

The Impact of Ability-Enhancing Human Resource Practices on Employees' Ambidexterity: A Mediation of Cognitive Factors

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Abstract--- *The main aim of this study is to empirically validate the impact of ability-enhancing HR practices on employees' ambidexterity through mediation analysis of their cognitive characteristics. The multi-level data is collected from 400 employees and 80 senior managers of the software companies in Pakistan. The data is analyzed statistically through MPLUS and discloses the top-down effect of the ability-enhancing HR practices on employees' ambidexterity is partially mediated by their goal orientation and role breadth self-efficacy. Furthermore, the role of employees' entrepreneurial orientation is fully mediated the relationship. This study provides new multi-level insights into effectiveness of strategic HR system in supporting employees' cognitive characteristics and ambidexterity. Moreover, it will helpful for the management of the software companies of Pakistan to deal with these factors for the enhancement of the ambidexterity.*

Keywords--- *Ability-enhancing HR Practices, Employees' Goal Orientation, Employees' Role Breadth Self-Efficacy, Employees' Entrepreneurial Orientation, Employees' Ambidexterity.*

I. INTRODUCTION

Today's complex and unpredictable business environment demand organizations to become ambidextrous for their prosperity and long term survival (Mom, Chang, Cholakova & Jansen, 2018; Gibson & Birkinshaw, 2004; Junni et al., 2013). Ambidexterity has been considered as an important factor for increasing organizational success (March, 1991; Tushman & O'Reilly, 1996). It is basically trade-off between efficiency and flexibility or ability of firm to do two things having conflicting demands (Vallina, Moreno-Luzon & Ferrer-Franco, 2019). This concept was first time proposed by March (1991), he argued that the big challenge for companies is to protect the current capabilities through exploitation, while implementing adequate explorative activities to ensure the future changes. Nowadays, it has become subject of eternal interest to management scholars (Koryak et al., 2018). However, limited literature addressed the antecedents of ambidexterity and there is a strong call to empirically investigate the role of strategic human resource management (SHRM) as its driver (Lopez-Cabrales et al., 2017; Junni et al., 2015). Moreover, employees' cognitive factors need to be explored as mediator between strategic human resource practices and ambidexterity (Mom, Chang, Cholakova & Jansen, 2018).

Strategic human resource management (SHRM) theory stated that HR practices increased employees' knowledge, skills and abilities (KSAs), and empower them towards organizational benefit (Becker & Huselid, 2006).

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Previous literature suggested that it would be more fruitful to make groups of HR practices according to their main area of influence (Mom et al., 2018; Wright & Ulrich, 2017). These practices are divided into three dimensions i.e., ability-enhancing practices, motivation-enhancing practices, and opportunity-enhancing practices (Jiang, Lepak, Hu, & Baer, 2012; Lepak et al., 2006).

The present study is using only ability-enhancing HR practices referred as high involvement or high commitment work systems associated with increase in work satisfaction and organizational productivity (Pfeffer 2006; Shaw & Prenzushi, 2010). These practices include selective hiring, comprehensive training and job enlargement, focused on increasing abilities and skill of the employees. The same typology has been already used by different researchers (Mom, Chang, Cholakova & Jansen, 2018; Sabwami, 2015). Selective hiring ensures the existence of right people having required knowledge and skills and present at right place in order to stay fit organizational culture and climate (Huselid 2010). Comprehensive training is a process of altering attitude and increasing knowledge (K), skills (S) and experience (E) of employees to perform their jobs well to achieve the goals (Sweis et al., 2019). Job enlargement means increasing the scope of one's duties and responsibilities at same level focused on increasing work quality and employees' interest (Gichuki & Munjuri, 2018). Existing literature found a very strong association of these HR bundles with employee ambidexterity (Patel et al., 2013; Veld & Caniëls, 2016). Employee ambidexterity is multidimensional concept refers to the extent employee involved in both explorative and exploitative behaviors simultaneously (Bledow et al., 2009).

The entrepreneurial orientation has received high conceptual and empirical attention in previous studies. These studies empirically investigated the association of employees' entrepreneurial orientation and their abilities to exploit existing resources and exploit new processes (Lee & Kreiser, 2018; Mehrabi, Coviello & Ranaveera, 2018). One more study has acknowledged that entrepreneurial orientation and HR practices have significant effects (Zhang, Edgar, Geare & O'Kane, 2018). It is a strategic process in which new opportunities are identified and entrepreneurial behaviors are implemented in organization (Hu & Pang, 2013). Covin and Slevin (1989) proposed its three behavioral dimensions i.e., innovativeness, pro-activeness, and risk-taking. The study (Lee & Chong, 2018) found that risk tolerance, innovativeness and pro-activeness are positively linked to ambidexterity.

In the same way, Yu (2010) empirically investigate the positive relationship of employees' goal orientation and role-stress (cognitive factors) as antecedent of the ambidexterity. The study (Hoeskema, 2017) also supported this link and found employees' goal orientation has positive association with employees' ambidexterity. Another important study by (Junni et al., 2015) found that employees who are exposed for change and learning are mostly like to evaluate and respond to the challenges of ambidexterity. While, those who avoid challenging tasks are less ambidextrous in nature.

The literature of strategic human resource management has recognized employees as important sources to develop ambidexterity (Patel, Messersmith, & Lepak, 2013; Prieto & Santana, 2012; Swart & Kinnie, 2013). The relationship of HR practices with ambidexterity is explored in very few researches (Kaupila, 2018; Lee & Meyer-Doyle, 2017). It has been seen that effective implementation of the strategic human resource practices increases cognitive skills of employees especially at front level (Shin, Jeong & Bae, 2018; Pillai, 2008).

The study (Mom, Chang, Cholakova& Jansen, 2018) identified the positive relationship of ability-enhancing HR practices with employees' self-breadth role-efficacy (cognitive factor). Furthermore, this study also examined the role of self-breadth role-efficacy as a mediator between ability-enhancing HR practices and ambidexterity and suggested future studies should explore other cognitive factors as mediator.

Owing to this, the first contribution of present study is to consider employees' role-breadth self-efficacy, learning orientation and entrepreneurial orientation as a mediator between ability-enhancing HR practices and ambidexterity. Moreover, there is a strong call to empirically validate ambidexterity because previous literature is not sufficient to guide practitioners (Zimmermann, Raisch& Cardinal, 2018). Current literature of ambidexterity emphasized more on top-management and there is strong need to investigate this phenomenon at employee level (Caniels& Veld, 2016; Haversman, Hartog, Keegan &Uhl-bien, 2016). Therefore, second contribution of the study is to explore ambidexterity at employee level. Third contribution is related with role of ability-enhancing HR practices in emergence of employees' capabilities to maintain both core and innovative activities has been explored in this study. Because, growing literature of ambidexterity is scarce and explored role of HR practices in very few studies (Kaupila, 2018; Junni et al., 2015). Therefore, present study will examine the role of HR practices directly and indirectly with employees' ambidexterity. Fourth, more research is required to empirically validate the relationship between self-efficacy and goal-orientation in different settings (Zhang, Cao, Shen&Qian, 2019).So, this study will explore the link of employees' role-breadth self-efficacy and employees' learning orientation and goal-orientation. Last contribution is related with top-down multi-level model used in the study. Instead of using serial mediation between HR practices and employees' ambidexterity future studies should examine top-down effect of studies factors (Wright & Ulrich, 2017; Patel, &Lepak, 2011; Patel et al., 2013). In response to these famous scholars, present study will follow multi-level model.

Regarding contextual gap, there is almost death of innovation in Pakistan. However, according to Global Innovation index 2018, Software companies of Pakistan have higher rank in innovation as compare to other sectors. There is strong need to exploit existing resources and explore new and innovative ideas for long-term survival of these software houses. However, a big challenge for them has to maintain balance between the opposing natures of this dichotomy. Moreover, there is no model available in literature for effective implementation of ambidexterity in real world. The current study will be very fruitful in term of effective execution of employees' ambidexterity for the practitioners of software companies in Pakistan.

II. LITERATURE REVIEW

2.1. Ability-enhancing HR practices and employees'role breadth self-efficacy

The role breadth self-efficacy is derived from social cognition theory. It is the process in which individuals proactively search and involve in a multiple tasks beyond core activities, and also integrate them (Parker, 1998). Ability-enhancing HR practices facilitate mastery and modeling needed to develop role breadth self-efficacy (Gibson, 2004). In the same way, another important study claimed that ability-enhancing practices especially comprehensive training and job enlargement enhance the scope and variability in mastering and modeling to increase employees' role breadth self-efficacy (Mom, Chang, Cholakova& Jansen, 2018).

The study (Patel et al., 2013) also supported this relationship and found positive relationship between these HR practices and employees' self-efficacy. The theoretical understanding about association of ability-enhancing HR practices and employees' role breadth self-efficacy guide us to develop following hypothesis.

H1: Ability-enhancing HR practices have positive relationship with employees' role breadth self-efficacy.

2.2. Employees' role breadth self-efficacy, goal orientation and employees' ambidexterity

Role breadth self-efficacy refers to individual's self-perception of his or her ability to deal with challenges and achieving personal goals (Barbaranelli et al., 2018; Bandura, 1982). The study (Geitz, Joosten-ten Brinke, & Kirschner, 2016) considered employees' goal orientation as outcome of individuals' role breadth self-efficacy. Since emergence of self-efficacy, many studies established positive associations between goal orientation and self-efficacy (Diseth, 2011; Komarraju & Nadler, 2013; Geitz et al., 2016; Pajares, Britner, & Valiante, 2000). It has been noted that few studies provided inconsistent result to existing literature and revealed self-efficacy to be unrelated to performance goal orientation (Geitz et al., 2016; Sakiz, 2011). However, a very recent research noted positive relationship between self-efficacy and both (learning orientation and performance orientation) dimensions of goal orientation (Zhang, Cao, Shen & Qian, 2019).

The study (Yu, 2010) argued that employees' self-efficacy is positively related to ambidexterity. Because ambidextrous tasks are risk-oriented and very difficult and employees will be more successful if they have believe in their capabilities (Yu, Gudergan & Chen, 2018). Another study also supported this link and concluded that those individuals who have confidence of doing something are more ambidextrous in nature (Mom, Chang, Cholakova & Jansen, 2018). This positive association of employees' role breadth self-efficacy and ambidexterity has been supported by many prior studies (Kauppila & Tempelaar, 2016; Patterson et al., 2014; Snell et al., 2015).

These scholars proposed future researchers to examine and validate this relationship in different context. In response to this call, present study generate following hypothesis.

H2: Employees' role breadth self-efficacy has impact on their goal orientation.

H3: Employees' role breadth self-efficacy mediating the relationship between ability-enhancing HR practices and employees' ambidexterity.

2.3. Ability-enhancing HR practices, goal orientation and employees' ambidexterity

Goal theory argues that the goals of employees will have an impact on their behavior (Austin & Vancouver, 1996). Employees achieve their goal through behaviors, when goal changes their behaviors also change (Covington, 2000). There are two dimensions of goal orientation, learning orientation and performance orientation (Button, Mathieu, & Zajac, 1996; Eccles & Wigfield, 2002). These ability-enhancing HR practices namely selective hiring, training and job enlargement are positive contributor in both dimensions employees' goal-orientation (Bouwman, Runhaar, Wesselink & Mulder, 2017). However, the study Pillali (2008) found positive relationship of the human resource practices only with employees' learning orientation.

High learning-oriented employees adopt explorative behaviors while performance-oriented employees' are more inclined towards exploitation (VandeWalle, 2001).

This association has been explored by many studies and concluded learning-oriented employees improved competence in the existing trajectory (exploitative learning) and performance oriented focused on shifting it into new trajectory (explorative learning) (Benner & Tushman, 2003; Gupta et al., 2006; March, 1991). Moreover, Hoeksema (2017) empirically examined the role of learning-orientated employees in the emergence of employees' ambidexterity. This literature guides us to develop following hypothesis:

H4: *Employees' goal orientation has impact on their ambidexterity.*

H5: *Employees' goal orientation mediates the relationship between ability-enhancing HR practices and employees' ambidexterity.*

Based on the discussion on Hypothesis 3 and 5 another hypothesis (serial mediation) has been derived that:

H6: *Employees' role breadth self-efficacy and goal orientation mediate the relationship between ability-enhancing HR practices and employees' ambidexterity.*

2.4. Ability-enhancing HR practices and employees' entrepreneurial orientation

Entrepreneurial orientation is basically entrepreneurial management philosophies, decision making and organizational tendencies (Anderson, Covin, & Slevin, 2009). The HR practices have positive association with employees' entrepreneurial orientation that increases their performance (Zehir, Gurol, Karaboga & Kole, 2016). It has been also observed that improvement of employee skills through training and job enlargement can lead to creativity (Sun et al., 2007).

One more study also empirically analyzed this relationship and the result showed positive relationship of HR practices and employees' entrepreneurial orientation (Ozdemirci, 2014). On the basis of above mentioned theoretical understanding, following hypothesis is generated:

H7: *Ability-enhancing HR practices have positive relationship with employees' entrepreneurial orientation.*

2.5. Employees' entrepreneurial orientation and employees' ambidexterity

At the employee level, exploitative activities comprised of executing existing knowledge and skills while, explorative activities means behaviors like finding new product and process innovation (Alghamdi, 2018). There is positive contribution of employees' entrepreneurial orientation in the emergence of their exploration and exploitation (Kollmann & Stockmann, 2014). Another study also found the positive influence of entrepreneurial orientation on ambidexterity capabilities (Mehrabi, Coviello & Ranveera, 2018). Lee and Kreiser (2018) proposed agenda for future research to validate entrepreneurial orientation – ambidexterity relationship. Thus, following hypothesis is generated:

H8: *Employees' entrepreneurial orientation has impact on their ambidexterity.*

H9: *Employees' entrepreneurial orientation mediates the relationship between ability-enhancing HR practices and employees' ambidexterity.*

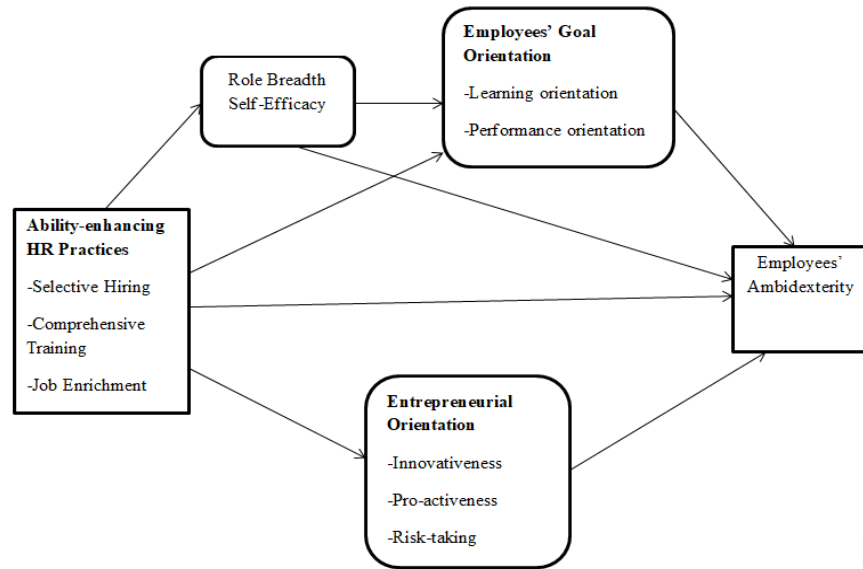


Figure 1: Theoretical Framework

III. RESEARCH METHOD

The data were collected from a sample of software companies located in Pakistan. The researcher drew up list of 60 software houses (sample frame) from the official list of Pakistan’s Ministry of Science and Technology. These all companies are registered with Pakistan Software Export Board (PSEB) located in four cities, i.e., Islamabad, Lahore, Peshawar and Rawalpindi. To test the multi-level model, questionnaires were distributed randomly to 10 employees and two senior managers in each company. Employees like software engineers are most suitable for our research because they face conflicting demands of the exploitation and exploration. While, senior managers are typically involves in the planning and implementing HR practices.

Moreover, data were collected from respondents in two time-lags. During Phase 1, researcher approached two senior managers to asses HR practices and 10 employees to assess their RBSE, EO,GO and EA. After 4 weeks, same senior managers and employees were approached to participate again. In total, researcher distributed 520 questionnaires and only 300 were returned (response rate of 57%). The sample characteristics are shown in Table 1.

Table 1: Sample Characteristics

Gender	
	Frequency
Male	211
Female	89
Age	
21-30 years	132
31-40 years	112
41-50 years	41
50 + years	15
Experience	
1-5 years	100
6-10 years	124
10 + years	76

3.1. Measuring instrument

The questionnaire used in the study was adopted from previous literature. The scale of selective hiring was adopted from questionnaire of Boxall (2007) and Wright (2003). It has total 7 items and reliability of the scale of ($\alpha = .81$). In order to collect data on comprehensive training, a modified questionnaire ($\alpha = .69$) by Sun et al. (2007) was used. Whereas, job enlargement scale was adopted from Hackman and Oldham (1976) with reliability of ($\alpha=.0.83$). The scale of the employees' goal orientation was developed by Van Yperen (2002). There were 11 items ($\alpha=.91$) of learning orientation and 8 items ($\alpha = .90$) of performance orientation. A 7-item scale of RBSE ($\alpha = .87$) from Parker and colleagues (2006) was used in the survey.

The scale of the employees' exploration and exploitation was developed by Jansen et al, in 2006. Total six-items for exploratory innovation ($\alpha = 0.86$) and six-items for exploitative innovation ($\alpha = 0.80$) was developed. To operationalize ambidexterity the concept of exploration and exploitation will multiply with each other. In the same way, separate scales will be used to analyze organizational ambidexterity. The scale of the organizational ambidexterity was adapted from Gibson and Birkinshaw (2004). This measurement ($\alpha = 0.81$) was generally accepted by the literature (Popadic, Cerne&Milohnic, 2015; Cao et al., 2009).

3.2. Data analysis

Both direct hypotheses and indirect hypotheses are tested in the current study. In order to get feel of the data, basic descriptive statistics and frequencies analysis are analyzed. Regression analysis and correlation analysis are used to test the direct hypotheses of the study. Whereas, simple and serial mediation the process suggested by Hayes (2013) is applied to measure the indirect hypothesis. The MEDTHREE analysis (model 6) by Hayes (2013) is supposed to be the most sophisticated method available for serial mediation. Therefore, both analyses are used to assess the simple and serial mediation to answer the principal research questions of the study.

IV. RESULTS AND FINDINGS

The result of the descriptive statics and the correlation among variables is described in table 2. The descriptive analysis shows mean and standard deviation of the studied variables. The value for ability enhancing HR practices ($M= 3.14$, $SD= 0.81$), for role breadth self-efficacy ($M= 2.94$, $SD= 0.57$), for employees' goal orientation ($M= 3.11$, $SD= 0.70$), entrepreneurial orientation and for employees' ambidexterity ($M = 3.00$, $SD= 0.55$).

Table 2: Descriptive Statistics and Correlation

Descriptive Statistics	Descriptive Statistics		Correlation				
	Mean	SD	1	2	3	4	5
1.Ability-enhancing HRP	4.5115	.72129	1				
2.Role breadth self-efficacy	4.2704	1.18357	.389**	1			
3.Goal orientation	4.8318	.80667	.312**	.248**	1		
4.Entrepreneurial orientation	4.6542	1.15597	.194**	-.025	.039	1	
5.Employees' ambidexterity	4.1737	1.28776	.738**	.395**	.358**	.376**	1

The correlation analysis measures the direction and strength of the relationship among different variables of the study. The ability-enhancing HR practices and role breadth self-efficacy have moderate positive correlation ($r = 0.38$, $p = 0.00$), showing that ability-enhancing HR practices can increase role breadth self-efficacy of the employees.

The ability-enhancing HR practices and employees' goal orientation have moderate positive correlation ($r = 0.31$, $p = 0.00$). Whereas, the network of association between ability-enhancing HR practices and entrepreneurial orientation of employees has weak positive correlation ($r = 0.19$, $p = 0.00$). The correlation result of the ability-enhancing HR practices (independent variable) and employees' ambidexterity (main dependent variable) of the study is highly positive ($r = 0.73$, $p = 0.00$). This depicts that when ability-enhancing HR practices are enriched, then employees' ambidexterity also enhanced.

The results of hypothesis 1 (see table 3) shows that there is a 15% variation ($R^2 = 0.15$, $F = 53$, $p = 0.00$) in role breadth self-efficacy because of ability-enhancing HR practices. The results support the hypothesis $\beta = 0.63$, $t = 7.28$, $CI [.46, .81]$ that ability-enhancing HR practices has positive association with role breadth self-efficacy. The results (table 3) of the hypothesis 2 indicate that there is 11% variation ($R^2 = 0.11$, $F = 19$, $p = 0.00$) in goal orientation is because of role breadth self-efficacy and ability-enhancing HR practices. The results support the hypothesis $\beta = 0.10$, $t = 2.49$, $CI [.02, .18]$ that role breadth self-efficacy has a positive impact employees' goal orientation. The results (table 4) of hypothesis 5 indicate that employees' role breadth self-efficacy mediates the relationship between ability-enhancing HR practices and employees' ambidexterity. The results $\beta = .07$, $SE = 0.04$, $CI [.08, .17]$ shows the indirect effect of role breadth self-efficacy between the relationship of ability-enhancing HR practices and employees' ambidexterity. It shows that role breadth self-efficacy has 52% mediation role.

Table 3: Direct Hypotheses Testing

Model 1 (Outcome = RBSE)							
	R	R2	MSE	F	df1	df2	P
	.3892	.1515	1.1926	53.0340	1.0000	297.0000	.0000
	B	SE	t	P	LLCI	ULCI	
AHRP	.6376	.0876	7.2824	.0000	.4653	.8100	
Model 1 (Outcome = GO)							
	R	R2	MSE	F	df1	df2	P
	.3417	.1168	.5778	19.5632	2.000	296.000	.000
	B	SE	T	P	LLCI	ULCI	
RBSE	.1009	.0404	2.4991	.0130	.0215	.1804	
AHRP	.2851	.0662	4.3092	.0000	.1549	.4153	
Model 1 (Outcome = EA)							
	R	R2	MSE	F	df1	df2	P
	.7563	.5720	.7169	131.4371	3.0000	295.0000	.0000
	B	SE	T	P	LLCI	ULCI	
RBSE	.1174	.0455	2.5823	.0103	.0279	.2069	
GO	.2002	.0647	3.0928	.0022	.0728	.3277	
AHRP	1.1705	.0760	15.4059	.0000	1.0210	1.3200	
Model 1 (Outcome = EA)							
	R	R2	MSE	F	df1	df2	P
	.7752	.6010	.6662	222.9114	2.0000	296.0000	.0000
	B	SE	t	P	LLCI	ULCI	
EO	.269	.328	6.468	.000	.187	.351	
AHRP	1.231	.066	18.467	.000	1.100	1.363	

The results (table 3) of hypotheses 4 shows 57% variation ($R^2 = 0.57$, $F = 131$, $p = 0.00$) in employees' ambidexterity is due to role breadth self-efficacy, goal orientation and ability-enhancing HR practices. The results (see table 3) of the hypothesis 4 indicate that there is 20% variation in employees' ambidexterity is because of goal orientation. The results support the hypothesis $\beta = 0.20$, $t = 3.09$, $CI [.07, .32]$ that has a goal orientation positive impact on employees' ambidexterity.

Table 4: Medthree Analysis for indirect hypotheses testing

(Total, Direct and indirect effects)				
	Effect (β)	Boot(SE)	LLCI	ULCI
Total indirect effects	.144	.044	.070	.243
M1 (RBSE)	.074	.040	.089	.170
M1&M2 (RBSE & GO)	.042	.008	.002	.035
M2 (GO)	.057	.024	.018	.116
M3(EO)	.083	.316	.302	.158

The results (see table 4) of hypothesis 5 indicate that goal orientation mediates the relationship between ability-enhancing HR practices and employees' ambidexterity. The indirect effect hypothesis $\beta = 0.05$, $SE = .024$, $CI [.01, .11]$ shows the indirect effect of goal orientation between the relationship of ability-enhancing HR practices and employees' ambidexterity. It shows that employees' ambidexterity has 40% mediation role of goal orientation. The results (table 4) of hypothesis 6 indicate that role breadth self-efficacy and goal orientation mediates the relationship between ability-enhancing HR practices and employees' ambidexterity. The results $\beta = 0.012$, $SE = .008$, $CI [.002, .035]$ shows the indirect effect of role breadth self-efficacy and goal orientation (combined indirect effect) between the relationship of ability-enhancing HR practices and employees' ambidexterity. It shows that employees' ambidexterity has 29% mediation role of role breadth self-efficacy and goal orientation (serial mediation results).

The result of hypothesis 7 proves the relationship of ability-enhancing HR practices with entrepreneurial orientation of the employees. The results $\beta = 1.231$, $SE = .066$, $CI [1.100, 1.363]$ shows in table 3 and 5, indicates the direct effect of ability-enhancing HR practices with employees' ambidexterity. Moreover, the result of hypothesis 8, impact of employees' entrepreneurial orientation on their ambidexterity has also been supported by this study. The results $\beta = 0.269$, $SE = .328$, $CI [.187, .351]$ shows in table 3, indicates the direct effect of ability-enhancing HR practices with employees' ambidexterity.

Table 5: Mediation hypotheses testing

TOTAL, DIRECT, AND INDIRECT EFFECTS					
Total effect of X on Y					
Effect	SE	T	p	LLCI	ULCI
1.315	.0698	18.845	.000	1.1780	1.452
Direct effect of X on Y					
Effect	SE	T	p	LLCI	ULCI
1.231	.066	18.467	.000	1.100	1.363
Indirect effect of X on Y					
	Effect	Boot SE	BootLLCI	BootULCI	
EO	18.467	.000	1.100	1.363	
Normal theory tests for indirect effect					
Effect	Boot SE	BootLLCI	BootULCI		
.083	.028	2.982	.002		

This study also accepted the result of hypothesis 9, which states employee entrepreneurial orientation is mediating between ability-enhancing HR practices and employees' ambidexterity. The results $\beta = 0.083$, $SE = .316$, $CI [.302, .158]$ shows the indirect effect of employees' entrepreneurial orientation between ability-enhancing HR practices and employees' ambidexterity. It shows that employees' ambidexterity has 57% mediation role of employees' entrepreneurial orientation.

V. DISCUSSION

The core findings of current study provide overall support to the framework. It was found that ability-enhancing HR practice is related to employees' ambidexterity in the presence of role breadth self-efficacy, goal orientation and entrepreneurial orientation. All the result of the present study is consistent with the previous study. The theory of ambidexterity proposed by March (1991) also stated that context plays very important role in organizational ambidexterity. Both Duncan (1976) and March (1991), focused on sequential ambidexterity. But later on, Gibson and Birkinshaw (2004) proposed contextual ambidexterity and suggested that organization should provide platform to the employees to decide about exploration or exploitation for simultaneous execution. This empirical evidence of present study are consistent with the theory of ambidexterity and shows that ability-enhancing HR practices plays crucial role in emergence of ambidexterity through building employees cognitive factors.

The first hypothesis of current study accepted the positive association of ability-enhancing HR practices and role breadth self-efficacy. Mom, Chang, Cholakova and Jansen (2018) also reported positive relationship between these two variables. One more study also supported the above result and concluded positive association between HR practices and role breadth self-efficacy (Lee, Pak, Kim & Li, 2019).

The study also found that employees' role breadth self-efficacy impacts goal orientation, and it also mediates the relationship between ability-enhancing HR practices and employees' ambidexterity. This result portrays the network of association illustrated in previous literature. The study supported the positive association of employees' role breadth self-efficacy and ambidexterity (Yu, Gudergan & Chen, 2018). One more study also empirically validates and found positive connection between these two variables (Kauppila & Tempelaar, 2016). The mediation analysis also replicates the result of the study, which also tested and proved meaningful indirect relationship of role breadth self-efficacy between ability-enhancing HR practices and employees' ambidexterity (Mom et al. 2018).

The hypothesis regarding goal orientation has positive association with employees' ambidexterity is accepted. Hoeksema (2017) proved the positive and significant relationship of goal orientation with employees' ambidexterity. Whereas, ability-enhancing HR practices namely selective hiring, training and job enlargement have been considered as a positive influencer of employees' goal-orientation (Bouwman, Runhaar, Wesselink & Mulder, 2017). The mediating role of goal orientation between ability-enhancing HR practices and employees' ambidexterity is accepted, and the results are consistent with previous studies. In this way, this study contributes in literature by testing indirect relationship of goal orientation (cognitive factor). This gap was highlighted by the famous study on ambidexterity by Mom, Chang, Cholakova and Jansen (2018).

The serial mediation of role breadth self-efficacy and goal orientation between the ability-enhancing HR practices and employees' ambidexterity is also accepted.

The learning orientation and performance orientation of the employees mainly depends on self-efficacy of the employees (Zhang, Cao, Shen&Qian, 2019). Moreover, these goal orientated employees are positively related to ambidexterity (Hoeksema, 2017; Gupta et al, 2006). The results of previous studies supported that ability-enhancing HR practices enhance role breadth self-efficacy, which increases goal orientation, which ultimately leads to employees' ambidexterity. This result of serial has not been tested yet in the literature. However, present study will contribute in the literature of employees' ambidexterity, role breadth self-efficacy, goal orientation and ability-enhancing HR practices.

The hypothesis states employee entrepreneurial orientation is mediating between ability-enhancing HR practices and employees' ambidexterity is also accepted. Previous studies examined and proved direct relationship of the HR practices and employees' entrepreneurial orientation (Zehir, Gurol, Karaboga&Kole, 2016). Another study evidenced positive association of entrepreneurial orientation and employees' exploitative activities and explorative activities (Alghamdi, 2018). The result of hypothesis 9 is consistent with the previous literature. The previous studies found direct relationship among variables, but current study add in literature by first time analyzing the mediating role of entrepreneurial orientation.

5.1 Implications

The most important challenge faced by the developing countries is innovation. In today's changing world, there is almost death of innovation in Pakistan due to scarce recourses and bad economic condition. Moreover, the trends in almost all the organizations of Pakistan are towards exploitation rather than exploration because of its high risk-oriented nature. This study will be helpful for the practitioners of the software companies regarding balanced implementation of employees' exploitation and exploration innovation through intangible assets. The study emphasized on role of HR practices in the emergence of employees' ambidexterity. This study suggested that strategists of software companies should focus on building employees' abilities and skills (self-efficacy, goal orientation and entrepreneurial orientation) through selective Shiring, training and job enlargement. Subsequently, employees having high entrepreneurial orientation, self-efficacy and goal orientation will become ambidextrous employees and that is the need of today's world.

VI. LIMITATIONS AND RECOMMENDATIONS

This study has important theoretical and practical contribution, but it has also following limitations. The data were collected from only IT industry. However, results of employees' ambidexterity may vary across industries in order to increase the generalizability of the result. Future researchers should examine ambidexterity at individual level in different industries. Moreover, the study (Wu &Chaturvedi, 2009) concluded that external factors increase the effectiveness of HR bundles indevelopmentof the employees' attitudes or behaviors. In the same way, current study also found mediation effects by role breadth self-efficacy, goal orientation and entrepreneurial orientation between relationship of HR practices and employees' ambidexterity. Future studies examine mediation of other cognitive and motivational factors. This study has not explored the role of ambidextrous leaders. Future studies may address the ambidextrous role of manager as a moderator.

VII. CONCLUSION

Emergence of ambidexterity in organizational context leads to success of the business in today's dynamic world. Employees should make their own decision of balancing opposing nature of exploitation and exploration. When HR managers paid attention towards employees' cognitive skills then their ability to execute ambidexterity will be increased. This study empirically examined and suggested ability-enhancing HR practices through building employees' role breadth self-efficacy, goal orientation and entrepreneurial orientation are important factors to increase their ambidexterity.

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