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Impact of Enterprise Social Networking Systems Use on Workplace Knowledge Hiding Behaviour: The Moderating Role of Knowledge Sharing Culture

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Abstract

Organisations are always seeking to find new ways to improve organisational knowledge sharing. However, little research has empirically examined the relationship between enterprise social networking systems (ESNS) use and knowledge hiding behaviour. Drawing from the social exchange theory this paper examines the relationship between ESNS use and workplace knowledge hiding behaviour through the moderating role of knowledge sharing culture. The paper analyses data obtained from 289 employees working in the telecommunication and information technology sector in Jordan using a quantitative approach. The findings suggest that ESNS use only reduces knowledge hiding behaviour in organisations with high levels of knowledge sharing culture. For organisations with low levels of knowledge sharing culture, ESNS use had no impact on knowledge hiding behaviour. This study offers a better understanding of ESNS use and its impact on knowledge hiding behaviour in a developing country perspective and also discusses the theoretical and practical implications of the findings.

Keywords: knowledge hiding behaviour, enterprise social networking systems, enterprise social media, knowledge sharing culture, information sharing, knowledge management

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1. Introduction

Knowledge, being profitable, uncommon, difficult to mimic and non-substitutable, is a vital strategic competitive resource for any company to pick up and sustain competitive advantage (Nanda, 1996; Perry-Smith, 2006). Knowledge assets could be created by sharing information at work, as an individual's knowledge all alone is inadequate to form a competitive advantage (Swart, 2007). Organisations gain hugely once knowledge is shared at the collective level; particularly in knowledge-intensive industries, like IT, Banking and finance (Jha and Varkkey, 2018). Scholars and practitioners have recognised the importance of understanding workplace knowledge hiding process and antecedents (Huo et al., 2016). Knowledge hiding could hinder mutually individual and organisational performance. For instance, Cerne et al. (2014) found that knowledge hiding cultivated doubt and distrust among workers and kept them from producing innovative thoughts. Also, an investigation led by Babcock (2004) found that the knowledge hiding behaviour cost Fortune 500 companies about 31.5 Billion dollars per year.

Social networking sites normally used for connecting with friends and family, discussing personal likes and dislikes about a specific subject, updating personal profile statuses, blogging about any topic of interest, or uploading personal videos or images (Kaplan and Haenli, 2010). Accordingly, enterprise social networking sites are designed to incorporate social and work life (DiMicco et al., 2008) through boosting socialising activities through creating a working environment that encourages and accept the use of online chatting or blogging at work (Dodokh and Al-Maaitah, 2019; Gonzalez et al., 2013).

Enterprise social networking systems (ESNS) are web-based platforms that allow users to exchange messages with particular colleagues or broadcast messages to everyone in the organization, openly indicate a specific coworkers as communication partners, post, edit, and sort text and files, and view the messages, connections, text, and files communicated, posted, edited and sorted by anyone in the organization (Leonardi et al., 2013).

Previous research argues that ESNS use can lead to considerable benefits to knowledge management by increasing vertical and horizontal communication (Davison et al., 2014), improved knowledge transfer (Leonardi and Meyer, 2015), increased social capital (Kline and Alex-Brown, 2013), reduce knowledge stickiness (Leonardi and Meyer, 2015), and increasing workplace integration (Moqbel and Nah, 2017). However, empirical studies that focus on employee use of ESNS are still scarce (El Ouiridi et al., 2015; Mäntymäki and Riemer, 2016). In particular, the processes or mechanisms through how implementing an ESNS inside the organisation can impact knowledge hiding behaviour are as yet not clear (Dodokh, 2019; Mäntymäki and Riemer, 2014).

Consequently, it is critical to fill this noteworthy research gap so as to boost the organisational climate, employee well-being and organisational performance (Xiao and Cooke, 2018). Therefore, in an attempt to fill the

above knowledge gap, by using social exchange theory (Blau, 1964) as the underlying framework, the present research provides additional and incremental evidence for workplace knowledge hiding behaviour by examining the impact of ESNS use on knowledge hiding behaviour.

The paper proceeds as follows. First, provide a review of the related prior literature. Then offer the research hypotheses and research model. The following section gives details on the research methodology for collecting research data. After that, presenting the statistical analyses and provide discussions regarding the results. Lastly, the paper concludes with the study limitations, potential future directions, and a summary of the study contributions.

2. Literature Review

To examine the relations between ESNS use and workplace knowledge hiding behaviour, this study focused on four research literature themes: (1) enterprise social networking systems; (2) workplace knowledge hiding behaviour; (3) knowledge sharing culture; (4) social exchange theory; the three topics will be reviewed respectively.

2.1. Enterprise Social Networking Systems

ESNS refers to a group of technologies that consist of the foundational structures related with social network sites but which are implemented inside organisations, authorised by management, and have the capability to limit membership to certain users of a specific organisation (Ellison et al., 2015). ESNS can be considered as a type of the Enterprise 2.0 phenomenon (McAfee, 2009), which refers to the application of social software more generally (Von Krogh, 2012), like blogs, wikis, microblogging or social bookmarking services (Razmerita et al., 2014), in an organisational context.

ESNS provide the opportunity of creating observable and manageable communicative activities for work engagement, like the content of messages, communication network, and the outputs employee's work, which were previously invisible to others within the organisation (Gonzalez et al., 2013). Visibility is related to the extent of work users have to conduct to find information (Treem and Leonardi, 2012). Accordingly, managing and controlling every single communication inside the organisation is challenging (Gonzalez et al., 2013). Since employees usually do not know that two of their colleagues have communicated, or what that communication was about, as it takes place over private channels like e-mail or the telephone (Cross et al., 2003).

The implementation of ESNS has followed one of three primary paths into organizational contexts: (1) use of public social networking sites such as Facebook, Google+, and Twitter; (2) private implementations of open source or copyrighted software; (3) in-house branded systems, regularly created as prototypes by software providers for future integration into commercial offerings, these enterprise social software tools now typically integrate the full variety of social media functionality, including blogs, wikis, status updates and microblogs, and social analytics such as Salesforce's Chatter, Microsoft's Sharepoint, Yammer, IBM's Connections, Jive from Jive Software, Oracle's Social Network, Cisco's Webex Social, BlueKiwi from Atos, Cynapse's Cyn.in, Tibbr, Telligent, MangoApps, Socialtext, Socialcast, and Ingage Networks (Leonardi et al., 2013).

2.2. Workplace Knowledge Hiding Behaviour

Knowledge hiding can be characterised as a deliberate endeavour to retain or disguise knowledge from others (Connelly et al., 2012). Knowledge hiding not solely includes a lack of knowledge sharing; however, it conjointly includes intentionally keeping asked knowledge from co-workers (Kang, 2016). The conditions of knowledge hiding are; a deliberate endeavour and knowledge clearly asked for by another co-worker. Knowledge hiding behaviour can be a negative phenomenon within the organisation (Cerne et al., 2014; Zhang and Zhang, 2017). For instance, knowledge hiding can decrease individual and group ability to produce creative ideas (Bogilović et al., 2017), lessens employees inventive work behaviour (Cerne et al., 2017), weakens social connections (Connelly and Zweig, 2015) and builds intentional turnover (Serenko and Bontis, 2016). Nevertheless, Connelly et al. (2012) stated that knowledge hiding is not essentially always a damaging behaviour for the reason that it can also be motivated by prosocial incentive; for instance, rationalized knowledge hiding can fortify relational connections among hidiers and targets (Connelly and Zweig, 2015).

In order to eliminate barriers to exchange information inside the organisation effectively, it is essential to recognise unwanted workplace knowledge behaviours like knowledge hiding (Connelly et al., 2012). Consequently, three concepts associated with knowledge hiding that is; knowledge withholding, knowledge hoarding, and employee silence (Xiao and Cooke, 2018). There are three different ways individuals can participate in knowledge hiding, playing dumb, rational hiding, and evasive hiding (Connelly et al., 2012). Playing dumb is one procedure of knowledge hiding; where workers pretend that they are unmindful of the information that others asked. Rational hiding is telling the information inquirer that he or she cannot tell the asked information in view of its secrecy or group standards, that may contain deception or not (Pan et al., 2016). Evasive hiding is providing another information as an alternative to the information seeker genuinely needs, or

giving a deceptive guarantee to tell later on (Connelly et al., 2012). In view of that, these three concepts of knowledge hiding will be used in this study to measure workplace knowledge hiding behaviour and its relationship with ESNS.

2.3. Knowledge Sharing Culture

Knowledge sharing culture refers to the perception of the knowledge sharing environment as demonstrated in procedures, practices and the managerial styles conducted by managers for collaboration and communication (Marouf, 2015). There are three main elements of an organisation's knowledge sharing culture namely, trust, collaboration and open communication (Marouf, 2005). The level of trust impacts the degree of knowledge sharing in addition to the degree of screening and sharing among two parties (Mcevily et al., 2003).

Organisational culture can have a vital role in encouraging knowledge sharing inside organisations. Culture can be within the basic values, beliefs and norms common between the members of the organisation (Marouf, 2015). Accordingly, an organisational climate of trust and collaboration can increase knowledge sharing, since the level of trust in an organisation is the most significant element affecting the willingness to take part in knowledge sharing (Huemer et al., 1998).

Organisational culture can also have an important impact on workplace knowledge hiding behaviours (Connelly et al., 2012). For example, previous studies on knowledge sharing suggest that organisational climate can have an impact on employees' sharing intentions and can be partially mediated by social norms (Bock et al., 2005; Connelly et al., 2012). As noted by Constant et al. (1994, p. 404), "believing that information sharing is usual, correct, and socially expected workplace behaviour should increase information sharing, independent of the information possessor's personal feelings about his or her coworkers". Therefore, employees are affected by the organisational culture when they are deciding what knowledge to transfer to colleagues, and what knowledge they will keep to themselves (Connelly et al., 2012).

2.4. Social Exchange Theory

Social exchange is built on the discipline of equity and norm of reciprocity, which underlines subjective give and take in the long-term (Blau, 1964). Accordingly, the quality of the social relationship controls how the norm of reciprocity works, since knowledge hiding includes the knowledge holder's response to a knowledge requestor (Gouldner, 1960; Nahapiet and Ghoshal, 1998). More specifically, good and strong relationships promote mutual trust and respect (Geue, 2018), which makes employees use positive reciprocity to promote knowledge sharing in the organisation (Connelly et al., 2012).

Nevertheless, poor relationships can usually cause negative reciprocity as a reply to prior unpleasant experiences, which raises the likelihood of workplace knowledge hiding behaviour (Gouldner, 1960; Zhao et al., 2016). Knowledge exchange usually takes place in a calculative fashion (Konstantinou and Fincham, 2010). Therefore, in some work environments where there is a lack of mutual trust, employees are more likely to hide their knowledge, for the reason that increased opportunistic risks make them more vulnerable (Williamson, 1995).

Managers can use social networks systems to support learning and gain access to information about new processes (Ellison et al., 2015). More specifically, social cues received from coworkers and supervisors within a communication network can have a direct impact on how team members respond to new information (Fulk, 1993; Tsai, 2001). Consequently, network position can impact a team member's acceptance and use of collaborative technology, and can eventually positively affect the knowledge sharing practices within the organisation (Ellison et al., 2015).

In summary, ESNS offer an affordance tool that supports the distribution of information and knowledge sharing at the individual and organisational levels. Moreover, ESNS support the socialisation and interpersonal interaction that offer a substance for numerous knowledge sharing practices (Ellison et al., 2015). Accordingly, building on social exchange theory, this study proposes that the benefits received from using ESNS could affect workplace knowledge hiding behaviour.

3. Research Hypotheses and Model

The creation of relationships or networks between employees can decrease the boundaries between social and work roles (Koch et al., 2012). Relationships start to develop out of day-to-day interactions on a personal level (Majchrzak et al., 2009). Learning about workgroups can help employees to be more familiarise with informal and formal working relationships in the organisation (Chao et al., 1994). Accordingly, employees are more likely to recognise other coworkers who can form friendship ties with which can turn to in times of task uncertainty (Aguilera et al., 2006). The developing of such relationships can support employees to have friends at work to socialise with (Leidner et al., 2010) and to grow a sense of acceptance among employees to effectively collaborate on various projects (DiMicco et al., 2008).

Accordingly, ESNS can play an integral part in developing connections among employees which can help

facilitate employees to better understand the changing aspects between diverse work groups (Gonzalez et al., 2013). Additionally, ESNS facilitate virtual communications between employees (Majchrzak et al., 2013), support users to share information (Denyer et al., 2011), and can better transform business practices (McAfee, 2006). For example, new hires have a tendency to use ESNS to form social relationships and participate in online interactions with other coworkers on a personal level to gain an understanding of organisational characteristics and norms by their own initiative (Gonzalez et al., 2013; Miller and Jablin, 1991). Also, ESNS offers employees a way to tap into diverse social networks that deliver diverse resources (DiMicco et al., 2008).

When employees form new relationships with other coworkers outside of their close circle of friends they are benefiting from the transparency and boundary-breaking characteristics of ESNS (Gonzalez et al., 2013). Besides, the interaction with more senior employees through ESNS can be a vital way for employees to learn about the organisational culture (Schein, 1971). These types of activities are more likely to establish a level of social related use of ESNS (Gonzalez et al., 2013).

ESNS facilitates knowledge sharing over the formation of informal users' networks, consequently support employees to cooperate with each other by freely expressing their own opinions (Constantinides and Fountain, 2008). This type of knowledge sharing is defined as an online mutual knowledge conversation rather than intermittent, centralised knowledge management process (Majchrzak et al., 2013). Accordingly, ESNS use has been proved to improve intra-organizational knowledge sharing in organisations (Jeon et al., 2011), encourage employees to participate in knowledge sharing activities (Paroutis and Al Saleh, 2009), and change the way employees are engaged in knowledge sharing (Majchrzak et al., 2013). Furthermore, a study by Dodokh (2019) found that there is a strong negative relationship between HR practices such as information-sharing practices and workplace knowledge hiding behaviour. Based on the above discussions, it is hypothesized that:

H1: ESNS use decreases workplace knowledge hiding behaviour.

The knowledge of organisational goals and values includes informal, unwritten, tacit goals and values adopted organisational members (Fisher, 1986). Therefore, employees who are provided clear information about the organisational values, views, and norms are more likely to feel certain that their actions fit within the organisation culture (Gonzalez et al., 2013). Organisational values could be mainly used in defining the appropriate behaviours with respect to the organisation's members (Leidner and Kayworth, 2006). Similarly, a number of organisational values define organisational culture.

Accordingly, using ESNS can help to facilitate open communication and discussions (DiMicco et al., 2008) and it supports the distribution of critical information to employees about organizational culture in a fast and convenient way (Gonzalez et al., 2013) which could result to easily identify of organization fit and improved understanding of the organization culture (Saks and Ashforth, 1997). By encouraging the use of ESNS for daily work tasks, employees are more likely to view this behaviour as acceptable and as part of the organisational norm and could help employees to learn more about the organisational culture (Gonzalez et al., 2013). Furthermore, the connection between management and employees through ESNS can support the generation, sharing and access to knowledge by breaking down hierarchical data structures (Kiron, 2012).

Empirical evidence shows that organisational culture and climate contributes to knowledge hiding (Connelly et al., 2012; Husted and Michailova, 2002; Husted et al., 2012; Lam, 2005). For example, in a company with a culture that is very hostile to knowledge sharing, hoarding knowledge is regarded as a strategy to deal with uncertainty, respect hierarchical status and participate in power politics (Michailova and Husted, 2004). Parke and Seo's (2017) study on organisational affect climate suggests that affect climate can adjust personal mood state to decrease the target's negative knowledge hiding.

Employees in organisations with stronger knowledge sharing climates were less likely to engage in evasive knowledge hiding as it is considered not socially accepted (Connelly et al., 2012). Employees may be less likely to hide the requested knowledge when they need information from others to accomplish the task (Huo et al., 2016). If employees refuse to share knowledge with colleagues, they will be considered as a distrusted person, and other colleagues will not share knowledge with them anymore (Cerne et al., 2014). Thus, organisations can reduce territoriality and knowledge hiding by strengthening in-group task interdependence by designing a high task interdependence workflow by means of creating high outcome interdependence and giving group feedback, so that employees will focus more on the collective interest (Huo et al., 2016). Consequently, the organisational context affects employees' decisions whether to hide their knowledge; employees in organisations with stronger knowledge sharing climates are less likely to engage in evasive knowledge hiding (Connelly et al., 2012). As a result, it is necessary for organisations to develop a work culture that motivates and rewards knowledge-sharing among team members (Jha and Varkkey, 2018). Therefore, it is hypothesised that:

H2: Knowledge sharing culture decreases workplace knowledge hiding behaviour.

H3: Knowledge sharing culture moderates the relationship between ESNS use and workplace knowledge hiding behaviour.

3.1. Research Model

As discussed in the literature review, ESNS use can have an impact on workplace knowledge hiding behaviour. In summary, this study proposes a conceptual framework to reflect these relations as illustrated in Figure 1.

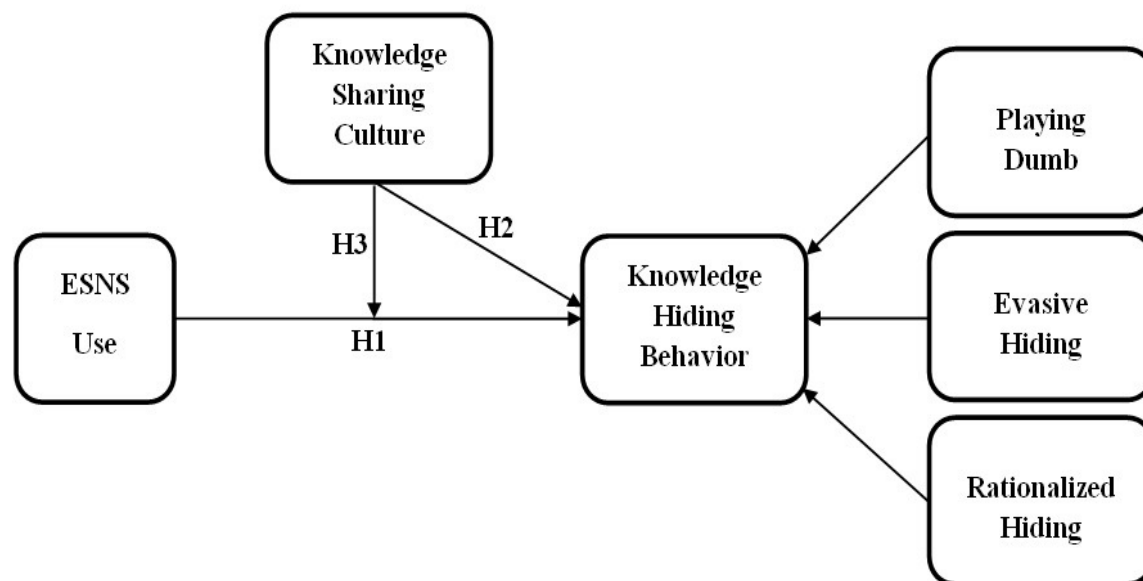


Figure 1. Conceptual Model

4. Methodology

4.1. Participants

The population of this research consists of all the employees working in the three leading companies in the telecommunication and information technology sector in Jordan; Zain, Orange and Umniah. Since targeting the whole population is not an easy task and has difficulties on the researchers of time and cost. Therefore, the data are collected through random sampling from the population within the three organisations and the unit of analysis is all levels of employees. The organisations approached by the researcher to obtain the consensus to participate in the study and highlighting that participation is completely voluntarily, anonymity, and confidential. In total, 500 sets of questionnaires were distributed. Of this amount, 289 surveys were completely filled, yielding a 57% response rate.

4.2. Measures

Knowledge hiding was measured with a 12-item scale developed by Connelly et al. (2012). Each dimension was measured by four-items using a 5-point Likert scale, ranging from 1= strongly disagree to 5= strongly agree. A sample item for playing dumb “pretended that I did not know the information”. A sample item for evasive hiding “Agreed to help him/her but never really intended to”. A sample item for rationalized hiding “Explained that I would like to tell him/her, but was not permitted by some other people”.

Knowledge sharing culture was measured with six items adopted from Marouf (2015). A sample item is “Sharing knowledge is encouraged by the organization”. Using a five-point Likert scale ranging from 1= strongly disagree to 5= strongly agree. ESNS use was measured with 4 items adopted from Qi and Chau (2018). A sample item “Create, connect, and manage groups“. Using a five-point Likert scale ranging from 1= never to 5= always. In addition, participants were asked to report their gender, age, job status, job level, and job experience were included as control variables since the literature has suggested their impact on workplace knowledge hiding behaviour (Connelly et al., 2012; Dodokh, 2019).

Of the study sample, 65% were male, 35% were female, regarding age in years; 29.8% were (18-24), 52.6% were (25-34), 10.4% were (35-44), 5.2% were (45-54), 1.7% were (55-64), 0.3% were aged 65 and above. Also, 81.3% were working full-time, and 18.7% were working part-time. 24.6% were junior staff, 27% were senior staff, 10% were junior managers, 30.8% were middle-level managers, and 7.6% were senior-level managers. Also, regarding work experience in years; 36% had less than three years, 35.6% have (4-6), 12.5% have (7-9), and 15.9% have more than ten years.

5. Data Analysis

The hypothesised research model was tested by using PLS-SEM (Hair et al., 2016) with the statistical software SmartPLS 3 (Ringle et al., 2015). The hypothesised model was tested using a two-step data analysis method.

First, perform a series of analysis to ensure the validation and validity of measurements and to calculate the common method bias. Second, assess the structural model to test the hypothesised relationships.

5.1. Measurement Validation

One of the most useful tests for internal reliability is Cronbach's alpha, which measures to what extent the items of a construct are correlated and therefore measure the same aspect (Bryman, 2012). The threshold for Cronbach's alpha test is 0.70; therefore, the higher the value, the more reliable the measure is (Hair et al., 2016; Nunnally and Bernstein, 1994). Accordingly, it was found that all the constructs are above the recommended threshold of 0.70. In addition, Average Variance Extracted (AVE) analysis was conducted, in order to have good discriminant validity, the square root of the AVE of each construct should be greater than the correlation of that construct with other constructs, and should further exceed 0.50 (Gefen and Straub, 2005) which was met. Therefore, all items of the constructs are retained. The results are given in Table 1.

Table 1. Measurement Validation

Item/Factor	Cronbach Alpha	Composite Reliability	AVE
ESNSU	0.899	0.930	0.767
EH	0.908	0.935	0.783
PD	0.895	0.927	0.760
RH	0.795	0.866	0.619
KSC	0.833	0.877	0.544

N = 289. ESNSU = enterprise social networking systems use, EH = evasive hiding, KSC = knowledge sharing culture, PD = playing dumb, RH = rationalized hiding.

5.2. Discriminant Validity

Exploratory factor analysis (EFA) was conducted to assess the construct validity of the scales further. All the items loaded strongly on their respective factors, indicating a general unidimensional structure of the instrument (Hair et al., 2016). In the second stage of measurement validation, a confirmatory factor analysis (CFA) was conducted to assess the discriminant validity of all construct measures further with a minimum of 0.5 for good convergent validity (Hair et al., 2016). The analysis indicated that the factor loadings of all constructs meet this minimum requirement and satisfactory discriminant validity of all constructs as shown in Table 2.

Table 2. Construct Correlations

Item/Factor	1	2	4	5	6
ESNSU	0.876				
EH	0.689**	0.885			
KSC	0.747	0.651*	0.737		
PD	0.700	0.761**	0.690	0.872	
RH	0.694	0.708	0.715	0.663*	0.787

N = 289. ESNSU = enterprise social networking systems use, EH = evasive hiding, KSC = knowledge sharing culture, PD = playing dumb, RH = rationalized hiding. *** $p < 0.001$; * $p < 0.05$; ** $p < 0.01$

5.3. Common Method Bias

Harman's single-factor test was conducted and generated eleven un-rotated factors. Results should be less than 50% (Podsakoff et al., 2000). The largest amount of covariance explained by a single factor was 38.4%; this result suggested that common method bias was unlikely to contaminate the results. Based on the above tests, it was concluded that the scales were reliable and valid and were suitable for hypotheses testing.

6. Results

By using a bootstrap resampling technique to test the hypotheses, the structural model of the PLS regression analysis including the standardised coefficient and t values were calculated (Efron, 1979). This study used a resampling procedure with 1000 subsamples to assess the significance of the hypothesised relationships and the amount of variance in the dependent variables attributed to explanatory variables (Chin, 1998). The study assessed workplace knowledge hiding behaviour, which has been conceptualised as a combination of evasive hiding, playing dumb, and rationalized hiding (Connelly et al., 2012), using one-factor higher-order formative construct, whereas the rest of the unidimensional latent constructs assessed using first-order reflective measurement models.

Several control variables were collected in this study to rule out rival hypotheses and potentially aid in the interpretation of the results. However, no relationship between the control variables with knowledge hiding behaviour has been found. The implication of the study finding is discussed in the next section. Moderation

hypothesis was tested with multiple moderated regression, following the recommendations of Aiken and West (1991). ESNS use and knowledge sharing culture were mean centred before being entered in the analyses. Three steps were followed. First, demographic variables were entered. Second, ESNS use and knowledge sharing culture were entered. Third, the interaction term between ESNS use and knowledge sharing culture were added. Moderation results are displayed in Table 3. Figure 2 displays the interaction effects. Low and high values of the predictor and moderator variables represent values one standard deviation below and above the mean, respectively.

Workplace knowledge hiding behaviour was explained by ESNS use, over and above all the control variables ($\beta = -0.53$, $p < 0.001$; step 2), this supports H1. Contrary to the study expectations, knowledge sharing culture did not explain the significant variance of workplace knowledge hiding behaviour ($\beta = -0.36$, $p > 0.05$; step 2). Therefore, H2 was not supported. The interaction between ESNS use and knowledge sharing culture was significant ($\beta = -0.47$, $p < 0.01$; step 3). Simple slope analysis (Figure 2) revealed that ESNS use was negatively related to workplace knowledge hiding behaviour when there was high knowledge sharing culture ($\beta = -0.24$, $p < 0.01$). When there was low knowledge sharing culture, the relationship between ESNS use and workplace knowledge hiding behaviour was not significant ($\beta = 0.19$, $p > 0.05$). These results support H3.

Table 3. Results of Moderation Analysis

Predictors	Criterion: workplace knowledge hiding behaviour		
	Step 1: β s	Step 2: β s	Step 3: β s
Gender	0.03	0.05	0.04
Age	0.19	0.21	0.23
Job status	0.11	0.13	0.13
Job level	-0.06	-0.08	-0.05
Experience	0.22	0.23	0.22
ESNS		-0.53***	-0.45***
KSC		-0.036	0.032
ESNS* KSC			-0.47**
R ²	0.05	0.17	0.19
R ² change	0.05	0.14**	0.10**

$N = 289$; ESNSU = enterprise social networking systems use, KSC = knowledge sharing culture; *** $p < 0.001$; * $p < 0.05$; ** $p < 0.01$

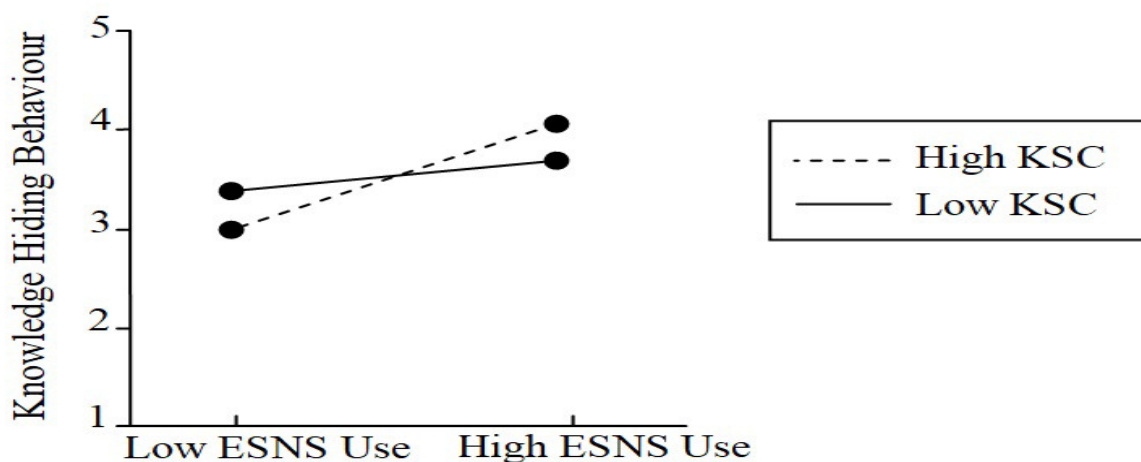


Figure 2. KSC Moderates the Effect of ESNS Use on Knowledge Hiding Behaviour

7. Discussion and Conclusions

In this research, it has been tested whether ESNS use reduces knowledge hiding behaviour across organisational employees. Specifically, to investigate the moderator role of knowledge sharing culture, in the relationship between ESNS use and knowledge hiding behaviour. It was found that ESNS use only reduces workplace knowledge hiding behaviour when there is a high level of knowledge sharing culture. In organisations with low knowledge sharing culture, ESNS use did not affect workplace knowledge hiding behaviour. In addition, the interaction effect observed was significant even after controlling statistically for relevant demographics, namely, gender, age, job status, job level, and experience in the organisation. This is in line with Connelly et al. (2012) research that found that employees in organizations with stronger knowledge sharing climates were less likely to

engage in evasive knowledge hiding as it is considered not socially accepted, and they will be considered as a distrusted person, and other colleagues will not share knowledge with them anymore (Cerne et al., 2014). Accordingly, the organisational context affects employees' decisions whether to hide their knowledge; employees in organisations with stronger knowledge sharing climates are less likely to engage in evasive knowledge hiding (Connelly et al., 2012). As a result, it is necessary for organisations to develop a work culture that motivates and rewards knowledge-sharing among team members (Jha and Varkkey, 2018).

Furthermore, only ESNS use related directly to knowledge hiding behaviour, while knowledge sharing culture did not. Accordingly, knowledge sharing culture does not directly affect knowledge hiding behaviour, but it influences the way employee share and exchange knowledge and information. This is in line with previous research that indicated using ESNS can help to facilitate open communication and discussions (DiMicco et al., 2008) and it supports the distribution of critical information to employees about organizational culture in a fast and convenient way (Gonzalez et al., 2013) which could result to easily identify of organization fit and improved understanding of the organization culture (Saks and Ashforth, 1997).

Additionally, ESNS facilitate virtual communications between employees (Majchrzak et al., 2009), support users to share information (Denyer et al., 2011), and can better transform business practices (McAfee, 2006). Accordingly, ESNS use has been proved to improve intra-organizational knowledge sharing in organisations (Jeon et al., 2011), encourage employees to participate in knowledge sharing activities (Paroutis and Al Saleh, 2009), and change the way employees are engaged in knowledge sharing (Majchrzak et al., 2013).

7.1. Theoretical Implications

To the best of the author knowledge, this is the first study to investigate the relationship between ESNS use and workplace knowledge hiding behaviour in the relatively unexplored and highly competitive work context of Jordan. This study provides an important contribution to current knowledge behaviour literature by identifying how ESNS use can impact workplace knowledge hiding behaviour. This study investigated workplace knowledge hiding behaviour in a non-Western context, to better understand knowledge hiding behaviour in a collectivistic culture. Scholars have examined the role of organisational justice in workplace knowledge hiding behaviour (Connelly et al., 2012; Colquitt et al., 2002). However, several have suggested that the nature of the effect could be different in terms of the role of employees and background characteristics (Connelly et al., 2012; Dodokh, 2019). For instance, Leung and Michael (1984) stated that individuals within individualistic cultures are more likely to use different norms of justice and fairness than individuals within collectivistic cultures. Therefore, results from collectivistic cultures add to the literature by offering more evidence of the role of ESNS use on workplace knowledge hiding behaviours. Overall, the study results provide important contributions to the current knowledge behaviour literature.

7.2. Practical Implications

The findings of this study offer a number of key implications for practitioners, by examining the effect of using ESNS on workplace knowledge hiding behaviour, which is important from an organisational and individual perspective. Also, this study is considered one of the first studies to examine knowledge hiding behaviour in ESNS perspective. Therefore, this study results offer a number of recommendations for practice for managers.

Managers could think through providing more training on knowledge and information management. Also, by improving employee's organisational commitment and interpersonal relationships to increase knowledge sharing to direct the overall efforts towards organisational goals (Dodokh, 2019). In addition, it was suggested that efforts to increase team cognition could increase workplace information sharing (Grand et al., 2016).

Simultaneously, team cognition can also be improved through team training (Salas et al., 2008). Therefore, managers can decrease workplace knowledge hiding behaviour through the reinforcement of in-group task interdependence (Dodokh, 2019). As a result, it is necessary for organisations to create an organisational culture that encourages and rewards information sharing between team members by using ESNS which can support organisations to enhance knowledge exchange behaviours.

Accordingly, managers could control workplace knowledge hiding behaviour by means of adopting a culture of mutual trust, collaboration and increasing organisational citizen behaviour. Therefore, by encouraging the use of ESNS for daily work tasks, employees are more likely to view this behaviour as acceptable and as part of the organisational norm and could help employees to learn more about the organisational culture (Gonzalez et al., 2013). These results reinforce the need to consider not only the environment and the individual characteristics of the employee but also their interaction (Chatman and Barsade, 1995).

7.3. Limitations and Future Research Direction

This study has several limitations that lead to avenues for future research. First, this research is a cross-sectional study which makes it difficult to justify the direction of causality between the constructs (Maxwell and Cole, 2007). Therefore, future researchers may conduct a longitudinal study. Second, data has been collected from

telecommunication and information technology organisation in Jordan which limits the generalizability of the findings to other countries and cultures. Therefore, future studies may investigate the effect of ESNS use in other countries to explore if the results are consistent across different cultures. Finally, as the focus of the present study is limited to investigate the relationship between ESNS use and workplace knowledge hiding behaviour, future researchers may examine the effect of other factors that could reduce knowledge hiding behaviour such as using personal social networking sites at work.

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References

- Aguilera, R. V., Williams, C. A., Conley, J. M., & Rupp, D. E. (2006). Corporate governance and social responsibility: A comparative analysis of the UK and the US. *Corporate Governance: an international review*, 14(3), 147-158.
- Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.
- Babcock, P. (2004). Shedding light on knowledge management. *HR Magazine*, 49(5), 46-51.
- Blau, P. M. (1964). *Exchange and power in social life*. John Wiley & Sons, New York.
- Bock, G. W., Zmud, R. W., Kim, Y. G., & Lee, J. N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, 87-111.
- Bogilović, S., Černe, M., & Škerlavaj, M. (2017). Hiding behind a mask? Cultural intelligence, knowledge hiding, and individual and team creativity. *European Journal of Work and Organizational Psychology*, 26(5), 710-723.
- Bryman, A. (2012). Sampling in qualitative research. In *Social Research Methods*, 415-429. New York: Oxford University Inc.
- Cerne, M., Hernaus, T., Dysvik, A., & Škerlavaj, M. (2017). The role of multilevel synergistic interplay among team mastery climate, knowledge hiding, and job characteristics in stimulating innovative work behaviour. *Human Resource Management Journal*, 27(2), 281-299.
- Cerne, M., Nerstad, C. G., Dysvik, A., & Škerlavaj, M. (2014). What goes around comes around: Knowledge hiding, perceived motivational climate, and creativity. *Social Science Electronic Publishing*, 57(1), 172-192.
- Chao, G. T., O'Leary-Kelly, A. M., Wolf, S., Klein, H. J., & Gardner, P. D. (1994). Organizational socialization: Its content and consequences. *Journal of Applied psychology*, 79(5), 730.
- Chatman, J. A., & Barsade, S. G. (1995). Personality, organizational culture, and cooperation: Evidence from a business simulation. *Administrative Science Quarterly*, 423-443.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
- Colquitt, J. A., Noe, R. A., & Jackson, C. L. (2002). Justice in teams: Antecedents and consequences of procedural justice climate. *Personnel psychology*, 55(1), 83-109.
- Connelly, C. E. & Zweig, D. (2015). How perpetrators and targets construe knowledge hiding in organisations. *European Journal of Work & Organisational Psychology*, 24(3), 479-489.
- Connelly, C. E., Zweig, D., Webster, J., & Trougakos, J. P. (2012). Knowledge hiding in organisations. *Journal of Organisational Behaviour*, 33(1), 64-88.
- Constant, D., Kiesler, S., & Sproull, L. (1994). What's mine is ours, or is it? A study of attitudes about information sharing. *Information systems research*, 5(4), 400-421.
- Constantinides, E., & Fountain, S. J. (2008). Web 2.0: Conceptual foundations and marketing issues. *Journal of direct, data and digital marketing practice*, 9(3), 231-244.
- Cross, R., Borgatti, S., & Parker, A. (2003). Making invisible work visible. *Networks in the knowledge economy*, 261-282.
- Davison, R. M., Ou, C. X., Martinsons, M. G., Zhao, A. Y., & Du, R. (2014). The communicative ecology of Web 2.0 at work: Social networking in the workspace. *Journal of the Association for Information Science and Technology*, 65(10), 2035-2047.
- Denyer, D., Parry, E., & Flowers, P. (2011). "Social", "Open" and "Participative"? Exploring personal experiences and organisational effects of enterprise 2.0 use. *Long Range Planning*, 44(5-6), 375-396.
- DiMicco, J., Millen, D. R., Geyer, W., Dugan, C., Brownholtz, B., & Muller, M. (2008). Motivations for social networking at work. In *Proceedings of the 2008 ACM conference on Computer supported cooperative work*, 711-720. ACM.
- Dodokh, A. (2019). Impact of human resources management practices on workplace knowledge hiding

- behaviour. *Information and Knowledge Management*, 9(3), 27-44. <https://doi.org/10.7176%2Fikm%2F9-3-04>
- Dodokh, A., & Al-Maaitah, M. A. (2019). Impact of social media usage on organizational performance in the Jordanian Dead Sea cosmetic sector. *European Journal of Business and Management*, 11(2), 75-91. <https://doi.org/10.7176%2Fejbm%2F11-2-09>
- Efron, B. (1979). Computers and the theory of statistics: thinking the unthinkable. *SIAM Review*, 21(4), 460-480.
- El Ouiridi, A., El Ouiridi, M., Segers, J., & Henderickx, E. (2015). Employees' use of social media technologies: a methodological and thematic review. *Behaviour & Information Technology*, 34(5), 454-464.
- Ellison, N. B., Gibbs, J. L., & Weber, M. S. (2015). The use of enterprise social network sites for knowledge sharing in distributed organizations: The role of organizational affordances. *American Behavioral Scientist*, 59(1), 103-123.
- Fisher, C.D. (1986). "Organizational Socialization: An Integrative View," *Research in Personnel and Human Resource Management*, 4, 101-145.
- Fulk, J. (1993). Social construction of communication technology. *Academy of Management Journal*.
- Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information systems*, 16(1), 5.
- Geue, P. E. (2018). Positive practices in the workplace: impact on team climate, work engagement, and task performance. *The Journal of Applied Behavioral Science*, 54(3), 272-301.
- Gonzalez, E., Leidner, D., Riemenschneider, C., & Koch, H. (2013). The impact of internal social media usage on organizational socialization and commitment. *Thirty Fourth International Conference on Information Systems, Milan*.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American sociological review*, 161-178.
- Grand, J.A., Braun, M.T., Kuljanin, G., Kozlowski, S.W.J., & Chao, G.T. (2016). The dynamics of team cognition: a process-oriented theory of knowledge emergence in teams, *Journal of Applied Psychology*, 101(10), 1353-1385.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.
- Huemer, L., von Krogh, G., & Roos, J. (1998). Knowledge and the concept of trust. *Knowing in firms: Understanding, managing and measuring knowledge*, 123-145.
- Huo, W., Cai, Z., Luo, J., Men, C., & Jia, R. (2016). Antecedents and intervention mechanisms: a multi-level study of R&D team's knowledge hiding behavior. *Journal of Knowledge Management*, 20(5), 880-897.
- Husted, K., & Michailova, S. (2002). Diagnosing and fighting knowledge-sharing hostility. *Organizational Dynamics*, 31(1), 60-73.
- Husted, K., Michailova, S., Minbaeva, D. B., & Pedersen, T. (2012). Knowledge-sharing hostility and governance mechanisms: an empirical test. *Journal of Knowledge Management*, 16(5), 754-773.
- Jeon, S. H., Kim, Y. G., & Koh, J. (2011). Individual, social, and organizational contexts for active knowledge sharing in communities of practice. *Expert Systems with Applications*, 38(10), 12423-12431.
- Jha, K., J., & Varkkey, B. (2018). Are you a cistern or a channel? Exploring factors triggering knowledge-hiding behavior at the workplace: evidence from the Indian R&D professionals. *Journal of Knowledge Management*, 22(4), 824-849.
- Kang, S. W. (2016). Knowledge withholding: psychological hindrance to the innovation diffusion within an organisation. *Knowledge Management Research & Practice* 14(1), 144-149. <https://doi.org/10.1057/kmrp.2014.24>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59-68.
- Kiron, D. (2012). "What sells CEOs on social networking, *MIT Sloan Management Review*, 53(3), 1-4.
- Kline, J., & Alex-Brown, K. (2013). The social body of knowledge: Nurturing organizational social capital via social media based communities of practice. *Technical Communication*, 60(4), 279-292.
- Koch, H., Gonzalez, E., & Leidner, D. (2012). Bridging the work/social divide: the emotional response to organizational social networking sites. *European Journal of Information Systems*, 21(6), 699-717.
- Konstantinou, E. & Fincham, R. (2010). Not sharing but trading: applying a Maussian exchange framework to knowledge management. *Human Relations*, 64(6), 823-842.
- Lam, W. (2005). Successful knowledge management requires a knowledge culture: a case study. *Knowledge Management Research & Practice*, 3(4), 206-217.
- Leidner, D. E., & Kayworth, T. (2006). A review of culture in information systems research: Toward a theory of information technology culture conflict. *MIS Quarterly*, 30(2), 357-399.
- Leidner, D., Koch, H., & Gonzalez, E. (2010). Assimilating Generation Y IT New Hires into USAA's Workforce: The Role of an Enterprise 2.0 System. *MIS Quarterly Executive*, 9(4).

- Leonardi, P. M., & Meyer, S. R. (2015). Social media as social lubricant: How ambient awareness eases knowledge transfer. *American Behavioral Scientist*, 59(1), 10-34.
- Leonardi, P. M., & Treem, J. W. (2012). Knowledge management technology as a stage for strategic self-presentation: Implications for knowledge sharing in organizations. *Information and Organization*, 22(1), 37-59.
- Leonardi, P. M., Huysman, M., & Steinfield, C. (2013). Enterprise social media: Definition, history, and prospects for the study of social technologies in organizations. *Journal of Computer-Mediated Communication*, 19(1), 1-19.
- Leung, M. K., & Stefano, G. B. (1984). Isolation and identification of enkephalins in pedal ganglia of *Mytilus edulis* (Mollusca). *Proceedings of the National Academy of Sciences*, 81(3), 955-958.
- Majchrzak, A., Faraj, S., Kane, G. C., & Azad, B. (2013). The contradictory influence of social media affordances on online communal knowledge sharing. *Journal of Computer-Mediated Communication*, 19(1), 38-55.
- Mäntymäki, M., & Riemer, K. (2014). Digital natives in social virtual worlds: A multi-method study of gratifications and social influences in Habbo Hotel. *International Journal of Information Management*, 34(2), 210-220.
- Mäntymäki, M., & Riemer, K. (2016). Enterprise social networking: A knowledge management perspective. *International Journal of Information Management*, 36(6), 1042-1052.
- Marouf, L. (2015). Employee Perception of the Knowledge Sharing Culture in Kuwaiti Companies: Effect of Demographic Characteristics. *LIBRES: Library & Information Science Research Electronic Journal*, 25(2).
- Marouf, L. N. (2005). *The role of business and social ties in organizational knowledge sharing: a case study of a financial institution* (Doctoral dissertation, University of Pittsburgh).
- Maxwell, S. E., & Cole, D. A. (2007). Bias in cross-sectional analyses of longitudinal mediation. *Psychological methods*, 12(1), 23.
- McAfee, A. (2009). *Enterprise 2.0: New collaborative tools for your organization's toughest challenges*. Harvard Business Press.
- McAfee, A. P. (2006). Enterprise 2.0: The dawn of emergent collaboration. *Enterprise*, 2, 15-26.
- McEvily, B., Perrone, V., & Zaheer, A. (2003). Trust as an organizing principle. *Organization Science*, 14(1), 91-103.
- Michailova, S. & Husted, K. (2004). Decision making in organisations hostile to knowledge sharing. *Journal for East European Management Studies*, 9(1), 7-19.
- Miller, V. D., & Jablin, F. M. (1991). Information seeking during organizational entry: Influences, tactics, and a model of the process. *Academy of Management Review*, 16(1), 92-120.
- Moqbel, M., & Nah, F. F. H. (2017). Enterprise social media use and impact on performance: The role of workplace integration and positive emotions. *AIS Transactions on Human-Computer Interaction*, 9(4), 261-280.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of management review*, 23(2), 242-266.
- Nanda, A. (1996). "Resources, capabilities and competencies", in Moingeon, B. and Edmondson, A. (Eds), *Organizational Learning and Competitive Advantage*, Sage, London.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory (McGraw-Hill Series in Psychology)*, 3. New York: McGraw-Hill.
- Pan, W., Zhou, Y., & Zhang, Q. P. (2016). Does darker hide more knowledge? The relationship between Machiavellianism and knowledge hiding. *International Journal of Security and Its Applications*, 10(11), 281-292.
- Parke, M. & Seo, M. G. (2017). The role of affect climate in organisational effectiveness. *Academy of Management Review*, 42(2), 334-360.
- Paroutis, S., & Al Saleh, A. (2009). Determinants of knowledge sharing using Web 2.0 technologies. *Journal of knowledge management*, 13(4), 52-63.
- Perry-Smith, J. E. (2006). Social yet creative: The role of social relationships in facilitating individual creativity. *Academy of Management Journal*, 49(1), 85-101.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3), 513-563.
- Qi, C., & Chau, P. Y. K. (2018). Will enterprise social networking systems promote knowledge management and organizational learning? An empirical study. *Journal of Organizational Computing and Electronic Commerce*, 28(1), 31-57.
- Razmerita, L., Kirchner, K., & Nabeth, T. (2014). Social media in organizations: leveraging personal and collective knowledge processes. *Journal of Organizational Computing and Electronic Commerce*, 24(1),

74-93.

- Ringle, C. M., Wende, S., & Becker, J. M. (2015). SmartPLS 3. *Boenningstedt: SmartPLS GmbH*, <http://www.smartpls.com>.
- Saks, A. M., & Ashforth, B. E. (1997). Organizational socialization: Making sense of the past and present as a prologue for the future. *Journal of Vocational Behavior*, 51(2), 234-279.
- Salas, E., Cooke, N.J., & Rosen, M. A. (2008). On teams, teamwork, and team performance: discoveries and developments, *Human Factors*, 50(3), 540-547.
- Schein, E. H. (1971). The individual, the organization, and the career: A conceptual scheme. *The Journal of Applied Behavioral Science*, 7(4), 401-426.
- Serenko, A. & Bontis, N. (2016). Understanding counterproductive knowledge behaviour: antecedents and consequences of intra-organisational knowledge hiding. *Journal of Knowledge Management*, 20(6), 1199-1224.
- Swart, J. (2007), HRM and knowledge workers, in Peter, B., John, P. and Patrick, W. (Eds), *Oxford Handbook of Human Resource Management*, Oxford University Press, Oxford, New York, 450-468.
- Tsai, W. (2001). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of management journal*, 44(5), 996-1004.
- Von Krogh, G. (2012). How does social software change knowledge management? Toward a strategic research agenda. *The Journal of Strategic Information Systems*, 21(2), 154-164.
- Williamson, O. E. (1995). Transaction cost economics. *SSRN Electronic Journal* 1(1), 41-65.
- Xiao, M., & Cooke, F. L. (2018). Why and when knowledge hiding in the workplace is harmful: a review of the literature and directions for future research in the Chinese context. *Asia Pacific Journal of Human Resources*.
- Zhang B., S. & Q., P., Zhang. (2017). Research on the antecedents of members' knowledge hiding behavior in knowledge-based organisation based on grounded theory. *Science & Technology Progress and Policy*, 34(10), 105-110.
- Zhao, H. Q., Xia, P., He, G., Sheard, & Wan, P. (2016). Workplace ostracism and knowledge hiding in service organisations. *International Journal of Hospitality Management*, 59, 84-94.