The Impact of Work-Related Social Media Usage on Employee Engagement and Job Performance: Evidence from Chinese Employees in Mainland China

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Abstract

The expansion of social media platforms not only provides professionals with valuable networking opportunities but also influences employees' psychological well-being and organizational outcomes. This study was grounded in the uses and gratification theory to investigate the effects of employees' usage of work-related social media on employee engagement and job performance. Specifically, job engagement, organizational engagement, innovative job performance, and routine performance were examined to explore nuanced outcomes. Data was collected from 381 Chinese employees in mainland China using a hybrid sampling design of snowball sampling method and convenience sampling method. The findings of the PLS-SEM analysis revealed that the proposed model has moderate explaining power on innovative job performance (R^2 = .57) and demonstrates nearly moderate levels of organizational engagement (R^2 = .41) and routine job performance (R^2 = .39). Additionally, work-related social media usage was found to be a stronger predictor of organizational engagement (ß = .64, p < .00; f^2 = .70) compared to job engagement (ß = .50, p < .00; f^2 = .33). Furthermore, the findings suggest that different types of engagement have varying impacts on different dimensions of job performance. This study provides empirical evidence supporting the application of the uses and gratification theory from the employees' perspective. The results also offer practical insights for organizations and managers, emphasizing the importance of fostering appropriate social media use, addressing different dimensions of employee engagement, and creating a supportive work environment that promotes both innovative and routine job performance.

Keywords: Social Media Usage, Uses and Gratification Theory, Employee Engagement, Job Performance

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ผลกระทบของการใช้โซเชียลมีเดีย ต่อความผูกพันของพนักงานและผลการปฏิบัติงาน

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บทคัดย่อ

การขยายแพลตฟอร์มโซเชียลมีเดียไม่เพียงแต่ช่วยเตรียมความเป็นมืออาชีพด้วยโอกาสการสร้างเครือข่ายที่มีคุณค่าเท่านั้น แต่ยังส่งผลต่อสุขภาพจิตที่ดีของพนักงานและผลลัพธ์ขององค์กรอีกด้วย การศึกษานี้มีพื้นฐานมาจากทฤษฎีการใช้ประโยชน์และความพึงพอใจเพื่อตรวจสอบผลกระทบของการใช้โซเชียลมีเดียที่เกี่ยวข้องกับงานของพนักงานต่อการมีส่วนร่วมของพนักงานและผลการปฏิบัติงาน โดยเฉพาะอย่างยิ่ง การมีส่วนร่วมในงาน การมีส่วนร่วมต่อองค์กร ผลการปฏิบัติงานเชิงนวัตกรรม ผลการปฏิบัติงานประจำวัน ซึ่งได้รับการตรวจสอบเพื่อสำรวจผลลัพธ์ที่เหมาะสม ข้อมูลถูกรวบรวมจากพนักงานชาวจีน 381 คนในจีนแผ่นดินใหญ่โดยใช้การสุ่มตัวอย่างแบบผสมของวิธีการสุ่มตัวอย่างแบบสโนว์บอลและวิธีการสุ่มตัวอย่างแบบสะดวก ผลการวิจัยของการวิเคราะห์สมการโครงสร้างแบบ PLS-SEM พบว่า แบบจำลองที่นำเสนอมีอิทธิพลในการอธิบายปานกลางสำหรับผลการปฏิบัติงานเชิงนวัตกรรม (R^2 = .57) และแสดงให้เห็นถึงอิทธิพลในการอธิบายระดับเกือบปานกลางสำหรับการมีส่วนร่วมต่อองค์กร (R^2 = .41) และผลการปฏิบัติงานประจำวัน (R^2 = .39) นอกจากนี้ พบว่า การใช้โซเชียลมีเดียที่เกี่ยวข้องกับงานเป็นตัวทำนายการมีส่วนร่วมต่อองค์กรได้ดีกว่า (β = .64, $p < .00$; f^2 = .70) เมื่อเปรียบเทียบกับการมีส่วนร่วมในงาน (β = .50, $p < .00$; f^2 = .33) ยิ่งไปกว่านั้น ผลการวิจัยยังชี้ให้เห็นว่าการมีส่วนร่วมของพนักงานประเภทต่าง ๆ มีผลกระทบที่แตกต่างกันไปสำหรับผลการปฏิบัติงานในบริบทที่แตกต่างกัน การศึกษานี้ให้หลักฐานเชิงประจักษ์ที่สนับสนุนการประยุกต์ใช้ทฤษฎีการใช้ประโยชน์และความพึงพอใจจากมุมมองของพนักงาน ผลลัพธ์ยังนำเสนอข้อมูลเชิงลึกเชิงปฏิบัติการสำหรับองค์กรและผู้จัดการ โดยเน้นความสำคัญของการส่งเสริมการใช้โซเชียลมีเดียอย่างเหมาะสม จัดการกับมิติต่าง ๆ ของการมีส่วนร่วมของพนักงาน และสร้างสภาพแวดล้อมการทำงานที่ส่งเสริมผลการปฏิบัติงานทั้งเชิงนวัตกรรมและงานประจำ

คำสำคัญ : การใช้โซเชียลมีเดีย ทฤษฎีการใช้ประโยชน์และความพึงพอใจ การมีส่วนร่วมของพนักงาน ผลการปฏิบัติงาน

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1. Introduction

With the increasing size of the global digital population, the utilization and scope of social media platforms continue to expand. In 2022, approximately 1.02 million social media users in China, which representing around 74 percent of Chinese population (Lin, 2022a). The rapid widespread and development adoption of social media platforms have demonstrated a substantial influence on job performance. Previous studies found that the usage of social media platforms in firms has the positive effect on individual's job performance (Song et al., 2019; Chen et al., 2022; Ali-Hassan et al., 2015). Even Luqman et al. (2021) revealed that socio-instrumental utilization of work-related social media can increase the psychological transition and interruption overload of employees, Lin (2022a) forecasted the number of social media users in China would reach around 1.21 million. Besides, numerous corporations have recognized the significance of the multifunctional social media platform WeChat in sustaining their business operations and enhancing their competitiveness in China (Lin, 2023a). As a consequence, enterprises should place a strong emphasis on fostering the proper and effective usage of social media in the organizations by their employees.

Nowadays, the research of social media usage predominantly focused on the following two perspectives. From the employees' perspective, numerical scholars have focused on exploring the effect of social media usage on employee productivity (Nisar et al., 2019), individual's job performance (Nisar et al., 2019; Song et al., 2019), and information overload (Chen & Wei, 2019). Based on the firm level, previous scholars have examined the outcomes of social media usage, such as team performance (Ali et al., 2020; Song et al., 2019), firm performance (Ahmad et al., 2019; Tajvidi & Karami, 2021), and cost reduction (Tajudeen et al., 2018). While there have been studies carried out on social media usage in the workplace, certain limitations persist in the existing research. On one hand, as Ali-Hassan et al. (2015) stated, individual job performance consists of two components as routine job performance and innovative job performance. Many studies have not segmented job performance as they just studied the utilization of social media on job performance (Nisar et al., 2019; Song et al., 2019). On the other hand, existing studies have explored the impacts

of social media usage on individuals' psychological consequences, which subsequently manifest in their performance or behaviors; however, these outcomes often tend to be negative in terms of psychological well-being (Chen & Wei, 2019).

To fill up these gaps, this study based on uses and gratifications (U&G) theory (Katz et al., 1973) to examine how social media usage with work-related purpose affect employees' engagement and job performance in the Chinese context. U&G research examines the psychological and social origins of needs, which produce media expectations and diverse engagement patterns, ultimately resulting in gratification fulfillment (Katz et al., 1974). By gaining a nuanced understanding of the motivations behind the usage of work-related social media and how it fulfills individuals' gratification needs, this study provides both theoretical and practical contributions. First, this study not only explores the unique gratifications sought by employees within their work environment, but also sheds light on how these gratifications contribute to broader organizational outcomes, such as employee engagement and job performance. Second, the U&G theory does not extensively address the engagement from employees' perspective, as previous studies focused on the perspectives of consumers and educators (Kujur & Singh, 2020). Thus, this study tends to explain the organizational employee's perspective by understanding how work-related social media usage impacts the outcomes. In addition, this study provides practical implications on providing insights into the effective employees' utilization of social media in the workplace for promoting employee engagement, ultimately enhancing individual's job performance. Thus, it also contributes to SDG 8.4 by providing insights into increasing employees' job performance, leading to enhanced productivity and sustainable economic growth within organizations.

2. Literature Review

2.1 Social media use in the workplace

Scholars have shown significant interest in the utilization of social media within the workplace. Regarding the dimension of social media usage, previous studies have segmented it into different dimensions, such as social-related and work-related social media usage (Chen et al., 2022; Song et al., 2019; Zhang et al., 2019), social use, hedonic use and cognitive use (Ali-Hassan et al., 2015); work-related and non-work-related social media usage (Luo et al., 2018), as well socializing and informational social media usage (Hu et al., 2017). Previous studies mentioned that the diverse objectives underlying social media usage can result in varying effects on organizational performance (Chen et al., 2022). While numerous scholars have explored social media usage from both work-related and social-related dimensions, this study will specifically concentrate on work-related social media usage to better understand its impact on employee engagement and individual job performance.

Work-related social media encompasses online platforms utilized within the workplace to enhance resource creation, cooperation and the sharing of crucial work-related data and materials, such as organizing tasks, monitoring events, and formal communication throughout the internal organization (Benitez et al., 2018). It encompasses activities like exchanging opinions, seeking advice, and reading work-related posts, while also facilitating the establishment and nurturing of relationships among coworkers (Chen et al., 2022). Within Chinese enterprises, social media platforms like WeChat are extensively employed for work-related functions, including scheduling meetings with colleagues to discuss work projects and exchanging information concerning organizational goals, policies, and procedures (Zhang et al., 2019).

2.2 Uses and gratifications theory

The uses and gratifications (U&G) theory is a prominent communication theory that focuses on understanding why individuals choose and consume media (Liu et al., 2019). U&G theory emphasizes that people actively seek out media to fulfill their specific needs and gratifications (Liu et al., 2019). Instead of viewing individuals as passive recipients of media messages, the theory recognizes the active role of audiences in selecting and using media based on their motivations and desired outcomes (Liu et al., 2019). In general, U&G posits that people have diverse needs and expectations from media, which drive their engagement and consumption patterns.

The U&G theory is a well-established theory in the field of media studies that aims to understand the motivations behind individuals' media usage. It has been widely applied to investigate various new forms of media nowadays, including online services (Camilleri & Falzon, 2021; Hsu et al., 2020), and social media platforms (Lin & Chu, 2021). Previous studies have also explored the role of social media in facilitating social connections, maintaining relationships, and fostering social support networks (Kujur & Singh, 2020; Lin & Chu, 2021). Furthermore, researchers have investigated how social media usage is associated with psychological well-being, such as self-esteem (Ferris & Hollenbaugh, 2018), and emotional gratifications (Camilleri & Falzon, 2021). In recent years, the application of the U&G theory in the social media field has extended to the study of core employees in organizations. Scholars have explored how employees utilize social media platforms for work-related purposes, such as professional networking, collaboration, knowledge sharing, and information seeking. Understanding the gratifications derived from work-related social media usage can provide valuable insights into job performance (Ali-Hassan et al., 2015), job satisfaction (Zhang et al., 2019) and communication (Kujur & Singh, 2020; Sun et al., 2020). By analyzing the underlying motivations and needs that drive social media use in the workplace, researchers can develop a comprehensive understanding of how these platforms contribute to the work environment and the well-being of core employees.

In conclusion, the U&G theory offers a valuable framework for understanding media consumption and usage patterns, including social media platforms. By considering the gratifications sought by individuals and the diverse needs they aim to fulfill, researchers can explore the motivations behind social media usage, explore the impacts on various aspects of individuals' lives, and uncover the role of social media in organizational contexts, particularly with regards to core employees.

2.3 Hypotheses development

2.3.1 Work-related social media usage and employee engagement

Men et al. (2020) demonstrated that employees' use of internal social media (Men et al., 2020) are considered significant in influencing employee engagement. The U&G theory posits that individuals select media platforms based on their personal needs. In the context of enterprises, social media usage encompasses both work-related and nonwork-related (social) activities, serving distinct purposes for users. Social media platforms, characterized by user-generated content (UGC), provide employees with the ability to generate, distribute, share, and exchange information in various formats and with diverse communities (Pekkala & Zoonen, 2022). In other words, social media platforms can foster active participation, facilitate knowledge sharing and collaboration, open communication channels, and strengthen the sense of belonging and connection among employees, in turn, increasing employee engagement. The same trend can be observed in China, numerous companies have recognized the vital significance of utilizing multifunctional social media applications to sustain their business operations and enhance their competitiveness (Lin, 2023). For instance, Zhang et al. (2019) investigated 298 respondents from China and found that work-related social media usage significantly enhanced both employees' job engagement and organizational engagement. Therefore, following hypotheses are proposed:

H1: Work-related social media usage has the positive effect on employees' job engagement.

H2: Work-related social media usage has the positive effect on employees' organizational engagement.

2.3.2 Work-related social media usage and job performance

Individual job performance was conceptualized by Katz (1964), that encompasses multiple dimensions, including innovative job performance and in-role job performance, representing different aspects of an individual's work performance (Ali-Hassan et al., 2015; Deng et al., 2023). In-role job performance, also referred to as routine job performance, pertains to the fulfillment of mandatory job-related tasks, duties, and responsibilities that are organized and recognized by the organization (Chen et al., 2019). This requests individuals to display formal behaviors in order to accomplish their performance objectives as specified in the job description (Deng et al., 2023). Innovative job performance pertains to actions that go beyond routine job expectations with a purpose of generating novel outputs (Ali-Hassan et al., 2015). It refers to the deliberate creation, promotion, and implementation of novel ideas within an organization, typically assessed by the generation of new and valuable ideas and by discretionary efforts exceeding mandatory duties (Chen et al., 2020).

Social media platforms provide the channels of communication and information sharing for employees in the workplace. Zhao et al. (2018) concluded that enterprise social media enhances information sharing, team coordination, and intelligent data collection in organizations. Song et al. (2019) conducted a quasi-natural field experiment in a major financial service company in Western China and discovered that social-oriented social media (WeChat) and work-related social media (DingTalk) mutually enhance each other to enhance team and employee performance. In addition, Kuegler et al. (2015) demonstrates that the utilization of enterprise social media among teams significantly impacts task performance and employee innovation. Therefore, below hypotheses are presented:

H3: Work-related social media usage positively affects employees' innovative job performance.

H4: Work-related social media usage positively affects employees' routine job performance.

2.3.3 Employee engagement and job performance

Employee engagement is considered as an exclusive construct encompassing behavioral, emotional, and cognitive components that are closely tied to an individual's performance within their specific role (Saks, 2019). Given that individuals typically have two primary roles within an organization, work roles and a role as an organizational member, employee engagement can be classified into two primary dimensions, job engagement and organizational engagement, signifying the level of psychological presence an individual maintains in their specific organizational role (Zhang et al., 2019). Employee vitality and absorption are signs of a happy and satisfying work environment, which is known as job engagement (Jung et al., 2021). According to Rai and Maheshwari (2020), organizational engagement climate is defined as the general sense of workers' enthusiastic and voluntary dedication to achieving company goals. This suggests a strong correlation between employee engagement and a company's strategy, mission, and vision.

Several scholars proved the significant effect of employee engagement on job performance (Pongton & Suntrayuth, 2019; Carter et al., 2018). Besides, social exchange theory (SET) states a compelling argument for the relationship between employee engagement and performance, as it suggests that obligations arise from interactions between mutually dependent parties (Cropanzano et al., 2017). This implies that engaged employees tend to fulfill their obligations and reciprocate in ways that positively influence performance outcomes. In an organization, job descriptions provide details and information regarding the specific tasks and responsibilities performed within job roles (Webb, 2019). Individuals may utilize social media as a means to fulfill their work-related obligations, thereby enhancing their routine job performance.

Apart from routine job performance, Pandita and Ray (2018) mentioned that employees who are engaged will inspire creative concepts and tend to actively participate in generating and executing innovative ideas. Besides, job engagement represents the connection an employee feels towards their specific role and tasks, which when high, fosters a sense of ownership, intrinsic motivation, and a willingness to go beyond the requirement of duty to innovate (Saks et al., 2022). Simultaneously,

organizational engagement, the emotional commitment an employee feels towards the overall company and its goals that can foster an environment that supports, rewards, and recognizes innovation (Tetik & Zaim, 2021). Thus, by nurturing both job engagement and organizational engagement, organizations can cultivate an environment conducive to individual innovative job performance, thereby fostering enhanced productivity and organizational success. As a consequence, the following hypotheses are illustrated:

H5: Job engagement positively influences innovative job performance.
H6: Job engagement positively influences routine job performance.
H7: Organizational engagement positively affects innovative job performance.
H8: Organizational engagement positively affects routine job performance.

2.3.4 Demographic factors of employees

Previous studies have shown that various demographic factors significantly influence employees' job performance. Gender differences can manifest in distinct communication styles, problem-solving approaches, and leadership preferences, impacting teamwork and productivity (Shen & Joseph, 2021). Position within an organization also plays a crucial role, as individuals in managerial roles may experience greater job demands and responsibilities, potentially affecting their performance compared to non-managerial counterparts (Aung et al., 2023). Age, on the other hand, can influence factors such as motivation, learning ability, and adaptability to technological advancements, all of which are critical for job performance (Warr, 2020). Understanding these demographic influences is essential for organizations to implement effective strategies for maximizing employee performance and fostering a diverse and inclusive workplace. Thus, below hypothesis is presented:

H9: Employees' demographic factors affect innovative job performance.
H10: Employees' demographic factors affect routine job performance.

3. Methodology

3.1 Participants

A self-administrated survey written in Chinese was distributed to collect the primary data in this cross-sectional quantitative research. Participants in this study were Chinese who working as a full-time or part-time employee in the mainland of China. This study was aimed to investigate the employees' job performance within an organization; therefore, some exclusion criteria were included: 1) Chinese employees who were age under 18 years old; 2) retired employees; and 3) running their own business.

3.2 Instruments

A quantitative methodology was applied to investigate the proposed framework in this study. Data collection was carried out through a self-administered questionnaire, comprising two distinct sections. The first section was demographic data that involves position (0 = management; 1 = employee), age (exact age of year 2023) and gender (0 = female; 1 = male). The second part consists of a 7-point Likert scale used to assess the level of agreement and frequency of respondents regarding twenty-five items. The scale for measuring work-related social media usage was derived from Zhang et al. (2019) and Ali-Hassan et al. (2015), comprising eleven items. The scales for job engagement and organizational engagement were adapted from Zhang et al. (2019), consisting of six items. The scales for routine job performance and innovative job performance were adapted from Ali-Hassan et al. (2015), which encompass eight items.

Given that the participants of this study were Chinese, a back-translation method (Behr, 2017) was employed to translate the questionnaire into the Chinese language. Additionally, a pilot study was conducted to assess the questionnaire's reliability and validity, confirming that all constructs met the threshold.

3.3 Data collection

A convenience sample was conducted via WeChat (a multifaceted and popular social networking application in China) in 18th to 30th May 2023. The recruitment process employed a snowball sampling method, whereby the researchers leveraged their personal and professional connections as well as distributed invitations with the request to share them further. This hybrid sampling design was applied for two reasons.

First, as of March 2023, WeChat had over 1.3 billion monthly active users (Lin, 2023b) with a well-distributed user age range (Lin, 2022c). Second, by utilizing a convenient sampling approach, the promotion of the study can disseminate among the network of older adults' family members, associates, and acquaintances. Because Chinese consumers of WeChat generally spend a minimum of two hours a day on the app, with 25 percent of users using it for over four hours daily, as of July 2021 (Lin, 2022b). To assess the compatibility of prospective participants, one pre-screen question was involved to ask the current working status of the respondents. Only active employees who participated in this questionnaire were granted access to the questionnaire.

A total of 495 questionnaires were received. By filtering out respondents below 18 years of age, those who completed the questionnaire within 120 seconds, and individuals providing consistent answers throughout, 114 questionnaires were removed due to potential untrustworthy responses. As a result, a total of 381 valid questionnaires were suitable for data analysis, fulfilling the requirement of having at least 201 respondents to attain a 93% confidence level when the population size exceeds 15,000, as per the Taro Yamane formula (Taro, 1967). Besides, Hair et al. (2019) mention that the sample size should exceed ten times the maximum number of linkages connecting any latent variable in the inner or outer models for a partial least squares structural equation modeling (PLS-SEM). In this study, there are 11 indicators for the latent variable of social media usage, thus this study fulfills the sample size requirement of 110. Table 1 presents an overview of the demographic profiles of the survey participants.

Table 1: Demographic profiles of the survey participants

Demographic factors	Descriptive statistics
Position	Management: 126 (33.1%)
	Employee: 255 (66.9&)
Age	Mean: 30.93
	S.D.: 5.41
Gender	Male: 172 (45.1%)
	Female: 209 (54.9%)

3.4 Data analysis

In this study, the assessment of the proposed model employed the application of partial least squares structural equation modeling (PLS-SEM). Firstly, the proposed model consisted of 8 hypotheses and was considered complex in nature. PLS-SEM was chosen as it enables the analysis of highly complex models. Secondly, PLS-SEM is well-suited for theory development and exploratory research, aligning with the innovative nature of the proposed model in this study. Thirdly, one objective of this study is to predict employees' job performance. Therefore, PLS-SEM was selected because it focuses on predictions. In conclusion, SmartPLS (Ringle et al., 2022) was employed to examine the model.

4. Results

4.1 Measurement model analysis

Before proceeding with the evaluation of the structural model, it is essential to ensure that all specified criteria are satisfied (Hair et al., 2019). To assess the reliability and validity of the measurement model, several indicators were utilized, including factor loadings, average variance extracted (AVE), discriminant validity composite reliability (CR), and Cronbach's alpha (CA).

Table 2 presented the factor loadings, which were assessed to ensure the reliability of the indicators. The loadings were examined to determine their significance level, with values exceeding .708 and achieving significance at the .05 level (Hair et al., 2019). Concurrently, cross-loadings were examined, revealing that each indicator displayed a higher loading for its designated construct compared to any other constructs (Hair et al., 2019). Hence, the results provided confirmation of both the reliability and discriminant validity of the indicators.

Table 2: Factor loadings and cross loadings for the indicators

Construct	Indicators	JE	JP_I	JP_R	OE	SMU
Job Engagement (JE)	JE1	**.86 (48.17)**	.44	.48	.48	.41
	JE2	**.85 (50.55)**	.46	.49	.47	.43
	JE3	**.88 (56.21)**	.52	.49	.56	.45
Innovative Job Performance (JP_I)	JP_I1	.46	**.86 (53.99)**	.46	.62	.55
	JP_I2	.47	**.83 (43.48)**	.41	.62	.54
	JP_I3	.46	**.83 (45.01)**	.46	.54	.56
	JP_I4	.46	**.85 (50.38)**	.40	.60	.51
	JP_I5	.49	**.87 (60.71)**	.47	.58	.56
Routine Job Performance (JP_R)	JP_R1	.45	.49	**.81 (35.38)**	.50	.44
	JP_R2	.50	.41	**.83 (40.19)**	.42	.41
	JP_R3	.37	.31	**.73 (13.94)**	.28	.29
Organizational Engagement (OE)	OE1	.53	.62	.47	**.88 (66.08)**	.56
	OE2	.52	.63	.44	**.90 (77.129)**	.59
	OE3	.51	.62	.46	**.89 (77.43)**	.57

Table 2: Factor loadings and cross loadings for the indicators (cont.)

Construct	Indicators	JE	JP_I	JP_R	OE	SMU
Social Media Usage (SMU)	SMU1	.40	.47	.39	.40	**.76 (26.45)**
	SMU2	.35	.50	.35	.53	**.81 (28.84)**
	SMU3	.40	.48	.40	.54	**.82 (38.02)**
	SMU4	.38	.53	.34	.54	**.80 (31.10)**
	SMU5	.33	.49	.39	.42	**.78 (30.34)**
	SMU6	.42	.55	.45	.50	**.79 (29.43)**
	SMU7	.36	.45	.33	.43	**.71 (22.93)**
	SMU8	.42	.45	.36	.44	**.73 (23.66)**
	SMU9	.43	.53	.43	.59	**.78 (26.06)**
	SMU10	.39	.52	.34	.56	**.77 (27.82)**
	SMU11	.35	.46	.35	.48	**.76 (22.97)**

Note: value within () is T-value.

Secondly, internal consistency reliability of the constructs was assessed by calculating composite reliability (CR) and Cronbach's alpha (CA). Table 3 demonstrates that all metrics exceeded the minimum threshold of .70 (Hair et al., 2019), indicating satisfactory internal consistency reliability. Convergent validity was evaluated by measuring the Average Variance Extracted (AVE) values, which were all above the recommended threshold of .5 (Hair et al., 2019), confirming adequate convergent validity.

Due to potential overestimation of indicator loadings and underestimation of structural model relationships by the Fornell-Larcker criterion in PLS (Hair et al., 2021), a stricter criterion, the Heterotrait-Monotrait (HTMT) ratio of correlation, was employed to assess discriminant validity. All HTMT ratio test results ranged from .57 to .79, which is below the threshold of .85 (Hair et al., 2021), indicating that all constructs are independent of each other and confirming satisfactory discriminant validity.

Table 3: Reliabilities and correlation of constructs

Constructs	CA	CR	AVE	Correlation of constructs and Heterotrait-Monotrait (HTMT) ratio				
				JP_I	JE	OE	JP_R	SMU
Innovative Job Performance (JP_I)	.90	.93	.72	**.85**				
Job Engagement (JE)	.83	.90	.75	.55 (.63)	**.86**			
Organizational Engagement (OE)	.87	.92	.80	.70 (.79)	.58 (.68)	**.89**		
Routine Job Performance (JP_R)	.71	.84	.63	.52 (.63)	.56 (.72)	.51 (.63)	**.79**	
Social Media Usage (SMU)	.93	.94	.60	.64 (.70)	.50 (.57)	.64 (.71)	.49 (.59)	**.77**

Note: square root of AVE is illustrated on the diagonal; value within () is the value of HTMT.

4.2 Common Method Bias (CMB) assessment and multicollinearity

To address the common method bias (CMB) concern, two approaches were utilized. Firstly, Harman's one-factor method was employed, which involved extracting a single component from a set of factors (Howard & Henderson, 2023). The unrotated principal components factor analysis yielded a total variance of 45.41%, indicating the absence of CMB (Sun et al., 2019). Additionally, a marker variable was utilized as a control variable, and its non-significant impact on the proposed model further confirmed the absence of CMB (Kock et al., 2021). Moreover, to evaluate multicollinearity, the full variance inflation factor (VIF) was examined. The results indicated no multicollinearity issues, as the VIFs for latent variables ranged from 1.00 to 2.02, all below the threshold of 3 (Hair et al., 2019).

4.3 Structural model analysis

To ensure a stable outcome, the PLS algorithm was utilized with 300 iterations and 5000 times bootstrapping to test the path coefficients of the latent constructs and assess their significance accordingly (Hair et al., 2019). Figure 1 depicts the assessment of the significance of the path coefficients, effect size (f^2), Q^2, and R^2. First, the results indicate that the model possesses a moderate level of explanatory power for innovative job performance (R^2 = .57), while demonstrating a nearly moderate level for organizational engagement (R^2 = .41) and routine job performance (R^2 = .39). Besides, the model shows a weak ability to explain job engagement (R^2 = .25). Then, the results demonstrate that the model has a moderate level of predictive accuracy with innovative job performance (Q^2 = .40) being the highest, followed by organizational engagement (Q^2 = .32), routine job performance (Q^2 = .23), and job engagement (Q^2 = .18). Finally, the model reveals that innovative job performance is influenced by three main factors, which are organizational engagement (ß = .42, p < .00; f^2 = .20), work-related social media usage (ß = .29, p < .00; f^2 = .11), and job engagement (ß= .16, p < .00; f^2 = .04). In terms of routine job performance, the most significant determinant is job engagement (ß= .36, p < .00; f^2 = .13), followed by work-related social media usage (ß = .20, p < .00; f^2 = .04) and organizational engagement (ß = .17, p < .01; f^2 = .03). Furthermore, work-related social media usage

proves to be a stronger predictor of organizational engagement (ß = .64, $p < .00$; $f^2 = .70$) compared to job engagement (ß = .50, $p < .00$; $f^2 = .33$). Lastly, demographic factors such as position, age, and gender do not significantly impact either innovative or routine job performance.

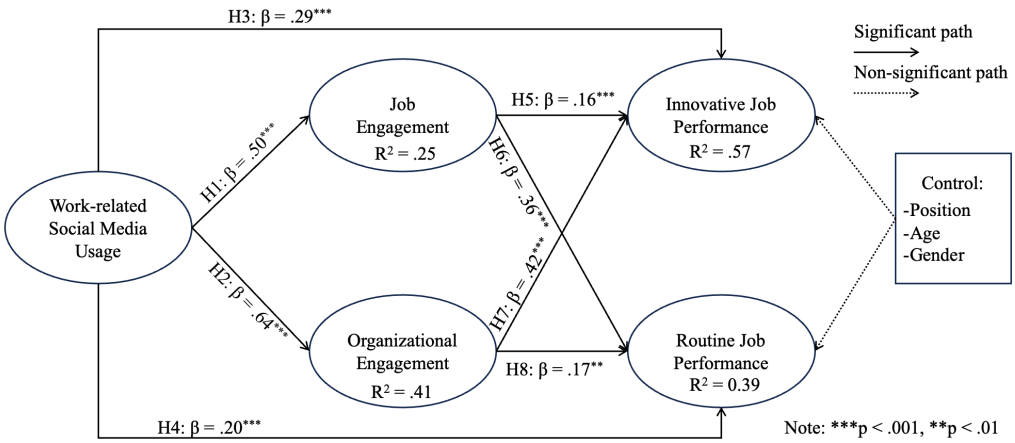

Figure 1: The results of the structural model

4.4 Mediating effects

To further investigate the mediating effects among the constructs in the theoretical framework, a thorough examination of these effects was conducted. Following the guidelines and procedures outlined by Zhou et al. (2021), the mediating effects were assessed using bootstrap analysis (5000 times). The assessment involved examining the total effects, indirect effects, and direct effects to explore the mediating relationships among the constructs. Significance of both the total effects and indirect effects is a crucial requirement for meaningful presence of mediating effects. Table 4 presents that both organizational engagement and job engagement play a complementary partial mediating effects among work-related social media usage and both innovative job performance and routine job performance.

Table 4: Mediating effects on the structural model

Path	Effects	Estimate	Bootstrap 5000 times			Percentile 95%		Conclusion
			S.E.	T-Statistics	P-Value	Low	Upper	
SMU→ JE → JP_I	Direct Effects	.29	.06	4.81	.00	.17	.42	Complementary Partial Mediation
	Indirect Effects	.08	.03	2.86	.00	.03	.14	
	Total Effects	.64	.04	15.49	.00	.55	.72	
SMU→OE→ JP_I	Direct Effects	.29	.06	4.81	.00	.17	.42	Complementary Partial Mediation
	Indirect Effects	.27	.04	6.61	.00	.19	.35	
	Total Effects	.64	.04	15.49	.00	.55	.72	
SMU→JE→ JP_R	Direct Effects	.20	.07	2.95	.00	.07	.33	Complementary Partial Mediation
	Indirect Effects	.18	.04	4.69	.00	.11	.26	
	Total Effects	.49	.05	9.60	.00	.38	.58	
SMU→OE→ JP_R	Direct Effects	.20	.07	2.95	.00	.07	.33	Complementary Partial Mediation
	Indirect Effects	.11	.04	2.75	.01	.03	.19	
	Total Effects	.49	.05	9.60	.00	.38	.58	

Note: SMU=work-related social media usage, JE=job engagement, OE=organizational engagement, JP_I=innovative job performance, JP_R=routine job performance

5. Discussion

Grounded in the U&G theory, this study aimed to investigate the influence of work-related social media usage on employee engagement and job performance in mainland China. By analyzing 381 valid responses using PLS-SEM, the study revealed consistent relationships among work-related social media usage, job engagement, organizational engagement, innovative job performance, and routine job performance, aligning with the theoretical assumptions of the study.

First, the present study provides empirical evidence supporting the positive and significant effects of work-related social media usage on both job engagement and organizational engagement, which align with previous research findings (Men et al., 2020; Zoonen et al., 2022). Notably, these findings are consistent with a study by Zhang et al. (2019) that also demonstrated the positive influences of work-related social media usage on job engagement and organizational engagement. However, the direct relationship found in this study differs from the findings of Oksa et al. (2021), who identified an indirect relationship between social media and employee engagement in Finnish workers. This discrepancy can be attributed to the cultural differences, such as the emphasis on work-life balance and individual privacy in Finland (Noda, 2020), compared to the focus on collective harmony and hierarchical relationships in China (Tian, 2020). Interestingly, the results indicate that work-related social media usage has a stronger impact on enhancing organizational engagement compared to job engagement. This can be explained by two factors. Firstly, work-related social media platforms facilitate communication and collaboration among employees from various departments and levels, fostering a sense of belonging, shared purpose, and alignment with organizational goals, thereby enhancing organizational engagement. Secondly, job engagement primarily focuses on an individual's connection and dedication to their specific role and tasks, which may not encompass the broader organizational context.

In addition to employee engagement, the present study revealed the positive effects of work-related social media usage on job performance. These findings align with prior research conducted by Song et al. (2019) and Kuegler et al. (2015), which

highlighted the significant influence of social media usage on both in-role performance and innovative performance. Furthermore, the observed positive and significant relationship between work-related social media usage and innovative job performance provides evidence supporting the notion that open communication facilitated by social media platforms can foster innovation within organizations, as suggested by Ganguly et al. (2019). In other words, the ability of work-related social media usage to enhance job performance can be attributed to its facilitation of information sharing, collaboration, and the generation of novel ideas, all of which contribute to improved individual and organizational performance.

Next, the results of this study reaffirmed the positive influence of employee engagement on employee performance, corroborating previous findings by Pongton and Suntrayuth (2019), Carter et al. (2018), and Cropanzano et al. (2017). Specifically, it was observed that job engagement had a significant and positive impact on innovative job performance, aligning with the research conducted by Saks et al. (2022), who emphasized that high levels of job engagement foster a willingness to go beyond the expected and contribute to innovation. Furthermore, the finding is consistent with the study conducted by Tetik and Zaim (2021), which highlighted the role of organizational engagement in promoting employees' recognition of the importance of innovation.

More important, job engagement is found to have a stronger positive effect on employees' routine job performance, while organizational engagement is found to have a stronger positive effect on employees' innovative job performance. This finding indicates that different types of engagement have varying impacts on different dimensions of job performance. Job engagement, which relates to the individual's connection and dedication to their specific role and tasks, is more influential in enhancing routine job performance. On the other hand, organizational engagement, which pertains to the individual's sense of belonging, shared purpose, and alignment with the organizational goals, plays a more significant role in promoting innovative job performance. Overall, these results underscore the significance of employee engagement, both at the job and organizational levels, in driving improved performance.

Finally, both job engagement and organizational engagement were identified as complementary partial mediators in the relationship between work-related social media usage and both innovative job performance and routine job performance in this study. It indicates that both job engagement and organizational engagement partially mediate the relationship between the work-related social media usage and job performance among employees within the organization. This indicates that the employee engagement plays a role in transmitting the effects of work-related social media usage to job performance, but they do not fully account for the relationship. The presence of partial mediating effects highlights the complex nature of the relationship and suggests that other factors or mechanisms may also be involved in influencing job performance.

6. Theoretical Contributions and Managerial Implications

6.1 Theoretical contributions

This study enhances the existing literature on work-related social media usage by introducing a novel model that examines its impact on employee engagement and job performance specifically in the context of China. Particularly, the study offers several significant theoretical contributions. Firstly, it expands the understanding of the gratifications sought by employees in the workplace and their impact on organizational outcomes, such as employee engagement and job performance. By linking work-related social media usage, employee gratifications, and organizational outcomes, this study provides insights into how social media use influences employee engagement and their job performance. Secondly, this study fills a gap in the U&G theory, which typically focuses on gratifications from the perspectives of consumers and educators, by applying it to the employee's perspective. Besides, this study deepens the understanding of the role of social media in enhancing employee engagement and sheds light on the dynamics between technology use, employee gratifications, and work-related outcomes. Lastly, by exploring job engagement and organizational engagement, this study contributes to a more comprehensive understanding of employee engagement and its implications within

the workplace. It sheds light on the unique mechanisms that influence engagement levels at both the job-specific and organizational levels, advancing theoretical frameworks in the field of employee engagement. Simultaneously, by focusing on innovative job performance and routine job performance separately, this study contributes to a more nuanced understanding of the mechanisms and conditions that facilitate innovation and routine task performance.

6.2 Managerial implications

Based on the findings of this study, several managerial implications can be drawn. Firstly, organizations should recognize the importance of work-related social media usage as a tool to enhance employee engagement and job performance. This can be achieved by providing training and resources on effective social media usage, establishing guidelines for responsible use, and creating opportunities for knowledge sharing. Secondly, managers should encourage and support the appropriate use of social media platforms by facilitating employees' participation in professional networks, providing access to collaboration tools, and recognizing innovative use of social media. Lastly, it is crucial for managers to pay attention to the dimensions of job engagement and organizational engagement. This can be done through regular assessments, identifying factors that contribute to engagement, and designing targeted interventions to enhance job engagement and organizational engagement. By implementing these actions, managers and organizations can leverage work-related social media usage, foster employee engagement, and improve job performance in both routine and innovative aspects.

7. Limitations and Recommendations

While this study has made valuable contributions, there are certain limitations that should be acknowledged. Firstly, the use of cross-sectional data collection restricts the ability to observe patterns and changes in constructs over time. Future research could employ longitudinal data collection methods to better understand causal relationships. Secondly, the reliance on nonprobability sampling methods which

limits the generalizability of the study's findings. Future research should consider using probability sampling techniques for a more representative sample. Thirdly, this study focused solely on Chinese employees in mainland China, warranting the inclusion of participants from other countries to provide a cross-cultural comparison. Additionally, WeChat was the only channel applied to distribute the questionnaire in this study. Future studies may cover other chat or social media platforms to distribute the questionnaire. Lastly, by considering social media platforms in a general sense, this study overlooks potential variations in outcomes across different platforms. Future research could explore the specific functions and purposes of different social media platforms to gain a more nuanced understanding of their effects.

8. References

Ali-Hassan, H., Nevo, D., & Wade, M. (2015). Linking dimensions of social media use to job performance: The role of social capital. *The Journal of Strategic Information Systems, 24*(2), 65-89. https://doi.org/10.1016/j.jsis.2015.03.001

Ahmad, S. Z., Abu Bakar, A. R., & Ahmad, N. (2019). Social media adoption and its impact on firm performance: the case of the UAE. *International Journal of Entrepreneurial Behavior & Research, 25*(1), 84-111. https://doi.org/10.1108/IJEBR-08-2017-0299

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, 61*, 101259. https://doi.org/10.1016/j.techsoc.2020.101259

Aung, Z. M., San Santoso, D., & Dodanwala, T. C. (2023). Effects of demotivational managerial practices on job satisfaction and job performance: Empirical evidence from Myanmar's construction industry. *Journal of Engineering and Technology Management, 67*, 101730. https://doi.org/10.1016/j.jengtecman.2022.101730

Behr, D. (2017). Assessing the use of back translation: The shortcomings of back translation as a quality testing method. *International Journal of Social Research Methodology, 20*(6), 573-584. https://doi.org/10.1080/13645579.2016.1252188

Camilleri, M. A., & Falzon, L. (2021). Understanding motivations to use online streaming services: integrating the technology acceptance model (TAM) and the uses and gratifications theory (UGT). *Spanish Journal of Marketing-ESIC, 25*(2), 217-238. https://doi.org/10.1108/SJME-04-2020-0074

Carter, R. W., Nesbit, P. L., Badham, R. J., Parker, S. K., & Sung, L. (2018). The effects of employee engagement and self-efficacy on job performance: a longitudinal field study. *The International Journal of Human Resource Management, 29*(17), 2483-2502, doi: 10.1080/09585192.2016.1244096

Chen, X., & Wei, S. (2019). Enterprise social media use and overload: A curvilinear relationship. *Journal of Information Technology, 34*(1), 22-38. https://doi.org/10.1177/0268396218802728

Chen, X., Ou, C. X., & Davison, R. M. (2022). Internal or external social media? The effects of work-related and social-related use of social media on improving employee performance. *Internet Research, 32*(3), 680-707. https://doi.org/10.1108/INTR-03-2020-0159

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, 33*(1), 361-388. https://doi.org/10.1108/ITP-11-2017-0408

Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of management annals, 11*(1), 479-516. https://doi.org/10.5465/annals.2015.0099

Deng, H., Duan, S. X., & Wibowo, S. (2023). Digital technology driven knowledge sharing for job performance. *Journal of Knowledge Management, 27*(2), 404-425. https://doi.org/10.1108/JKM-08-2021-0637

Ferris, A. L., & Hollenbaugh, E. E. (2018). A uses and gratifications approach to exploring antecedents to Facebook dependency. *Journal of Broadcasting & Electronic Media, 62*(1), 51-70. https://doi.org/10.1080/08838151.2017.1375501

Ganguly, A., Talukdar, A., & Chatterjee, D. (2019). Evaluating the role of social capital, tacit knowledge sharing, knowledge quality and reciprocity in determining innovation capability of an organization. *Journal of knowledge management, 23*(6), 1105-1135. doi: 10.1108/JKM-03-2018-0190

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, 31*(1), 2-24. https://doi.org/10.1108/EBR-11-2018-0203

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., Ray, S. (2021). Mediation Analysis. In: *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R. Classroom Companion*: Business. Springer, Cham. https://doi.org/10.1007/978-3-030-80519-7_7

Howard, M. C., & Henderson, J. (2023). A review of exploratory factor analysis in tourism and hospitality research: Identifying current practices and avenues for improvement. *Journal of Business Research, 154*, 113328. https://doi.org/10.1016/j.jbusres.2022.113328

Hsu, C. L., Lin, J. C. C., & Miao, Y. F. (2020). Why are people loyal to live stream channels? The perspectives of uses and gratifications and media richness theories. *Cyberpsychology, Behavior, and Social Networking, 23*(5), 351-356. https://doi.org/10.1089/cyber.2019.0547

Hu, S., Gu, J., Liu, H., & Huang, Q. (2017). The moderating role of social media usage in the relationship among multicultural experiences, cultural intelligence, and individual creativity. *Information Technology & People, 30*(2), 265-281. https://doi.org/10.1108/ITP-04-2016-0099

Jung, H. S., Jung, Y. S., & Yoon, H. H. (2021). COVID-19: The effects of job insecurity on the job engagement and turnover intent of deluxe hotel employees and the moderating role of generational characteristics. *International journal of hospitality management*, *92*, 102703. https://doi.org/10.1016/j.ijhm.2020.102703

Katz, D. (1964). The motivational basis of organizational behavior. *Behavioral science, 9*(2), 131-146. https://doi.org/10.1002/bs.3830090206

Katz, E. (1974). Utilization of mass communication by the individual. *The Uses of Mass Communications Current Perspectives on Gratifications Research*, 19-32.

Katz, E., Haas, H., & Gurevitch, M. (1973). On the use of the mass media for important things. *American sociological review, 38*(2), 164-181. https://doi.org/10.2307/2094393

Kock, F., Berbekova, A., & Assaf, A. G. (2021). Understanding and managing the threat of common method bias: Detection, prevention and control. *Tourism Management, 86*, 104330. https://doi.org/10.1016/j.tourman.2021.104330

Kuegler, M., Smolnik, S., & Kane, G. (2015). What's in IT for employees? Understanding the relationship between use and performance in enterprise social software. *The Journal of Strategic Information Systems, 24*(2), 90-112. https://doi.org/10.1016/j.jsis.2015.04.001

Kujur, F., & Singh, S. (2020). Visual communication and consumer-brand relationship on social networking sites-uses & gratifications theory perspective. *Journal of theoretical and applied electronic commerce research, 15*(1), 30-47. https://doi.org/10.4067/S0718-18762020000100104

Lin, L. (2022a). *Number of social media users in China 2018-2027*. https://www.statista.com/statistics/277586/number-of-social-network-users-in-china/

Lin, L. (2022b). *Average daily time spent on WeChat in China 2021*. https://www.statista.com/statistics/668386/china-amount-of-time-users-spent-on-wechat-daily/

Lin, L. (2022c). *WeChat user age distribution 2022*. https://www.statista.com/statistics/387658/wechat-china-user-age/

Lin, L. (2023a). *Most popular social media in China Q3 2022.* https://www.statista.com/statistics/250546/leading-social-network-sites-in-china/

Lin, L. (2023b). Number of active WeChat messenger accounts Q2 2011-Q1 2023. https://www.statista.com/statistics/255778/number-of-active-wechat-messenger-accounts/

Lin, Y. H., & Chu, M. G. (2021). Online communication self-disclosure and intimacy development on Facebook: the perspective of uses and gratifications theory. *Online Information Review, 45*(6), 1167-1187. https://doi.org/10.1108/OIR-08-2020-0329

Liu, X., Min, Q., & Han, S. (2020). Understanding users' continuous content contribution behaviours on microblogs: An integrated perspective of uses and gratification theory and social influence theory. *Behaviour & Information Technology, 39*(5), 525-543. https://doi.org/10.1080/0144929X.2019.1603326

Luo, N., Guo, X., Lu, B., & Chen, G. (2018). Can non-work-related social media use benefit the company? A study on corporate blogging and affective organizational commitment. *Computers in Human Behavior, 81*, 84-92. https://doi.org/10.1016/j.chb.2017.12.004

Men, L. R., O'Neil, J., & Ewing, M. (2020). Examining the effects of internal social media usage on employee engagement. *Public Relations Review, 46*(2), 101880. https://doi.org/10.1016/j.pubrev.2020.101880

Nisar, T. M., Prabhakar, G., & Strakova, L. (2019). Social media information benefits, knowledge management and smart organizations. *Journal of Business Research, 94*, 264-272. https://doi.org/10.1016/j.jbusres.2018.05.005

Noda, H. (2020). Work-life balance and life satisfaction in OECD countries: A cross-sectional analysis. *Journal of Happiness Studies, 21*(4), 1325-1348. https://doi.org/10.1007/s10902-019-00131-9

Oksa, R., Kaakinen, M., Savela, N., Ellonen, N., & Oksanen, A. (2021). Professional social media usage: Work engagement perspective. *New media & society, 23*(8), 2303-2326. https://doi.org/10.1177/1461444820921938

Pandita, D., & Ray, S. (2018). Talent management and employee engagement-a meta-analysis of their impact on talent retention. *Industrial and Commercial Training, 50*(4), 185-199. https://doi.org/10.1108/ICT-09-2017-0073

Pekkala, K., & Van Zoonen, W. (2022). Work-related social media use: The mediating role of social media communication self-efficacy. *European Management Journal, 40*(1), 67-76. https://doi.org/10.1016/j.emj.2021.03.004

Pongton, P., & Suntrayuth, S. (2019). Communication satisfaction, employee engagement, job satisfaction, and job performance in higher education institutions. *Abac Journal, 39*(3), 90-110.

Rai, A., & Maheshwari, S. (2020). Exploring the mediating role of work engagement between the linkages of job characteristics with organizational engagement and job satisfaction. *Management Research Review*, *44*(1), 133-157. https://doi.org/10.1108/MRR-10-2019-0442

Ringle, Christian M., Wende, Sven, & Becker, Jan-Michael. (2022). *SmartPLS 4*. Oststeinbek: SmartPLS. Retrieved from https://www.smartpls.com

Saks, A. M. (2019). Antecedents and consequences of employee engagement revisited. *Journal of Organizational Effectiveness: People and Performance, 6*(1), 19-38. https://doi.org/10.1108/JOEPP-06-2018-0034

Saks, A. M., Gruman, J. A., & Zhang, Q. (2022). Organization engagement: a review and comparison to job engagement. *Journal of Organizational Effectiveness: People and Performance, 9*(1), 20-49. https://doi.org/10.1108/JOEPP- 12-2020-0253

Shen, W., & Joseph, D. L. (2021). Gender and leadership: A criterion-focused review and research agenda. *Human Resource Management Review, 31*(2), 100765. https://doi.org/10.1016/j.hrmr.2020.100765

Song, Q., Wang, Y., Chen, Y., Benitez, J., & Hu, J. (2019). Impact of the usage of social media in the workplace on team and employee performance. *Information & Management, 56*(8), 103160. https://doi.org/10.1016/j.im.2019.04.003

Sun, Y., Liu, Y., & Zhang, J. (2020). Excessive enterprise social media use behavior at work: role of communication visibility and perspective of uses and gratifications theory. *IEEE Access, 8*, 190989-191004. doi: 10.1109/ACCESS.2020.3032035.

Sun, Y., Shao, X., Li, X., Guo, Y., & Nie, K. (2019). How live streaming influences purchase intentions in social commerce: An IT affordance perspective. *Electronic Commerce Research and Applications, 37*, 100886. https://doi.org/10.1016/j.elerap.2019.100886

Tajudeen, F. P., Jaafar, N. I., & Ainin, S. (2018). Understanding the impact of social media usage among organizations. *Information & Management, 55*(3), 308-321. https://doi.org/10.1016/j.im.2017.08.004

Tajvidi, R., & Karami, A. (2021). The effect of social media on firm performance. *Computers in Human Behavior, 115*, 105174. https://doi.org/10.1016/j.chb.2017.09.026

Tetik, S., & Halil, Z. A. I. M. (2021). Effects of talent management practices on organizational engagement: A quasi-experimental study. *Eurasian Journal of Business and Economics, 14*(27), 91-109. https://doi.org/10.17015/ejbe.2021.027.06

Tian, X. (2021). An interactional space of permanent observability: WeChat and reinforcing the power hierarchy in Chinese workplaces. *Sociological Forum, 36*(1), 51-69. https://doi.org/10.1111/socf.12662

Warr, P. (2020). *Age and job performance.* In Work and aging (pp. 309-325). CRC Press.

Webb, M., Autor, D., Bloom, N., Bresnahan, T., Brynjolfsson, E., Chetty, R., Coyle, D., Gentzkow, M., Hoxby, C., Jaravel, X., Jones, C., Klenow, P., Pistaferri, L., Rafey, W., Sorkin, I., Van Reenen, J., Agrawal, A., Connelly, T., Han, A.,...Thornton, G. (2019). *The impact of artificial intelligence on the labor market.* Available from papers.ssrn.com. https://ssrn.com/abstract=3482150

Yamane, Taro. (1967). *Statistics: An Introductory Analysis.* 2nd Edition. New York: Harper and Row.

Zhang, X., Ma, L., Xu, B., & Xu, F. (2019). How social media usage affects employees' job satisfaction and turnover intention: An empirical study in China. *Information & Management, 56*(6), 103136. https://doi.org/10.1016/j.im.2018.12.004

Zhao, J., Zhu, C., Peng, Z., Xu, X., & Liu, Y. (2018). User willingness toward knowledge sharing in social networks. *Sustainability, 10*(12), 4680. https://doi.org/10.3390/su10124680

Zhou, M., Huang, J., Wu, K., Huang, X., Kong, N., & Campy, K. S. (2021). Characterizing Chinese consumers' intention to use live e-commerce shopping. *Technology in Society, 67*, 101767. https://doi.org/10.1016/j.techsoc.2021.101767