivation, organizational learning, knowledge management, entrepreneurial orientation and external connect explained 76.3% variance in employee retention which is substantial. Similarly, organizational performance was predicted by competitive advantage and employee retention and explained 19.9% variance in organizational performance. These findings confirmed that model had substantial power to predict employee retention. In order to understand individual effect of exogenous variables on endogenous variables

help was taken from effect size analysis ( $f^2$ ). Effect size analyses have indicated that intrinsic motivation had substantial effect size when compared with other exogenous variables. The predictive relevance of the model was also assessed with  $Q^2$  blind folding procedure. Results have indicated that  $Q^2$  employee retention had substantial 40.5% predictable relevance to predict employee retention and confirmed the validity of the research model. Aside of direct relationships the current study has examined the moderating role of competitive advantage and proposed that the positive relationship between employee retention and organizational performance would be stronger when competitive advantage is higher. Findings of the structural equation model have confirmed that the positive relationship between employee retention and organizational performance was moderated by competitive advantage. Therefore, strength of the relationship was checked with simple slope analysis. Simple slope analysis trend shows that the positive relationship between employee retention and organizational performance will be stronger when competitive advantage is higher. These findings have confirmed the importance of competitive advantage in the context of employee retention and organizational performance. Finally, post hoc analysis IPMA has suggested theoretical and practical implications to manager and policy makers. Theoretically, the current research model contributes to employee retention literature as it has substantial power to predict employee retention. Concerning with practice, Importance performance matrix analysis shows the importance of the constructs for managerial implications. Findings of IPMA analysis have shown that intrinsic motivation had the highest importance when compared with other constructs. Therefore, the importance of transformational leadership, knowledge management, entrepreneurial orientation, organizational environment and organization leaning is also notable. Thus, intrinsic motivation, transformational leadership, knowledge management, entrepreneurial orientation, organizational environment and organization leaning are the core constructs that managers and policy makers should take into consideration for employee retention and organizational performance.

### 6.1 Limitations and future research directions

This study has several contributions to theory and practice. Beside unique contributions it is also necessary to acknowledge research limitations which impute future research directions. First, the research model of this study is based on organizational motivational and environmental factors which positively influence on employee retention and firm performance. Therefore, this study does not guarantee that it includes all psychological and motivational factors that impact on employee attitude towards retention and organizational performance. Thus, it is suggested that adding other motivational factors in research model for instance extrinsic motivation, autonomy and relatedness could reveal interesting findings. Second, this study incorporates respondents from public sector therefore taking observations from private sector employee may enhance the generalizability of the model. Another limitation of this study is the type of research. This study investigates phenomenon at one point of time and cross sectional. Therefore, the role of research model in longitudinal form may exhibit different results. Finally, replicating this study model in other Arab region excluding Saudi Arabia will enrich the study findings towards employee retention and organizational performance.

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