

# The relationship effect of innovation on online organizational learning applications and employees engagement in Jordanian public sector

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**Abstract:** The study's purpose is to investigate the relationship effect of innovation on online organizational learning applications and employees' engagement in the Jordanian public sector. Quantities and descriptive analytical approach were used, and the population was covered (10) Jordanian public departments in Amman capital. Convenience method was used, which covered all departments' managers and assistances in the Jordanian public services department's headquarters, with (284) employee. Electronic survey set used. The SPSS-V20 and AMOS-V24 were used for hypotheses statistical analysis testing. The study found a significant impact of online organizational learning applications in its dimensions (Zoom, Teams, Goto Meeting, and Google Meet) on employee's engagement, and a significant relationship of innovation between online organizational learning applications and employee's engagement in Jordanian public services departments. The study contributions show that employees are willing to engage with their occupied work to achieve work goals, and to control over of how they undertake the employees career development, empowerment, communication skills, and work completion competences. The study implications for organizations management to conduct more future studies concerning online organizational learning applications by other dimensions as well as social media and other digital workshop and training in different organizations environments.

**Keywords:** online learning applications; employees engagement; innovation, public sector; Jordan

## 1. Introduction

Today organizations have sought to adopt a number of modern technological tools as far as online applications used by organizations for several purposes as far as communications, meetings, recruitment, training, and knowledge sharing (Aljabari et al., 2023). Moreover, online applications are a fast, lowest cost, and freeway of communication and interaction among people to exchange information (Megdadi et al., 2023). In addition, online applications characterized by speed, privacy, and free of cost to help organizations sharing information among employees directly and easily through organizations links (Alghizzawi et al., 2024a, 2024b), and furthermore, online networks used by organizations to communicate with their employees and to share information (Albloush et al., 2024), and online technology become more likely by

organizations at workplace which aims to make employees a wear to improve their productivity by focusing on important tasks (Mansour et al., 2022).

An expanding body of research explores the intersection of online learning tools and organizational learning (Alhantoobi et al., 2024). Despite this, there is a scarcity of studies focusing on the attributes of online learning applications and how these attributes might improve organizational learning (Giannakos et al., 2022). One major issue hindering the success of organizational change efforts is the interruption and disruption in the internal flow of knowledge (Gupta, et al., 2023; Yuan, et al., 2022). Recently, numerous models of organizational learning have been introduced (Argote et al., 2021). Nonetheless, detailed empirical studies reveal that the learning process within organizations often encounters interruptions and breakdowns rather than proceeding smoothly (Johansson, 2020).

Despite the significance of online learning applications, the absence of systematic reviews in this field greatly obstructs research on the potential of these tools to effectively support organizational learning (Giannakos et al., 2022). This gap places practitioners and researchers in a challenging position when it comes to implementing online learning application designs or formulating digital learning strategies to improve the learning dynamics within their organizations. Therefore, to extract valuable theoretical and practical insights and to pinpoint key areas for future research, it is essential to comprehend how the fundamental capabilities of online learning applications can enhance organizational learning.

In this paper, describe online organizational learning applications as digital tools and platforms, such as Zoom, Teams, GoTo Meeting, and Google Meet, that facilitate and support the learning and knowledge sharing processes within an organization (Bakhmat and Tonkonoh, 2022; Banit et al., 2023). These platforms aim to enhance the skills, competencies, and knowledge base of employees and other stakeholders by utilizing online resources and technologies (Alenezi, 2023; OECD, 2018). Recently, a substantial amount of research has concentrated on the intersection of online learning applications and organizational learning (Andrade, 2019; Soltani et al., 2020). Despite this, there is a noticeable lack of systematic studies that summarize and conceptualize these findings to aid organizations in transitioning from being information-based to knowledge-based enterprises (Beke et al., 2023). Specifically, advances in technology have spurred research that explores the usage of online organizational learning applications, ranging from virtual reality (VR) environments (Baceviciute et al., 2022) and cloud-based e-learning (Jiatong et al., 2022) to learning analytics (Al-Omoush et al., 2024). These studies address various skills, industries, and organizational contexts, utilizing different capacities and focusing on diverse learning objectives (Alshammari, 2020). Our literature review seeks to disentangle these complexities and examine how these elements have been employed in research on online organizational learning applications over the past decade.

Employee engagement is concerning employees feels toward their job were linked to their performance and organizations success (Smith, 2022), and employee engagement representing of how employees think, feel, and act toward their organization, work tasks, and work team to enhance organizational performance. Employee engagement committed to work tasks for achieving organization goals (Yousf and Khurshid, 2024). Moreover, employee engagement aimed to help

employees of identify their vigor, willingness, and efforts at work (Kwon et al., 2024), and representing employee's engagement focused on employee's feelings, perceives and commitment at work (Zhu et al., 2024). Employees engagement aims to develop individuals career and connection to their job and to help them focusing on organization's goals (Alkaabi et al., 2024). Employee engagement has clear links to organizations performance, work productivity, and comfortable workplace environments (Patil et al., 2024; Yousef et al., 2024). Over the years, researchers have identified a range of predictors for employee engagement, such as occupational self-efficacy and human resource development climate (Clauss et al., 2021), resilience and stress (Cabrera-Aguilar et al., 2023), and job ability (Wallin et al., 2021). However, there is limited literature exploring the connections between learning organizations, e-learning capabilities, digital tools, and employee engagement. Previous research mainly considered online learning organizations as a cognitive aspect of engagement (El-Sayad et al., 2021; Munther and Ghaith, 2021), thereby overshadowing the role of employee innovation as a precursor to employee engagement. To date, no studies have examined the relationship between online organizational learning applications, innovation, and employee engagement within the Jordanian public sector.

Over the years, numerous case studies, theoretical reviews, and applied articles have highlighted the significant role of innovation (Alnaim et al., 2022; Malik and Garg, 2020; Supriadi et al., 2020). However, much of the literature on innovation lacks clear explanations and provides scant evidence regarding its development and practical application in the workplace (Akter et al., 2023; Shojaei and Burgess, 2022). Existing research typically views innovation as an inherent trait or resource rather than a developable capacity that can be nurtured within the workplace (Shahmehr et al., 2024). Moreover, innovation interventions at the workplace are still in their early stages, and the research is insufficient to assess their practical outcomes. Therefore, identifying practices that foster employee innovation could be particularly beneficial, especially within the public sector.

This study promotes an integrated perspective by exploring the effects of online organizational learning applications on employee engagement, with innovation acting as a mediator, thereby offering a more cohesive approach. Examining online organizational learning applications and innovation as precursors to employee engagement addresses three research objectives: first, it enriches the existing literature on online organizational learning applications by providing empirical evidence of their workplace implications. Second, it expands the literature on employee engagement by analyzing the role of online organizational learning applications and innovation as factors driving employee engagement. Third, the study elucidates the underlying mechanism through which online organizational learning applications enhance employee engagement, using innovation as a mediating pathway.

## **2. Literature review and hypotheses development**

It also supports the previous statement that organizational learning has a positive and significant influence on employee performance (Mohamad and Nawawi, 2020). Further research (Al Mansoori et al., 2023). was conducted where the findings of this

study showed that there was a positive relationship between organization learning and employee performance.

## **2.1. Online organizational learning applications and employment engagement**

Lowenthal et al. (2020) indicates that online learning is used by several type of organizations from different sectors and used by several applications as LMS, SCORM, xAPI, and Zoom for the purpose of trainings, and other purposes. Moreover, Paterson (2024) indicates that Zoom and Teams are a technological collaboration tool used for meeting collaboration with advanced pretty features. Halim et al. (2023) indicate that many learning applications can have used by organizations such as Zoom is useful in delivering lecture and presentations with audience. Villegas-Ch et al. (2020) indicates that zoom application is an appropriate tool for trainers by using video, voice or text. Dixon et al. (2020) indicate that there are many software applications for the purpose of employees learning as Zoom, Microsoft Teams, Goto Meeting, and Google Meet, and online conferences, appointments to personal training. Rahi et al. (2021) indicate that organizations using applicable tools to learn and communicate with their employees such as videoconferencing apps, Zoom Meetings, Google Meet and Microsoft Teams.

Sarwar and Iqbal (2020) indicate that employee's engagement is more likely by organizations management to ensure higher productivity and work performing. Moreover, Chandani et al. (2016) indicate that employees' engagement relates to employee's commitment and connection to lead organizations toward success. Bloom (2020) indicates that employee engagement and empowerment have become popular buzzwords by organizations to express employee their own decisions without consulting superiors. Saks (2022) indicates that employee empowerment as a process aims to give individuals with the authority, resources, information to make decisions and take action independently within an organization. Jiatong et al. (2022) indicate the employees' engagement influencing organizations performance, commitment, and environment positively. Kipkosgei et al. (2020) indicate that employee engagements focused on the organizations core values, trust, training and career development, work tasks and work environments. Ghosh et al. (2020) indicate that employee engagement mainly concerning employees' feelings and motivation toward work. Sinyukov et al. (2021) indicate that excellent communication learning, skills, innovation, improvement and competences of employees are a basic for excellent organizational performance and successful achievements. Mirchi et al. (2023) indicate that work completion refers to work standards that measured in order to obtain accuracy, conformity, and proficiency to improve work completion and job performance.

Prior study's findings were supported the impact of online organizational learning applications as the study of Gupta et al. (2020), finds that zoom meet as a technological mediate connection shows a positive effect on learners' scholarly for learning. Foz et al. (2021) find that google meet as an application is better performance than other applications. Dhawan (2020) finds a positive effect of online applications on teaching-learning employees in organizations to enhance their capabilities at workplace. Archibald et al. (2019) find that Zoom shows appositve impact in the

collected qualitative data with several values and benefits as ease of use, cost reduction, security of data, and data characteristics. Pratama et al. (2020) find that there is a positive effect of using online meeting applications in learning and solving problems in the future. Yao et al. (2022) finds a positive significant relationship of psychological capital role between work engagement and job performance. Mohamad and Nawawi (2020) find that organizational learning indicates a significant effect on employee engagement to enhance work performance. Chung and Chih-Hung (2021), finds that organizational learning indicates a significant effect of employees' engagement to enhance business performance. Daniel (2018) found training indicate significantly affect employees' engagement to lead finally of enhancing employee work performance. Aktar (2023) find that training influencing significantly employees' engagement and career development. Chowdhury et al. (2022) find that IT Training influencing significantly staff engagement, work productivity and employee effectiveness because of new skills to influence work environment and achieving organization goals. Hamza and Tóvölgyi (2023) find a significant effect of e-learning and employees' engagement to help employees of engaging work tasks and performing work performance. Finally, the findings confirmed the relationship between organization learning and employees' engagement, and the following hypothesis (H1) developed as:

H1: A positive effect of online organizational learning applications in its dimensions (Zoom, Teams, Goto Meeting, and Google Meet) on employee's engagement in the public sector.

## **2.2. Organizational learning and innovation**

Deng et al. (2023) indicate that organizations required to adopt new communication technologies in the workplace to share information among individuals. McNeal (2023) indicates that organizations learning applications include use of available knowledge, individuals collaboration, planning, implementation, and learning. Thangavel (2023) indicates that learning through multimedia applications it helps employees who need more attention, skills, mind thinking and knowledge of handling work independently. Ransbotham et al. (2020) indicate that organizational learning by software applications it helps employees learn from each other over time, in the right way, and in the appropriate contexts. Pham and Hoang (2019) indicate that organizational learning related to enhance organizations competitiveness. Milbratz et al. (2020) indicate that new technology and communication channels is a new concepts of knowledge acquisition were used by organizations for learning purposes. Ferreira et al. (2021) and Popescu (2020) indicate that organizational learning aims to ensure organizations development and sustainable performance. Carayannis (2020) indicates that innovation refer to employees creative ideas, skills, talent, knowledge, which aims to add a new value to organizations. Canh et al. (2019) indicate that innovation refer to the new values that aims to solve work problems, costs reduction, and enhancing organizations competitive abilities. Nieminen and Ikonen (2020) indicate that innovation refer to the improvement at workplace by employees knowledge and creative ideas. Additionally, Sewpersadh (2023) indicates that innovation refers to employees skills and knowledge which influence work environments positively.

Prior study's findings were supporting as the study of Lopes et al. (2023) finds that e-learning correlated positively with organizational competitiveness and innovation by using specific learning tools and technology of knowledge to enhance organizational environment. Ali et al. (2015) find that innovation associated positively with organization learning to influence positively organization performance. Akhtar et al. (2021) find that information technology has a significant relationship between organizational learning capability and innovation performance in organizations. Inthavong et al. (2023) find that organizational learning influencing positively organizational performance and Information networks has indirect relationship effect between innovation and sustaining organizational performance. Toe and Tantasane (2021) find that organizational learning influencing positively organizational innovation to improve organizational performance. Finally, the findings, confirmed the relationship between organization learning and innovation, and the following hypothesis (H2) developed as:

H2: A positive significant effect of online organizational learning applications on innovation in the public sector.

### **2.3. Innovation and employees engagement**

Joo et al. (2023) indicate that innovation and employee engagement are feeding each other to help employees of engaging work effectively with creative ideas to enhance work performance. Lidman et al. (2023) indicate that there is a link between innovation and employees engagement to help work staff of engaging work tasks and performing work in a paper manner. (Alkaabi et al., 2024) indicates that innovation is a key to sustain success by providing employees new innovative ideas and ways to help them of engaging their work effectively. Innovation plays a significant role in organizations by employees creative ideas that help employees of engaging their work efficiently, solving work problems, raising organizational performance, and creating attractive culture (Popescu, 2020, 2021).

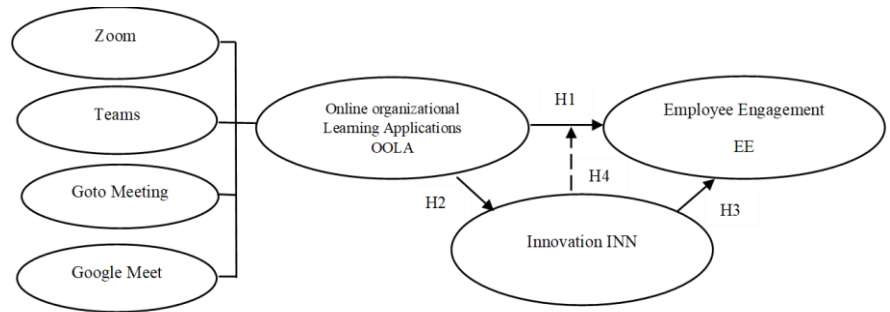
Prior study's findings were supporting as the study of Servet et al. (2020) finds a significant relationship of innovation on enhancing employees skills to help employees of performing work with innovative ideas. Bai and Yu (2017), finds that knowledge indicates a significant effect on organizational innovation. Chen et al. (2021) find that technological innovation and organizational innovation influencing employees' engagement and organizational performance. Khan et al. (2022) find that organizational culture innovation indicates a significant effect on employee innovativeness and work engagement and performance to enhance culture facilities and technology used to ensure that organizations success. YuSheng and Ibrahim (2020) find a significant effect of innovation to improve organizational performance, and to help employees to help employees of engaging their work effectively. Singh et al. (2021) find a significant effect of knowledge share on human resources and organizations performance. Ali et al. (2022) find partial relationship between employees' engagement and innovation work behavior to influence organizations by valuable ideas in workforce. Finally, the findings, confirmed the relationship between organization learning and innovation, and the following hypothesis (H3) developed as:

H3: A positive significant effect of innovation on employees’ engagement in the public sector.

H4: There is indirect relationship effect of innovation as a mediating variable between online organizational learning applications and employees engagement in the public sector.

**2.4. Theoretical framework**

The study model developed as follows in **Figure 1**:



**Figure 1.** Study theoretical model.

**3. Methodology**

The quantitative and descriptive analytical approach used for data analysis, and testing the study hypotheses by using the SPSS-V20 and AMOS-V24. In addition, the data interpretation the results to come out with appropriate conclusions and practical recommendations to be provided to the Jordanian public sector departments. The study population covered the Jordanian public services departments in Amman capital, with an overall (10) departments. Convenience survey method was used, which covered all departments’ managers and assistances in the in the Jordanian public services departments headquarters, with a total of (284) (Lohr, 2021). Data was collected by designed administrative survey and distributed to the sample in according to Likert-scale five points scale (Sekaran and Bougie, 2016). The research constructs namely online organizational learning applications (OOLA), employees engagement (EE) and innovation (INN), and these variables it comes as result of prior future studies recommendations. Constructs items measurement items used were as: Sixteen, Ten, and Ten, with an overall of Sixty-Six items gauged to measure variables, respectively. To measure the research tool constructs, and internal consistency coefficient by using the Cronbach alpha coefficient test to measure the independent construct (online organizational learning applications), the dependent construct (employees engagement), and the (innovation) as a mediating construct. The result indicate that the tool’s validity was accepted and equal (0.78) ,while the value of alpha is exceeded (60%) (Kalton, 2020).

**4. Results**

The average arithmetic means and standard deviations test used to analyze constructs data. The results indicate that the online organizational learning applications (OOLA) ranged between (3.12–4.46), with overall mean (4.01) with a

high degree. While zoom indicates the highest arithmetic mean with a mean of (4.46), and the least mean was Goto Meet with a mean of (3.12), while the employee's engagement, indicate that the arithmetic mean of employee's engagement with overall mean (4.35) with a high degree, while the mediation construct (innovation) indicates an overall mean (4.36) with a high degree.

Multiple liner regression analysis used to test the study hypotheses as below:

H1: A positive significant effect of online organizational learning applications on employee's engagement in the Jordanian public sector.

**Table 1.** Results of multiple linear regression analysis of (OOLA) on (EE).

Construct	Model. Sum.		ANOVA			Coefficient					
	R	R <sup>2</sup>	F	DF	Sig.	B	Std. Er.	Beta	t	Sig.	
Employees Engagement	0.901	0.812	401.131	4	0.000	(Constant)	0.236	0		1.451	0.122
						Zoom	0.214	0.059	-0.072	1.956	0.000
						Teams	0.052	0.049	0.048	0.977	0.000
						Goto Meeting	0.521	0.072	0.746	12.231	0.004
						Google Meet	0.356	0.065	0.722	12.114	0.002

**Table 1** indicates that the values of ( $R = 0.901$ ), and ( $R^2 = 0.812$ ), and the variance in (employee's engagement) explained 81.2%, and ( $F = 401.131$ ), and ( $t = 1.451$ ) with a (Sig. = 0.122) at a confidence level value equal to (0.000) at the level of ( $\alpha = 0.05$ ). These results show statistically a significant effect of online organizational learning applications on employee's engagement in the Jordanian public sector, means that the hypothesis (H1) was accepted. This result was supported by prior studies as Gupta et al. (2020); Foz et al. (2021); Dhawan (2020); Pratama et al. (2020); Archibald, et al. (2019); Al-dalahmeh et al. (2018).

H2: A positive significant effect at the level of ( $\alpha = 0.05$ ) of online organizational learning applications on innovation in the Jordanian public sector.

**Table 2.** Results of multiple linear regression analysis of (OOLA) on (INN).

Construct	Model. Sum.		ANOVA			Coefficient					
	R	R <sup>2</sup>	F	DF	Sig.	B	Std. Er.	Beta	t	Sig.	
Innovation	0.946	0.895	446.201	4	0.000	(Constant)	0.244	0.138		1.663	0.138
						Zoom	0.288	0.058	-0.059	1.668	0.000
						Teams	0.062	0.060	0.061	0.866	0.000
						Goto Meeting	0.692	0.076	0.852	12.242	0.003
						Google Meet	0.618	0.082	0.752	12.464	0.002

**Table 2** indicates that the values of ( $R = 0.946$ ), and ( $R^2 = 0.895$ ), and the variance in (employees' engagement) explained 89.5%, and ( $F = 446.201$ ), and ( $t = 1.663$ ) with a (Sig. = 0.138) at a confidence level value equal to (0.000) at the level of ( $\alpha = 0.05$ ). This result indicates statistically a significant effect of OOLA on INN in the Jordanian public sector, means that the hypothesis (H2) is accepted. This result was supported by prior studies as Yusheng and Ibrahim (2020); Singh et al. (2021).



H3: A positive significant effect of innovation on employees’ engagement in the Jordanian public sector.

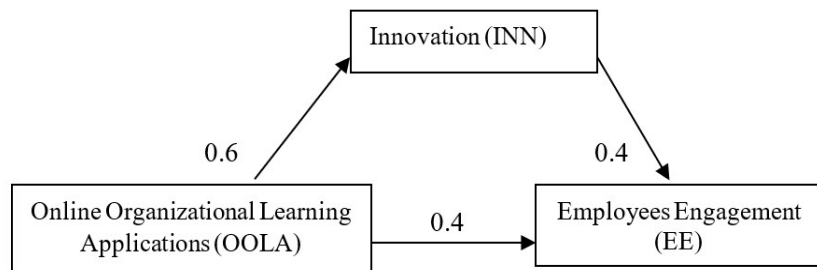
**Table 3.** Results of multiple linear regression analysis of (INN) on (EE).

M.D.	Model Sum.		ANOVA			Coefficient				
	R	R <sup>2</sup>	F	DF	Sig. F.	D.V.	B	S.D.	t.	Sig.t.
Innovation	0.928	0.861	1168.311	1	0.000	Employees Engagement	0.846	0.031	31.156	0.000

**Table 3** indicates that the values of ( $R = 0.928$ ), and ( $R^2 = 0.861$ ), and the variance in (innovation) explained 86.1% of the variance in (employee’s engagement), and ( $F = 1168.311$ ), and ( $t = 31.156$ ) with a (Sig. = 0.000) at a confidence level value equal to (0.000) at the level of ( $\alpha = 0.05$ ). This result indicates statistically a significant effect of INN on EE in the Jordanian public sector departments, means that hypothesis (H3) is accepted. This result was supported by prior studies as Khan et al. (2022).

H4: There is indirect relationship effect of innovation as a mediating variable between online organizational learning applications and employee’s engagement in the Jordanian public sector.

Path Analysis was used using the program (Amos ver.24) to verify the direct and indirect impact of innovation role as a mediating variable in between online organizational learning applications on employee’s engagement. **Figure 2** and **Table 4** show the following results:



**Figure 2.** Illustrate the indirect relationship effect of INN between OOLA and EE.

**Table 4.** Results of path analysis of INN between (OOLA) and (EE).

Path		Estimate	S.E.	C.R.	P
Innovation (INN)	← Online Organizational Learning Applications (OOLA)	0.614	0.045	11.886	0.000
Employees Engagement (EE)	← Innovation (INN)	0.406	0.054	11.266	0.000
Employees Engagement (EE)	← Online Organizational Learning Applications (OOLA)	0.462	0.039	12.445	0.001
<b>GFI</b>	<b>CFI</b>	<b>AGFI</b>	<b>RMSEA</b>		
0.914	0.835	-0.168	0.048		

Path analysis: (IV) Online Organizational Learning Applications; (DV) Employees Engagement; (MV) Innovation.

**Table 4** indicates that the value of quality appropriateness index (GFI) is equal to (0.835). This main that the value is too close to the correct one, and the comparative fitness index value is (CFI = 0.914), which is main that the value is close to the correct one, and the (corrective conformity quality index) value was (AGFI = -0.168), and

the value of the (RMSEA) was (0.048), which main that the value is close to zero. The result indicates a partial indirect effect of the INN between the OOLA and the EE. Which main that the (H4) hypothesis was accepted. This result confirmed that INN as a mediate indicate a partial relationship effect between OOLA and EE of the Jordanian public sector. This result confirmed that the hypothesis (H4) is accepted.

## **5. Findings**

The findings indicate a significant effect of OOLA on EE, and a significant effect of OOLA on INN as a mediate construct. In addition, the result confirmed a partial relationship effect of INN between OOLA and EE to enhance employees' knowledge, skills, competencies, and work productivity. Furthermore, the online training can help public service department administration of controlling and assessing the quality of training programs outputs and values that been gain by employees. In addition, public service department can observe the benefits of online training in employees work performance through the new and innovated ideas that been gained and aligned with employees' work engagement and performance. More specifically, the study findings summarized as follow:

H1, a positive significant effect of OOLA on EE, and the (H1) was accepted. This result was supported by prior studies as Gupta et al. (2020); Foz et al. (2021); Dhawan (2020); Pratama et al. (2020); Archibald et al. (2019); Wang et al. (2012); Al-dalahmeh et al. (2018).

H2, a positive significant effect of OOLA on INN, and the (H2) was accepted. This result was supported by prior studies as Yusheng and Ibrahim (2020); Singh et al, (2021); Capelleras et al. (2021).

H3, a positive significant effect of INN on EE, and the (H3) was accepted. This result was supported by prior studies as Capelleras et al. (2021); Bai et al. (2017); Chen et al. (2020); Khan et al. (2022); Ali et al. (2022).

H4, Indirect partial effect relationship of the INN as a mediator construct between the OOLA and the EE, and the (H4) was accepted.

## **6. Conclusions**

The findings indicate that employee engagement (EE) is influenced significantly by online organizational learning applications (OOLA) such as Zoom, Teams, GoTo Meeting, and Google Meet, where innovation (INN) mediates an important mechanism, particularly within the Jordanian public sector. OOLA is a model that is best explored and encouraged by the public sector as a way to allow its employees to best deliver on their job-related tasks and mission. Positive mediating link through INN, OOLA, and EE to further enhance the progress and to achieve success. Consequently, the Jordanian public sector is supposed to be committed to promoting online networking and learning in organizations so that employees benefit from new knowledge, skills and competencies, keeping them attracted and hopefully retained. This elevated level of employee engagement can foster the generation of ideas and creative problem-solving, thus leading to better work and performance as a whole. The training designed and delivered through online platforms helps to minimize the cost

of training and assist in better knowledge sharing among employees which in return helps in improving overall productivity and performance outcomes in an organization. These results induce several implications for the public sector to promote the use of online OLA applications. Such adoption should also take into account the need to ensure that employees are constantly armed with new levels of know—how, insights and capabilities that could be leveraged to enrich competencies at all levels of the workplace. It helps employees perform their responsibilities with novel ideas and skills in a manner that is effective and most of all efficient by using the technical advantages of online learning tools. Moreover, organizational management can use these platforms for resolving grievances and coordinating with employees from time to time to get the task done and achieve commercial objectives.

In this respect, this study suggests a major impact of OOLA on enhancing EE via the mediator role of INN that has considerable relevance for the public sector in Jordan. In summary, OOLA not only enable effective transition of ownership and knowledge, they contribute to a culture of lifelong learning and innovation. This is especially important when dealing with the slowdowns and impediments in the process of transferring knowledge, which tend to block organizational changes and improve performance. This is demonstrated in the empirical evidence highlighting the importance for public sector agencies to take up digital tools to move from being information-focused institutions to knowledge-involved entities. It enables organizations to provide employees with new capabilities, and competently and creatively problem-solve, ultimately increasing engagement and organizational performance. By linking these tools to organizational goals, administrations spur a more engaged, creative, and productive workforce. In this way, our study provides a holistic overview to understand and apply the OOLA aside as a way to gain a strong employer's engagement and innovation, key aspects for the success of the organization. These results suggest that additional examination is needed to explore the dynamics, and it will be valuable to do so in a larger range of digital tools across organizations to extend and validate these findings.

The current study offers many theoretical insights as well as practical implications for those who manage human resources, online learning platforms, engagement campaigns, and innovation. Additional studies are needed that explore the other dimensions of online organizational learning applicability, e.g., integrative uses with social media and other digital workshops and training across contexts in varied organizational settings.

**Author contribution:** Conceptualization, YM; methodology, RRAG; software, RRAG; validation, MA; formal analysis, MA; investigation, TAH; resources, TAH; data curation, KB; writing—original draft preparation, KB; writing—review and editing, GAAA; supervision, ZM; project administration, RH; funding acquisition, RH. All authors have read and agreed to the published version of the manuscript.

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