

## Challenges of Human Resource Management in the Context of Employee Productivity and Technological Progress in Healthcare Organizations in Iraq

\*Haider Mohammed Haider, Department of Diwan Affairs †Mustansiriyah University †Iraq  
Email: [haidermohammed@uomustansiriyah.edu.iq](mailto:haidermohammed@uomustansiriyah.edu.iq)

Khalid Zemam Amer, Department of Diwan Affairs †Mustansiriyah University †Iraq  
Email: [khalid.zeemam@uomustansiriyah.edu.iq](mailto:khalid.zeemam@uomustansiriyah.edu.iq)

Hussam Sabah Younis, Department of Diwan Affairs †Mustansiriyah University †Iraq  
Email: [hussamsabah@uomustansiriyah.edu.iq](mailto:hussamsabah@uomustansiriyah.edu.iq)

\*Corresponding Author: Email: [haidermohammed@uomustansiriyah.edu.iq](mailto:haidermohammed@uomustansiriyah.edu.iq)

### ABSTRACT

Technological progress has been the significant element for the organizational success and can be achieved through effective use of human resource and also requires the emphasis of recent literature. Hence, the present study examines the impact of human resource management (HRM) challenges such as employee engagement and retention on the employee productivity and employee productivity impact of technological progress in healthcare institutions in Iraq. The study also examines the moderating role of institutional support among employee engagement, employee retention and employee productivity in healthcare institutions in Iraq. The study gathered the data from the employees of healthcare institutions of Iraq using questionnaires. The study also checks the association among understudy variables used smart-PLS. The outcomes revealed that the employee engagement and retention have a positive association with employee productivity and employee productivity has a positive impact on technological progress in healthcare institutions. The results also exposed that the institutional support significantly moderates among employee engagement, employee retention and employee productivity in healthcare institutions. The study provides the help to the regulators in making regulations related to improve the employee productivity and technological progress using effective employee engagement and retention.

**Keywords:** Employee Engagement, Human Resource Management, Employee Retention, Employee Productivity, Technological Progress, Healthcare Institutions

### INTRODUCTION

The world is changing at a rapid pace. We are witnessing innovations with the passage of every day. Such innovations are providing ease to humanity. Similarly, such technological changes are also helpful for basic needs of life like food, education, and the healthcare system. One of the fundamental needs for a person to be healthy in our world is access to healthcare. Maintaining a healthy body is essential because it creates a healthy environment, which in turn creates a healthy country (Shamshirband et al., 2021). One should make an effort to maintain their health in order to realize their maximum potential. Everyone requires medical care at

some time in their life, even though nobody plans to get sick or injured. However, due to recent increases in expenses, not everyone can afford the necessary basic care, which will ultimately harm both the individual and the country. The healthcare sector of any country is a combination of public and private sectors (Filip et al., 2022). Both remain parallel to meet the health needs of society. Many times the public-private collaboration also results in better health facilities for the public.

The healthcare system is one of the key differences between developing and developed countries. Further, the system is all about the employees. If the healthcare centre employees are satisfied with the available facilities. Only then they would be able to deliver more and better (Selvaraj & Sundaravaradhan, 2020). Iraq is one of those countries which faced lots of ups and downs over the past few decades. The ultimate cause of support for the economy is the oil industry but still the country has not secured that much progress that it deserves due to such valuable natural resources. One of the major causes of development stoppage in the country is war. The country has faced numerous wars and is still in the phase of recovery (Hashim et al., 2021). Likewise, other sectors the war consequences can easily be seen in the health sector of the country. Although it's getting advanced still there is enough time and effort required. The Iraqi healthcare system is mostly central, and the government annually allows a fixed amount of money to the industry. The World Health Organization reports that there are 1,185 health centres (Al-Mosawi, 2020) run by physicians and 1,146 primary health centres run by mid-level employees. The number of healthcare sectors is far less than the country's population requirement (Alsayed et al., 2020).

Health centre employees' skills level is the custodian of people's better treatment. The more the employee is skilled the more will be beneficial for the patients in the form of modern-era better treatment (Jafar et al., 2022; Lafta, 2023). The level of employee skills in the health sector is not up to the mark. There are a number of reasons that stand behind it like lack of healthcare educational institutions, lack of training centres, lack of healthcare equipment, low incentives of the sector, high level of responsibilities, and increasing duty hours. Further, there is a lack of any mechanism for employee welfare, retention, or engagement measurement (Lafta, 2023). Resultantly, the employee exit ratio is a bit high. The Government's support for the improvement of the healthcare system is also not up to the mark. Such a lack of support discourages the employee. Further, lack of public-private partnerships, the sector also has not adopted modern-era technological advancements. Such a factor results in creating more and more health issues for the people (Alsayed et al., 2020). Due to such reasons, the current study worked on Iraqi healthcare institutions.

In this study, we have addressed the existing literature gap likewise investigating the model having factors i.e., employee engagement, employee retention, employee productivity, and technological productivity. The study also tested the moderating role of institutional support. Further, 1) Sendawula et al. (2018) and Bedarkar and Pandita (2014) investigated whether employee engagement results affect employee productivity through performance. The current study also worked on it but with some more variables i.e., employee retention, and technological productivity, and tested it in Iraq, 2) Hunjra et al. (2014) and Hunjra et al. (2014) investigated whether employee engagement results in affect the employee productivity through performance. The current study also worked on it but with some more variables i.e., employee engagement, and technological productivity. The study also adds the moderating effect of

institutional support, 3) [Mutuku and Nyaribo \(2015\)](#) and [Ayanda et al. \(2018\)](#) investigated whether employee productivity results in affecting technological productivity.

The current study also worked on it but with some more variables i.e., employee engagement, and employee retention. 4) [Khan et al. \(2017\)](#), [Nuseir et al. \(2022\)](#) and [Ishaq et al. \(2024\)](#) explored the moderating role of institutional support with different variables. The current study has also tested it in the relationship between employee engagement, employee retention, employee productivity and technological productivity. This study also pertains the significance like 1) it expresses the need to discuss and work on employee engagement, retention, employee and technological productivity in such a technological world by keeping their importance for any business in view, 2) our study results add some more literature on employee engagement, retention, employee and technological productivity concept which will be helpful for upcoming scholars, 3) our study will also provide the support and guideline to those individuals who are working on employee and technology from productivity enhancement point of view across the globe.

## LITERATURE REVIEW

Irrespective of the matter of business form, the employees are the real blood of the business. It's the employee, which causes to success or failure of any business. Although it was not rated high in the past, particularly the Industrial Revolution realized the importance of employee engagement and its effect on the overall productivity of the employee as well as the business. Moreover, with the passage of time, the new aspects of employee performance have evolved. One of the important ones was employee engagement. Employee engagement is all about how the employees are committed to their work. Such commitment results in 21% more productivity as compared to less engaged employees. Literature proposed that employee engagement significantly affects employee productivity in the form of performance improvement.

In this context, [Sendawula et al. \(2018\)](#) explored the nexus between employee training, engagement, and employee productivity through their performance. The results proposed that there is a significant nexus between training, employee engagement, and employee performance. Further, 447.7% performance is predicted through employee engagement. The significance of the research was that it was important for managers and policymakers in the context of increasing their productivity. Although the business has become borderless now. Resultantly, the business remains in the effort to improve its performance. One of the best tools to enhance business productivity is to enhance employee productivity through their performance. Employee engagement is the key to the betterment of employees as well as firm productivity. In this context, [Bedarkar and Pandita \(2014\)](#) explored the nexus between employee engagement and employee productivity through their performance. The results of the investigation concluded that employee engagement is one of the key drivers towards the betterment of employee productivity. The study also proposed that companies should pay special attention to employee engagement. Similarly, [Nazir and Islam \(2017\)](#) also explored the nexus between organizational commitment, employee performance, and employee engagement. The results of the study proposed that employee engagement significantly affects employee productivity which further results in an increase in the firm productivity. Accordingly, businesses across the globe should pay special attention to employee engagement. The derived hypothesis is as under.

**H1:** Employee engagement significantly affects the employee productivity

Over the passage of time, this world has witnessed a number of changes. One of the major changes was globalization. Globalization has almost affected every aspect of life as well as business. It has completely changed the view of life as well as the business. Business is one the fingertips now. On the other side, it also affected the employee. Not only the business but the employment ways employee perceptions have completely changed. Employee retention is one of the concepts that has a very strong effect on employee performance as well as productivity. The firms evaluate employee performance and decide the employee retention plans. Literature also proposed that skilful employee retention enhances the firm productivity. In this context, [Hunjra et al. \(2014\)](#) explored the nexus between employee retention and employee productivity through performance. The study focused on the oil and gas sector. The results of the investigation revealed that skilled employee retention has a significant association with firm productivity.

Furthermore, the firms should retain the skills of employees as it leads to enhanced employee productivity. Due to the lack of trained labour, economic development, and employee turnover, staff retention has become a major concern for all private sector businesses during the past 10 years. One of the key responsibilities of human resource management is employee retention ([Hunjra et al., 2014](#)). Any organization's greatest asset is its workforce. By putting in place efficient retention measures, organizations must work to keep their talented workforce. The organization's sustainability and production would then be impacted by these tactics. The term "employee retention" describes the many procedures and policies that allow workers to remain with a company for an extended length of time ([Hunjra et al., 2014](#); [Patro, 2014](#)).

In this context, [Patro \(2014\)](#) also explored the nexus between employee retention policies and employee productivity. The results concluded that there is a nexus between employee retention policies and employee productivity. Further, the nature of the association is positive. Additionally, [Kundu and Gahlawat \(2016\)](#) also explored the nexus between employee retention and firm innovation performance. The results of the investigation proposed that there is an association between employee retention and firm innovation performance. Further, employee retention plays a vital role in the betterment of employees as well as firm performance. The study also proposed that firms should pay special attention to employee performance measurement and retention. The derived hypothesis is as under.

**H2:** Employee retention significantly affects the employee productivity

There have been many changes in the world throughout the years. Globalization was one of the most significant changes. Almost every element of life and business has been impacted by globalization. It has fundamentally altered both the business and life outlook. Nowadays, business is at your fingertips. The ultimate cause of globalization is the technological changes. Technology has evolved every aspect of life as well as business. In order to compete in the world every business has adopted the technological revolution. Technology has also resulted in the enhancement of employee as well as firm productivity. It has brought accuracy as well as reduced production time. Literature proposed that there is a nexus between employee productivity and technological productivity. Technological productivity has a dependence on employee productivity. One of the reasons is that technology has a dependence on humans. Irrespective of the level of dependence.

In this context, [Mutuku and Nyaribo \(2015\)](#) explored the nexus between technology and employees in terms of productivity. The results concluded that there is an association between technology and employee productivity. Further, the nature of the association is positive. Moreover, the sector plays a vital role in this regard. The sectors having more reliance on technology like banking have a strong level of association. Literature also concluded that employee and technological productivity are associated. In this context, [Ayanda et al. \(2018\)](#) explored the nexus between employee and firm productivity from the technological context. The results of the investigation concluded that technology plays a vital role in employee as well as firm productivity. The study further, proposed that businesses across the globe pay special attention to the rapid technological changes in order to compete with the world and secure their place. The derived hypothesis is as under.

**H3:** Employee productivity significantly affects technological productivity

Employees are the assets of every business across the globe. It's the employees who result in the success or failure of any firm in the form of their productivity. The more the employees are engaged with their firms the more their productivity. In order to enhance employees' productivity firms across the globe develop special plans. The firms offer special packages for the employee to ensure their performance. Literature also proposed that employee engagement plays a vital role in employee productivity. Sometimes, despite securing all the efforts the employee's engagement does not result in enhancing employees' productivity. In such scenarios, the institutions play a vital role by acting as moderators. Institutions use numerous ways to enhance employee engagement. If the employee engagement is low due to lack of training or learning. In such a scenario the institution arranges a learning system to enhance employees learning which further will result in an increase in their productivity.

In this context, [Khan et al. \(2017\)](#) explored the moderating role of institutional support in learning development management. The results of the investigation proposed that learning results affect the flow experience of the employees. Further institutional support acts as a significant moderator. Further, the institutions should support their employees for better learning which will result in an increase in their performance. There are different forms of learning like D learning, and M learning. Institutions should adopt the learning mode according to their employee's needs. In this context, [Nuseir et al. \(2022\)](#) explored the nexus between students' performance and different forms of learning with the moderating effect of institutional support. The results concluded that learning plays a vital role in the improvement of students' performance. Further, institutional support acts as a significant moderator. The derived hypothesis is as under.

**H4:** Institutional support significantly moderates the nexus between employee engagement and employee productivity

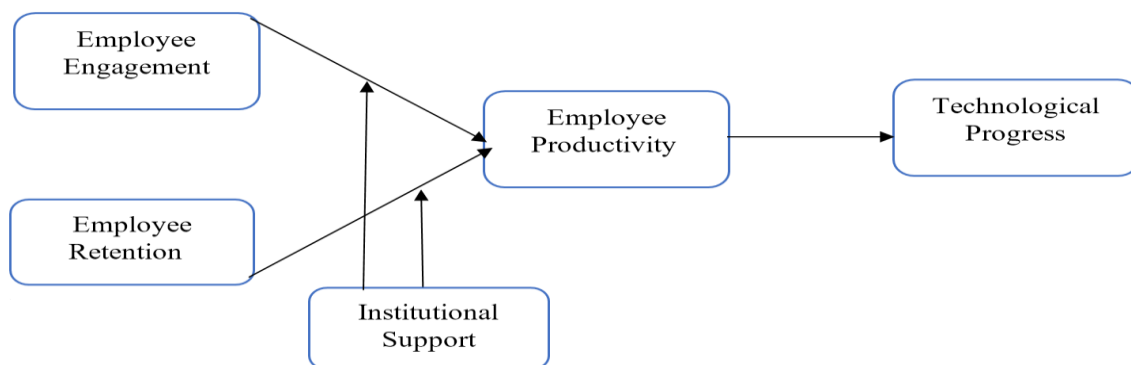
Every business in the world is acknowledging that employees are their most valuable resource. The productivity of the employees determines whether a business succeeds or fails. Employee productivity increases with their level of engagement with their companies. Businesses all throughout the world have unique ways to increase staff productivity. To guarantee employee success, the companies provide them with unique packages. Research has also suggested that staff productivity is significantly impacted by employee engagement. Even with the best of intentions, employee involvement does not always translate into increased productivity. The

institution plays a crucial role in these situations by serving as a moderator. If the employee's exit rate is high, then ensure arrangements to trace the reasons for exit and fix those reasons. Further, also ensures skilled employee retention. Thus, institutional support acts as a moderator. In this context, [Stephan et al. \(2015\)](#) explored the moderating role of institutional support with social entrepreneurs. The results concluded that institutional support is a key player in the entire nexus. Similarly, [Ishaq et al. \(2024\)](#) explored the moderating role of institutional support in the nexus amid leaders' competencies, green entrepreneurial orientation, and innovation. The results of the study concluded that there is an association between leaders' competencies, green entrepreneurial orientation, and innovation. Further, institutional support moderates this nexus. The derived hypothesis is as under.

**H5:** Institutional support significantly moderates the nexus between employee retention and employee productivity

### Research Methods

The study examines the impact of HRM challenges such as employee engagement and retention on the employee productivity and employee productivity impact of technological progress and also examines the moderating role of institutional support among employee engagement, employee retention and employee productivity in healthcare institutions in Iraq. The study gathered the data from the employees of healthcare institutions of Iraq using questionnaires. The study used items to measure understudy constructs such as employee engagement has five items ([Na-Nan et al., 2020](#)), employee retention has four items ([Ushakov & Shatila, 2021](#)), employee productivity has six items ([Hariyono, 2021](#)), institutional support has four items ([Doolittle, 2021](#)) and technological progress has five items ([Hu et al., 2022](#)). Moreover, the study used the employees of the healthcare institutions as the respondents. These are chosen using simple random sampling. The surveys were distributed by personal visits to the healthcare centres. The researchers have sent 590 surveys to the respondents but after fifteen days only 357 valid responses were returned. These valid responses have around 60.51 percent response rate. Moreover, the study also checks the association among understudy variables used smart-PLS. This tool effectively deals with the primary data and gives best outcome using complex models and large data sets ([Hair Jr et al., 2020](#)). Finally, the study used two main predictors such as employee engagement (EE) and employee retention (ER) while the study also used one mediating construct named employee productivity (EP) and one moderating variable such as institutional support (IS) and one predictive variable named technological progress (TP). [Figure 1](#) mentioned below shows these variables in the model.



**Figure 1: Theoretical Model**

## Research Findings

The study checks the convergent validity that show the correlation between items. This correlation has been examine using factor loading and average variance extracted (AVE) and both the test exposed values more than 0.50. In addition, this correlation has been examine using Alpha and composite reliability (CR) and both the test exposed values more than 0.70. These figures indicated a high correlation among items. [Table 1](#) mentioned below shows these figures.

**Table 1: Convergent Validity**

Constructs	Items	Loadings	Alpha	CR	AVE
Employee Engagement	EE1	0.885	0.857	0.898	0.642
	EE2	0.824			
	EE3	0.852			
	EE4	0.793			
	EE5	0.627			
Employee Productivity	EP1	0.774	0.864	0.899	0.599
	EP2	0.856			
	EP3	0.749			
	EP4	0.731			
	EP5	0.829			
	EP6	0.693			
Employee Retention	ER1	0.846	0.900	0.930	0.770
	ER2	0.891			
	ER3	0.881			
	ER4	0.891			
Institutional Support	IS1	0.810	0.864	0.907	0.710
	IS2	0.866			
	IS3	0.798			
	IS4	0.891			
Technological Progress	TP1	0.690	0.809	0.866	0.566
	TP2	0.685			
	TP3	0.814			
	TP4	0.825			
	TP5	0.738			

The study checks the discriminant validity that show the correlation between variables. This correlation has been examine using Fornell Larcker and the outcomes exposed that the first figures in the column are bigger than the other figures in the column. These figures indicated a low correlation among variables. [Table 2](#) mentioned below shows these figures.

**Table 2: Fornell Larcker**

	EE	EP	ER	IS	TP
EE	0.801				
EP	0.517	0.774			
ER	0.428	0.515	0.877		
IS	0.320	0.408	0.534	0.842	
TP	0.610	0.688	0.592	0.556	0.753

The study checks the discriminant validity that show the correlation between variables. This correlation has been examine using cross-loadings and the outcomes exposed that the figures that show the correlation with variable itself are bigger than the figures that show the correlation with other variables. These figures indicated a low correlation among variables. [Table 3](#) mentioned below shows these figures.

**Table 3: Cross-Loadings**

	<b>EE</b>	<b>EP</b>	<b>ER</b>	<b>IS</b>	<b>TP</b>
EE1	<b>0.885</b>	0.489	0.364	0.301	0.548
EE2	<b>0.824</b>	0.428	0.279	0.231	0.459
EE3	<b>0.852</b>	0.379	0.385	0.238	0.484
EE4	<b>0.793</b>	0.342	0.325	0.167	0.422
EE5	<b>0.627</b>	0.399	0.357	0.320	0.504
EP1	0.377	<b>0.774</b>	0.431	0.306	0.564
EP2	0.471	<b>0.856</b>	0.415	0.343	0.483
EP3	0.398	<b>0.749</b>	0.440	0.377	0.543
EP4	0.349	<b>0.731</b>	0.387	0.230	0.554
EP5	0.435	<b>0.829</b>	0.376	0.299	0.441
EP6	0.364	<b>0.693</b>	0.327	0.325	0.588
ER1	0.355	0.435	<b>0.846</b>	0.507	0.463
ER2	0.292	0.426	<b>0.891</b>	0.426	0.471
ER3	0.357	0.431	<b>0.881</b>	0.475	0.566
ER4	0.479	0.505	<b>0.891</b>	0.467	0.568
IS1	0.245	0.278	0.404	<b>0.810</b>	0.407
IS2	0.193	0.354	0.451	<b>0.866</b>	0.417
IS3	0.209	0.273	0.382	<b>0.798</b>	0.451
IS4	0.392	0.430	0.532	<b>0.891</b>	0.574
TP1	0.539	0.481	0.340	0.340	<b>0.690</b>
TP2	0.667	0.374	0.405	0.370	<b>0.685</b>
TP3	0.436	0.540	0.504	0.526	<b>0.814</b>
TP4	0.419	0.533	0.534	0.480	<b>0.825</b>
TP5	0.330	0.610	0.430	0.369	<b>0.738</b>

The study checks the discriminant validity that show the correlation between variables. This correlation has been examine using Heterotrait Monotrait (HTMT) ratio and the outcomes exposed that the figures are less than 0.90. These figures indicated a low correlation among variables. [Table 4](#) mentioned below shows these figures.

**Table 4: Heterotrait Monotrait Ratio**

	<b>EE</b>	<b>EP</b>	<b>ER</b>	<b>IS</b>	<b>TP</b>
EE					
EP	0.594				
ER	0.482	0.579			
IS	0.353	0.456	0.595		
TP	0.759	0.803	0.686	0.652	



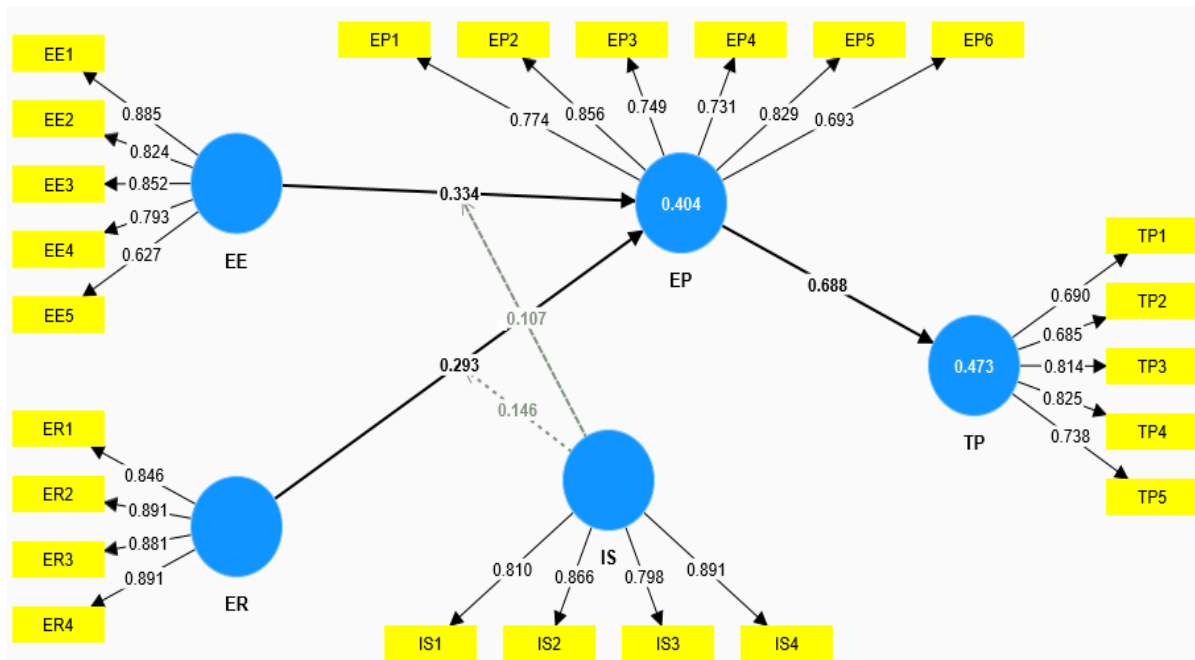


Figure 2: Measurement Model Assessment

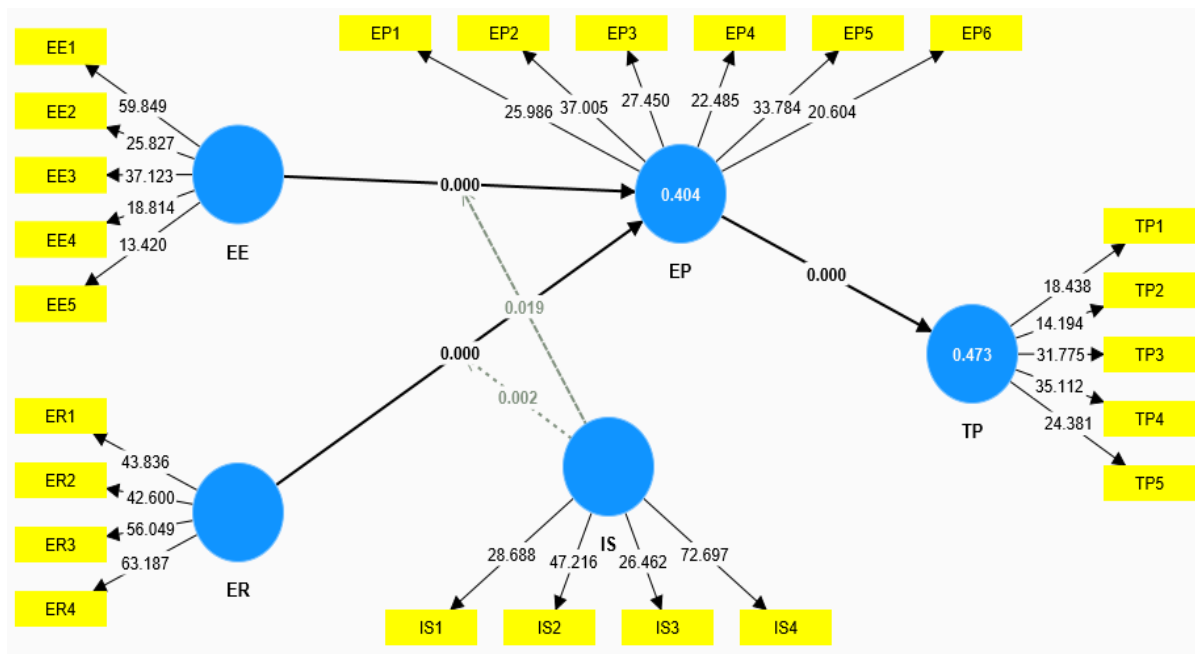


Figure 3: Structural Model Assessment

The outcomes revealed that the employee engagement and retention have a positive association with employee productivity in healthcare institutions in Iraq and accept H1 and H2. In addition, the outcomes also exposed that the employee productivity has a positive impact on technological progress in healthcare institutions in Iraq and accept H3. Finally, the results also exposed that the institutional support significantly moderates among employee engagement,

employee retention and employee productivity in healthcare institutions in Iraq and accept H4 and H5. These associations are given in [Table 5](#).

**Table 5: Path Analysis**

Relationships	Beta	Standard Deviation	T Statistics	P Values
EE -> EP	0.334	0.055	6.036	0.000
EP -> TP	0.688	0.029	23.898	0.000
ER -> EP	0.293	0.052	5.614	0.000
IS -> EP	0.151	0.045	3.355	0.001
IS x EE -> EP	0.107	0.045	2.358	0.019
IS x ER -> EP	0.146	0.048	3.069	0.002

## DISCUSSION

The study results revealed that employee engagement has a positive association with employee productivity. These results are supported by [Juba \(2024\)](#), which examines the employee engagement impact on employee productivity. The employees having high engagement with the business, develop emotional attachment to the organization and dedication for the work. These employees work heartedly while accomplishing the tasks and achieve success in achieving business goals. So, employee engagement improves employee productivity. These results are also in line with [Susanto et al. \(2023\)](#), which indicates that high employee engagement develops strong bonding of employees with its colleagues and leaders by creating employee morale. It encourages team work which in return provide cooperation and improve employee productivity. These results match with [Kwarteng et al. \(2024\)](#). The previous study also reveals that high employee engagement let employees closely check the business strategies and organizations' behaviours. It creates job satisfaction and improves employee productivity.

The study results revealed that employee retention has a positive association with employee productivity. These results are supported by [Elsafy and Oraby \(2022\)](#), which posits that the organizations where HR policy stressing on employee retention is implemented effectively, it reduces employees' worries about their career, financial distress, and many of the financial issues as well as stops employees' much more struggle to attain another better job. The decrease in stress level, improves employee efficiency and increases employee productivity. These results are also in line with [Kurdi and Alshurideh \(2020\)](#), which claims that if firm management believes in employee retention and try to implement it effectively, the same employees work on the business strategies following business policies in order to attain business goals. These employees accumulate high knowledge about the business, take accurate decisions, and give high productivity. These results match with [Shabani et al. \(2023\)](#), which states that employee retention develops job satisfaction and organizational commitment. In this situation, employee productivity is high.

The study results revealed that institutional support has a significant moderating role between employee engagement and employee productivity. These results are supported by [Yadav et al. \(2022\)](#), which implies that a supportive institution is always concerned about its employees. It sets its goals and forms its policies for the accomplishment of the goals considering employees well-being. The emotional satisfaction on the part of employees, improve their engagement within the institution and enhances employee productivity. These results match with [Zondo](#)

(2020), which examines that in case there is institutional support, employee engagement is higher and there is greater employee productivity. These results are also in line with [Clack \(2021\)](#), that is about employee engagement and employee productivity. The study clarifies that when a firm is supportive to its employees, it succeeds in conforming employee's intentions according to firms' strategies and goals. So, these employees have high organizational engagement and showing higher performance give better productivity.

The study results revealed that institutional support has a significant moderating role between employee retention and employee productivity. These results are supported by [Bhakuni and Saxena \(2023\)](#), which posits that when a firm's representatives at top management, are supportive to its employees, they do their best for employee retention considering employees job needs and giving value to their performance. As a result, employees gets devoted and give high productivity. These results are also in line with [Ushakov and Shatila \(2021\)](#), which reveals that if employees have organizational support, their position may be saved in worse situations causing job burnout. There is an increase in employee retention. Moreover, with support to employees, organization wins employee's hearts and motivate them to work for organizational development. As a result, employee retention can better improve employee productivity. These results also agree with [Almerri \(2023\)](#), which conveys that within a supportive organization, employees are retained as long as possible giving them a change to learn more and give higher productivity to employers.

The study results revealed that employee productivity has a positive association with technological progress. These results align with ([Zhu et al., 2021](#)). The study posits that if in an organization, HR management assures that employees gives higher productivity, exactly following the instructions and doing their best in fulfilling the targets, it prepares the organizational personnel as to accept the challenges and bring technological changes for adding to organization's performance. Thus, employee productivity improves technological progress. These results match with ([Song et al., 2022](#)). In the previous study, authors are of the view that when a firm management succeeds in achieving higher employee productivity, there is rapid technological progress. These results are also in line with [Zhen et al. \(2021\)](#), who wrote about employee productivity role in technological progress. When the employees are efficient, committed to their work, and do according to the firm requirements, the firms' management may intend and actually implement policies for technological innovations. Hence, higher employee productivity boosts technological progress.

## IMPLICATIONS

The present study has theoretical significance as it makes significant contributions to economic-based literature. In the existing literature mostly studies debate solely on HR management effectiveness role in technological progress. The present study goes into deep insights and throws light individually on the role of employee engagement and employee retention in technological progress. It's a great contribution to literature. The previous studies simply checked the association of employee engagement and employee retention with employee productivity not paying attention to moderating role of institutional support. The current article which examines the moderating role of institutional support between employee engagement, employee retention, and employee productivity, is a great contribution to literature. The choice of healthcare organizations in Iraq, for the analysis of relationship among

institutional support, employee engagement, employee retention, employee productivity, and technological progress, secures an exceptional place for present study in literature. The current article also has considerable empirical implications. It is highly significant to developing economies like Iraq as its major concern is about technological progress, the dire business need in modern age.

The current research provides guidelines to the management of an organization on how to improve technological progress step by step. The present study guides that the HR management must effectively improve employee engagement within business having an aim to improve employee productivity. It also has a guideline that in an organization HR policy should be formed as encouraging employee retention reducing burnout so that employee productivity can be improved. There is also a suggestion that the management of an organization, while forming and implementing its policies must care for sustaining employee productivity in order to assure an acceleration in technological progress. The study also suggests that the institutions must be supportive and form the business policies accordingly. It is likely to improve the employees' engagement and thereby, bring improvement in technological progress. Moreover, the study conveys that the institutions must be supportive while taking business decisions. It is likely to improve the employees' engagement and thereby, bring improvement in technological progress.

## CONCLUSION

The study objective is to examine the influences of employee engagement and employee retention on employee productivity and the role of employee productivity in accelerating technological progress. Authors also wanted to evaluate the role of institutional support in relationship between employee engagement, employee retention, and employee productivity. Quantitative analysis was conducted using data from healthcare organizations in Iraq. The study results depicted a positive association of employee engagement and employee retention with employee productivity. The study results showed that an organization where employee engagement is high, they can better understand the business strategies, have commitment to organization, are good in team work, and perform their roles efficiently. They show good results in accomplishing organizational goals. Thus, employee with high engagement show higher productivity. The study results that if employee retention is high, employees get more acknowledged, experienced, talented, and efficient as time passes. These employees work exactly according to job requirements and do their best to attain business goals. Hence, employee retention increases employ productivity. The study results demonstrated that employee productivity is positively linked to technological progress. The employees who are efficient in doing their jobs and accomplishing the tasks assigned to them, can form an atmosphere where technological progress is possible. The study also concluded that institutional support is a moderator between employee engagement and employee retention on employee productivity. If there is high institutional support to employees, there are high employee engagement and employee retention. So, employee engagement and employee retention play better role in employee productivity.

## LIMITATIONS

The present study has some limitations. First, the current study has a limited research framework which deal with only the factors like employee engagement and employee retention

influencing employee productivity and technological progress. There are multiple other factors like financial resources, organizations' regulation, organizational culture, and leadership style etc. which could affect employee productivity and technological progress. But, these significant factors are missing in this research. It is required from researchers to add some more factors in the research framework. Second, the data for the research were collected from healthcare institutions in Iraq only and the relationship among institutional support, employee engagement, employee retention, and employee productivity were tested in light of the collected data. Consequently, the study is not equally valid in different developing and developed economies. It is recommended to future researchers, they must expand the research context and improve its validity.

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