

Article

Developing Employee Productivity and Performance through Work Engagement and Organizational Factors in an Educational Society

Nadia Abdelhamid Abdelmegeed Abdelwahed * and Mohammed A. Al Doghan

Department of Management, College of Business, King Faisal University, P.O. Box 400, Al-Ahsa 31982, Saudi Arabia

* Correspondence: nabdelwahed@kfu.edu.sa; Tel.: +966-507-196-646

Abstract: In today's working environment, various organizations confront the significant challenges of productivity and performance. However, higher education institutes (HEIs) are also not free from this massive issue. Therefore, the present study investigates employee productivity and performance through work engagement (WEE) and organizational factors. The modes of study are quantitative and based on cross-sectional data. The study collects the response from academic and administrative staff from public and private HEIs of Saudi Arabia. The study applies convenience sampling and successfully proceeds 254 valid cases to conclude the findings. The applied structural equation model (SEM) path analysis demonstrates a positive and significant effect of WEE comprising vigour, dedication, and absorption factors on employee productivity (EPD). In addition, employee performance (EP) is predicted through organizational factors such as management support (MS), learning culture (LC), work environment (WE) and organizational commitment (OC). Finally, the study finds a significant and positive effect of EPD on EP among the employees of HEIs. The study findings would be guidelines for policymakers and the top management of higher education commissions to advance the knowledge and skills of EPD and EP of the organizations. The study would support achieving job tasks and goals through developing WEE and organizational factors for productivity and performance. Lastly, the findings will augment the literature and provide empirical evidence from Middle East countries. The study provides a vigorous model which connects the WEE theory and organizational factors towards EPD and EP in an integrated way.

Keywords: work engagement; organizational factors; employee productivity; employee performance; Saudi Arabia

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1. Introduction

In today's competitive environment, enhancing employee productivity (EPD) is one of the most important goals of several organizations, as higher levels of EPD provide an organization and its employees with innumerable advantages. Higher productivity leads to promising economic growth, immense profitability and healthy social headway [1,2]. In addition, employees are more productive and obtain better salaries, remuneration, wages, better working conditions, and promising employment opportunities. To enhance the gigantic burden, employee engagement or WEE is given significant weightage and enormous consideration by organizational management in controlling the challenges of the business environment [3,4]. The core reason behind this is that highly motivated and engaged employees reproduce the organization's core values [5] and make the organization successful. In this regard, WEE theory based on absorption, vigour and dedication factors is meaningful in achieving EPD [6]. It reduces the ratio of absenteeism, which leads to EP after executing employee engagement [7].

Generally, employee engagement is the highest commitment and involvement of employees to the organization [8] and improves productivity and job performance. In the workplace, employees demonstrate initiative and professional behaviours and commit to errands with high-performance criteria. Employee performance (EP) remains the main subject of great interest to organizations, scholars, and academicians. EP is the significant mode of accomplishing job task rendering to the job description and a predictor of organizational success [9]. It significantly contributes to the general improvement of organization processes in efficiency and productivity [5,10,11]. There are numerous factors, i.e., commitment, satisfaction, culture, management support (MS), attitudes, intentions, leadership, personality traits, working environment, etc., which massively enhance the EP [12–15].

However, Arab countries' higher education institutes (HEIs) confront the significant problems of EPD and EP [16,17]. Specifically, these problems exist in Saudi Arabia [18,19] despite the promise of the applicability of their knowledge and skills to bring economic prosperity, provide quality education and provide excellent service to students and the community [2,20]. The academic and administrative staff perform their duties honestly, but unfortunately, the organizations still lack some enormous productivity and performance issues [18,21]. Thus, we developed the research questions below and attempted to find their answers:

Q1. What factors enhance the EPD and EP in HEIs in Saudi Arabia?

Q2. What is the relationship between EPD and EP in HEIs in Saudi Arabia?

The findings of the study would support policymakers and higher education commissions to enhance the productivity and performance among employees of HEIs with WEE and organizational factors, i.e., commitment, WE and MS. Finally, the findings of the study would increase the fathom of the literature by adding empirical evidence from Saudi Arabia.

2. Literature Review and Hypotheses Construction

In today's highly competitive and dynamic business environment, the notion of employee engagement is gaining a vast and perilous rank. The benefits and prosperity of organizations are possible through engaging the workforce, which is regarded as a vital asset for the organization. The inventiveness of employees for their work and their affection for the workplace lead to an enhancement in work performance. By employing the WEE theory, a correlational analysis by the authors of [6] underlines the significant effect of predictors, i.e., absorption, vigour and dedication, on EP among IT/ITES/Telecom employees companies. In the South African sugar manufacturing industry, there is significant positive association between employee engagement and productivity [22].

According to [23], organizations' success and failure depend heavily on employees and employee engagement, which is one of the significant and robust indicators to engage the workforce within any organization. In manufacturing industries, job meaningfulness and performance are positively and significantly correlated through the mediation of employee engagement. During the COVID-19 pandemic, in two developing countries, such as India and Afghanistan, employee engagement was widely presumed to stimulate EPD, dedication and OC [24]. Likewise, in the context of Saudi Arabia, the findings of an empirical study underline a significant and positive association between healthy behaviour, employee engagement and job performance [25]. A cross-sectional study was conducted by [26] among nurses which specifies a significant positive relationship between employee engagement and HRM practices. Further, a substantial role is also identified between psychological availability and psychological safety. Similarly, a plausible investigation by [27] posits a positive and significant correlation between employee engagement constructs, i.e., perceived fairness, compensation, personal development, emotional satisfaction, clear communication and culture in India's banking industry. In a multinational

company, employee engagement is supposed to enable a company's success with the support of various individual constructs, i.e., productivity, work safety, attendance and retention, EP, customer satisfaction and loyalty and profitability. Furthermore, EP is a welfare caused by high employee engagement [28].

In the manufacturing SME sector of Malaysia, top MS meaningfully affects financial performance [29]. Management processes are the mediating appliances in the association between top MS for organizational performance [30]. Job satisfaction fully mediates the association between an organizational LC, job performance and employee turnover intentions in the telecommunication company in Taiwan [31]. In the perception of [14], job performance is affected by supportive leadership, LC and responsibility. Federal employee viewpoints validate the confirmations as organizational culture more advantageous to learning is indirectly connected with perceived performance [32]. Among academic librarians, Ref. [12] study established a significant association between WE and job performance. In Indonesia, compensation does not predict EP and job satisfaction. PLS-SEM analysis shows a meaningful and robust effect of influential WE and organizational culture on EP, while WE also positively analysts work motivation. Motivation work also plays a mediating role in developing the effect of the WE and EP [14]. The empirical evidence of [13] shows a positive and significant effect of employee engagement on OC. According to [33], employee affective OC and job performance are influenced by transformational leadership in the presence of employee engagement factors. In the Pakistani context, WEE and OC mediate the association between HRM practices and job performance among faculty members of public sector universities [34]. In Vietnamese SMEs, factors such as welfare, reward, income, working environment and promotion opportunities are inclined to associate meaningfully with OC and lead to high EP [35]. On the other hand, productivity of the workforce remains an essential concern for business. As in South Africa, employee engagement cannot increase labour productivity in an automotive assembly organization [7]. There is also no significant positive correlation between OC and work stress, and reward systems and OC are also not found to be significant predictors of EP [36].

Consequently, the above domain literature provides a significant contribution and the various constructs which support enhancing EPD and EP. However, they still offer substantial breaches which direly need to be filled. For instance, it is a frequent practice of validating the effect of WEE on EPD [37–40]. Likewise, different factors, i.e., MS, LC, WE, OC, job performance, HRM practices, green innovation, leadership, LC, training and development, personality traits and rewards, etc., have also played their roles in predicting EP [5,11,41,42] in both contexts such as developing and developed. However, there is still a lack of evidence in the literature which may offer the connection of WEE (vigour, dedication and absorption) with EP integrated through organizational factors (MS, LC, WE and OC) and the direct associations between PRD and EP in Saudi Arabia. Therefore, we tried to develop the framework (Figure 1) based on the evidence of associations and attempt to fill these gaps.

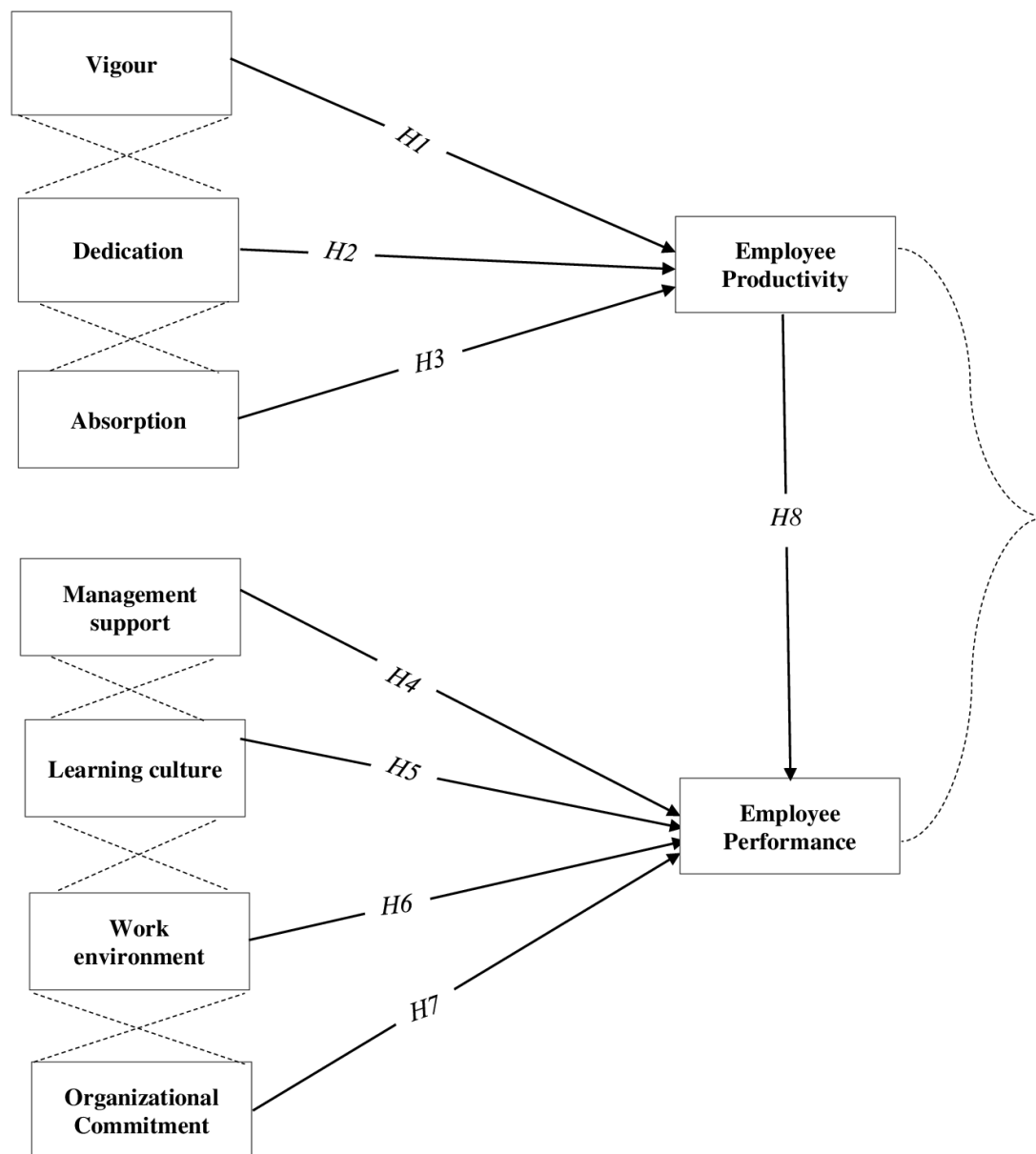


Figure 1. Conceptual model of the study. Source: conceptualized by the researchers.

2.1. Employee Work Engagement (WEE) and Employee Productivity (EPD)

EWE is one of the methods that can make an employee stay at the organization. Mainly, EE comprises vigour, dedication and absorption [37]. These dimensions positively and significantly affect EPD. EWE maintains a work–life balance in millennial generation employees, while employee disengagement can be destructive for organizations [37]. WEE is positive, which fulfils the state of mind about work characterized by vigour, dedication and absorption among nursing in hospitals [43]. Ref. [44] claims that WEE is a core factor significantly improving nurses' performance, satisfaction and work productivity in China. Additionally, professional identity positively and substantially predicts the absorption and vigour of nurses. However, professional identity, age and ethnicity are robust predictors of dedication. Similarly, job-related factors affect the WEE dimensions of vigour, dedication, and absorption of nurses working in a Saudi hospital [45]. According to [46], decent work dimensions significantly and positively forecast WEE in all three dimensions, i.e., dedication, absorption and vigour among Brazilian and Portuguese higher education researchers/teachers. Ref. [47] demonstrates that EP is evaluated

through motivation, work environment and ability to do work. Additionally, WEE is assessed through vigour, dedication, and absorption constructs. In addition to mitigating the detrimental effects of job insecurity on WEE (i.e., vigour, dedication, and absorption), empirical research shows that self-perceived employability moderates the mediating roles of job insecurity in the relationships between workplace incivility and WEE (i.e., vigour, dedication, and absorption) [48]. Based on WEE theory, in the banking sector of Karachi, Pakistan, authentic leadership, i.e., relational transparency, self-awareness, and balanced processing, positively and significantly correlated with WEE, i.e., vigour, dedication and absorption [49]. Communication satisfaction and leader–member exchange quality positively predicted WEE and self-evaluated work performance [50].

Vigour comes from the satisfaction derived from key drivers, i.e., work policies, organizational procedures, organizational justice and leadership style [51]. Employees' vigour is the factor that mediates the negative association between employee silence and job satisfaction when employees with low positive affectivity [52]. According to [38], EWE factors such as vigour, dedication and absorption significantly and robustly contribute toward contextual performance. Additionally, vigour and absorption among hotel employees affect employees' task performance. In millennial generation employees, EPD is reinforced by vigour, dedication and absorption [37]. Similarly, a quantitative assessment of [39] during COVID-19 suggests a pivotal role of organizational compassion in developing the vigour component of EE compared to dedication and absorption during virtually working.

Dedication is the dimension of EWE, which engages the employee with feeling that their services are reserved in the organization and that they do not need to consider looking for a job elsewhere [53]. In the higher education sector, WEE substantially affects EPD. The study further provides evidence of other WEE dimensions such as vigour, dedication, and absorption as favourable constructs of enhancement of EPD [13]. In the perception of [54], EP is directly and partially promoted by vigour, dedication and absorption. At the lower and middle managerial levels, WEE (vigour, dedication absorption) positively and significantly affects employees' work performance [6]. In the empirical investigation of [40], EP is foreseen by dedication, vigour and absorption but with a weak correlation.

Absorption is an indispensable construct of EE. It comprises both financial rewards and non-financial, i.e., recognition engagement [51]. It improves WEE as it is vital for enlightening productivity, patient experience and safety. Dedication and vigour are significant predictors of EPD [55]. Similarly, [56] suggests a significant correlation between absorption and dedication with productivity and performance.

Consequently, the literature offers an empirical witness of WEE towards productivity. However, it also needs serious concentration to be tested among the employees of higher education institutes, particularly in Saudi Arabia. Hence:

H1. *The extent of employees' vigour has a positive and significant relationship with productivity.*

H2. *The extent of employees' dedication has a positive and significant relationship with productivity.*

H3. *The extent of employees' absorption has a positive and significant relationship with productivity.*

2.2. Organizational Factors and Employee Performance (EP)

Factors such as management support (MS) and job environment are robust and the most substantial analysts (direct and indirect) of job performance. According to [57], top management support is an influential factor in prompting the effectiveness of EP. Similarly, factors such as top management support, LC, collaboration, and IT support enhance

the knowledge processing capabilities, and corporate performance increases meaningfully [58]. The empirical investigation of [59] posits a direct influence of management support and organizational support for the development of ideas, and tolerance for risk-taking is created to employ positive impacts on innovative performance. According to [42], firm/environment-related constructs (i.e., MS, organizational climate, training culture and environmental dynamism), job-related constructs (for instance, job autonomy, job communication and job environment), and employee-related constructs (i.e., commitment, proactivity, skill level, skill flexibility, intrinsic motivation and adaptability) significantly influence their effect on EP.

In the high-tech industry, performance is affected by organizational LC directly and indirectly through dynamic capability [60]. In educational institutes, LC was a significant and robust predictor of EP [61]. A seminal work of [62] contributes a substantial effect of organizational LC, transformational leadership, and cultural intelligence on job performance among the South Korean government sector employees. Similarly, a plausible research work of [63] recommends a practical evidence-based effect of organizational LC on financial and non-financial performance. Strategic factors such as proactivity, personal mastery, a shared vision, the environment and transformational leadership affect the organizational LC and innovation. Additionally, the organizational LC and innovation positively and significantly affect EP [64]. Likewise, the scholars such as [65–67] demonstrate that supervisor support, organizational LC, learning style, training content, performance goal and cognitive ability positively and significantly increase the EP among the nursing. On the other hand, motivation to learn and peer support were not significant predictors of EP.

WE is one of the most significant factors that influence EP and a robust indication of employees remaining within the organization, as well as a core reason for employee turnover intention [68]. There are several factors in the workplace, i.e., political environment, communication, managers', and colleagues' behaviour, etc. [69], that suggest that the situational constraints constituted of factors such as ventilation and light, office furniture, and noise are significant environmental conditions or resistances which adversely affect job performance. The employees' perceptions of their WE moderated the association between their core self-evaluations and supervisor ratings of their performance [68]. A plausible investigation by [70] posits that a creativity-supporting WE framework is valuable for managerial practice to improve employee creativity for product innovation. It develops the broad approach by prompting both social–organizational and physical characteristics of the WE. In the perception of [41], job satisfaction is affected by organizational culture, leadership style and WE. In a similar domain, a quantitative assessment by [71] demonstrates the positive and significant effect of WE and leadership style on performance. In the nursing context, factors such as supervisor support and organizational LC supervisor support play a positive role in enhancing EP.

Work commitment identifies one's identification and substantial involvement in the organization [72]. There is a positive link between leadership behaviour, job performance, OC and organizational culture [10]. Factor such as discipline, OC and motivation positively and significantly affect EP [5,11]. Researchers such as [73–75] demonstrate that the factors such as organizational culture, job satisfaction, organizational commitment, self-efficacy, entrepreneur's passion and transactional leadership style are positive and significant enablers of EP.

In the same manner, [9] recommends a robust and meaningful effect of WE and OC on EP among employees. OC also mediates the relationship between quality of life and performance [15]. On the other hand, scholars such as [10] claimed a negative association between OC and EP. As a result, based on positive associations and confirmation of associations, we suggest the following:

H5. *MS has a positive and significant relationship with EP.*

H6. *LC has a positive and significant relationship with EP.*

H7. *WE has a positive and significant relationship with EP.*

H8. *OC has a positive and significant relationship with EP.*

2.3. Employee Productivity (PRD) and Employee Performance (EP)

Productivity is a significant factor that leads to better business performance [76]. Similarly, a quantitative study by [77] claims the inter-relationship positive relationship between effectiveness, efficiency, performance, productivity and profitability. Both PRD and EP are necessary for the organizations. PRD is workforce productivity, which can be assessed by how much work an employee delivers within a specific time. Mainly, it measures or quantifies the output or production of a team or group [78,79]. The employees fulfil their tasks and targets by offering high-quality products. Similarly, concerning EP, it points out an employee's fulfilment or accomplishment of their job duties and execution of their required tasks. It underlines the quality, effectiveness and efficiency of their output. The performance also contributes to assessing an employee's value to the organization. Several factors contribute to EP, such as skills, new knowledge and ability, etc., to improve work performance [80]. A correlational and regression analysis underlines a significant positive correlation between training and development, performance, and productivity [81]. Ref. [82] suggests a moderate negative influence of product complexity in developing the association between productivity, supply chain integration and export performance. Home-based brassware manufacturing units have positive and significant linkages between quality, business performance and productivity [76]. In the perception of [83], productivity propensity impacts job satisfaction, role ambiguity and self-rated service performance. A comparative study by [84] claims that diversification has no significant value on firm performance or is negatively associated with performance. According to [85], a productivity orientation increases frontline service productivity performance of employees but indirectly damages job satisfaction and quality performance. The different firm managers (banking, telecommunications, insurance and hotels) demonstrated a positive and significant relationship between EP and PRD [86].

Consequently, the literature witnessed that productivity leads to better performance [76,82,86]. In the literature, both factors are found to be complimentary each other. For example, some scholars tested PRD as the predictor of EP, and some claimed EP was a significant enabler of PRD. Thus, to confirm EP as the outcome variable, we proposed the following:

H9. *PRD positively and significantly enhances EP.*

3. Methods

3.1. Samples

We applied the quantitative methods, which tremendously validates the results and is reliable technique which guarantees the respondents' integrity and confidentiality [72,87]. This approach is more supportive in capturing the individuals' attitudes and behavioural responses. This method assists the researchers in saving time and resources [88,89]. Additionally, it is also valuable for respondents due to its presentation of a wide range of options of the Likert scale with excellent reliability and validity [90]. Employee engagement is one of the solutions to the success of educational institutions to yield exceptional academic quality and services for the entire academic community [88]. We targeted employees who are engaged in a Saudi Arab's higher education institutions (HEIs). The HEIs promise the applicability of their knowledge, identify skills gaps, generate spe-

cial programs, and shape the right skills which assist countries in enhancing social cohesion, economic prosperity and acclimating workforce progress, especially in developing contexts and Arab counties [2,18,21]. We tried to contact the academic and administrative staff, who performed their duties by offering academic quality and excellent service to students.

3.2. Data Collection Modes and Ethical Protocols

We applied both modes, i.e., paper survey and online. We used convenience sampling (non-probability sampling method) due to the fact that it is simple, easy, and inexpensive and is the best practice of online and offline surveys [91], keeping in view the existence and availability of the respondents of HEIs. We visited both public and private HEIs of a Saudi Arabia. Additionally, we targeted a few respondents through emails, sending the links of an online questionnaire to WhatsApp groups and Facebook pages of the HEIs.

Before obtaining responses from the respondents, we considered the ethical values of the respondents. Ref. [92] underlines ethics as a correction that deals with what is right and wrong with moral obligations and responsibilities. We considered their moral values and informed them about the aim and objectives of the study. The researchers obtained permission from respondents to participate in the survey [93] and signed consent forms to participate in the study voluntarily. Regarding the confidentiality or anonymity of the respondents' involvement in the study, we ensured their privacy and confidentiality regarding the obtained responses [94]. After assurance of all these factors, we administered the copy survey questionnaire. We received 254 valid samples and utilized them for final analysis.

3.3. Instrumental Validation

The quantitative approach underscores the risks of error [95] which is a severe issue, particularly in social science, management and business research. Expressly, reliability in the quantitative approach underlines the extent to which a construct or combination of variables is reliable in what it is planned to assess and regarding consistency among the items [96]. Thus, we ensured the reliability (overall and individual's) of the questionnaire through Cronbach's alpha reliability test and found it to be within the acceptable ranges (>0.60) [97]. Moreover, the researchers applied factor loading to ensure the relationship of the items with their respective factors. Consequently, the loading scores for most items appeared to be greater than 0.60, which is acceptable [97].

Likewise, we ensured the validity of a questionnaire, regarding whether one can draw universal findings based on the applied model and collected data and whether results may be generalized to others [98,99]. To achieve this critical assumption, the researchers sent a few survey forms to field experts and university professors to confirm the face validity, i.e., items, factors, grammar and design, of the survey instrument. As a result, after completing all these steps, the scholars modified some questions by pursuing the experts' suggestions. Consequently, a reliable and valid questionnaire was launched for large-scale data collection for the main study.

3.4. Measures

Employee work engagement (WEE). The EWE comprises three main factors: vigour, dedication and absorption. We measured the vigour factor on four items adopted from [100] with a sample item: "At this institution, I feel energetic to do my work". Likewise, dedication is assessed on five items which are borrowed from the study of [100]. The sample item for dedication is "I find the work that I do full of meaning and purpose". The final construct (absorption) of EWE is measured using five items of [100], with sample items as "Time flies when I am working".

Organizational factors. The organizational factors of this study comprise MS, LC, WE and OC. Classically, MS is measured on seven items adopted from [101,102], with the tester item “In recent years, management has used explicitly project goals”. LC factor is assessed on seven items scale derived from the empirical study of [103]. The sample item of the scale is “In my organization, people are rewarded for learning”. Moreover, we adopted five items from the study of [104] to measure the WE construct. The sample item is “I like doing the things that I do at work”. The final construct of organizational factors (OC) is evaluated on five items taken from the empirical assessment of [105] having predicting item “I am really worried about how this organization is doing”.

Employee productivity (EPD). The EPD factor is measured on five items adopted from the studies of [78] and [79]. The predictor item’s example is “I do a large amount of work each day”.

Employee performance (EP). We took the six items from [80]. A sample item is “Using the new knowledge, skill, and ability have helped me improve my work”. All the questionnaire items are measured through a five-point Likert scale from strongly agree = 1 to strongly disagree = 5.

4. Analysis

4.1. Demography

The respondents’ demographic information suggests that a considerably higher number of males (61.41% or $n = 156$) than females (38.59 or $n = 98$). The age factors underline that most respondents were 35–45 years (51.18 or $n = 130$), and 27.56 ($n = 70$) were 26–35. A total of 17.32 ($n = 44$) were found to be 46 and above years of age, while only 3.94 ($n = 10$) respondents were between 18–25 years of age. Concerning the education or qualification respondents, a maximum number of PhD (47.20% or $n = 120$) contributed to the study. The demography reveals that 17.32 ($n = 44$) were had obtained master’s degrees, and 15.75 ($n = 40$) possessed M.Phil/MS qualifications. We found $n = 36$ (14.17%) undergraduates and $n = 10$ (3.94%) with diploma certificates. Finally, 1.57% ($n = 4$) possessed other qualifications. Similarly, most respondents (56.70% or $n = 144$) were academic faculty compared to the non-academic or administrative staff (43.30 or $n = 110$). The final demographic indicator demonstrates (tenure) that a maximum number of respondents, i.e., 50.39% ($n = 128$), had tenured in the organization for 11–20 years. A total of 30.71% ($n = 78$) remained for 6–10 years in the organization. In total, 14.96 % ($n = 38$) and 10 participants (3.94) had a tenure of 1–5 and 21 and above years, respectively (Table 1).

Table 1. Demography.

	Category	Frequency	Percentage
Gender	Male	156	61.41
	Female	98	38.59
	Total	254	100.0
Age (years)	18–25	10	3.94
	26–35	70	27.56
	36–45	130	51.18
	46 and above	44	17.32
	Total	254	100.0
Tenure (years)	1–5	38	14.96
	6–10	78	30.71
	11–20	128	50.39
How long have you worked at a specific or- ganization?	21 and above	10	3.94
	Total	254	100.0

4.2. Measurement of Model Assessment

We used structural equation modelling (SEM), which is the best measure to confirm the proposed associations with absolute fitness of the model with data [106,107]. To fulfil this measure, we decided to apply Analysis of Moment Structures (AMOS) IBM version 26.0 software to examine the proposed paths and model fitness. We preferred AMOS over other software (i.e., PLS) as it ideals factor-based models and conducts confirmatory research, and offers new insights from data, even complex or mediating paths [108]. Initially, we ensured confirmatory factor analysis (CFA) to assess the items' reliability and convergent validity due to adoption of the items with available literature and their validity. However, for further confirmation, we observed the significant bases of convergent validity, i.e., loading, average variance extracted (AVE), and composite reliability (CR), as suggested by [97]. In the analysis, we found most of items within the accepted ranges 0.789(lc2)–0.890(ep1), which are above the suggested values as excellent, i.e., 0.70 [97] (Table 2). On the other hand, we noticed some items below the accepted score (0.70); thus, these unloaded items (abr2, ms5, and oc3) are excluded from further consideration in the analysis. Moreover, we found all values of AVE above 0.50 [0.789(ABR)–0.832 (DED)], which ensured that all latent variables shared half of the variance to their observable measurement items [109]. Moving forward, we found CR values as above for all the constructs of the model [CR–0.792(EPD)–0.881(VGR)] (>cut-off values 0.70) [97]. Further, the Cronbach alpha of all constructs is also observed in acceptable ranges [0.798(EPD)–0.861(WE)] (see Table 2).

Table 2. Measurement model.

Construct	Indicator	Factor Loadings Above 0.5	CR >0.7	AVE Above 0.5	α Above 0.7
Vigour [vgr]	vgr1	0.876	0.881	0.822	0.829
	vgr2	0.865			
	vgr4	0.860			
	vgr3	0.855			
	ded1	0.880			
Dedication [ded]	ded2	0.876	0.852	0.832	0.819
	ded3	0.862			
	ded5	0.850			
	ded4	0.861			
	abr1	0.898			
Absorption	abr3	0.875	0.844	0.789	0.846
	abr4	0.866			
	abr5	0.841			
	ms1	0.867			
	ms2	0.845			
Management support [ms]	ms4	0.833	0.849	0.796	0.833
	ms3	0.821			
	ms7	0.818			
	ms6	0.791			
	lc1	0.865			
Learning culture [lc]	lc4	0.854	0.821	0.800	0.816
	lc5	0.831			
	lc6	0.829			
	lc7	0.810			
	lc2	0.789			
Work environment [we]	we1	0.872	0.801	0.815	0.861
	we2	0.856			

	we3	0.842			
	we4	0.821			
	we5	0.802			
	oc1	0.881			
	oc2	0.866			
	oc4	0.856			
Organizational com- mitment [oc]	oc6	0.844	0.820	0.811	0.855
	oc8	0.831			
	oc7	0.821			
	oc5	0.799			
	epd1	0.887			
Employee productivity [epd]	epd2	0.866			
	epd3	0.852	0.792	0.825	0.798
	epd5	0.830			
	epd4	0.811			
	ep1	0.890			
	ep2	0.876			
Employee perfor- mance [ep]	ep3	0.851	0.830	0.822	0.809
	ep6	0.849			
	ep5	0.832			
	ep4	0.811			

Notes: CR, composite reliability; AVE, average variance extracted; AVE for the second-order model = averaging the squared multiple correlations for the first-order indicators; All the factor loadings of the individual items are statistically significant ($p < 0.01$).

Furthermore, we assessed discriminant validity to observe the multi-collinearity issues among the latent variables. We decided on the Fornell and Larcker criterion to conduct this as it is the most extensively used method for ensuring discriminant validity [110]. Consequently, we found that each item loads highest on their concomitant construct and that the square root of each construct's AVE is higher than its association (correlation) with another construct (Table 3).

Table 3. Discriminant validity.

	Factors	1 VGR	2 DED	3 ABR	4 MS	5 LC	6 WE	7 OC	8 EPD	9 EP
1	VGR	0.821								
2	DED	0.421	0.799							
3	ABR	0.502	0.522	0.811						
4	MS	0.402	0.519	0.499	0.778					
5	LC	0.488	0.398	0.424	0.463	0.808				
6	WE	0.511	0.376	0.415	0.500	0.382	0.784			
7	OC	0.489	0.481	0.444	0.411	0.520	0.452	0.812		
8	EPD	0.399	0.566	0.472	0.392	0.482	0.402	0.421	0.775	
9	EP	0.380	0.520	0.388	0.326	0.462	0.327	0.488	0.318	0.798

Note(s): VGR, vigour; DED, dedication; ABR, absorption; MS, management support; LC, learning culture; WE, work environment; OC, organizational commitment; EPD, employee productivity; EP, employee performance.

4.3. Structural Model Assessment

The SEM path analysis shows a positive and significant effect of WEE (vigour, dedication and absorption) on EP [(H1 = VGR \rightarrow EPD = $\beta = 0.350$; t -value = 5.672 *** at $p < 0.01$) (H2 = DED \rightarrow EPD = $\beta = 0.507$; t -value = 7.090 *** at $p < 0.01$) (H3 = ABR \rightarrow EPD = $\beta = 0.488$;

t -value = 5.672 *** at $p < 0.01$] which accepted the first bunch of hypotheses (H1, H2 and H3) (Figure 2 and Table 4). Similarly, we found a positive and significant effect of organizational factors (MS, LC, WE and OC) on EP [(H4 = MS \rightarrow EP = $\beta = 0.610$; t -value = 6.999 *** at $p < 0.01$) (H5 = LC \rightarrow EP = $\beta = 0.382$; t -value = 5.372 *** at $p < 0.01$) (H6 = WE \rightarrow EP = $\beta = 0.411$; t -value = 6.321 *** at $p < 0.01$) (H7 = OC \rightarrow EP = $\beta = 0.481$; t -value = 5.3882 *** at $p < 0.01$)] on EP. Therefore, H4–H5, H6 and H7 are accepted. Regarding the final hypothesis (H8), we found a significant positive effect of EPD on EP (H8 = EPD \rightarrow EP = $\beta = 0.377$; t -value = 6.222 *** at $p < 0.01$) (Figure 2 and Table 4). Thus, H8 is also supported by the data.

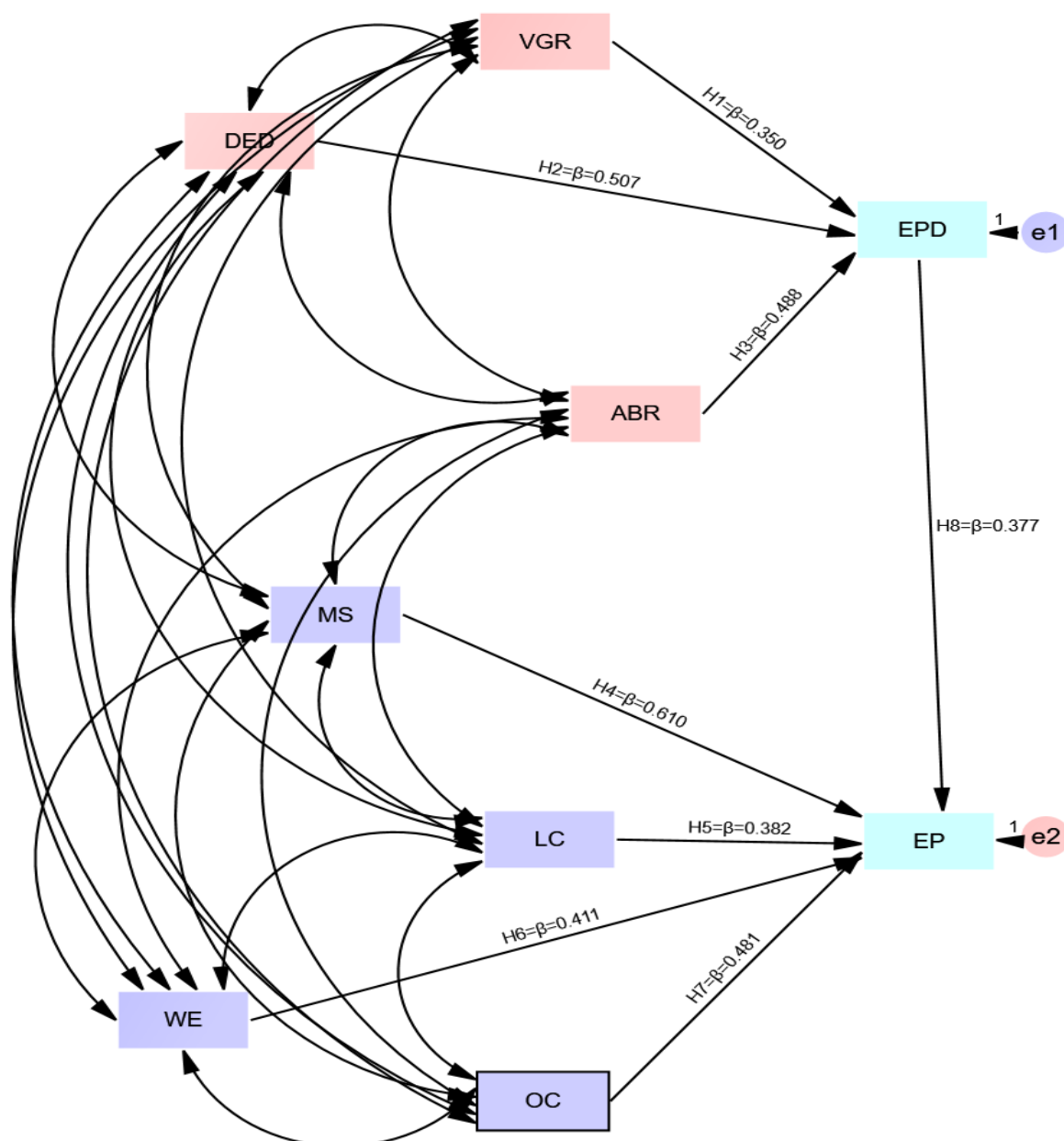


Figure 2. SEM analysis. Note(s): VGR, vigour; DED, dedication; ABR, absorption; MS, management support; LC, learning culture; WE, work environment; OC, organizational commitment; EPD, employee productivity; EP, employee performance.

Table 4. SEM analysis.

H.No.	Independent Variables	Path	Dependent Variables	Estimate β (Path Co-efficient)	SE	CR (t-Value)	Result	Decision
H1	VGR	→	EPD	0.350	0.031	5.672 ***	Significant	Supported
H2	DED	→	EPD	0.507	0.060	7.090 ***	Significant	Supported
H3	ABR	→	EPD	0.488	0.071	7.892 ***	Significant	Supported
H4	MS	→	EP	0.610	0.035	6.999 ***	Significant	Supported
H5	LC	→	EP	0.382	0.302	5.372 ***	Significant	Supported
H6	WE	→	EP	0.411	0.399	6.321 ***	Significant	Supported
H7	OC	→	EP	0.481	0.421	5.882 ***	Significant	Supported
H8	EPD	→	EP	0.377	0.449	6.222 ***	Significant	Supported

Notes: SE, standard error; CR, critical ratio. *** $p < 0.001$. Note(s): VGR, vigour; DED, dedication; ABR, absorption; MS, management support; LC, learning culture, WE, work environment; OC, organizational commitment; EPD, employee productivity; EP, employee performance.

5. Discussion and Conclusions

This study proposed to investigate the relationship between WEE and EPD, the association between organizational factors and EP, and the connection between EPD and EP among the employees of HEIs of Saudi Arabia. The SEM analysis found a significant positive effect of WEE (vigour, dedication, and absorption) on EPD (H1, H2 and H3 are supported). These findings are supported by various scholars such as [6,37,38,40,51,52,55,56]. Employee engagement encourages the employees to perform their intellectual and psychological commitment to their organization. The main reason for this is that employees of HEIs are an integral part of the institute, as they could empower employees to support in achieving organizational goals. Interestingly, they feel energetic and capable of their task with great responsibility. They always feel as though they are going to work as they get up in the morning. They can continue their work for a long time. They are found to be more dedicated and have a smooth meaning and purpose for their organization. They are enthusiastic and eager regarding their job. The job always encourages them and also they feel great proud of the responsibility which they perform. They accept the fulfilment of the position as a challenge. Time flies when they are working. They forget everything around them when they engage with the job. In a simple sense, they become frivolous while doing their job responsibilities. They also feel happy when they work intensely and do a lot of work daily. They have a great attachment to their jobs, and it is difficult to separate them from their job.

Furthermore, the study found a significant association between organizational factors such as MS, LC, WE and OC on EP (H4, H5, H6 and H7 are supported). As, other studies, the findings are in line with many scholars, who claimed the association between these organizational factors and EP [5,11,41,42,59,62]. These findings suggest that the management of HEIs highly supports them in fulfilling project goals. The administration also committed to making a project successful and being in touch throughout the entire project development. Management also provides the required resources for the project and positively respects and approves the employees' ideas and opinions. In HEIs, the employees are rewarded for learning and spending time building trust with each other. The groups or teams collectively revise their thinking as an outcome of group information or discussions. Their organizations make the lessons learned obtainable to all employees. Invariably, they recognize individuals for taking the initiative in positive thinking. They fulfil the organizational needs together. The leaders of HEIs continually look for opportunities to learn for their employees.

Regarding WE, they like to do things that provide benefits to the organization. They have the essential equipment and tools to ease doing their job. They can quickly complete

tasks at work with their rationalization and judgment. They obtain productive feedback in a way which highlights positives rather than negatives. Moreover, they can get to know other individuals in their job. Concerning their commitment, they are worried about how this organization is doing. They sacrifice their extra effort to make this organization prosperous. They always talk to their friends regarding the organization as an excellent organization to work for. Additionally, they take pride in telling others that they work for their organization, where they often agree with the general course of this organization's management.

The respondents showed productivity as the significant reason for performance. There may be several reasons, as they may perform an extensive hour of work daily and undertake tasks rapidly and efficiently. They may have a high standard of task triumph, and work upshots may be highly qualified. They constantly beat their team targets. They may improve their work using the latest knowledge and skill which enabled them to accomplish these tasks. Even before training, they may achieve their job errands faster. The quality of their work might improve their competency through skills, new knowledge and ability.

In conclusion, the study's overall results showed the tremendous significance of WEE as the robust predictor of EPD. Additionally, organizational factors such as MS, LC, WE and OC have an excellent reputation for increasing EP among the employees of HEIs in Saudi Arabia. The results further suggest that the EP for institutes is conceivable to enhance productivity well.

6. Limitations, Novelty and Future Research Agenda

The study was conducted in a Saudi Arabia; thus, it is confined to several limitations. The study is restricted to cross-sectional data and quantitative modes of techniques. The study is restricted to public and private sector HEIs, where only academic and administrative staff was targeted for data collection. The study is limited to direct paths rather than investigating mediating or moderating paths. Finally, the study employed non-probability sampling (convenience sampling) to trace the respondents.

Concerning novelty, the study provides a vigorous model which connects the WEE theory and organizational factors towards EPD and EP in an integrated way. The study also observes the role of EPD towards EP. The study findings would be guidelines for policymakers and top management of higher education commission to improve knowledge and skills of EPD and EP of the organizations. The study would favour achieving job tasks and goals by engaging and motivating the employees towards productivity and performance. The study would also help accomplish regular functions of the organization quickly and efficiently with high standards. The results would also assist in developing the conducive WE of an organization where the employee will be committed and motivated to produce more for their organizations. Theoretically, the empirical confirmation of the model will further open new avenues for academicians and researchers to develop more theories and models in the light of this study. Finally, the findings will enrich the fathom of management, business and education literature and fill with empirical evidence in Saudi Arabia.

In future, more longitudinal studies may be conducted to validate the aspects of WEE theory, organizational factors, EPD and EP. Other factors, such as environmental awareness, job satisfaction, attitudes, talent management, personality traits, etc., may be verified and develop the integrated models. In the future, researchers must examine mediation and moderating effects. Other sectors, such as health and manufacturing, should focus on observing the EPD and EP.

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Data Availability Statement: Data are available upon request from researchers who meet the eligibility criteria. Kindly contact the first author privately through e-mail.

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