

## THE IMPACT OF ENTERPRISE SOCIAL MEDIA USE ON EMPLOYEE INNOVATION BEHAVIOUR

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**Annotation.** This study employs the survey questionnaire method to empirically investigate how enterprise social media affects the innovation behaviour of employees in China-based enterprises, examining the roles of team climate and leader-member exchange. Accordingly, the study participants were recruited through the Credamo platform. By applying the social exchange theory, the study findings indicate that leader-member exchange and team climate constitute substantial mechanisms that influence the effects of enterprise social media on employees' innovation behaviour. The use of enterprise social media facilitates interaction between leaders and subordinates, stimulating employees to foster job commitment and innovative behaviour, and optimising organisational performance. As a result, innovative behaviour is supported through optimised social exchange processes in the workplace. Furthermore, this research also confirms the profound moderating effects of enterprise social media intensity on the relationship between the use of enterprise social media and employee innovation behaviour. Reportedly, leader-member exchange bolsters the effect of employee innovation behaviour by augmenting the intensity of enterprise social media. Thus, this study offers valuable insights into the influence of enterprise social media use on social exchange relationships and employee innovation behaviour.

**Keywords:** enterprise social media, social exchange theory, employee innovation behaviour, job commitment, social exchange, organisational performance.

**JEL classification:** D23, D71, D83, O31, O33, J28.

### Introduction

Communication is essential in organisations around the world. It is often viewed as a tool to increase the efficiency of interaction among people within the organisation, facilitate information exchange among various stakeholders, and enhance customer satisfaction. As a result of the increased importance of communication, there have been advances in this field over the years. Today, contemporary organisations use social media extensively to improve every organisational facet. Recent studies show that most "Fortune 500" companies have incorporated social media to take advantage of the perceived benefits (Lim *et al.*, 2020). Nevertheless, some studies have reported negative consequences of using social media (Baccarella, 2018), such as a negative impact on organisational performance (Cao, Yu, 2019) and frustration and fatigue (Dai *et al.*, 2020). These findings demonstrate the need to develop an understanding of enterprise social media impacts on organisational development and employee performance.

Recent developments, particularly the emergence of the COVID-19 pandemic and stiff competition in the market in virtually all sectors around the world, have compelled organisations to find ways of internal communication and interaction with their stakeholders. Many companies had to allow their employees to work from home to enable operational continuity. The prolonged pandemic and the continued work from home, especially concerning knowledge workers, implies that organisations are likely to allow their employees to continue working remotely (Wang *et al.*, 2022). Furthermore, this situation is likely to persist in the future as organisations adapt to new ways of operating. For these employees, communicating with their superiors, colleagues, and customers will involve the use of enterprise social media, which is likely to have an impact on organisational and employee performance. Given the growing incorporation of enterprise social media in organisations, it is important to investigate its effects on employee innovation behaviour.

The application of enterprise social media in organisations could have its advantages and disadvantages. Both positive (Ali *et al.*, 2021) and negative (Yu *et al.*, 2018) impacts of company social media on employee performance have been reported. The mixed research findings have been attributed to the limited focus on the scope of the mechanisms linking enterprise social media to employee performance (Wang *et al.*, 2022). Therefore, it is critical to empirically demonstrate how enterprise social media influences employee innovation behaviour. This study uses the social exchange theory to explain how organisational behaviour (innovative behaviour) is influenced by a technological artifact (social media).

Organisations have complex behaviours because of internal and external relationships. Leaders or supervisors have to interact and communicate with their subordinates, employees often interact with co-workers, and the organisation communicates with external stakeholders. There are various psychosocial processes involved in these complex behaviours that can be explained using the social exchange theory. In this study, this theory is used to explain how enterprise social media influences innovative behaviour. Previous studies (Liu *et al.*, 2014; Nisar *et al.*, 2019) used knowledge-centric mechanisms to explore this subject. This study, however, includes organisational behaviour and an information systems approach to determine the impacts of enterprise social media on innovative behaviour.

This study contributes to the growing body of literature on enterprise social media and innovative behaviour. It applies the social exchange theory to explain the relationship between enterprise social media usage and employee innovation behaviour. The influence of leader-member exchange and team climate on the relationship between enterprise social media and innovative behaviour is explained. It is postulated that the extent of enterprise social media usage may have moderating effects on enterprise social media impacts on innovative behaviour. The findings of the study contribute to the information systems literature by empirically examining the impacts of enterprise social media on employee innovation behaviour.

## **1. Social Exchange Theory**

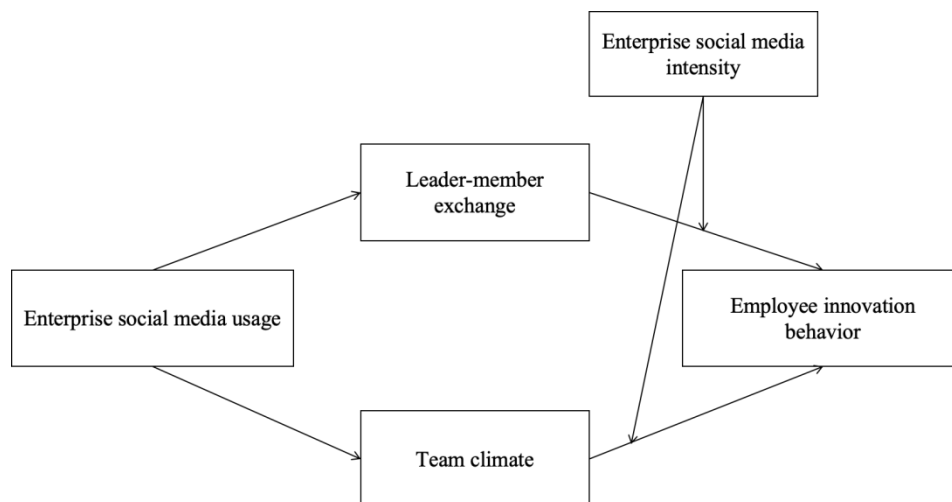
Peter Blau developed the social exchange theory to explain the influence of exchange processes in social behaviour. According to this theory, people weigh the potential benefits against the potential costs of social relationships and make choices that are favourable to them (Wyleżałek, 2021). In other words, people will only remain in a relationship whose benefits outweigh the costs.

The social exchange theory is crucial in describing the social behaviour in short and long-term relationships in the presence of tangible and intangible resources exchange. Relationships can be built on the exchange of tangible resources, such as monetary rewards, or intangible resources, such as love or social support. Previous studies used the social exchange theory to explain the various

circumstances and social behaviours associated with human relationships. For example, it has been used to explain employee job performance (Roch *et al.*, 2019), customer behaviour (Farhana, 2021), leader-member relationships (Andersen *et al.*, 2020), and inter-organisational exchanges (Wang *et al.*, 2022). The essence of social exchange theory is that relationship actors build various intangible resources such as affection, trust, and loyalty over time (Wang *et al.*, 2022). The theory essentially suggests that people conduct a cost-benefit analysis in a social exchange where positive relationships have benefits that outweigh the costs while negative relationships have costs that outweigh the benefits.

Social exchange is a reciprocal process that is also influenced by expectations. For example, the giving exchange partner expects to receive something in return in the future. Previous studies have explained the theoretical perspectives of employee innovation (Ali *et al.*, 2021; Tu *et al.*, 2019). However, social exchange theory provides the framework to examine social exchange processes involving members of organisations using enterprise social media.

Two important constructs of the social exchange in organisations are leader-member exchange and team climate. It is particularly the case that the interactions among members in organisations involve leaders and the members as well as between members. Resource exchange plays an integral part in the leader-member exchange because some resources are involved in the relationship between the leader and the member (Graen, Uhl-Bien, 1995). In contrast, team climate involves the peer-to-peer exchange of resources (Ali *et al.*, 2021). Theoretically, the concept of leader-member exchange differs from that of team climate. However, both concepts provide the foundation to explain how enterprise social media impacts innovative behaviour in the workplace. *Figure 1* illustrates the theoretical model proposed in this study.



Source: authors' own work.

Figure 1. Theoretical Model

## 2. Literature Review and Hypotheses Development

Workplace innovation can be defined as the emergence of creative and original ideas within business organisations, encompassing techniques, practices, goods, and services (Deng, Zhu, 2023; Chen *et al.*, 2020(a)). Innovation plays an imperative role in the persistence of organisational performance (Sun *et al.*, 2020). Previous studies have assumed that employees' innovation is an outcome of both environmental factors and individual characteristics (Sun *et al.*, 2022; Ding *et al.*, 2019). Most organisations substantially focus on employees' innovation for effectiveness and competitive edges (Yin *et al.*, 2023). Owing to the significance of employees' innovation for enterprises, researchers in related

fields have analysed how to foster workplace innovation. In the present technological era, the extensive adoption of technological innovation constitutes potential possibilities for the internal workforce and organisations (Cramarenco *et al.*, 2023; Zhu *et al.*, 2021). Meanwhile, enterprise social media (ESM) entails employees with an online social network that supports effective cooperation, interaction, and collaboration among peers and the external world (Van Zoonen *et al.*, 2022; Leonardi, 2015). Furthermore, possible advantages of ESM incorporation include increased employee creativity (Farmer *et al.*, 2003), frequent communication (Devi, 2024), greater information sharing (Van Zoonen *et al.*, 2022), cross-border cooperation, and social network promotion (Chen *et al.*, 2020(b)).

In business organisations, social media is excessively utilised across the globe (Liang *et al.*, 2020). It is used to increase customer satisfaction (Ferm, Thaichon, 2021), facilitate knowledge transfer (Wei *et al.*, 2020), and raise the interaction efficiency among organisational members (Chen *et al.*, 2020(b)). Given the relevant benefits, most corporations from the “Fortune 500” have employed social media (Ali *et al.*, 2020), even though certain studies suggest that the usage of social media can inflict adverse consequences. For instance, Cao and Yu (2019) and Salo *et al.* (2018) revealed that extensive usage of social media is associated with a decline in employees’ outcomes. In addition, Dai *et al.* (2020) confirmed that ESMU may lead to frustration and fatigue among employees. Therefore, such backlash of social media usage among workers warrants further development of theory and research to comprehend the consequences that ESMU might have for the employees’ performance and organizational development.

The review of the extant literature further highlights that enterprise social media demonstrates both negative and positive effects on the performance outcomes of employees. Reportedly, Ali *et al.* (2021a) documented a positive association between ESMU and the innovation performance of employees. Conversely, Yu *et al.* (2018) pointed out that the excessive use of social media brings adverse consequences to employees’ performance. The aforementioned inconsistencies in the research studies can be attributed to the fact that some studies generally emphasise social capital and knowledge management, which restricts the scope that might relate social media usage with job performance (Pitafi *et al.*, 2018). Owing to the past inconsistencies, on empirical and theoretical grounds, recent literature stresses how enterprise social media benefits employees. Particularly, past studies emphasise investigating how social media usage can optimise the innovative behaviour of employees (Bodhi, 2024; Wang *et al.*, 2021; Sigala, Chalkiti, 2015).

### **2.1 Social Exchange and Employee Innovation Behaviour**

Innovation is one of the key outcomes of social exchange. Social exchange processes provide the platform for employees to share information that enhances their innovative behaviour (Cao, Ali, 2018). Consequently, leader-member exchange and team climate have significant implications for employee innovation behaviour. A high level of leader-member exchange and team climate create a conducive environment for employees to improve their commitment and job performance. Employees who feel appreciated through a high level of leader-member exchange and team climate are usually indebted to their leaders and their job (Wang *et al.*, 2022). They would want to reward their leaders or organisation through job commitment and innovation if they feel appreciated in the workplace. They will be motivated to share information and new ideas with the leaders to improve the organisational performance. Furthermore, employees who feel that their colleagues appreciate their efforts are likely to share ideas and information with them. Therefore, exchange with the leaders as well as support from colleagues combines to create an environment that supports innovation at the workplace.

Leader-member exchange and team climate both influence employees to increase their level of commitment toward innovation, leading to a better job and organisational outcomes. In particular, leader-member exchange and team climate support social exchange processes in the workplace that

support employees to exhibit innovation behaviour. Employees can enhance their innovation behaviour through the exchange of knowledge with their leaders. It is through such exchange with the leader that an employee will gain political clout to lobby for allocation of resources to implement ideas (Tu *et al.*, 2019). For example, if an employee in a technology firm believes that a new idea is good and needs to take the company to a higher level, he can use the interaction and communication channels available to argue the case with the leader. If the idea is viable, the leader will mobilise the organisational resources to support the implementation of the idea. On the other hand, team climate plays a key role in supporting cognitive resources, which are key in enhancing innovative behaviour in the workplace (Ali *et al.*, 2021). Innovation requires the support of the leaders and co-workers and the exchange of ideas (Johan, 2021). Therefore, leader-member exchange and team climate, through social exchanges with leaders and co-workers, might play a critical role in enhancing employee innovation behaviour by providing the requisite resources that enhance the employees' ability to innovate.

## **2.2 The Mediating Effects of Social Exchange on the Relationship between Enterprise Social Media and Employee Innovation Behaviour**

Social exchange processes are likely to influence the relationship between the use of enterprise social media and employee innovation behaviour. Enterprise social media is essentially an information system that people within the organisation utilise for effective interaction and communication. It increases social exchange at the workplace leading to improved communication efficiencies among organisational members. Previous studies reported that the use of social media increased attitude, personality, and knowledge among employees at the workplace (Lee, Eastin, 2020). The use of enterprise social media promotes the understanding of organisational members' social and work-related behaviours. Its use can help to interpret the existing relationships between the leaders and their subordinates. Furthermore, the social relationships between leaders and their followers are built on respect and mutual trust, providing an opportunity to determine the quality of interactions and communication at the workplace. It leads to improved quality of collaboration among organisational members (Cai *et al.*, 2018). For example, the frequency of use of social media can highlight how supportive employees are supportive of each other (Wang *et al.*, 2022). Similarly, one can tell how supportive the leaders are from the frequency of social media interactions they have with their subordinates. As a result, individual employees may feel confident to be innovative and share ideas with colleagues to advance effective ideas. As a technological artifact, enterprise social media provides the necessary tools to facilitate leader-member exchange and support for innovations among organisational members to support each other to attain employee innovation (Wang *et al.*, 2022). Due to the perceived mediating effects of social exchange processes on the association between enterprise social media usage and employee innovation behaviour, this study draws on the social exchange theory to determine empirically how enterprise social media among organisational members influences their social exchange relationships and their impacts on innovation behaviour. The current study establishes the role enterprise social media plays in promoting the relationship between leaders and members and supporting innovation in organisations.

Based on the literature review on the social exchange theory, social exchange processes, and employee innovation behaviour, the following hypotheses have been proposed to advance this study:

*Hypothesis 1:* leader-member exchange plays a mediating role in the association between the use of enterprise social media and employee innovation behaviour;

*Hypothesis 2:* team climate plays a mediating role in the association between the use of enterprise social media and employee innovation behaviour.

### **2.3 Enterprise Social Media Intensity and Leader-Member Exchange**

In the previous section, it was hypothesised that leader-member exchange and team climate have a mediating role in the association between the use of enterprise social media and employee innovation behaviour due to their influence on interaction and communication. However, an organisation can have members with varying extents of enterprise social media use. The primary purpose of enterprise social media is to enhance the effectiveness of communication and interaction within organisations (Wang *et al.*, 2022). It has been reported that the increased use of social media in companies significantly impacted job performance, depending on the frequency of use. However, Cao and Yu (2019) reported the negative impacts of frequent use of social media at the workplace. Cao ND Yu (2019) also found that frequent use among leaders was detrimental to their relationship with subordinates. They suggested that as opposed to social media, face-to-face interactions were more effective in creating high-quality social relationships. It might be the case that leaders who rely heavily on social media to relay information do not transact important social exchange resources such as affect, gestures, and empathy, among others that are usually present in face-to-face communication.

The above discussion implies that enterprise social media should be used in moderation in the workplace. Despite its benefits in easing interaction and communication, extensive use can lead to negative impacts. It implies that leaders should create opportunities for face-to-face interactions besides using enterprise social media is to avoid compromising the quality of social exchange at the workplace. This observation leads to the third hypothesis:

*Hypothesis 3:* The social media intensity of the enterprise has an indirect moderating effect on the relationship between enterprise social usage and employee innovation behaviour, and the relationship diminishes with the increased intensity of use of social media.

### **2.4 Enterprise Social Media Intensity and Team Climate**

It is important to understand how the intensity of use of enterprise social media also affects employee innovation usage through its effects on team climate. This study hypothesises that the intensity of use of enterprise social media will actively affect the relationship between the use of enterprise social media and innovation via team climate. As explained earlier, enterprise social media can enhance social exchange relationships among employees and create the perception of support for innovation behaviour. Research provides empirical evidence that team climate creates supportive and favourable work conditions to increase employee innovation behaviour (Ali *et al.*, 2021). Employee innovation entails social processes in which the use of enterprise social media plays a significant role (Ali *et al.*, 2021). Based on this observation, the following hypothesis is proposed:

*Hypothesis 4:* the enterprise social media intensity has moderating effects on the relationship between the use of enterprise social media and employee innovation behaviour via team climate, and the indirect relationship is enhanced by the increased intensity of using enterprise social media.

## **3. Research Methods**

### **3.1 Settings and Data Collection**

The survey method was employed to explore the hypotheses of the present study. This approach enables capturing the fieldwork essence; thus, it is assumed to be a rational technique to analyse understudied variables. Aligned with the existing literature, data were gathered from employees working in different corporations (Cao *et al.*, 2021; Khan *et al.*, 2019; Cao, Ali, 2018) in China. As a consequence, employees from a total of 30 companies were included in the study sample. Data were collected from employees of China-based corporations. In this study, participants were recruited through the *Credamo* platform for questionnaire delivery. The *Credamo* platform is a well-known web-based academic

investigation platform in China, and is widely used in research in different research fields. This platform has 20,000 active users and strict selection criteria in terms of sample characteristics (www.credamo.com). Using this process, 206 responses were received from the target participants.

### 3.2 Measures

The scales used in this study were all scales that had been validated in previous studies. All the items were measured on a 5-points Likert scale (from 1 = strongly disagree, to 5 = strongly agree). For enterprise social media usage, three items were adapted from Ou and Davison's enterprise social media scale (Ou, Davison, 2011). This study measured the social exchange processes using three items of Graen and Uhl-Bien's (1995) recommended Leader-Member Exchange Scale (LMX7), and three items were adopted from TCI to measure team climate (Anderson, West, 1998). This study also adapted Ellison's scale (three related items) to measure enterprise social media intensity (2007). Finally, a self-reported measure of employee innovation behaviour (a 3-item scale) was adopted from Scott and Bruce (1994).

### 4. Results

The data collected through the survey instruments were analysed using SPSS v.26. The analysis involved descriptive statistics, correlation statistics, and regression statistics. Specially, this study used a PROCESS macro plugin to test mediation hypotheses and moderated mediation hypotheses of this study. First, this study used Model 4 of PROCESS macro to examine the mediation effect. Second, Model 14 of the PROCESS macro was used to test the moderated mediation hypothesis.

**Table 1. Correlation Matrix**

Variables	Mean	SD	1	2	3	4	5	6	7	8
1. Gender	1.69	0.46	1							
2. Education	3.29	0.54	0.201**	1						
3. Industry Type	3.19	1.81	-0.127	-0.181**	1					
4. ESMU	4.35	0.48	0.064	0.180**	-0.096	1				
5. LMX	4.05	0.65	0.111	0.367**	-0.273**	0.343**	1			
6. TCI	4.3	0.43	0.080	0.294**	-0.236**	0.313**	0.736**	1		
7. ESMI	4.19	0.45	0.064	0.193**	-0.194**	0.488**	0.508**	0.472**	1	
8. EIB	4.24	0.58	0.102	0.312**	-0.232**	0.375**	0.738**	0.701**	0.416**	1

*Note:* \*\*Correlation is significant at the 0.01 level (2-tailed). ESMU, enterprise social media usage; LMX, leader member exchange; TCI, team climate; ESMI, enterprise social media intensity; EIB, employee innovation behaviour.

*Source:* authors' own calculations.

*Table 1* of the correlation matrix shows the reliability and correlation among the key variables studied. The table provides preliminary evidence to support the model in this study.

**Table 2. Indirect Effect of Enterprise Social Media Usage on Employee Innovation Behaviour via LMX and TCI**

Mediator	Effect	SE	LLCI	ULCI
Total Effect	0.448	0.078	0.295	0.601
LMX	0.283	0.131	0.073	0.58
TCI	0.242	0.121	0.064	0.53

Note: N=206; LMX, leader member exchange; TCI, team climate; SE, standard error; LLCI, lower limit at 95% confidence interval; ULCI, upper limit at 95% confidence interval; bootstrap sample size 5,000.

Source: authors' own calculations.

Table 2 shows the tests for mediating effects. First, *Hypothesis 1* proposes that leader-member exchange plays an intermediary role in the relationship between enterprise social media use and employee innovation behaviour. As shown in this table, the upper and lower limits of the bootstrap 95% confidence interval for the mediating effect of leader-member exchange do not contain 0, indicating that there is a significant mediating effects of leader-member exchange on the association between the use of enterprise social media and employee innovation behaviour (Effect = 0.283, SE=0.131, at 95% LLCI = 0.073, ULCI = 0.580). *Hypothesis 2* proposes that team climate plays a mediating role in the relationship between enterprise social media use and employee innovation behaviour. The results reveal that enterprise social media use has a significant indirect impact on employee innovation behaviour through team climate (Effect = 0.242, SE=0.121, at 95% LLCI = 0.064, ULCI = 0.530). In conclusion, empirical analysis provides support for the mediation hypothesis of this study.

**Table 3. Conditional Indirect Effect of Enterprise Social Media Usage on Employee Innovation Behaviour via LMX and TCI at the Level of Enterprise Social Media Intensity**

Moderator	Mediator	Independent Variable	Dependent Variable	Moderator Value	Effect	SE	LLCI	ULCI
ESMI	LMX	ESMU	EIB	-0.4489	0.2747	0.1354	0.0708	0.5849
ESMI	LMX	ESMU	EIB	0	0.2868	0.1313	0.0804	0.5732
ESMI	LMX	ESMU	EIB	0.4489	0.2990	0.1307	0.0868	0.5816
ESMI	TCI	ESMU	EIB	-0.4489	0.2282	0.1276	0.0532	0.549
ESMI	TCI	ESMU	EIB	0	0.2696	0.1428	0.0619	0.6142
ESMI	TCI	ESMU	EIB	0.4489	0.3116	0.1636	0.0698	0.703

Note: N=206; ESMU, enterprise social media usage; LMX, leader member exchange; TCI, team climate; ESMI, enterprise social media intensity; EIB, employee innovation behaviour; SE, standard error; LLCI, lower limit at 95% confidence interval; ULCI, upper limit at 95% confidence interval; bootstrap sample size 5,000.

Source: authors' own calculations.

Table 3 presents the test results of the moderating effects of the model. *Hypothesis 3* predicts that enterprise social media intensity has an indirect moderating effect on the relationship between enterprise social media usage and employee innovation behaviour, and this relationship decreases with the increase of leader-members' social media usage intensity. Contrary to the proposed hypothesis, the study results suggest that the indirect effect of enterprise social media use on employee innovation

behaviour is stronger when enterprise social media intensity is stronger. Therefore, the results do not support *Hypothesis 3*.

*Hypothesis 4* predicts that enterprise social media intensity has moderating effects on the relationship between the use of enterprise social media and employee innovation behaviour via team climate, and the indirect relationship is enhanced by the increased intensity of using enterprise social media. As hypothesised, the results in *Table 3* show that when enterprise social media intensity is high, the indirect influence of enterprise social media usage on employee innovation behaviour through team climate is stronger. Therefore, the results support *Hypothesis 4*.

Prior to the assessment of the postulated hypotheses, this paper estimated the validity and reliability of the studied research data. In line with Hair *et al.* (2011), the fitness of research data can be evaluated by reliability and validity tests. Accordingly, composite reliability (CR), Cronbach's alpha (CA), and average variance extraction (AVE) analyses are employed to measure discriminant validity and convergent validity (Hair *et al.*, 2019). Previous literature suggests that the values of AVE>0.50, CR>0.70, and CA>0.70 are acceptable (Bagozzi *et al.*, 1991).

**Table 4. Results of Measurement Analysis**

Constructs	Items	Cronbach $\alpha$	Composite Reliability	AVE
ESMU	3	0.832	0.87	0.60
LMX	3	0.880	0.90	0.65
TCI	3	0.860	0.90	0.52
ESMI	3	0.801	0.85	0.54
EIB	3	0.814	0.86	0.70

Note: AVE = Average Variance Extracted.

Source: authors' own calculations.

**Table 5. Cross-Loading**

Constructs	Items	ESMU	LMX	TCI	ESMI	EIB
ESMU	ESMU01	0.590	0.300	0.099	0.190	0.200
	ESMU02	0.580	0.232	0.276	0.285	0.321
	ESMU03	0.599	0.272	0.389	0.099	0.214
LMX	LMX01	0.347	0.689	0.362	0.075	0.005
	LMX02	0.356	0.499	0.006	0.101	0.007
	LMX03	0.462	0.423	0.002	0.222	0.215
TCI	TCI01	0.214	0.302	0.612	0.901	0.452
	TCI02	0.021	0.013	0.614	0.081	0.378
	TCI03	0.044	0.198	0.608	0.321	0.231
ESMI	ESMI01	0.012	0.321	0.056	0.569	0.489
	ESMI02	0.032	0.001	0.009	0.600	0.401
	ESMI03	0.230	0.132	0.318	0.588	0.008
EIB	EIB01	0.121	0.021	0.192	0.212	0.601
	EIB02	0.043	0.001	0.100	0.111	0.580
	EIB03	0.132	0.009	0.007	0.009	0.599

Source: authors' own calculations.

*Table 4* indicates that the values of AVE (0.52–0.70), CR (0.85–0.90), and CA (0.801–0.880) are all in the suggested ranges (Fornell, Larcker, 1981). In addition, the convergent research model was evaluated by observing the factor-loading of all the constructs (*Table 5*). According to *Table 5*, all the constructs of all the items have a loading less than 0.60 (loading>0.60). Hence, the understudied research model exhibits an acceptable level of validity and reliability.

Distinct approaches are applied to detect the discriminant validity of the recommended model. Firstly, the correlation analysis depicted that all constructs possess a value lower than the suggested value of 0.700 (Pavlou, El Sawy, 2006). Secondly, this study adopted the approaches put forward by Fornell and Larcker (1981) and evaluated the discriminant validity of the suggested model. Reportedly, all the values of the square root of AVE are greater than the inter-construct correlation values (see *Table 4*). In addition, the cross-loadings of all constructs are presented in *Table 5*, thus reflecting that all constructs possess higher values in their assigned columns. Correspondingly, all the observations in *Table 5* exhibit that the research model shows a sufficient level of discriminant validity.

## 5. Discussion

By applying the social exchange theory, this study identifies leader-member exchange and team climate as the basic mechanisms that link enterprise social media use and employee innovation behaviour. This study also empirically examines how enterprise social media affects employee innovation behaviour through leader-member exchange and team climate. The findings of this study indicate that enterprise social media has a significant impact on employee innovation behaviour. These impacts are mediated through leader-member exchanges and team climate which have been shown to have significant effects on employee innovative behaviour. The results demonstrate the effectiveness of enterprise social media in enhancing the innovation behaviour of employees in organisations. The results of this study are consistent with other studies. For example, Wang *et al.* (2022) reported similar findings where they observed that a high level of leader-member exchange and support for innovation create a better environment for employees to improve their commitment and job performance. Therefore, exchange with the leaders as well as support from teams is beneficial to the workplace as employees become motivated to innovate.

Furthermore, this study also established significant moderating effects of enterprise social media intensity on the association between the use of enterprise social media and employee innovation behaviour. The study found that increased intensity of social media in companies significantly improved the innovative behaviour of employees. It is found that leader-member exchange could enhance the impact on employee innovation behaviour by increasing enterprise social media intensity. The results are in contrast to those reported in the literature. For example, Cao and Yu (2019) reported the negative impact of frequent use of social media at the workplace, where the frequent use among leaders was found to be detrimental to their relationship with subordinates. This provides interesting insights into the impact of enterprise social media use on social exchange relationships and employee innovation behaviour. Also, enterprise social media intensity could enhance social exchange relationships among employees and create the perception of a team innovation climate. This study shows that team climate creates supportive and favourable work conditions to increase employee innovation behaviour.

In this study, social media and organisational behaviour are integrated to offer an in-depth theoretical elucidation of how enterprise social media use is associated with employee innovation behaviour. Using the social exchange theory, LMX and TCI are identified as crucial mechanisms that associate ESMU with employee innovation. Hence, this paper empirically analyses and theoretically elucidates how ESMU is related to employee creativity through TCI and LMX. Further, this paper also extends the contemporary theory relevant to EMSU by positing that the intensity of ESMU is an imperative boundary condition that influences the indirect association between ESMU and employee innovation behaviour via TCI and LMX. Notably, ESMI can lower the strength of the positive indirect impact of ESMU on employee innovation via LMX. This indicates that although ESMU facilitates the social exchange among organisational employees and leaders, a more intense use of ESM can have an adverse effect on the quality of LMX and relevant employee innovation.

Remarkably, the indirect impact of ESMU is strengthened on employee innovation via TCI when employees utilise enterprise social media to communicate and interact with their peers more intensely, bringing useful insight into the effect of ESMU on social exchange relationships and innovative behaviours. In addition, this research contributes to the existing knowledge of the influence of ESMU. In a broader sense, this paper answers the calls to comprehend how the ESMU impacts the employee innovation behaviour through alternative theoretical perspectives (Wang et al, 2021; Sigala, Chalkiti, 2015). Based on the social exchange theory, this research extends a framework to integrate ESMU, social exchange relationship, and ESMI, in order to comprehend employee innovation behaviour. As a result, the moderated mediation model proposed in this study further contributes to the existing comprehension of the influential mechanisms of ESMU by business organisations.

This study has important implications for managers. As the workplace is transformed from physical to virtual environments due to the COVID-19 pandemic, the increased use of enterprise social media is likely to be the norm. Companies and their employees are resorting to technologies to help them perform their work. Consequently, managers need to implement technologies that facilitate social exchange processes to improve innovative behaviour.

### **Conclusions**

This study applied the social exchange theory to elaborate that leader-member exchange and team climate are important mechanisms that influence the impacts of enterprise social media on the innovative behaviour of employees. The use of enterprise social media facilitates interaction and communication between leaders and members, motivating employees to increase their job commitment and innovation behaviour, leading to improved individual and organisational performance. It supports innovative behaviour through improved social exchange processes in the workplace. This paper theoretically elucidates that TCI and LMX act as crucial mechanisms that transfer the impact of ESMU on the innovative behaviour of employees. Moreover, empirical analyses reveal that the ESMI exerts a distinct impact on the innovative behaviour of employees via TCI and LMX. Hence, this paper extends useful insights into the impact of ESMU on social exchange relationships and innovative behaviour of employees. As a result, the study findings set the stage for further studies in comprehending how ESMU by leaders and employees affects the employees' innovation behaviour.

Several useful implications related to employee innovation behaviour are proposed, offering valuable managerial implications. Specifically, managers must employ social media technologies to facilitate effective communication and interaction among employees in order to support their innovative behaviour. Reportedly, ESMU exerts a substantial effect on employees' innovation. Therefore, managers must motivate employees to share their novel ideas and knowledge. For instance, they can assign creative tasks to the subordinates to promote their interaction and support exchange relationships among them. Additionally, the indirect effect of ESMU on employee innovation via LMX becomes weaker when workers intensely utilise social media. This highlights that merely relying on ESMU for communication, interaction, and knowledge exchange with leaders holds adverse implications for employees' innovation. Although business organisations incorporate social technologies to optimise innovation and task performance of employees, there is a need to not only control their social media use but also ensure their physical meetings and interaction with leaders.

Evidently, physical interaction upgrades the quality of exchange relationships, leading to higher innovation practices. Likewise, ESMI reinforces the effect of ESMU on employee innovation behaviour via TCI. This implies that exchange relationships among workers create a sense that workers support innovative ideas when supported by intense ESM. Based on this, managers should develop an integrated work system in which subordinates utilise social technologies, supported by physical meetings and interactions. Such integration may facilitate the interaction types that are conducive to

innovation. Lastly, the nature of the workplace has changed since the workplace is experiencing a shift from physical to virtual workstations. Consistently, workers emphasise the use of social technologies to execute their duties in the present workplaces. This warrants managers to propose social technologies that not only facilitate social exchange relationships but also revolve around the changing demands of the workplace.

This research has some limitations that necessitate the need for future research. The participants of this study came from a single country, China. It implies that the generalizability of the research findings may be limited because the use of enterprise social media and technology, in general, can differ from country to country. Thus, for technological and cultural reasons, the findings may not apply to other contexts, such as developed countries. In particular, culture is likely to influence how people from different cultures engage in social exchanges. Therefore, the cultures in other contexts may not support the use of enterprise social media, limiting its use in enhancing innovative behaviour. Future studies should investigate the impact of enterprise social media use on innovative behaviour in other cultural contexts and determine the role of leader-member exchanges and team climate.

All the variables used in this study are self-reported, which increases the possibility of bias. The subjective nature of items related to the innovation behaviour is likely to attract a common method bias, increasing the risk for lower validity and reliability. As a result, future studies should consider objective data related to the innovative behaviour of employees to yield more robust findings.

Future studies should consider a different study approach when considering the topic under study. Using a mixed-method design that includes interviews will provide an opportunity to generate deeper insights about the effectiveness of enterprise social media in improving employee innovative behaviour. Furthermore, a change in the methodological approach will allow future researchers to also capture the perspectives of leaders in organisations. The present study only considered employees, as leader-member exchange involves leaders and members, future studies should include leaders in their samples.

## Literature

Ali, A., Bahadur, W. (2019), "Impact of social media on innovation performance: A knowledge management perspective, *Academy of management proceedings*. Vol. 2019. No. 1. Briarcliff Manor, NY 10510: Academy of Management.

Ali, A., Wang, H., Bodla, A.A., Bahadur, W. (2021), "A moderated mediation model linking transactive memory system and social media with shared leadership and team innovation", *Scandinavian Journal of Psychology*, Vol. 62, No 4, pp.625-637.

Ali, A., Wang, H., Boekhorst, J.A. (2021), "A moderated mediation examination of shared leadership and team creativity: A social information processing perspective", *Asia Pacific Journal of Management*, pp.1-33.

Ali, A., Bahadur, W., Wang, N., Luqman, A., Khan, A.N. (2020), "Improving team innovation performance: Role of social media and team knowledge management capabilities", *Technology in Society*, Vol. 61, Article No 101259.

Andersen, I., Buch, R., Kuvaas, B. (2020), "A literature review of social and economic leader-member exchange", *Frontiers in Psychology*, Vol. 11, Article No 1474.

Anderson, N.R., West, M.A. (1998), "Measuring climate for work group innovation: Development and validation of the team climate inventory", *Journal of Organizational Behavior*, Vol. 19, pp.235-258.

Baccarella, C.V., et al. (2018), "Social media? It's serious! Understanding the dark side of social media", *European Management Journal*, Vol. 36, No 4, pp.431-438.

- Bagozzi, R.P., Yi, Y., Phillips, L.W. (1991), "Assessing construct validity in organizational research", *Administrative Science Quarterly*, Vol. 36, No 3, pp.421-458.
- Bodhi, R. (2024), "How does enterprise social media use affect employees' psychological well-being and innovative work performance? Findings from hybrid approaches", *Information Technology & People*, Vol. 38, No 5, pp.2142-2162.
- Cai, Z., Huang, Q., Liu, H., Wang, X. (2018), "Improving the agility of employees through enterprise social media: The mediating role of psychological conditions", *International Journal of Information Management*, Vol. 38, No 1, pp.52-63.
- Cao, X., Ali, A., Pitafi, A.H., Khan, A.N., Waqas, M. (2021), "A socio-technical system approach to knowledge creation and team performance: Evidence from China", *Information Technology & People*, Vol. 34, No 7, pp.1976-1996.
- Cao, X., Ali, A. (2018), "Enhancing team creative performance through social media and transactive memory system", *International Journal of Information Management*, Vol. 39, pp.69-79.
- Cao, X., Yu, L. (2019), "Exploring the influence of excessive social media use at work: A three-dimension usage perspective", *International Journal of Information Management*, Vol. 46, pp.83-92.
- Chen, X., Wei, S., Rice, R.E. (2020), "Integrating the bright and dark sides of communication visibility for knowledge management and creativity: The moderating role of regulatory focus", *Computers in Human Behavior*, Vol. 111, Article 106421.
- Chen, X., Wei, S., Davison, R.M., Rice, R.E. (2020), "How do enterprise social media affordances affect social network ties and job performance?", *Information Technology & People*, Vol. 33, No 1, pp.361-388.
- Cramarencu, R.E., Burcă-Voicu, M.I., Dabija, D.C. (2023), "The impact of artificial intelligence (AI) on employees' skills and well-being in global labor markets: A systematic review", *Oeconomia Copernicana*, Vol. 14, No 3, pp.731-767.
- Dai, B., Ali, A., Wang, H. (2020), "Exploring information avoidance intention of social media users: A cognition–affect–conation perspective", *Internet Research*, Vol. 30, pp.1455-1478.
- Deng, M., Zhu, J. (2023), "The impact of enterprise social media usage on employee creativity: A self-regulation perspective", *Industrial Management & Data Systems*, Vol. 123, No 9, pp.2378-2396.
- Devi, N.C. (2024), "Paradoxical leadership and employee creativity: Knowledge sharing and hiding as mediators", *Journal of Knowledge Management*, Vol. 28, No 2, pp.312-340.
- Ding, G., Liu, H., Huang, Q., Gu, J. (2019), "Enterprise social networking usage as a moderator of the relationship between work stressors and employee creativity: A multilevel study", *Information & Management*, Vol. 56, No 8, Article No 103165.
- Ellison, N.B., Steinfield, C., Lampe, C. (2007), "The benefits of Facebook 'friends': Social capital and college students' use of online social network sites", *Journal of Computer-Mediated Communication*, Vol. 12, pp.1143-1168.
- Farmer, S.M., Tierney, P., Kung-McIntyre, K. (2003), "Employee creativity in Taiwan: An application of role identity theory", *Academy of Management Journal*, Vol. 46, No 5, pp.618-630.
- Fornell, C., Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18, No 1, pp.39-50.
- Graen, G.B., Uhl-Bien, M. (1995), "Relationship-based approach to leadership: Development of leader-member exchange theory", *The Leadership Quarterly*, Vol. 6, No 2, pp.219-247.

- Hair, J.F., Ringle, C.M., Sarstedt, M. (2011), "PLS-SEM: Indeed a silver bullet", *Journal of Marketing Theory and Practice*, Vol. 19, No 2, pp.139-152.
- Hair, J.F., Risher, J.J., Sarstedt, M., Ringle, C.M. (2019), "When to use and how to report the results of PLS-SEM", *European Business Review*, Vol. 31, No 1, pp.2-24.
- Khan, A.N., Ali, A., Khan, N.A., Jehan, N. (2019), "A study of relationship between transformational leadership and task performance: The role of social media and affective organisational commitment", *International Journal of Business Information Systems*, Vol. 31, No 4, pp.499-516.
- Lee, J.A., Eastin, M.S. (2020), "The impact of female social media influencers' perceived sincerity, consumer envy, and product type", *Journal of Interactive Advertising*, Vol. 20, No 1, pp.76-91.
- Leonardi, P.M. (2015), "Ambient awareness and knowledge acquisition", *MIS Quarterly*, Vol. 39, No 4, pp.747-762.
- Lukes, M., Stephan, U. (2017), "Measuring employee innovation: Development of the innovative behavior and innovation support inventories", *International Journal of Entrepreneurial Behavior & Research*, Vol. 23, No 1, pp.136-158.
- Nisar, T.M., Prabhakar, G., Strakova, L. (2019), "Social media information benefits, knowledge management, and smart organizations", *Journal of Business Research*, Vol. 94, pp.264-272.
- Ou, Carol X.J., and Robert M. Davison. (2011), "Interactive or interruptive? Instant messaging at work", *Decision Support Systems*, Vol. 52, No 1, pp.61-72.
- Pavlou, Paul A., Omar A. El Sawy. (2006), "From IT leveraging competence to competitive advantage in turbulent environments: The case of new product development." *Information systems research*, Vol. 17, No 3, pp.198-227.
- Pitafi, Abdul Hameed, Shamsa Kanwal, Ahsan Ali, Ali Nawaz Khan, and Muhammad Waqas Ameen. (2018), "Moderating roles of IT competency and work cooperation on employee work performance in an ESM environment." *Technology in Society*, Vol. 55, pp.199-208.
- Quade, Matthew J., Benjamin D. McLarty, and Julena M. Bonner. (2020), "The influence of supervisor bottom-line mentality and employee bottom-line mentality on leader-member exchange and subsequent employee performance." *Human Relations*, Vol. 73, No 8, pp.1157-1181.
- Roch, S.G., Shannon, C.E., Martin, J.J., Swiderski, D., Agosta, J.P., Shanock, L.R. (2019), "Role of employee felt obligation and endorsement of the just world hypothesis: A social exchange theory investigation in an organizational justice context." *Journal of Applied Social Psychology*, Vol. 49, No 4, pp.213-225.
- Salo, Jari, Matti Mäntymäki, and AKM Najmul Islam. (2018), "The dark side of social media—and Fifty Shades of Grey introduction to the special issue: the dark side of social media." *Internet Research*, Vol. 28, No 5, pp.1166-1168.
- Scott, S.G., Bruce, R.A. (1994), "Determinants of innovative behavior: A path model of individual innovation in the workplace", *Academy of Management Journal*, Vol. 37, No 3, pp.580-607.
- Sigala, M., Chalkiti, K. (2015), "Knowledge management, social media and employee creativity", *International Journal of Hospitality Management*, Vol. 45, pp.44-58.
- Sun, Y., Wang, C., Jeyaraj, A. (2020), "Enterprise social media affordances as enablers of knowledge transfer and creative performance", *Telematics and Informatics*, Vol. 51, Article 101402.
- Tu, Y., Lu, X., Choi, J.N., Guo, W. (2019), "Ethical leadership and team-level creativity: Mediation of psychological safety climate and moderation of supervisor support for creativity", *Journal of Business Ethics*, Vol. 159, No 2, pp.551-565.

Van Zoonen, Ward, Jeffrey W. Treem, Anu Sivunen. (2022), "An analysis of fear factors predicting enterprise social media use in an era of communication visibility." *Internet Research*, Vol. 32, No 7, pp.354-375.

Wang, Y., Huang, Q., Davison, R.M., Yang, F. (2021), "Role stressors, job satisfaction, and employee creativity: The cross-level moderating role of social media use", *Information & Management*, Vol. 58, No 3, Article 103317.

Wang, Z., Hangeldiyeva, M., Ali, A., Guo, M. (2022), "Effect of Enterprise Social Media on Employee Creativity: Social Exchange Theory Perspective." *Frontiers in Psychology*, Vol. 12, Article No 812490.

Wei, C., Pitafi, A.H., Kanwal, S., Ali, A., Ren, M. (2020), "Improving employee agility using enterprise social media and digital fluency", *IEEE Access*, Vol. 8, pp.68799-68810.

Wyleżalek, J. (2021), "Dilemmas around the Energy Transition in the Perspective of Peter Blau's Social Exchange Theory." *Energies*, Vol. 14.24, Article No 8211.

Yin, P., Wang, W., Wang, C., Liang, L. (2023), "Does enterprise social media use in the post-acceptance stage improve employee autonomy?", *Industrial Management & Data Systems*, Vol. 123, No 8, pp.2055-2078.

Yu, L., Cao, X., Liu, Z., Wang, J. (2018), "Excessive social media use at work: Exploring the effects of social media overload on job performance" *Information technology & people*, Vol. 31, No 6, pp.1091-1112.

Yu, L., Cao, X., Liu, Z., Wang, J. (2018), "Excessive social media use at work: Exploring the effects of social media overload on job performance" *Information technology & people*, Vol. 31.6, pp.1091-1112.

Zhu, M., Sun, Y., Jeyaraj, A., Hao, J. (2021), "Impact of task characteristics on employee agility: The moderating effect of enterprise social media visibility", *Internet Research*, Vol. 31, No 3, pp.931-960.

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**DARBUOTOJŲ NOVATORIŠKUMO SKATINIMAS PER ĮMONIŲ SOCIALINĘ ŽINIASKLAIDĄ****Huizhong Chi, Huixin Yang**

**Santrauka.** Šiame tyrime siekiama empiriškai ištirti, kaip įmonių socialinė žiniasklaida veikia Kinijos įmonių darbuotojų novatoriškumą, atsižvelgiant į kolektyvo atmosferą bei vadovo ir pavaldinių santykius. Tyrimo dalyviai atrinkti per „Credamo“ platformą pasitelkus anketos metodą. Remiantis socialinių mainų teorija, tyrimo rezultatai rodo, kad vadovų ir pavaldinių bendravimas bei kolektyvo atmosfera veikia kaip svarbūs mechanizmai, per kuriuos socialinė žiniasklaida daro įtaką įmonių darbuotojų novatoriškumui. Socialinės žiniasklaidos naudojimas įmonėse palengvina vadovų ir pavaldinių bendravimą, skatina darbuotojus labiau atsiduoti darbui, priimti naujoves, optimizuoja organizacijos veiklos rezultatus. Todėl novatoriškumas skatinamas pagerinus socialinių mainų procesus darbo vietoje. Be to, šis tyrimas taip pat patvirtina, kad įmonės socialinės žiniasklaidos intensyvumas stipriai moderuoja santykį tarp socialinės žiniasklaidos naudojimo ir darbuotojų novatoriškumo. Vadovo ir pavaldinių bendravimas stiprina darbuotojų novatoriškumo poveikį, taip suintensyvindamas įmonės socialinę žiniasklaidą. Tyrimas suteikia vertingų įžvalgų apie įmonės socialinės žiniasklaidos naudojimo įtaką socialinių mainų santykiams ir darbuotojų novatoriškumui.

**Reikšminiai žodžiai:** įmonių socialinė žiniasklaida; socialinių mainų teorija; darbuotojų novatoriškumas; atsidavimas darbui; socialiniai mainai; organizacinės veiklos rezultatai.