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High-Performance Work System and Employee Work Performance: A Moderated Mediation Model of Ambidextrous Leadership and Employee Ambidexterity

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Abstract
The purpose of this study is to explore a moderated mediation model of ambidextrous leadership and employee ambidexterity in the relationship between a high-performance work system and employee work performance. A census approach is used to collect data from target employees. Hence, using a cross-sectional design, 387 non-supervisory sales representative employees of Ethio-Telecom in Ethiopia participated in this study. Structural equation modelling with the help of SPSS plus AMOS was used to analyze the proposed hypotheses. By integrating social exchange theory and the AMO model, the result indicated that ambidextrous leadership moderated in the relationship between a high-performance work system and employee ambidexterity. At the high level of ambidextrous leadership, the relationship between a high-performance work system and employee ambidexterity was stronger. Furthermore, ambidextrous leadership moderated the indirect effect of employee ambidexterity in the relationship between a high-performance work system and employee work performance. The study led to an additional understanding of the significant role of ambidextrous leadership in unlocking the black box between HPWS and employee work performance.

Keywords: high-performance work system, employee work performance, employee ambidexterity, ambidextrous leadership, AMO model, ethio-telecom

1. INTRODUCTION

The success of organizations depends on the effective and efficient utilization of organizational resources. Over the past few years, human resources (HR) have continued to be the most valuable resource in these modern organizations (Jiang & Messersmith, 2017). In fact, the term high-performance work system (HPWS) refers to separate but interconnected HR practices designed to achieve business objectives (Boxall & Macky, 2009). HPWS can significantly aid in the achievement of organizational objectives as well as boost productivity and success. As a result, the field of human resources management (HRM) has extensively explored the relationship between HPWS and performance (Li et al., 2019).

In the global context, studies on high-performance work systems revealed that human resource practices positively influence individual and organizational performance. However, there are theoretical inconsistencies that still existed concerning the concept of a high-performance work system (e.g., Cai, 2020; Ingvaldsen et al., 2014; Jiang & Messersmith, 2017; Kaufman, 2015; Lepak et al. 2006; van Esch et al., 2018). Likewise, there are also empirical research gaps that are rarely reported in a non-western context, particularly in developing countries like Ethiopia (Tensay & Singh, 2020). In fact, human resource management practices should be viewed as a system (Lepak et al., 2006). Hence, scholars such as Ismail et al. (2020), recommend adding a suitable mediator or moderator to help explain the relationship that exists between the two conceptions. Thus, in order to solve the mystery surrounding the connection between HPWS and employee work performance, this study presents a new theoretical framework with the inclusion of ambidextrous leadership and employee ambidexterity constructs in the proposed research model.

Prior studies confirmed that at the organizational level a high-performance work system positively influences organizational ambidexterity, a high-performance work system results in better organizational performance (Úbeda-garcía et al.., 2017), and, subsequently, organizational ambidexterity positively influences organizational performance (Peng et al., 2019). At the micro-level, more recent work by Zhang et al. (2018) confirmed that high-performance work systems indirectly influence employee task performance. Likewise, employee job engagement and job performance are positively influenced by a high-performance work system (Zafar et al., 2019). There is also a positive relationship between individual ambidexterity and individual performance in the public sector (Kobarg et al., 2015). In the context of Ethio-Telecom in Ethiopia, this study aims to investigate the causal effects of HPWS on employee work performance given the moderating effect of ambidextrous leadership and the moderating role of employee ambidexterity. By doing so, this study answers the call made by earlier research, which calls for the inclusion of employee ambidexterity as a mediating variable in the HPWS-employee work performance relationship and whether the existence of such a relationship should be accepted or rejected. Another purpose of the research is to explore the moderating effect of ambidextrous leadership to strengthen the relationship between HPWS and employee work performance. The study mainly aims to find out whether ambidextrous leadership reinforces the indirect effect of employee ambidexterity in the relationship between HPWS and employee work performance. The following sections of this article go on to describe the research techniques employed to generate the research findings. The study's conclusions, implications, and limitations are discussed in the final section.

2. LITERATURE REVIEW

2.1. Social Exchange Theory and AMO Model

The bulk of existing work on high-performance work systems and employee performance is based on social exchange theory and the AMO model, which shed some light on the mystery of HPWS-performance linkage (Diogo & Costa, 2019). In fact, social exchange theory proposes that in the norm of reciprocity, there is the social form of exchange where employees perceive HPWS as benefits received from the organization, and, thus, in return employees show outstanding performance. (J. Zhang, Bal, et al., 2018). Similar work was also carried out by Gong et al. (2010), who claim that social exchange theory provides an appropriate lens for understanding employee responses to the organization. Likewise, a meta-analysis conducted by Diogo and Costa (2019) revealed social exchange theory as one of the most appropriate theoretical lenses that explore the impact of HPWS on employee outcomes. Researchers in other study areas have adopted the same approach too (Memon et al., 2020). The AMO model is rooted in the notion of social exchange theory (Diogo & Costa, 2019). According to the social exchange theory, in particular, human resource management (HRM) practices that are seen as supportive by employees would be returned with favourable attitudes and behavior, such as good performance (Jyoti & Dev, 2016). Likewise, the underlying principles of abilities, motivation, and opportunity (the AMO model of HRM) suggest that every HR system works through its impacts on the skills and knowledge of individual employees, their willingness to exert effort, and their opportunities to express their talents in their work (Boxall & Macky, 2009). Therefore, based on the purpose of this study, both social exchange theory and the AMO model will be used as a theoretical base for explaining the link between perceived HPWS and employee work performance.

2.2. High-Performance Work System

Marathe & Pathak (2013) conceptualize HPWS as it is deliberate work system design that boosts an organization's performance by combining direct, system, and interaction effects. It comprises the initial sensible choice of HR practices having an immediate impact on employees' abilities, motivation, and opportunities. Also, it involves external fit with other context contributes to interaction effect of strategic advantage. Then, internal fit among HR practices leads to system effect through strong signaling by consistent organizational climate. Similarly, according to Lepak et al. (2006), HPWS is one method of conceiving HR systems that are more expansive in nature but include components of both the high-commitment and high-involvement HR system approaches. These systems emphasize the potential competitive advantages that might be realized by employees via HR practices that treat workers with respect, invest in their development, and foster trust in management and commitment toward achieving organizational goals. Other similar studies also view HPWS as high involvement/ commitment HR practices. This approach is based on the configurational perspective and reflects the notion of fit and the belief that bundles or distinctive patterns of HR practices are horizontally integrated, leading to superior organizational performance (M. Zhang et al., 2014).

2.3. Employee Work Performance

Organizations need highly performing individuals to meet their goals, deliver the products and the services they specialized in, and finally achieve competitive advantage. Several studies and reviews have viewed employee performance from different contexts (Y. Li & Lu, 2009; Sonnentag & Frese, 2002). However, a recent review conducted by Koopmans et al. (2013) revealed that four broad and generic dimensions constitute individual work performance. The first dimension, task performance, refers to the proficiency with which an employee performs central job tasks. The second dimension, contextual performance, refers to employee behaviours that support the organizational, social, and psychological environment in which the central job tasks are performed. The third dimension, adaptive performance, refers to an employee's proficiency in adapting to changes in work roles or environments. The fourth dimension, counterproductive work behaviour, refers to behaviour that is harmful to the well-being of the organization. A systematic review conducted by Koopmans et al. (2011) further illustrated separate employee work performance dimensions that are related to the general factor of work performance.

2.4. Employee Ambidexterity

One of the more persistent concepts in organization science is that a company's long-term success is dependent on its capacity to maximize its existing strengths while simultaneously pursuing fundamentally new competencies (Raisch et al., 2009). The term ambidexterity involves two competing demands: exploitation and exploration (O'Reilly III & Tushman, 2013; Raisch & Birkinshaw, 2008). Most academics' top research priorities included previous studies that were extensively examined at the organizational level and the organizational outcomes of ambidexterity (Caniels et al., 2017). There are two ways of implementing ambidexterity in organizations: structural ambidexterity and contextual ambidexterity (Y. I. Zhang, Wei, et al., 2018). Contextual ambidexterity is a business-unit or bottom-up approach to ambidexterity, where individuals based on their units demonstrate behaviours of alignment and exploitation and/or behaviours of adaptation and exploration (Gibson & Birkinshaw, 2004). Accordingly, Good and Michel (2013) define individual/employee ambidexterity as the cognitive abilities necessary to balance efforts of exploration and exploitation. Similarly, the concept of employee ambidexterity is rooted in the micro-foundations of organizational ambidexterity, which implies a multidimensional construct that refers to the behavioural orientation of employees to syndicate exploitation and exploration-related activities over a particular duration of time (Caniëls & Veld, 2019).

2.5. Ambidextrous Leadership

Leadership is a key factor in ensuring employee ambidexterity in enterprises, as is commonly acknowledged. Today's organizations are characterized by leaders' complexity due to high pressure for innovation in today's markets and continuing internalization (Bledow et al., 2011). Extant research confirmed that ambidextrous theories of leadership support innovation and the results revealed that leader opening and closing behaviours positively predicted employee exploration and exploitation behaviours (Alghamdi, 2018; Zacher & Rosing, 2015). According to Rosing, Frese, and Bausch (2011), "ambidextrous leadership refers to the ability to foster both explorative and exploitative behaviors in followers by increasing or reducing variance in their behavior and flexibly switching between those behaviors. That is, ambidextrous leaders can support their followers in the attempt to be ambidextrous" (p. 957). Moreover, the reform of public organizations is facilitated by ambidextrous leadership (Trong Tuan, 2016). A meta-review conducted by Mueller et al. (2018) indicated that ambidextrous leadership is a multi-level concept that involves the micro and macro level and meets the idea of ambidextrous leadership.

2.6. High-Performance Work System and Employee Work Performance

Several studies have explored the effects of HPWS on organizational and individual outcomes. For instance, Huselid (1995) confirmed that systems of high-performance work practices have an economically and statistically significant impact on both intermediate employee outcomes (turnover and productivity) and short- and long-term measures of corporate financial performance. Employee creativity is also enhanced by HPWS (Tang et al., 2017). At the organizational level, high-performance human resource practices directly impact firm performance (van Esch et al., 2018). At the employee level, prior study shows that HPWS positively relates to job satisfaction, physiological job demand and job search behaviour (Behravesh et al., 2019), employee service performance, and organizational citizenship behaviour (Nadeem, Riaz, Iftikhar, et al., 2019), and job engagement (Arefin et al., 2019). Most importantly, perceived HPWS has a positive relationship with work-to-family enrichment (Carvalho & Chambel, 2015), job resources (Kloutsiniotis & Mihail, 2020), and employees' work well-being (Su et al., 2019). Furthermore, the AMO model of HRM is a significant predictor of employee proactive behaviour (Al-tit, 2020). This stream of discussion leads to the following hypothesis:

Hypothesis 1: High-performance work systems have a positive effect on employee work performance.

2.7. High-Performance Work System and Employee Ambidexterity

Scholars have emphasized the effectiveness of strategic HR systems in supporting individual and organizational ambidexterity (Mom et al., 2018). In particular, high-performance work systems are a significant predictor of organizational ambidexterity (Gürlek, 2020).

A study conducted in Spain found that high-involvement HR systems support ambidextrous learning, which in turn generates ambidextrous employees Prieto-Pastor & Martin-Perez, 2015). Also, the simultaneous pursuit of exploration and exploitation is enhanced through the present HRM practices (Swart et al., 2016). However, Stokes et al. (2018) underline the managerial challenges in handling organizational ambidextrous dynamics and the tensions surrounding resilience and positive and sckeptical approaches about individual and organizational stances toward HRM practices. In order to create contextual ambidexterity in case organizations, sets of high-involvement HRM practices for the exploration of new ideas and efficiency-driven HRM practices are used (Malik, Boyle, et al., 2017). As a result, HPWS is viewed as a systematic tool for enhancing organizational ambidexterity (Patel et al., 2013). Thus, Hypothesis 2 is stated as follows:

Hypothesis 2: High-performance work systems have a positive effect on employee ambidexterity.

2.8. Employee Ambidexterity and Employee Work Performance

According to Dutta (2013), an empirical study conducted across firms in India suggested that contextual ambidexterity significantly mediates the relationship between dynamism in the environment, organization context, and renewal. Organizational ambidexterity has been established as an important antecedent of organizational innovation and performance (Rosing & Zacher, 2016). In other words, ambidexterity and generative learning are found to be significantly associated with innovative firm performance (Çömez et al., 2011). Also, ambidexterity and its interaction with market orientation were found to have a positive influence on organizational performance (Peng et al., 2019). These findings are consistent at the individual level. In particular, employee exploration-exploitation significantly influences task performance (J. A. Zhang et al., 2020). Similarly, the individual balanced pursuit of exploitative and explorative activities positively related to the performance of the public sector (Kobarg et al., 2015). To sum up, balancing the exploration of new opportunities with the exploitation of existing capabilities is increasingly viewed as a promising approach to adapting to technological and environmental change (Schnellbacher et al., 2019). Hence:

Hypothesis 3: Employee ambidexterity has a positive effect on Employee Work Performance.

2.9. The Mediating Role of Employee Ambidexterity in the Relationship between High-Performance Work System and Employee Work Performance

Prior studies insist that various mediators regulate the relationship between high-performance work systems and performance. For instance, Beltran-Martin et al. (2008) insisted that human resource flexibility mediates the association between high-performance work systems and organizational performance. Alternatively, high-performance human resource practices and firm performance are partially mediated by employees' competencies (van Esch et al., 2018). In particular, high-performance work systems and employee performance is mediated by social exchange and thriving (J. Zhang, Bal, et al., 2018). However, psychological capital and resilience play a mediating role in the relationship between a high-performance work system and employee service performance (Nadeem, Riaz, Iftikhar, et al., 2019). In public organizations, service-oriented high-performance work systems, and service-oriented behaviours, are regulated by work engagement (Luu, 2018). Collective human capital serves an intervening role in the influence of high-performance work systems

on unit performance and perceived HPWS at the employee level (Ali et al., 2019). Based on the above-mentioned literature and the discussion, the following hypothesis is proposed:

Hypothesis 4: Employee ambidexterity mediates the relationship between high-performance work systems and employee work performance.

2.10. The Moderating Effect of Ambidextrous Leadership in the Relationship between High-Performance Work System and Employee Ambidexterity

A review conducted by Raisch & Birkinshaw (2008) revealed a comprehensive model of understanding organizational ambidexterity research. Accordingly, environmental dynamism and competitive dynamics are the main moderators that explain the organizational ambidexterity–performance linkage. Indeed, some other scholars, such as Günsel et al. (2017), indicated that the greater the networking the greater the relationship between exploitation capability and firm performance. In particular, management support plays a moderating role in ensuring and sustaining ambidextrous learning through high-involvement HR systems (Prieto-Pastor & Martin-Perez, 2015). Finally, a study conducted by Alghamdi (2018) showed that the interaction between leaders' opening and closing behaviours predicts employee innovative performance to such an extent that employee innovative performance is highest when both opening and closing leadership behaviours are high. Based on the above-mentioned literature and the discussion, the following hypothesis is proposed:

Hypothesis 5: Ambidextrous leadership has a moderating effect on the relationship between a high-performance work system and employee ambidexterity.

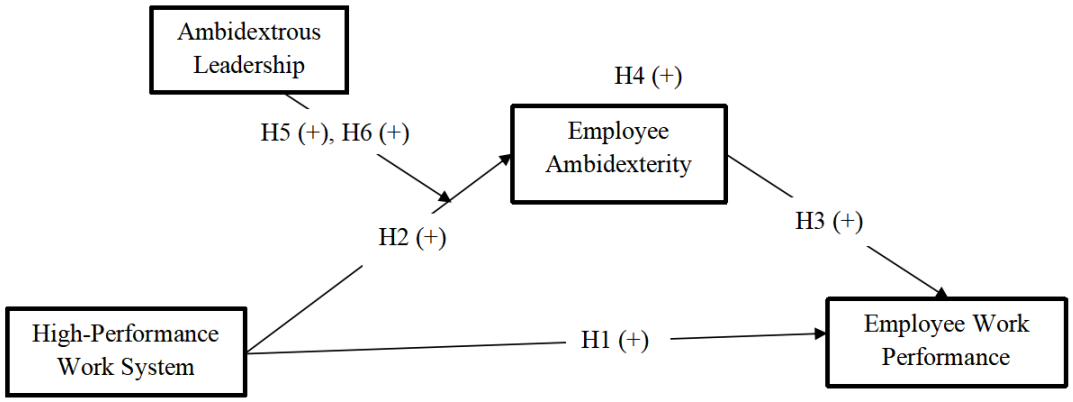
Furthermore, a more complex theoretical model can be shown by combining the mediation effect with the moderation effect. Specifically, employee ambidexterity mediates the positive relationship between a high-performance work system and employee work performance, but the size of the mediation effect depends on the level of ambidextrous leadership. Generally speaking, when employees perceive a higher level of ambidextrous leadership, the positive relationship between a high-performance work system and employee ambidexterity is stronger, thus the employee ambidexterity will transmit the effect of a high-performance work system onto employee work performance. Conversely, when employees perceive a lower level of ambidextrous leadership, the positive relationship between a high-performance work system and employee work performance is weaker. Thus the effect that a high-performance work system can have on employee work performance will be less transmitted through employee ambidexterity. Thus,

Hypothesis 6: Ambidextrous leadership moderates the mediation effect of employee ambidexterity between a high-performance work system and employee work performance.

3. RESEARCH MODEL

The reason for developing a research model is to enable researchers to integrate different ideas from different theories and then integrate them with research questions (Adams et al., 2014). Indeed, the research model is derived from the theoretical framework and relates to specific research problems (Kumar, 2011). The conceptual framework is presented in two forms. In one way, it identified the research variables. On the other hand, it clarifies relationships among variables (McGaghie et al., 2001). Thus, based on the theoretical underpinnings that are explained above, this hypothesized research model is developed.

Figure 1. Research Model



4. RESEARCH METHODOLOGY

4.1. Research Setting and Sample Procedures

Ethio telecom is state-owned and the only telecom operator in Ethiopia. Currently, the company provides various telecom services to customers. Ethio telecom has a large number of telecom subscribers in Addis Ababa city. According to information gathered from the company's human resources department, Ethio Telecom is expected to have more than 20,000 employees in Addis Abeba city as of the year 2022. Of these, the total number of permanent employees working in Addis Ababa city is 9277 across 24 divisions. Out of this number, 517 are sales representative employees working in the capital. The study employed a census approach to gathering data since it is challenging to control all divisions and incorporate them into the study (Draugalis & Plaza, 2009).

Rooted in the positivism research paradigm, the deductive approach is appropriate for this study as it is intended to evaluate propositions or hypotheses related to an existing theory. From a methodological perspective, this study was quantitative by nature as there was a single data collection technique, that is, a standardized questionnaire adapted from prior studies. Explanatory research was adopted to examine and investigate how and why HPWS influences employee work performance through employee ambidexterity given the moderating effect of ambidextrous leadership (Babbie, 2016; Saunders et al., 2016). This study used Statistical Package for Social Science (SPSS) plus AMOS software Version 23. The reason is that Cronbach's alpha can be calculated using SPSS, whereas assessment of composite reliability can be done through AMOS (Field, 2009; Hinton et al., 2014). Likewise, covariance-based structural equation modelling (CB-SEM) has been widely applied in the field of social science during the past several decades and is still the preferred data analysis method today for confirming or rejecting theories through the testing of hypotheses, particularly when the sample size is large, the data is normally distributed, and, most importantly, the model is correctly specified. That is, the appropriate variables are chosen and linked together in the process of converting a theory into a structural equation model (Hair Jr. et al., 2014). AMOS is one of the statistical packages widely used for covariance-based structural equation modelling (Asyraf & Afthanorhan, 2013).

The study participants were non-supervisory permanent sales representative employees working in Addis Ababa city. The reason is that compared to other areas, a large number of employees are working in Addis Ababa city and, it is also more accessible and easier to gather data. Likewise, the literature on HRM at the time placed more emphasis on a management-centric approach than it did on how to deal with employee outcomes like employee work performance (Diogo & Costa, 2019). After gaining consent or acceptance from Ethio telecom, a list of employees and other related information were obtained, and then orientation was given about the purpose of the study orally. Their consent was also requested without coercion. In total, 412 employees responded to the self-administered survey (85.12%). After excluding invalid responses, 387 responses were included in the final analysis.

4.2. Scale and Measures

Drawing on the AMO model, HPWS was measured by using a seven-point Likert-type scale adapted from: Jensen, Patel, and Messersmith (2013); Jeevan Jyoti and Rani (2017); Jeeven Jyoti and Dev, (2016), respectively. Before exploratory factor analysis (EFA), the scale consisted of 15 items. Each item was evaluated by using a seven-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). To measure employee work performance, a 31-item scale was adapted from Koopmans et al., (2014). Pradhan and Jena (2017) were also used. The latent variable EWP has four dimensions, namely task performance, adaptive performance, contextual performance, and counterproductive work behaviour. Each item was evaluated by using a seven-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). To examine the perceived level of employees' ambidexterity, an 11– item scale was adapted from Zhang et al., (2020). Employee ambidexterity is reflected through both employee exploration and exploitation activities. Responses were scored on a seven-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Ambidextrous leadership was measured by using a seven-point Likert-type scale ranging from 1(strongly disagree) to 7 (strongly agree), which was adapted from: Rosing et al., (2011); Tuan Luu, (2017); Zacher and Rosing (2015), respectively. The scale consisted of 14-items with two dimensions, namely, leader-opening behaviours and leader-closing behaviours.

4.3. Control Variables

Prior studies confirmed that variables such as gender, age, education level, and tenure affect the constructs of employee performance based on the immediate contexts in which employees operate (J. Zhang, Bal, et al., 2018). In other words, controlling all these variables was found to be related to employee performance (Kloutsiniotis & Mihail, 2018). Therefore, we controlled for gender, age, educational level, and organizational tenure during the present study.

4.4. Test of Common Method Bias (CMB)

Common method bias is the inflation of true correlation among observable variables in a study (Podsakoff et al., 2003). To mitigate this problem, Harman's one-factor test was performed with confirmatory factor analysis, where all indicators are purposely loaded on one factor to determine model fit. Accordingly, the first factor explained 22.3%, which, as less than 50%, confirmed that there was no issue of bias. This aligns with notions expounded by (Podsakoff et al., 2003) and thus confirmed the data's suitability for subsequent statistical analysis.

5. RESULTS

5.1. Descriptive Analyses

The demographic characteristics of the respondents consisted of 238 men (61.50%) and 149 females (38.50%). The most dominant age group was found between 26-35 years (60.72%). More than half of the respondents possessed a bachelor's degree (n = 272, 70.3%), followed by respondents who possessed a master's degree (n = 91, 23.5%), and diploma holders (n = 24, 6.2%), respectively. Lastly, the highest percentage of the respondents have been in service for 1 to 3 years in the present organization (n = 181, 46.8%) whereas respondents whose length of service is of 8 to 10 years are small in number (n = 32, 8.3%).

Table 1 presents the descriptive statistics and correlations. As seen in Table 1, High-performance work system was positively related to employee work performance ($r = 0.361$, $p < 0.01$) and employee ambidexterity ($r = 0.255$, $p < 0.01$). Furthermore, employee ambidexterity was positively associated with employee work performance ($r = 0.365$, $p < 0.01$).

Table 1. Mean, Standard Deviation, and Correlations among the Study Variables

Variables	Mean	SD	1	2	3	4	5	6	7	8
High-Performance Work Systems	5.565	0.888	1							
Employee Work Performance	5.581	0.599	0.361**	1						
Employee Ambidexterity	5.924	0.731	0.255**	0.365**	1					
Ambidextrous Leadership	5.645	0.793	0.315**	0.382**	0.579**	1				
Gender	1.39	0.487	0.155**	0.067	0.059	0.034	1			
Age	1.99	0.681	-0.133**	-0.184**	-0.065	-0.130**	-0.155**	1		
Educational Level	2.17	0.518	-0.107*	-0.012	-0.082	-0.006	-0.152**	0.026	1	
Experience	2.02	1.166	-0.236**	-0.183**	-0.030	-0.142	-0.135**	0.711**	-0.001	1

***. Correlation is significant at the 0.01 level (1-tailed).*

**. Correlation is significant at the 0.05 level (1-tailed).*

Note: N = 387. Gender (1 = Male, 2 = Female); Age (1 = 18-25, 2 = 26-35, 3 = 36-45, 4 = Above 45); Educational Level (1 = Diploma, 2 = BA/BSc Degree, 3 = MA/MSc Degree, 4 = Ph.D. Degree); Experience (1 = 1-3 years, 2 = 4-7 years, 3 = 8-10 years, 4 = Above 10 years).

5.2. Measurement Model

To run the statistical analysis, covariance-based structural equation modelling (CB-SEM) was used in testing the model. CB-SEM can facilitate the assessment of the measurement model and the structural model. Additionally, each study variable is a reflective construct that complies with CB-SEM standards (Collier, 2020; Hair et al., 2014).

5.2.1. Exploratory Factor Analysis

Exploratory factor analysis (EFA) has been applied for factor identification of the HPWS (the AMO model) scale in Ethiopian settings. An EFA was performed using a principal component analysis and varimax rotation. The minimum factor loading criterion was set to 0.50. The communalities of the scale, which indicates the amount of variance in each dimension, were also assessed to ensure an acceptable level of explanation. Also in factor analysis, the Eigen value represents the total variance explained by each factor. Factors with Eigen values over one (1) are selected for further study (Hair et al., 2014). The result shows The Kaiser – Meyer – Olkin measure of sampling adequacy was 0.896. The nine dimensions explained a total of 64.493 percent of the variance among items in the study. The Bartlett's Test of Sphericity proved to be significant, and all communalities were over the required values of 0.500. The nine factors identified as part of this EFA aligned with the theoretical proposition in this research.

5.2.2. Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) was computed using AMOS to test the measurement models. Collier (2020) pointed out that a second-order CFA is also named a higher-order construct that is measured by latent constructs. According to Hair et al. (2014), factor loadings greater than 0.50 are better to explain unobserved constructs in the study. Therefore, after the variables are validated through EFA, as part of confirmatory factor

analysis, factor loadings were assessed for each item. Hence, 24 items were removed due to low factor loadings (< 0.50). The model fit measures were used to assess the model's overall goodness of fit; Model Chi-Square Test (CMIN/df,), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Standardized Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA) and all values were within their respective common acceptance levels (Bentler, 1990; Hu &Bentler, 1998; Schumacker & Lomax, 2004). Hence, in testing the measurement model, the four-factor model (high-performance work system, employee work performance, employee ambidexterity, and ambidextrous leadership) yielded good fit for the data: CMIN/df = 2.605, CFI = 0.923, TLI = 0.910, SRMR = 0.071, and RMSEA = 0.064.

5.3. Instrument Validity and Reliability

Construct reliability was assessed using Cronbach's alpha and composite reliability. Cronbach's Alpha for each construct in the study was found to be over the required limit of 0.70 (Hinton et al., 2014). Composite reliability ranged from 0.792 to 0.854, above the 0.70 benchmarks (Hair et al., 2014). Hence, construct reliability was established for each construct in the study (Table 2). Convergent validity of the scale items was estimated using Average Variance Extracted (AVE) (Fornell & Larcker, 1981). The average variance extracted was above the required threshold value of 0.50 (Fornell & Larcker, 1981). Therefore, the scales used for the present study have the required convergent validity (Table 2).

Table 2. Loadings, Reliability, and Convergent Validity

Items	Label	Loadings	CA	CR	AVE
High-performance work system			**0.860**	**0.854**	**0.541**
The appraisal system provides me with an accurate assessment of my strengths and weaknesses	HPWS14	0.842			
I have the opportunities I want to be promoted	HPWS13	0.726			
The rewards I receive are directly related to my performance at work	HPWS11	0.746			
Communication between departments is good	HPWS9	0.712			
Communication within the department is good	HPWS8	0.638			
Employee work performance			**0.850**	**0.801**	**0.599**
I know I can handle multiple assignments for achieving organizational goals	TP4	0.763			
I usually complete my assignments on time	TP5	0.776			
I could manage change in my job very well whenever the situation demands	AP2	0.652			
I always believe that mutual understanding can lead to a viable solution in the organization	AP4	0.815			
I usually share knowledge and ideas among my team members	CP7	0.831			
I usually maintain good coordination among fellow workers	CP8	0.782			
I make problems greater than they were at work	CPWB2	0.814			
I focus on the negative aspects of a work situation, instead of on the positive aspects	CPWB3	0.849			
I speak with colleagues about the negative aspects of my work	CPWB4	0.728			
I speak with people from outside the organization about the negative aspects of my work	CPWB5	0.790			
I do less than was expected of me	CPWB6	0.890			
I manage to get off from a work task easily	CPWB7	0.797			
I sometimes do nothing, while I should have been working	CPWB8	0.905			
Employee ambidexterity			**0.845**	**0.792**	**0.657**
Searching for new possibilities concerning products/services, processes, or markets	EXPR1	0.815			
Focusing on strong renewal of products/services or processes	EXPR2	0.892			
Activities of which a lot of experience has been accumulated by yourself	EXPL1	0.726			
Activities that serve existing (internal) customers with existing services/products	EXPL3	0.886			
Activities of which it is clear to me how to conduct them	EXPL4	0.755			
Ambidextrous leadership			**0.858**	**0.851**	**0.744**
Allows different ways of accomplishing a task	LOB1	0.816			
Encourages experimentation with different ideas	LOB2	0.880			
Gives possibilities for independent thinking and acting	LOB4	0.715			
Takes corrective action	LCB3	0.889			
Controls adherence to rules	LCB4	0.807			

Note: CA- Cronbach's Alpha, CR- Composite Reliability, AVE- Average Variance Extracted

Discriminant validity in the study was assessed using the Fornell and Larcker criteria. Accordingly, discriminant validity is established when the square root of AVE for the construct is greater than its correlation with other constructs in the study (Fornell & Larcker, 1981). In the present study, discriminant validity was established. The results of discriminant validity are presented in Table 3.

Table 3. Discriminant Validity of Study Variables

	HPWS	AL	EA	EWP
HPWS	**0.736**			
AL	0.353***	**0.862**		
EA	0.211**	0.656***	**0.810**	
EWP	0.289***	0.423***	0.647***	**0.774**

Note: HPWS – High-performance work system; AL – Ambidextrous leadership; EA – Employee ambidexterity; EWP – Employee work performance
*Significance of correlations: **P < 0.010 ***P < 0.001*

5.4. Structural Model Assessment

A structural equation model generated through AMOS was used to test the relationship among the study variables. A good fitting model is accepted if: the value of the CMIN/df is < 5, the model overall goodness of fit; the Tucker Lewis Index (TLI), and the Comparative Fit Index (CFI) is > 0.90 (Hair et al., 2014). In addition, an adequate fitting model was accepted as the AMOS computed value of the Standardized Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA) is < 0.08 (Hu & Bentler, 1998). Thus, to examine the cause-effect relationships, we tested the proposed model by using the AMOS Graphical approach for structural equation modelling (SEM), which is shown in Table 4. Hence, the resulting model provided a good fit for the data: CMIN/df = 3.133, CFI = 0.981; TLI = 0.90; SRMR = 0.026; RMSEA = 0.074. Likewise, according to Collier (2020), common control variables can add value to model fit and can help to retain significant relationships among study constructs. Thus, including control variables can be essential in supporting the findings of the analysis. Therefore, the first step in SEM is to verify the effect of controlling variables (Gender, Age, Education Level, and Experience) on employee work performance.

Table 4. Structural Model Assessment

Relationships	**Estimate**	**S.E.**	**C.R.**	**P**
InteractionHPWSxAL → EA	.109	.030	3.649	***
AL → EA	.452	.041	10.960	***
HPWS → EA	.043	.031	1.382	.167
EA → EWP	.253	.038	6.722	***
HPWS → EWP	.134	.027	4.985	***
Gender → EWP	.017	.059	.283	.777
Age → EWP	-.052	.059	-.893	.372
Education → EWP	.095	.055	1.725	.085
Experience → EWP	-.039	.035	-1.125	.261

*Note: HPWS – High-performance work system; EWP – Employee work performance; EA – Employee ambidexterity; AL – Ambidextrous leadership. *** - p < 0.01*

As noted in Table 4, gender, age, education, and experience do not have a significant relationship with employee work performance. In other words, the control variables for this study have an inconsequential influence on the model. Therefore, the demographic variables for this study are excluded from further analysis (Collier, 2020).

5.5. Hypothesis Testing

5.5.1. Discussion of Direct, Indirect, and Interaction Effects

The next part of the data analysis was testing the proposed hypotheses. Taking into account the moderation mediation analysis, first, we tested the direct relationship among the study variables. Hence, three hypotheses were proposed by the researchers. As shown in Table 4, a high-performance work system has a significant positive effect on employee work performance ($\beta = 0.134$, $t = 4.985$, $p < .001$), supporting *Hypothesis 1.* Likewise, employee ambidexterity has a significant positive effect on employee work performance ($\beta = 0.253$, $t = 6.722$, $p < .001$), supporting *Hypothesis 3.* However, taking the moderation mediation into consideration, a high-performance work system was not significantly affected by employee ambidexterity ($\beta = 0.043$, $t = 1.382$, $p > 0.05$), and failed to support *Hypothesis 2*. In addition, the study assessed the indirect effect of employee

ambidexterity on the relationship between a high-performance work system and employee work performance. The results revealed that the indirect effect of employee ambidexterity in the relationship between a high-performance work system on employee work performance in the presence of the moderator (Ambidextrous leadership) was positive and but not significant ($\beta = 0.011$, $p > 0.05$), and the result failed to support *Hypothesis 4.*

The study assessed the moderating effect of ambidextrous leadership on the relationship between a high-performance work system and employee ambidexterity. The moderation analysis summary is presented in Table 5.

Table 5. Moderation Analysis Summary

Relationship	**Beta**	**CR**	**P-Value**
HPWS→EA	0.043	1.382	0.167
AL→EA	0.452	10.960	0.000
InteractionHPWS*AL→EA	0.109	3.649	0.000

Note: HPWS – High-performance work system; EA – Employee ambidexterity; AL – Ambidextrous leadership

The result revealed a positive and significant moderating effect of ambidextrous leadership on the relationship between a high-performance work system and employee ambidexterity ($\beta = 0.109$, $p = 0.000$), supporting *Hypothesis 5.*

The final analysis part was testing the moderated mediation analysis. As presented in Table 6, the last test we need to assess is if the construct of ambidextrous leadership is significantly moderating the indirect effect. That means, we need to assess if the indirect effect is being moderated. This is assessed by the index of moderated mediation value. The bootstrap analysis examines if the slope is significantly different from zero, which indicates that moderated mediation is taking place (Collier, 2020). The analysis result of the above table gives the lower and upper bound of the bootstrap test. In the unstandardized indirect effects, the findings indicated that there was an indirect effect of the interaction term (through employee ambidexterity) on employee work performance ($\beta = 0.027$, $p = 0.008$), which is less than 0.05, supporting *Hypothesis 6*. Thus, we can conclude that the indirect effect of employee ambidexterity in the relationship between a high-performance work system and employee work performance moderated by ambidextrous leadership.

Table 6. Reporting Moderated Mediation

Direct Relationship			**Unstandardized Coefficient**	**T-Values**
High-performance work system→ Employee ambidexterity			0.043	1.382
InteractionHPWS*AL→ Employee ambidexterity			0.109	3.649
Ambidextrous leadership →Employee ambidexterity			0.452	10.960
High-performance work system →Employee work performance			0.134	4.985
Employee ambidexterity → Employee work performance			0.253	6.722
Moderated Indirect Relationship	**Direct Effect**	**Indirect Effect**	**Confidence Interval Low/High**	**P-Values**
HPWS→EA→EWP	0.043	0.011	-0.002/0.032	0.103
Probing Moderated Indirect Relationships				
Low level of Ambidextrous leadership		-0.021	-0.055/0.004	0.090
High level of Ambidextrous leadership		0.043	0.016/0.084	0.001
Index of Moderated Mediation		0.027	0.008/0.053	0.008

6. DISCUSSION

The purpose of this study is to examine the moderating effect of ambidextrous leadership and the mediating role of employee ambidexterity in the relationship between HPWS and employee work performance. Hence, the study findings indicate that the effect of a high-performance work system on employee work performance was positive and significant. In other words, the advantages of HPWS are frequently attributed to the abundance of opportunities for performance enhancement that they offer. Then, these rewards are viewed favourably by employees, who then take constructive action by exerting more effort. These findings are consistent with prior studies (Behravesh et al., 2019; Bhatti et al., 2021; Carvalho & Chambel, 2015; de Reuver et al., 2019; Imran & Atiya, 2020; Kloutsiniotis & Mihail, 2020; Nadeem, Riaz, & Danish, 2019; Su et al., 2019). In particular, job performance is positively and significantly influenced by HPWS (Imran & Atiya, 2020). In addition, the effect

of a high-performance work system on employee ambidexterity was positive but not significant. This suggests that increased HPWS encourages employees to participate in exploitative and exploratory behaviours by sending them a signal that their concerns are taken seriously. This finding is compatible with prior studies (Huang & Kim, 2013; Malik, Pereira, et al., 2017; Zheng et al., 2020). Furthermore, the effect of employee ambidexterity on employee work performance was positive and significant. This finding is congruent with prior studies (Kobarg et al., 2015; J. A. Zhang et al., 2020). Particularly, employees' balanced pursuit of exploitative and exploratory activities has a positive impact on individual performance in the public sector (Kobarg et al., 2015). Moreover, with the presence of the moderator, the study results confirmed that employee ambidexterity failed to mediate significantly the relationship between a high-performance work system and worker work performance. Also, the findings of this study indicated that the excessive stage of ambidextrous leadership had a noticeably better effect on the relation with employee ambidexterity compared to the impact of a low degree of ambidextrous leadership (Alghamdi, 2018). Finally, ambidextrous leadership moderates the mediation effect of employee ambidexterity between a high-performance work system and employee work performance in such a way that the mediation effect is enhanced when ambidextrous leadership is high compared to when it is low. This result implies that given ambidextrous leadership interacted significantly with HPWS towards employee work performance, this supports the notion that high ambidextrous leadership is better able to leverage employee ambidexterity to achieve a greater employee work performance. This result was consistent with prior studies, such as a study conducted in Korean manufacturing firms that disclosed that the interaction effect of external search breadth and depth on a firm's innovation performance through the simultaneous pursuit of exploitation and exploration of innovation is stronger in the presence of higher levels of absorptive capacity (Kim et al., 2019). Similarly, a study conducted on Chinese firms revealed that high levels of exploration (exploring new resources) and exploitation (exploiting existing resources) or that had a high level of exploration experienced higher performance (Fu et al., 2015).

7. CONCLUSION

In this turbulent work environment, it is obligatory to ensure a high-performance work system to enhance employee work performance to assist the company to meet the desired goals. This study aimed to expand our appreciation of the role of HPWS in overall employee work performance by way of investigating the mediating impact of employee ambidexterity. Hence, the results confirmed that employees' understanding of ambidextrous leadership plays a substantial role as a moderator in the relationship between a high-performance work system and employee work performance. Moreover, excessive stages of ambidextrous leadership beef up the interaction between HPWS and employee work performance. Therefore, the distinct position of employee ambidexterity and ambidextrous leadership must be taken into account to wholly understand the technique through which high-performance work system enhances worker work performance.

8. THEORETICAL AND PRACTICAL IMPLICATIONS

8.1. Theoretical Implications

Overall, our research makes four contributions to the current theory. First, it is presumed that employee work performance is significantly influenced by employee ambidexterity and HPWS. In fact, little research has examined the impact of HPWS on employee work performance, even though it offers an effective structure that promotes improved organizational performance (Edgar et al., 2020). Second, in response to the demand for more research, the current study reveals a potential mediator, employee ambidexterity, as well as a moderating factor, ambidextrous leadership, that may be useful in revealing the connection between HPWS and employee work performance. Hence, the significance of some undiscovered mediators and moderators, in particular, controls the link between HRM and performance. Third, the study broadens the understanding of the link between HPWS and performance and offers sufficient empirical evidence for social exchange theory and the AMO framework (Huselid, 1995; Jyoti & Dev, 2016; J. Zhang et al.,2018). In other words, within the context of social exchange theory and the AMO framework, HPWS can develop a superior workforce and HPWS can continue to enhance knowledge, skills, and abilities (KSAs), enabling better performance than competitors. Thus, the research offers sufficient justification for recognizing social exchange theory as an academic model for the potential relationship between the HPWS and employee work performance. Finally, this study was done in a state-owned enterprise, which fills the research gap that existed in public organizations.

8.2. Practical Implications

Our study has three practical implications. First, the results of the study revealed that both the AMO-based HPWS and employee exploitation and exploration activities play an essential role in regulating employee work performance. Second, Ethio-Telecom leaders should balance and leverage their opening and closing behaviour since high ambidextrous leadership is more responsive to employee work performance. Finally, this study serves

as input for Ethio-Telecom to devise policies to compete with incoming firms and capture the highest market share. To sum up, the study result reveals that the supervisors' highly ambidextrous leadership behaviours and well-crafted HPWS enhance the sales representatives' desire to engage in both exploitative and exploration activities, which in turn enhances employee work performance. In light of this, to keep employee work performance, it makes sense to ensure employees engage in simultaneous pursuit of exploitation and exploration activities and preserve the good practice of HPWS. Moreover, to significantly impact employee work performance, ambidextrous leadership is required. This empowers the organization to lead its staff to the required level of performance.

9. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Although our study does make some contributions, there are still several flaws. First, this study was purely quantitative by nature, which may jeopardize the findings of the study. Second, the study was cross-sectional, with data being collected once from sales representatives, which may affect the research output. Therefore, taking these limitations into account, we call on future researchers to undertake a study in one of the following future research directions. First, explore the effect of HPWS on employee work performance at the various levels of analysis such as a team and/or organizational level. Second, a longitudinal research design is better to figure out the level of employee work performance by collecting data over time. Third, future research should incorporate qualitative data that allow triangulation with quantitative information. Finally, to further comprehend the indirect and interaction effects on the relationship between HPWS and employee work performance, a possible researcher may locate another pertinent mediator, such as Hofstede's theory of culture, and a moderating variable, such as leader-member exchange (LMX).

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