



## Exploring the Mediating Role of Job Self-Efficacy in the Relationship between Online Knowledge Sharing and Employee Innovation: Evidence from IT Companies in Pakistan

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### Abstract

This study investigates the moderating influence of Job self-efficacy on the established relationship between Online knowledge sharing and Employee innovation within the context of IT companies in Pakistan. A sample of 422 full-time employees was assessed using scales, and the proposed relationships were analyzed through structural equation modelling. The research findings indicate a direct and indirect positive relationship between OKS and EI, with test results suggesting that JSE serves a mediating role. The utilization of social media as a medium for knowledge dissemination among employees serves as a predictor of innovative behaviour, a relationship that is further amplified by the presence of job self-efficacy. It further underscores the significance of the JSE in enhancing the innovation of employees, particularly those engaged in environments centered around digital knowledge sharing. This study enhances the comprehension of organisational innovation by highlighting the significance of psychological states, such as self-efficacy, in moderating the impact of knowledge-sharing activities on innovation. The research presents significant considerations for managers and organizations, suggesting that interventions aimed at bolstering employees' self-efficacy may amplify the positive effects of online knowledge sharing on innovation. By establishing environments that foster Digital Collaboration and bolster self-confidence, organizations can significantly elevate the innovative capacities of their employees. The observations presented here are particularly pertinent in the current landscape of an expanding global digital workplace, where technologies for knowledge management and sharing are increasingly becoming fundamental tools in work processes. In summary, the findings of this study highlight the importance of fostering job self-efficacy to promote innovation through the facilitation of online knowledge sharing.

**Keywords:** Job Self-Efficacy (JSE). Online Knowledge Sharing (OKS). Employee Innovation (EI). Structural Equation Modelling (SEM). IT Companies. Knowledge-sharing environments. Organizational Innovation. Digital Collaboration

### 1. Introduction

Individual innovation involves the process, outcomes, and products of endeavours to create and implement novel and enhanced methods of operation. Innovation and creativity are interrelated but separate concepts, with creativity focusing on the generation of novel and practical ideas. Knowledge-sharing activities are essential for employees to acquire and disseminate new information, but there is a lack of studies evaluating Online Knowledge Sharing (OKS) within organizations. The fast advancement of IT has led to an escalation in virtual knowledge dissemination, which has a significant impact on individual-level innovation. This study aims to examine the mediator that affects the relationship between OKS and employee creativity, focusing on work self-efficacy, a key factor in employee behaviour. The social cognitive theory by Bandura (1986) suggests that work self-efficacy mediates the relationship between OKS and employee creativity, based on Bandura's social cognitive theory. This research provides two substantial contributions, examining the mediating function of occupational self-efficacy and offering more evidence that work self-efficacy may mediate the correlation between online information sharing and employee creativity.

As we have seen the business environment dynamic and changing therefore innovation becomes a fundamental survival and success driver in organizations. Organizations especially technology-based organizations are paying more attention to the cultivation of innovation culture among their employees to continue posting impressive growth and prepared for future changes. Employee innovation is the process of creating, encouraging, forwarded and utilizing ideas in the organization or ideas work is critical to the organization's dynamic and growth. However, key to innovation is the need to access as well as disseminate and transfer knowledge within the employees involved. Now, one such mechanism that is central to this process is Online Knowledge Sharing (OKS), a concept that captures the sharing of ideas, experience and knowledge online within workplaces. The role of knowledge management and the patterns which lead to increased innovation activities are as important today as the changes to digital media in the workplace communication continue to evolve.

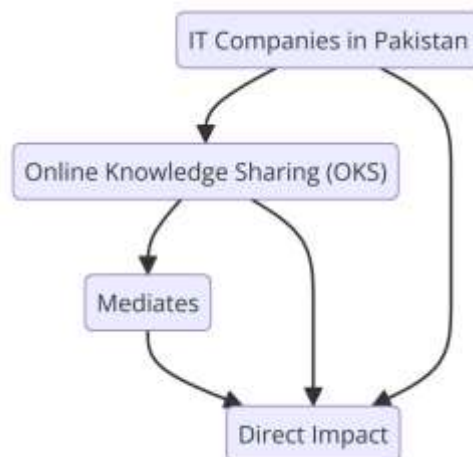


Figure 1: diagram illustrating the relationships between OKS, JSE & EI

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While many researchers have focused on the direct effects of KSPs on employee performance and innovation, little is understood of the psychological processes through which these effects occur. One such factor is Job Self-Efficacy (JSE) which speaks to certainty in their ability to perform task and achieve rubrics of job responsibility. According to Bandura (1986) self-efficacy is not only one's effort to produce a certain performance, but it is also efforts to persevere and overcome myriad barriers to accomplishing an achievement. JSE if used in the organizational context is expected to increase employees' willingness to participate in innovation related activities especially if such employees feel enabled through knowledge exchange processes.

Hence, this research aims at examining moderating role of JSE on the link between OKS and EI among employees of IT companies in Pakistan. These relationships can be best studied in the Information Technology IT sector that focuses on knowledge intensive work and short product life cycles. In this environment, the sharing of knowledge via Web-based technology is prevalent, and innovation is a central strategic goal. However, there is little research done to analyse the impact of self-efficacy in promoting innovation in the workers through the knowledge-sharing activities in a developed country as well as in the developing country like Pakistan.

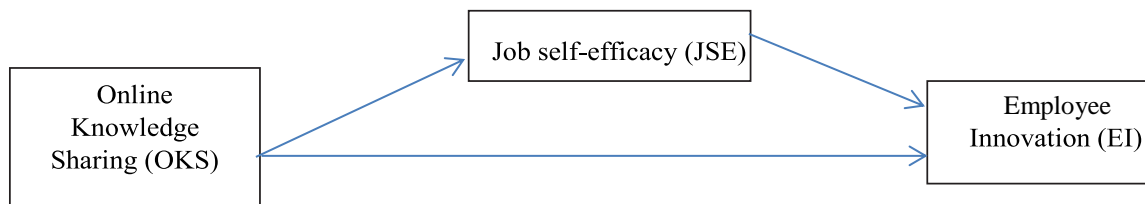
In this way, the present investigation adds to the body of knowledge in several ways with respect to the examined relationships. First, it extends the conceptual work that has explored the relationship between OKS and organizational outcomes by proposing JSE as a mediating variable. Second, it brings context into the study by being limited to the IT companies in Pakistan; it examines a location where innovation is potentially even more important for competitive advantage in the global economy, but cultural and organizational factors may not be identical to those in developed nations. In addition, the current study suggests implications for managers/policymakers who want to promote innovation by stressing knowledge sharing and psychological empowering by job self efficacy.

In summary, this research aims to answer the following key questions: In what ways does OKS affect its impact on the EI of the employees? Where does JSE stand in its relation to predict OKS and EI? But how does all these dynamics play out specifically within the context of IT companies in Pakistan? It is therefore the aim of this paper to explore the correlation between knowledge sharing, self efficacy and innovation through empirical investigation and come up with practical conclusions drawn from the analysis that aims at assisting organizations in acquiring a better understanding of the kind of workforce that can help support the innovation needs of organisations in the current and future knowledge-based economy. The conceptual framework of this investigation is shown in Figure 2.

## 2. Theoretical Support and hypothesis development

### 2.1. Social cognitive theory

The social cognition theory posits that humans acquire knowledge not alone via personal experiences but also by watching others (Bandura, 1986).



**Figure 2: Authors own derived Research Model**

Human behaviour is governed by a triadic reciprocity framework, with personal, behavioural, and social/environmental influences. Self-efficacy, a concept that affects people's feelings, thoughts, and actions, is a key factor in achieving desired objectives. The AMO paradigm suggests that the interaction of ability, motivation, and opportunity affects individual performance levels. Ability refers to cognitive elements essential for an activity, while motivation is an individual's inclination to engage in tasks. Opportunity is the arrangement of external factors influencing an individual and their job, which can either facilitate or hinder task performance. The AMO structure suggests that opportunity may relate with ability to enable superior performance. This framework has been used to investigate employee creativity, knowledge transfer, and knowledge-sharing. (Bandura, 1986).

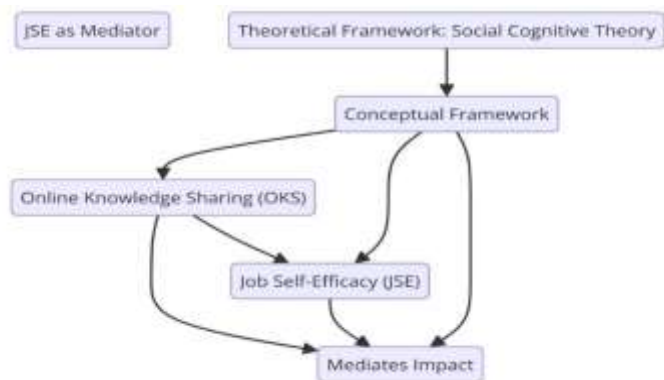
The theoretical foundation of the current study is based on social cognitive theory by Bandura (1986) which posits behavior in terms of cognition, action and environment. In this context, self-efficacy assumes the central position, which describes people's confidence in terms of independent accomplishment of specific tasks. The concept of JSE is particularly applicable within the organization because it determines the subsequent job performance, and motivation and behavioral outcomes of the workers involved. Self-efficacy is an important aspect of personal and organizational development, hence people who have high self-efficacy are likely to approach new challenges, and to participate purposefully in activities which further organizational objectives such as innovation.

Considering this study, OKS self-efficacy and EI are analyzed to explain the relationship. OKS, such as daily knowledge exchanges via digital means, have been recognized as one of the important enablers that can help organizations innovate. But there is also evidence that OKS influences the value of EI indirectly through a psychological moderator: sense of efficacy of the employees. Accordingly, the job self-efficacy (JSE) hypothesis can be proposed; the higher the amount of job self-efficacy, the higher the likelihood of translating the knowledge acquired and sharing into innovation.

Therefore, social cognitive theory is used to shape knowledge on how benefits of OKS associated with high levels of JSE can improve innovation within organizations. This research agenda suggests that enhancing self-efficacy intervention will enhance the effectiveness of the online knowledge sharing intervention on innovation as espoused in social cognitive theory that postulates that self-efficacy, knowledge sharing, and innovation are interrelated constructs.

The theoretical framework of this research is based on the three variables: Online Knowledge Sharing (OKS), Job Self-

Efficacy (JSE) and Employee Innovation (EI). The proposed framework suggests also that OKS has antecedent impact directly on EI with mediated by JSE. The conceptual model highlights the following relationships: Online Knowledge Sharing (OKS) → Employee Innovation (EI): OKS classifiers are tapped directly into the EI bandwidth hence the channeling of knowledge is an element that is vital in the enhancement of an innovative climate. When they engage in knowledge sharing the organizational employees foster a conducive working atmosphere so that more innovative solutions can be reached.



**Figure 3: Diagram of Theoretical Framework**

Online Knowledge Sharing (OKS) → Job Self-Efficacy (JSE): OKS brings a positive effect on JSE because it helps to increase employees’ self-assurance. From knowledge sharing activities one gets the feeling of competence, since employees realize their input in solving issues and enhancing organizational processes. Job Self-Efficacy (JSE) → Employee Innovation (EI): The direct relationship between JSE and EI is established because employees with high self-efficacy will exhibit creative and innovative work-related behavior. By embracing this culture, employees are encouraged to take calculated risks, which is an important ingredient in innovation since success seems assured once one ventures into this unknown territory with confidence that the required tools will get the job done.

Mediating Role of JSE: The framework assumes that JSE plays a moderating role between the relationship of OKS and EI. OKS has a positive direct influence on innovation, but the influence is moderated by perceived job self-efficacy. In other words, knowledge sharing through social media is likely to create innovative employees if the employees have high self-efficacy. Such an understanding is highly suitable given that the focus is on IT companies in Pakistan, where digital environment is still growing, and innovation becomes a key to success. In this way, this study contributes to knowledge of the way that JSE can mediate and allow organizations to encourage innovation through knowledge sharing practices and employee self-efficacy programs.(Mdhlalose, 2024).

**2.2. OKS and EI**

OKS is defined as “the process by which employees share their insights, skills, and expertise online with colleagues within the organization to facilitate mutual assistance in problem-solving and idea generation.” In the digital era, online knowledge exchange is anticipated to become an essential activity among organizations (Budur, 2024). The integration of information technology has substantially altered the methods by which employees interact and perform their duties (Islam et al., 2022). The advancement of information technology has enabled workers to acquire and disseminate information, ideas, and solutions more rapidly and efficiently (Oh & Lee, 2024; Audi & Al Masri, 2024). Knowledge sharing through computer technology within organizations is a good practice used to update each other’s knowledge and improve individual decisions (Le et al., 2024). This research predicts that this increase and accessibility of online information will enhance the creativity of the employees. It is also noteworthy that online information sharing is part of the OKS process and is used as a prerequisite for knowledge giving and knowledge collecting as well according to Salman & Hira (2024). Sharing information in an organization by employees also makes knowledge flow in reciprocally manner enhancing inventive performance (Yuan et al 2024). In addition, knowledge obtained through OKS may help the workers learn about causes of some concerns and incorporate related information to design and implement proper solutions to some of the challenges workers face in their workplaces (Pirzada et al., 2024). Online information sharing fosters trust among workers (Farmer et al., 2024), a crucial factor in promoting individual creativity (Luu, 2024). Consequently, this research posits H1:

H1: EI is positively impacted by online knowledge exchange.

**2.3. Job self-efficacy as mediating factor**

JSE refers to employees' confidence in their capacity to successfully complete a certain task (Salman & Hira, 2024). This study posits that work self-efficacy serves as a fundamental mechanism connecting online information exchange with employee creativity. The AMO framework (Jiang et al., 2023) posits that ability may affect employee motivation, thus improving employee performance. This research posits that OKS influences work self-efficacy, which subsequently enhances employees' inventive performance, since JSE serves as a distinct motivational factor (Kim et al., 2023). OKS improves workers' knowledge, skills, and abilities, which are critical determinants of their JSE (Bandura, 1986). According to social cognitive theory (Bandura, 1986), enactive mastery experiences gained via OKS may enhance employee work self-efficacy. Previous studies have shown that work self-efficacy is a crucial factor influencing individual innovation (Faraz et al., 2018). The capacity for performance in a certain area will dictate creative potential within that domain (Kefela, 2010). Employees that possess confidence in managing a clear assignment will exhibit self-assurance in executing a specific work via unique approaches (Farmer et al., 2024). Consequently, occupational self-efficacy positively influences creative self-efficacy (Farmer et al., 2024), which is a crucial determinant of employee creativity (Koroglu & Ozmen, 2022). Moreover, personnel with high JSE are inclined to participate in innovative practices (Farmer et al., 2024) due to their confidence in managing complex issues and executing their responsibilities well (Bandura, 1986). Consequently, this research posits H2:

H2: The relationship between EI and OKS will be mediated by JSE.

### 3. Research Methodology

#### 3.1. Research setting

This study gathered data from IT businesses for several purposes. Initially, personnel in this area were often encouraged to exhibit creativity in their work (Sami et al., 2024). Secondly, the Pakistani economy is transitioning from a centrally planned system to a market-oriented framework (Le et al., 2024), compelling laborers in this sector to generate and implement innovative concepts to enhance the production of new products and services for competitive advantage (Oh & Lee, 2024).

#### 3.2. Research design

Two parts made up this investigation: the primary survey and the qualitative pilot study. To fine-tune the items, the qualitative pilot study included in-depth interviews. Theoretical sampling (Hidayat-ur-Rehman & Alsolamy, 2023) was implemented with a saturation threshold of 16 individuals employed in IT businesses. The staff was requested to provide feedback on any elements they deemed vague or perplexing. Minor adjustments were made to the Pakistani questionnaire in response to feedback, ensuring that the terminology aligned with the language spoken by workers in IT firms.

The primary survey used the convenience sample technique for data collection, since it is the most prevalent approach (Jamil, 2022). The authors reached out to HR managers of information technology organizations to elucidate the objectives of this research for data collection. Upon obtaining authorization for the study, questionnaires were sent to information technology personnel during operational hours. After a week, the authors reached out to these workers to collect the accomplished surveys. Hair et. al. (2016) stipulates that the sample must consist of two hundred respondents. To get over two hundred responses, questionnaires were sent to 600 workers at information technology organizations to assess OKS, JSE, the innovative capabilities of employees, and various demographic attributes such as gender, age, educational qualifications, and professional experience. Nonetheless, the authors successfully gathered 448 completed surveys. The ultimate sample comprised 422 questionnaires, following the exclusion of 26 due to insufficient data completeness. The overall response rate was 74.67%. The aim of this initial survey was to validate the measurements and assess the hypothesis. The examination of data was conducted through multiple stages. An initial evaluation of normal distribution was conducted to determine the suitable estimation technique for confirmatory factor analysis and structural equation modelling. Secondly, Confirmatory Factor Analysis was employed to validate the measurement. In conclusion, structural equation modelling served as the analytical framework to assess the model and its associated hypothesis.

#### 3.3. Measurement Techniques

The variables in this study were evaluated through items developed and employed in previous research to ensure both reliability and validity. The evaluation of all components within the conceptual model was conducted utilizing a seven-point Likert scale, where "1" represented profound disagreement and "7" denoted robust agreement. Initially, questionnaires were crafted in English and subsequently translated into Pakistani Urdu for the workforce in Pakistan, adhering to the methodologies delineated by (Chtioui et al., 2023). A Ph.D. student, adept in both English and Urdu, rendered all content into Urdu. Thereafter, a fellow doctoral candidate, well-versed in both English and Pakistani Urdu, rendered all materials back into English. The authors modified the Pakistani Urdu inquiries to correspond with two iterations of English questionnaires, ensuring the precision of meaning for each element. A qualitative pilot study was subsequently conducted through interviews with employees at IT companies.

#### 3.4. OKS

The research focuses on the concept of Online Knowledge Sharing (OKS) and Job Satisfaction (JSE), which are measures of employees' ability to share information and skills with their colleagues. The study uses four measures from Budur's (2024) work to analyze OKS, including the frequency of sharing information, sharing knowledge, and always trying to share knowledge. The modified scale has a Cronbach's alpha value of 0.799. JSE, or self-efficacy, is the belief that employees can effectively perform a task. The study uses three questions from Zhang et al. (2024) to establish JSE, with a Cronbach's alpha coefficient of 0.811. EI, or individual innovation, is the process, outcome, and output of efforts to create, implement, and improve new ways of carrying out challenging tasks. The research uses four questions from Mdhlalose's book, Universities and South African Development, to measure EI.



Figure 4: Flow Chart of OKS & JSE

### 4. Results of Data analysis

Before performing the CFA and SEM analysis, normality test was conducted. As shown by the results analyzed in the subsequent sections, all the items deviated slightly from the normal distribution. However, the kurtosis and skewness values had remained between the range. Kurtosis for the items ranged from 0.71 to 0.20 while skewness ranged from 0.41 to 0.15. As such, the ML estimation approach is still sufficient to conduct CFA and SEM when the presumed theory is valid (Faraz et al., 2018).

#### 4.1. Measurements

The efficacy of the proposed model was demonstrated through a variety of metrics, including the goodness of fit index (GFI), confirmatory fit index (CFI), normed fit index (NFI), Tucker and Lewis index (TLI), root-mean square error of approximation (RMSEA), Chi-square degree of freedom ratio (Chi/DF), and minimal discrepancies per degree of freedom (CMIN/DF). Each of the 22 construct elements within the conceptual model underwent Confirmatory Factor Analysis, employing the Maximum Likelihood method. The analysis yielded results indicating that the four-factor model aligned well with the data. The relative goodness-of-fit was evidenced by a chi-square value of 0.189, a goodness-of-fit index of 0.912, a confirmatory fit index of 0.922, a normed fit index of 0.956, a TLI of 0.937, an RMSEA of 0.011, a chi-square of 69.102, degrees of freedom of 69, and a chi-square to degrees of freedom ratio of 1.187. As a result, the factors associated with each item exhibited notable differences from one another, leading to a significance level of 0.01. The standardized factor loadings for the OKS, work self-efficacy, and employee creativity were observed to range from 0.724 to 0.788, 0.733 to 0.801, and 0.788 to 0.837, respectively. The average variance extracted (AVE) for the constructs varied between 0.591 and 0.661, whereas the composite reliability scores for these constructs fell within the range of 0.779 to 0.833.



**Figure 5: Diagram of CFA Model and Metrics**

Consequently, convergent validity was affirmed (Faraz et al., 2018). Moreover, the square root of the Average Variance Extracted (AVE) for each latent variable exceeded the inter-correlations among the latent variables shown in Table 1. Consequently, discriminant validity was affirmed (Fornell, C., Larcker, D.F., n.d.). Table 1 presents the outcomes of the CFA.

**Table 1: Descriptive stats and correlation analysis**

Variables	Mean	S.D.	CR	AVE	EI	OKS	JSE
EI	4.117	0.59	0.779	0.612	0.709		
OKS	3.845	0.62	0.819	0.661	0.537	0.697	
JSE	4.895	0.67	0.833	0.591	0.497	0.318	0.697

Notes: EI denotes EI; OKS denotes OKS; JSE denotes JSE; SD denotes standard deviations; CR denotes composite reliability; AVE denotes average variance extracted

Source: Authors own Conducted Results

Table 1 provides descriptive statistics, reliability, validity, and correlation analysis for three variables: EI (EI), OKS (OKS), and JSE (JSE). The mean scores for the variables suggest moderate to high levels of these attributes among the sample population. EI has a mean value of 4.117, indicating that on average, employees perceive themselves as moderately innovative. OKS shows a mean of 3.845, suggesting that employees moderately engage in sharing knowledge online. JSE has the highest means of 4.895, indicating a relatively high level of self-efficacy among employees in their job roles. The standard deviations for the three variables—0.59 for EI, 0.62 for OKS, and 0.67 for JSE—show that there is some variability in the responses, with JSE having the most variability. This suggests that there are slightly more diverse opinions or experiences regarding JSE compared to EI and OKS.

The composite reliability (CR) values for all three variables are well above the commonly accepted threshold of 0.7, indicating strong internal consistency and reliability. Specifically, EI has a CR of 0.779, OKS has a CR of 0.819, and JSE has the highest CR at 0.833. These results suggest that the measurement scales used for each variable are highly reliable, meaning that the variables consistently measure what they are intended to. In terms of validity, the average variance extracted (AVE) values for EI, OKS, and JSE are 0.612, 0.661, and 0.591, respectively. Since all the AVE values are above the 0.5 threshold, the results indicate good convergent validity, implying that the majority of variance in these constructs is captured by their respective indicators.

The correlation matrix shows the relationships between the three variables. EI is moderately and positively correlated with OKS (0.537), indicating that employees who engage in more OKS tend to be more innovative. Additionally, EI has a positive correlation with JSE (0.497), suggesting that employees who feel more capable in their job roles also perceive themselves as more innovative. However, the correlation between OKS and JSE is relatively low (0.318), indicating a weaker relationship between these two constructions. Overall, the table suggests that there are meaningful and positive relationships between EI, OKS, and JSE, though the strength of these relationships varies. The reliability and validity measures also confirm that the

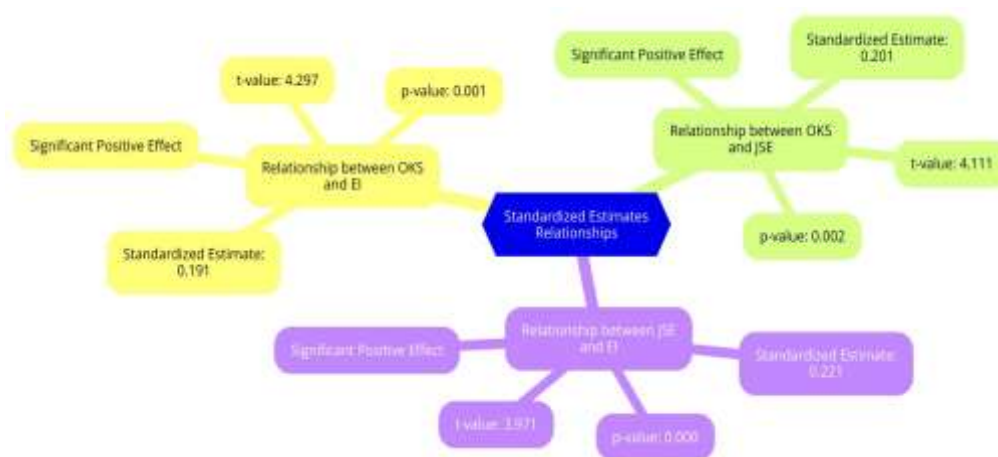
variables are being measured accurately and consistently.

**Table 2: Direct effects**

Direct effects	Standardized estimate	Standard error	t-value	p-value
OKS → EI	0.191	0.05	4.297	0.001
OKS → JSE	0.201	0.04	4.111	0.002
JSE → EI	0.221	0.07	3.971	0.000

Notes: EI denotes EI; OKS denotes OKS; JSE denotes JSE; P<5%

Table 2 presents the direct effects between the variables of OKS (OKS), JSE (JSE), and EI (EI). The standardized estimates show the magnitude and the sign of the effects of these constructions whereas other relevant information is given by the standard error, t-value and p-value. When comparing OKS and EI, the correlation is positive, and the standardized coefficient is equal 0,191. Such an observation points to a suggestion that an increase in the scores on the OKS scale elicits in the participants a small positive change in their levels of EI. This result has a practical implication: post-organizational loss has a robust statistically significant t-value of 4.297, exceeding the conventional level of 1.96 in most studies. The p-value is also in less than 5%, that range to be precise which supports the explanation given stating that there is significant relationship between the two variables of the study which includes the OKS and the EI.



**Figure 6: Diagram of Relationship between OKS & JSE**

Similarly with the case of JSE, OKS has a statistically significant positive impact with a standardized estimate of 0.201. This outcome therefore means that employees who practice more knowledge sharing using the internet tools are likely to master the classes or tasks they are tasked with and therefore are likely to be more competent with higher self-efficacy. Further, the t-value for this relationship is calculated as 4.111, which thus confirms the significance of this relationship on the statistical plan. As like in line, the p-value of 0.002 is also revealed below the 5% significance level determining a significant positive correlation between OKS and JSE. Lastly, there is a direct and positive relationship between JSE and EI, with the standardized coefficient of 0.221. Consequently, this implies that while at work, only the employees who have confidence in their ability to carry out their duties are likely to display innovative behavior. The t-value of 3.971 also predicts that this link is truly significant, while the p-value of 0.000 also provides strong support to the favorable effect of JSE on EI. Consequently, direct aggregations of OKS and JSE in Table 2 reveal that these constructions promote EI. Third, OKS greatly improves JSE in terms of nearly every measure. All the relationships are significant with  $p < 0.05$  level and thus, the results are not the by-products of chance.

This highlights the important role of knowledge sharing and self-efficacy in fostering innovation in employees.

**Table 3: Indirect effect (mediation)**

Indirect effects (mediation)	Standardized estimate	Lower bound	Upper bound	p-value
OKS → JSE → EI	0.384	0.011	0.069	0.003

Notes: EI denotes EI; OKS denotes OKS; JSE denotes JSE; P<5%

Table 3 presents the indirect effect of OKS (OKS) on EI (EI) through the mediating role of JSE (JSE). The standardized estimate for this mediated relationship is 0.384, indicating a positive and significant indirect effect. This means that OKS contributes to EI not only directly, as seen in the previous tables, but also indirectly through its impact on JSE.

The favourable standardized estimate indicates that employee engagement in OKS contributes to an elevation in their JSE, subsequently fostering increased levels of innovation. This indirect pathway underscores the significance of JSE as a facilitator, illustrating that heightened confidence in one's professional competencies can effectively convert knowledge-sharing behaviours into innovative results. The confidence interval for this indirect effect spans from 0.011 to 0.069. Given that this interval does not encompass zero, it substantiates the assertion that the mediation effect is statistically significant. Moreover, the p-value of 0.003 significantly falls beneath the 5% threshold, suggesting that this mediation effect is improbable to have arisen by mere coincidence. In conclusion, Table 3 illustrates that the influence of OKS on EI is notably mediated by JSE. This discovery highlights the critical significance of nurturing both the exchange of knowledge and the development of job-related confidence to enhance innovation within the workplace.

## 4.2. Discussion and Research Implication

This research investigates the mediating function of work self-efficacy in the link between OKS and employee creativity. The findings indicate that OKS has a favorable effect on employee creativity both directly and indirectly via work self-efficacy. The results of this article indicate many novel theoretical and administrative implications.

### 4.2.1. Theoretical implications

This work presents two novel theoretical contributions. This research investigates the mediating function of occupational self-efficacy, informed by the social cognitive theory (Bandura, 1986). The results of this study align with other research indicating that work self-efficacy serves as a mediation mechanism connecting factors such as employee creativity (Salman & Hira, 2024). This study further substantiates that work self-efficacy may serve as a mediator in comprehensively comprehending the link between online information sharing and employee creativity.

### 4.2.2. Managerial implications

The results of this research demonstrate that online information sharing significantly contributes to enhancing employee creativity. Consequently, firms want to provide a platform that enables employees to readily access information, interact with colleagues, communicate, and share ideas. Furthermore, firms want to promote employee engagement in online information sharing by including this activity into performance evaluations. Insights acquired via online interactions will enable workers to understand the root causes of issues and integrate the necessary information to devise and execute remedies in the workplace. Managers want to provide workshops to educate staff on successful online information sharing. Furthermore, during the recruitment of new employees, organizations may incorporate OKS as a component of a comprehensive employee selection and evaluation system, thereby assisting in the identification of candidates prepared to engage in online knowledge dissemination, especially for roles necessitating heightened innovative performance.

The results demonstrate that work self-efficacy mediates the relationship between OKS and employee creativity. Organizations may promote creative employee behaviors in the workplace by enhancing JSE via training, feedback, support, and OKS. Organizations want to provide diverse training programs to augment staff knowledge and abilities, hence enhancing employee confidence. Furthermore, during the recruitment of new employees, organizations ought to assess candidates' JSE as a component of a comprehensive selection and evaluation system, thereby facilitating the identification of individuals with elevated JSE, especially for roles necessitating greater innovative performance.

## 4.3. Limitations and future recommendations

There are a few more restrictions on this research. Initially, data for this research were gathered in Pakistan using the convenience sampling approach. In the future, data collection for model testing should be done randomly by researchers. Secondly, the data used in this research is limited to Pakistan. Pakistan and other Asian nations have a collectivistic culture and significant power distance, which might affect the research's findings when compared to those from Western nations. To test the idea, therefore, data from both Asian and Western nations should be gathered in future studies. Third, a number of variables, including work expertise, operational skills, creativity-relevant skills, domain-relevant skills, and job expertise (Vergara & Agudo, 2021), may operate as a mediating mechanism between online information sharing and EI (Wang et al., 2022). The relationship between OKS and EI can also be reinforced by a variety of moderating factors, including the following: the climate for innovation (Kefela, 2010); the climate for mastery (Guo et al., 2013); the climate for unsupportive climate (Bhat et al., 2024); the climate for collaboration within teams (Tamasiga et al., 2022); and the climates of team exploitation and team exploration (Jones et al., 2007). In order to properly comprehend the link between online information sharing and employee creativity, future study should look into these mediators and moderators.

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