

How do small family businesses enhance workplace learning? From knowledge sharing and hiding perspectives

Organisational learning is an effective approach to help small family businesses retain competitiveness by increasing the knowledge of employees. Knowledge sharing, an act of making knowledge available to others, has been broadly recognised as the key to organisational learning. However, compared with sharing knowledge, employees prefer hiding knowledge, which may impede organisational learning. Hence, this study aims to explore how small family business enhances organisational learning, from knowledge sharing and hiding perspectives. Data was gathered from twenty-two key employees through semi-structured interviews in a small Chinese family business where the local government has accredited its training and development, patents and intellectual properties. The results revealed that employees held different motivations for knowledge sharing and hiding, influenced by the corporate context of the small family firm. The unfairness toward non-family employees was the most significant reason for knowledge hiding, undermining employee learning. It contributes to understanding learning in SMEs by investigating knowledge sharing and hiding in a small family business. This paper provides theoretical and practical implications for human resource development (HRD) in the small family business context.

Keywords: Small family business, knowledge sharing, knowledge hiding, employee learning, motivations for knowledge sharing and hiding.

Introduction

In the current turbulent period, small family firms have encountered tremendous challenges in retaining their competitiveness (Cunningham, 2020) because of a lack of innovative abilities and resources (Motoc, 2020). Organisational learning is an effective approach to help SMEs (Noe, Clarke & Klein, 2014) and family businesses (Zahra, 2012) retain competitiveness as it can strengthen employee knowledge (Saru, 2007) through acquiring, sharing and using knowledge to adapt to a changing external environment (Lee, Kim & Kim, 2012; Yeo, Stubbs & Barrett, 2016). However, organisational learning in SMEs is still under-explored as learning in this context tends to be socially situated and takes place in day-to-day routines (Short, 2019).

Knowledge sharing, especially tacit knowledge sharing, is perceived as a basis for organisational learning (Kumaraswamy & Chitale, 2012) because knowledge sharing is an approach to making knowledge available to others (Ipe, 2003). In this way, employees across the firms can learn from each other at the personal level (Ipe, 2003; Swift & Hwang, 2013) and

integrate their learning outcomes for practical applications at the organisational level (Yang, 2007; Yeo, Stubbs & Barrett, 2016).

Nonetheless, it is hard for small family companies to obtain tacit knowledge because it is possessed by employees rather than firms (Cunningham, 2020). Small family businesses struggle to attract and maintain a skilled workforce due to their small size and family involvement (Cunningham, 2020). Moreover, family involvement in the business and management generates conflicts and excludes non-family employees (Ahluwalia, Mahto & Walsh, 2017). On the other hand, tacit knowledge resides in people's minds (Polanyi & Sen, 2009); whether to share it relies upon individual motivations (Gagne, Tian, Soo, Zhang, Ho & Hosszu, 2019; Pereira & Mohiya, 2021). Coinciding with knowledge sharing, people may choose to hide knowledge (Peng, 2013). In particular, during the pandemic, people tend to hide their unique competitiveness to circumvent any detrimental effects of resource sharing, such as losing jobs (Nguyen, Malik & Budhwar, 2022). As a result, knowledge hiding may hinder organisational learning.

Past research has investigated knowledge sharing or hiding separately rather than looking into these two aspects simultaneously (Gagne, Tian, Soo, Zhang, Ho & Hosszu, 2019; Hadjielias, Christofi & Tarba, 2021). As such, simultaneous knowledge sharing and hiding behaviours have become a new conceptualisation in the knowledge management field in recent years (Hadjielias, Christofi & Tarba, 2021). Furthermore, extant HRD researchers usually consider SMEs a homogenous group (Short, 2019). However, the small family business is a distinct type of SME whose family and business systems overlap (Tsang, 2020). Small companies are still under-representative in the research on learning in SMEs (Short, 2019); therefore, there is a need to respond to a call for learning in SMEs that notes the sizes, types and structures of organisations (Short, 2019). As such, this study investigates how a small family business enhances organisational learning by exploring knowledge sharing and hiding simultaneously.

To advance understanding, this study relies on a single case-study strategy and qualitative approaches (Easterby-Smith, Thorpe & Jackson, 2021), drawing on twenty-two interviews from a small family firm in China. Self-determination theory (SDT) was the theoretical foundation of this study. It highlighted that knowledge sharing and hiding are autonomous behaviours that contain a lot of discretionary possibilities, determined by intrinsic and extrinsic motivations (Stenius, Hankonen, Ravaja & Haukkala, 2016; Gagne, Tian, Soo, Zhang, Ho & Hosszu, 2019). This theory has been widely used to explain knowledge sharing (Hon, Fung & Senbeto, 2022), but not often do knowledge hiding studies emerge (Yang & Lee, 2021). Echoed by the suggestions of Pereira & Mohiya (2021), studying the concurrence of

knowledge sharing and hiding needs a more theoretical lens and qualitative data. Therefore, this study utilises qualitative approaches to collect and analyse data regarding knowledge sharing and hiding based on SDT. To guide the aim of inquiry for this study, we raise the following research questions:

***RQ1:** How do employees share and hide knowledge?*

***RQ2:** Why do employees share and hide knowledge from corporate and motivational perspectives?*

Context of the study

The case study was conducted in Zhengzhou, Henan province. SMEs in Henan have demonstrated high growth trends compared to other provinces in China because of the central government Strategy of Rising of Central China (Henan government, 2020). Amongst them, family firms took up 80% (Zhu, 2020). Even during the pandemic, the number of small and micro companies in Henan has increased by 2.31%, and the added value has reached over 2 billion yuan in total by the end of October 2020 (Henan news, 2021). The majority of leading small enterprises are manufacturing companies committed to researching and developing cars, foods, new materials and new energy (Henan government, 2020). It is notable that Zhengzhou is the capital city and the largest city in Henan province (Zhu, 2020), which made the most GDP for Henan with over 120 billion RMB in 2020 (Henan government, 2020). However, prior research on the context of small family firms mainly aims at the eastern coastal areas rather than the middle and western provinces (Zhou, 2019). Therefore, this research selects small family firms from Zhengzhou.

The case-study company is a leading small family business in Henan, and it has survived in the competitive market for over 10 years. However, according to Zhou (2015), almost 60% of small-sized firms shut down within the first five years, and only 10% of them can survive after ten years in China. The long-standing survival and success of the selected small family business arose from its organisational learning. The local government granted it the title of provincial innovation pilot enterprise due to its patents and intellectual properties, and Provincially Excellent Learning Organisation because of the learning and developing programmes for its employees. Learning and development programmes are a significant formal mechanism for organisational learning and knowledge sharing in the small family business (Zahra, Neubaum & Larrañeta, 2007). Patents and reputations are viewed as compelling evidence of knowledge innovation in manufacturing sectors in China, which is in line with knowledge sharing practices (Motoc, 2020). Hence, the case-study small family business has been considered a 'good practice' for understanding organisational learning and knowledge sharing practices.

The present study will provide a theoretical grounding following this section. A description of the methodology will be presented before the finding and discussion sections. Finally, this paper will also highlight implications for theory and practice in HRD practices within the small family business context and outline some limitations to the study, informing suggestions for future research.

Theoretical underpinning

Organisational learning and knowledge sharing

Organisational learning is '*the process of improving actions through better knowledge and understanding*' (Fiol & Lyles, 1985, p. 803). It has been studied from two perspectives: a strategic standpoint and from the perspective of organisational behaviour (Yeung, Lai & Yee, 2007). From the strategic standpoint, organisational learning relies on the learning needs of the firm (Iebra Aizpurúa, Zegarra Saldaña & Zegarra Saldaña 2011). From an organisational behaviour perspective, organisational learning often occurs when the learning process resides among people and the learning culture is established (Yeung, Lai & Yee, 2007). According to Dodgson (2016), organisational learning is more than the sum of individual learning of the members of organisations; however, it needs to be achieved through individual learning through various mechanisms (Argote, 2011). Accordingly, individual learning is significant for organisational learning (Park & Kim, 2018).

Knowledge sharing is a behaviour that makes knowledge available to others (Ipe, 2003). Based on self-determination theory (SDT), it has been perceived as an autonomous behaviour as people have lots of discretion to determine whether to share knowledge through their intrinsic and extrinsic motivations (Stenius, Hankonen, Ravaja & Haukkala, 2016; Gagne, Tian, Soo, Zhang, Ho & Hosszu, 2019). Knowledge in the minds of people can be shared through four mechanisms: contribution of knowledge databases, formal interactions, informal interactions, and communities of practices (Bartol & Srivastava, 2002). The first mechanism is that individuals donate their knowledge to collective knowledge databases (Chai, Gregory & Shi, 2003). Second, formal interactions establish scheduled channels for employees to learn or exchange knowledge (Wen & Wang, 2021). Third, the informal mechanism occurs in informal or unstructured interactions among individuals (Yi, 2009). The last method is communities of practice, involving people sharing ideas on a topic of interest in forums (Jeon, Kim & Koh, 2011). This fashion does not necessarily occur from the same departments, as long as people hold a similar interest in learning (Bartol & Srivastava, 2002).

Knowledge sharing behaviour plays a pivotal role in individual and organisational learning (Yeo, Stubbs & Barrett, 2016; Nugroho, 2018; Fullwood & Rowley, 2021) since organisational

learning can be enhanced through knowledge creation, transfer and sharing (Lee, Kim & Kim, 2012). Knowledge sharing also facilitates employees learning from each other and gathering their learning outcomes for practical use throughout the company (Yang, 2007; Yeo, Stubbs & Barrett, 2016). Overall, organisational learning and knowledge sharing are complementary components (Nugroho, 2018). Learning can be perceived as the outcome of knowledge sharing (Swart & Kinnie, 2010), whereas knowledge sharing is one of the mechanisms of organisational learning (Kumaraswamy & Chitale, 2012). As a result, various knowledge sharing mechanisms are likely to help organisational learning in small family businesses.

Due to close and informal social relationships, employees in family businesses often display knowledge transfer in informal ways (Lin, 2013). Zahra, Neubaum & Larrañeta (2007) suggested that the family business could use formal knowledge sharing mechanisms when sharing explicit knowledge and informal fashion for exchanging tacit knowledge. However, the excessive pursuit of formal approaches may result in the sharing of tacit knowledge being less fluid than it could be (Zahra, Neubaum & Larrañeta, 2007); hence, there are needs for small family businesses to adopt various approaches to knowledge sharing for organisational learning.

Knowledge hiding

Knowledge hiding is considered '*an attempt by an individual to retain and hide the knowledge that has been requested by someone else*' (Connelly, Zweig, Webster & Trougakos, 2012, p.65). Connelly Zweig, Webster & Trougakos (2012) also portrayed three methods of knowledge hiding: evasive, rationalised, and playing dumb. Evasive hiding refers to providing incorrect or misleading information; rationalised hiding occurs when individuals explain not sharing; playing dumb is when individuals pretend not to know or ignore the request for knowledge from others (Connelly, Zweig, Webster & Trougakos, 2012).

In previous studies, knowledge hiding is usually viewed as the opposite or a barrier to knowledge sharing (Chatterjee, Chaudhuri, Thrassou & Vrontis, 2021; Pereira & Mohiya, 2021). It adversely affects individual and organisational performance, such as creativity (Mubarak, Osmadi, Khan, Mahdiyar & Riaz, 2021). Knowledge sharing may bring risks to those who share knowledge, such as losing power (Pereira & Mohiya, 2021). By hiding knowledge, employees can protect themselves (Oliveira, Curado & de Garcia, 2021). At the organisational level, knowledge hiding potentially impairs interpersonal relationships (Connelly & Zweig, 2015) and it also holds back the development of innovative ideas that, subsequently, would help learning among employees, teams and organisations (Dong, Bartol, Zhang & Li, 2017).

Despite knowledge hiding being researched within the last decade, Pereira & Mohiya (2021, p.369) posited that '*the literature on knowledge hiding is in its infancy stage*'. In family-business research, Hadjielias, Christofi & Tarba (2021) have provided the first empirical evidence of knowledge hiding. Consequently, it is necessary to study knowledge sharing and hiding simultaneously to make sense of how to enhance learning in the small family business context.

Knowledge sharing and hiding in small family businesses

Knowledge sharing and hiding behaviours residing in the organisational process are largely influenced by the corporate context (Cormican, Meng, Sampaio & Wu, 2021). The most overt characteristic of family businesses is that members of the same family are involved in the governance of the business operation and management, otherwise known as family involvement (Botero, Barroso Martinez, Sanguino & Binhote, 2022). Consequently, this characteristic also affects the knowledge sharing and hiding of employees in small family businesses.

Influenced by family involvement, the owner-managers who have a high status in the family often take the leading role in the business (Botero, Barroso Martinez, Sanguino & Binhote, 2022). The leaders in the Chinese family business are actually 'patriarchs' with a higher reputation; thus, most employees will follow them (Zhou, 2019). When leaders support setting up favourable environments, individuals hold open attitudes to knowledge transfer (Zahra, Neubaum & Larrañeta, 2007). By contrast, when owner-managers withhold knowledge by avoiding training and development opportunities for employees (Sparrow, 2001), the perceptions regarding not knowledge sharing will detrimentally affect the employees (Cunningham, Seaman & McGuire, 2017) and, thereby, employees would believe knowledge sharing is undesired behaviour (Botero, Barroso Martinez, Sanguino & Binhote, 2022). Hence, knowledge hiding would occur more regularly (Gagne, Tian, Soo, Zhang, Ho & Hosszu, 2019).

Furthermore, inappropriate treatment of family members in Chinese family businesses fleshes out favouritism (Lin, 2013). Zhou (2019) stated that the owner-managers in Chinese family businesses are challenging to treat non-family and family members equally concerning promotion, salary, and trust. Family businesses may not value satisfying talented people's psychological needs via reward systems (Zhou, 2019). As a result, non-family employees would feel excluded and distrusted (Lin, 2013). Thus, knowledge hiding may occur in this context (Hadjielias, Christofi & Tarba, 2021).

The culture of family business embodies the beliefs of the founders and is inherited and developed by the leaders from the next generation (Botero, Barroso Martinez, Sanguino &

Binhote, 2022). The values of the family outstandingly highlight commitment, working harmony and stability of organisational members, which is available for developing the collective culture (Zhang, Luo & Nie, 2017). According to Zhang, Luo & Nie (2017), Chinese employees working in the collective culture may not perform a particular behaviour that will damage organisational benefits, for instance, knowledge hiding behaviours (Xiong, Chang, Scutto, Shi & Paoloni, 2021).

Family involvement is beneficial in creating intimate relationships among organisational members (Zhou, 2019; Botero, Barroso Martinez, Sanguino & Binhote, 2022). The relational advantages help conform personal interests to business interests and, therefore, they enhance their mutual dependencies (Zhou, 2019). When facing hardship, the family members will work together to help the company rise with the tide to overcome difficulties (Zhou, 2019). The intense emotional bonds between family and non-family members across the company enhance internal trust to support knowledge transfer (Cormican, Meng, Sampaio & Wu, 2021). Close interpersonal relationships are particularly prominent in Chinese enterprises because Chinese people are relationship-oriented in their active behaviours (Lin, 2013).

On the hand, family involvement is fertile ground for conflicts, such as rivalries, jealousy and exclusion of non-family members (Si, 2020). These conflicts may cause inappropriate treatment of family members (Chrisman, Kellermanns, Chan & Liano, 2010). To avoid conflicts, members may withhold their knowledge (Zahra, Neubaum & Larrañeta, 2007). Meanwhile, conflicts also fracture interpersonal relationships (Motoc, 2020). Therefore, when employees feel excluded and distrusted (Lin, 2013), knowledge hiding is more likely to take place (Hadjielias, Christofi & Tarba, 2021)

Self-determination theory (SDT)

SDT is a critical theory to explain human behaviours by the extent to which three psychological needs are fulfilled, driven by intrinsic or extrinsic motivation (Ryan & Deci, 2000). First, extrinsic motivations, such as rewards and reputation, are the goal-oriented reasons (Ryan & Deci, 2000). Intrinsic motivations from an interest in the activity are associated with a desire for autonomy, competency and relatedness with other people (Gagne & Deci, 2005). Perceived autonomy concerns the desire people have to self-regulate their actions, varying with their values and lifestyle (Haas, 2019). Competency is aligned with the ability people that they can exert (Haas, 2019). Finally, relatedness involves people's sense of belonging to others (Haas, 2019).

The extant literature has presented varied intrinsic and extrinsic motivations for knowledge sharing within SDT. Gagne (2009) stated that people with intrinsic motivations may be

susceptible to sharing their knowledge passionately, even when not requested. Cormican, Meng, Sampaio & Wu (2021) found that trust as intrinsic motivation is significantly connected with knowledge sharing. Within SDT, trust and distrust are concerned with the psychological needs of relatedness (Wang & Hou, 2015). Al-Eisa, Furayyan & Alhemoud (2009) argued that motivation to learn directly affects people's motivation to share; thus, learning knowledge sharing motivation can help the learning of employees ensue.

It has been discovered that extrinsic motivations, particularly monetary rewards, influence knowledge sharing positively or negatively (Islam, Jantan, Khan, Rahman & Monshi, 2018). When people have little interest in an activity, external regulation does increase knowledge sharing (Gagne, Tian, Soo, Zhang, Ho & Hosszu, 2019). However, when knowledge sharing is rewarded, it would be risky for externally motivated individuals to share something useless or unimportant with others; thus, they can maintain their knowledge strength (Cress, Kimmerle & Hesse, 2006).

Individual intrinsic and extrinsic motivations also impact knowledge hiding behaviours. Job insecurity and lack of rewards may increase the probability of knowledge hiding (Nguyen, Malik & Budhwar, 2022). Time pressure renders people prone to hiding knowledge (Chatterjee, Chaudhuri, Thrassou & Vrontis, 2021). As Huo, Cai, Luo, Men & Jia (2016) stated, knowledge hiding occurs when people feel threatened with losing their knowledge ownership. Stenius, Hankonen, Ravaja & Haukkala (2016) discovered that identified motivation, one intrinsic motivation based on SDT, is the best predictor of tacit knowledge sharing; however, if the sense of importance is missing, it may cause knowledge withholding. On the contrary, external motivation is not associated with knowledge sharing but is positively concerned with knowledge hiding (Stenius, Hankonen, Ravaja & Haukkala, 2016).

Limited extant research has applied SDT to the knowledge hiding studies (Gagne, Tian, Soo, Zhang, Ho & Hosszu, 2019; Yang & Lee, 2021) and small family business context (Hadjielias, Christofi & Tarba, 2021). Rezwani & Takahashi (2021) reviewed 88 studies from 2009 to February 2021 and showed that only two studies conducted by Gagne, Tian, Soo, Zhang, Ho & Hosszu (2019) and Stenius, Hankonen, Ravaja & Haukkala (2016) applied SDT to simultaneous knowledge sharing and hiding behaviours. Therefore, SDT is adopted as the theoretical foundation in this study.

Methodological consideration

This paper focuses on data from a large single case study which explored knowledge sharing and hiding in a Chinese family business. The selection criterion of this case study included:

(1) registered as a small enterprise in China, (2) would concur research access, and (3) long-standing survival or success due to knowledge innovation capability. It is because knowledge innovation is concerned with knowledge sharing behaviour through various mechanisms (Bartol & Srivastava, 2002). Furthermore, the case-study company was considered good practice (Yin, 2018) for the field research where the local government granted it the title of '*Provincially Excellent Learning Organisation*' because of the learning of its employees and its programmes for their development.

Participants and interviews

The sample in this study was chosen through a purposive sampling approach (Bryman & Bell, 2015) based on pre-defined criteria including (1) participants who should have more than a three-year tenure, as an employee becoming a mentor having worked in the case-study company for 3 years, and those working in the company longer who could better understand the corporate context and who get involved in learning practices more than those working over a shorter period (Chirico, 2008); (2) participants who were often assigned as trainers to guide newcomers or apprentices/subordinates in knowledge sharing practices; and (3) respondents who were from various positions at different workplace levels, in order to achieve data triangulation and thickness (Denzin & Lincoln, 2011).

Based on the above criteria, the owner-manager of the case-study company (the gatekeeper) identified who was eligible for this research, and then selected suitable participants from three hierarchies (owner-manager, managers, and employees) and different groups (the family and non-family members) to participate in the interview process. The interviews were conducted until no further information emerged, which means reaching theoretical saturation (Charmaz, 2006). Finally, twenty-two employees from three hierarchies and two groups were involved in this study, generating robust findings on knowledge sharing and hiding practices, reasons why employees share and hide knowledge and how both practices affect organisational learning across the small family business studied. All the participants were named by pseudonyms, for example, owner meaning the owner-manager, Mg meaning the manager and Em meaning the employee. The numbers 1-10 stand for the ordinal number of each manager and employee, as depicted in Table 1.

Knowledge sharing and hiding depend on their motivations (Gagne, Tian, Soo, Zhang, Ho & Hosszu, 2019); therefore, we undertook a cross-sectional documentation analysis followed by semi-structured interviews for participants to respond to how and why they share and hide knowledge. The document analysis helped this study to discover organisational learning and knowledge sharing practices; and other possible reasons for motivating employees to share knowledge, which guided further interviews (Altheide & Schneider, 2012). Then, the semi-

structured interview offers a greater degree of latitude to the interviewees to interpret their experiences in knowledge sharing and hiding at the case-study business.

Table 1. Summary of the demographic profile of the participants

No.	Departments	Tenure (yr)	Positions	Group (Family or Non-Family)	Coding
1	Administration	4.5	HR	Non-F	Em1
2	Manufacturing	12	Group leader	Non-F	Mg1
3	Supply and sales	3	International business specialist	Non-F	Em2
4	Equipment/tech	27	Manager	Non-F	Mg2
5	Administration	20	Owner	F	Owner-manager
6	Supply and sales	9	Group leader	Non-F	Mg3
7	Administration	6	Accounting	F	Em3
8	Manufacturing	3	Worker	Non-F	Em4
9	Manufacturing	4	Worker	Non-F	Em5
10	Supply and sales	4	Sales	Non-F	Em6
11	Supply and sales	5	Sales	Non-F	Em7
12	Quality testing	11	Quality tester	Non-F	Em8
13	Quality testing	15	Manager	Non-F	Mg4
14	Administration	38	Accounting manager	F	Mg5
15	Quality testing	20	Manager	Non-F	Mg6
16	Manufacturing	19	Manager	F	Mg7
17	Manufacturing	9	Group leader	F	Mg8
18	Administration	20	Manager of the quality management system	F	Mg9
19	Equipment/tech	22	Senior engineer	F	Mg10
20	Supply and sales	8	Manager	F	Mg11
21	Supply and sales	5	Sales	F	Em9
22	Quality testing	11	Worker	Non-F	Em10

The interview process included ten face-to-face and twelve telephone interviews. The change in interview approaches was due to the outbreak of COVID-19 on 21st February 2020. Each interview lasted around 50-70 minutes and was audio-recorded and transcribed in Chinese. The researcher applied the member-checking method to check and confirm the accuracy of understanding and analysis regarding data from the participants (Easterby-Smith, Thorpe & Jackson, 2021). With the help of a language expert, the transcripts were translated into

English. Afterwards, a template analysis approach was used to analyse all qualitative data. The entire data transcription, coding and analysis processes were achieved using NVivo 12. At last, two themes and two sub-themes were integrated into the final template, as shown in Table 2.

Table 2. Final template

Main themes
<p>1. Tacit knowledge sharing and hiding practices</p> <p>1.1 Knowledge sharing practices</p> <p>1.2 Knowledge hiding practices</p>
<p>2. Reasons for knowledge sharing and hiding</p> <p>2.1 Corporate context: Family involvement</p> <p style="padding-left: 20px;">The role of the owner-manager</p> <p style="padding-left: 40px;">Collective culture: ‘Big family’ culture</p> <p style="padding-left: 40px;">Close interpersonal relationships</p> <p>2.2 Individual motivations for knowledge sharing and hiding</p> <p style="padding-left: 20px;">Knowledge sharing: Sense of trust</p> <p style="padding-left: 20px;">Knowledge hiding: Sense of distrust</p> <p style="padding-left: 40px;">Fears of being replaced by others</p> <p style="padding-left: 40px;">Time pressure</p>

Findings

This investigation addressed the gap in studying knowledge sharing and hiding simultaneously at the small family business level. It was explicitly divided into two themes according to the research objectives.

Theme One: Knowledge sharing and hiding practices

The first theme is how employees share and hide their tacit knowledge in the researched company. The employees often shared knowledge through two mechanisms: formal and informal approaches. The formal approaches often took place in formal learning practices, including various training sessions, group sharing activities and regular meetings. That is because the owner-manager valued employee training and learning. Thus, the company organised these formal learning practices for the employees to share knowledge. The owner-manager expressed this result:

We often select senior engineers and excellent employees to attend external training. When they are back, we will organise the experience-sharing meeting and technical training for the senior engineers to share what they have learned outside. This method can maximise the value of advanced knowledge within a limited budget.

Apart from the formal learning approaches, the employees usually shared their tacit knowledge on informal occasions embedded in social life. Informal interactions happened during interpersonal communication to facilitate the learning of less-experienced employees. Therefore, the participants described the informal knowledge sharing practices as social interactions at work, as the following quotation shows:

Young people are better at using the computer than us. So, when I have difficulty using a computer, I'll ask them for help. They can teach me how to use it (Mg5).

Therefore, informal knowledge sharing practices were unstructured methods of sharing and learning. It was an essential aspect of organisational life because *'it is impossible that no conversation and sharing takes place among us. Without sharing, the manufacturing tasks could not be achieved punctually and safely'* (Mg2).

Along with sharing, people chose various methods to hide knowledge, for instance, telling others they had no time, pretending not to know, or stopping sharing when the conflict happened. Em6 gave evidence of telling others they had no time:

Answering some questions would take me lots of time and effort. So, I would tell others that I don't have time. Also, after I helped them for the first time, they would repeatedly come to me to ask for help because they would get used to counting on me.

Em1 could pretend not to know the experiences, as sharing something inappropriate in the workplace may adversely influence her career.

The newcomers may want to know what the managers like or dislike. However, if I tell them too much, the newcomers may believe that my perceptions are not right after a couple of months. Therefore, I'll hide my experience from the newcomers to protect myself.

Mg11 expressed that keeping silent was a great choice where there are conflicts, as keeping on arguing could not solve problems but may damage the work relationships with their colleagues.

When arguing different perceptions with others, I will choose to hide knowledge because some colleagues who strongly insist on their own opinions will not modestly receive your help. A continuous argument cannot reach an agreement or solve problems but can ruin interpersonal relations.

To sum up, employees in this company usually used various formal and informal learning styles to share knowledge, which helped less-experienced employees to acquire and learn knowledge. However, experienced employees also hid knowledge by telling others they had no time, pretending not to know or stopping sharing when the conflict happened.

Theme Two: Reasons for knowledge sharing and hiding

The reasons for knowledge sharing and hiding were analysed from the corporate context and individual motivations. In the first place, family involvement in this business formed various organisational characteristics, including the role of the owner-manager, collective culture and close relationship. These characteristics influenced the knowledge sharing and hiding behaviours of employees.

The first outstanding corporate characteristic was the role of the owner-manager. Mg9, who was mainly in charge of the quality management system, stated:

The training sessions are organised and coordinated by the owner-manager... Thus, my tasks in sharing knowledge could be completed.

It showed that the owner-manager valued formal mechanisms, such as training, for knowledge sharing and the learning of employees. Meanwhile, the data also demonstrated that the owner-manager often built various off-the-job activities for informal communications. As Em4 demonstrated:

We have the year-end dinner in a good hotel before the Spring Festival holiday. It is a good chance for us to express ourselves with other departments because we do not have enough time to speak with them daily.

However, some non-family employees conveyed that the owner-manager favoured the family member in terms of a more flexible timetable, authority and higher compensations. These situations caused knowledge hiding by non-family employees. Mg2, who was a non-family employee, narrated:

Apart from the fact that the owner-manager's relatives can come to work later or leave earlier than us without deduction of wages, the more outrageous thing is that some top managers required us to use their names when we applied for and registered the patents. They also attempted to persuade us that all the technological or knowledge creation results should belong to the firm. The unfairness, as a hidden rule, made us uncomfortable.

Through these data, the owner-manager valued learning and knowledge sharing of employees, thereby developing formal and informal approaches to reach these goals. Nevertheless, the owner-manager approach led to various degrees of unfairness between family and non-family members. These situations affected the non-family people to hide their knowledge.

The overarching reason affecting the decisions and actions of the owner-manager was found to be in line with collective corporate culture, as explained by the owner-manager:

As a fine Chinese tradition, respect for seniority is quite essential in our family.

When my father handed over the company to me, he asked me to treat them well. So, I have to agree with them in most cases, although some are not necessarily helpful, especially regarding rewards for knowledge sharing behaviours.

The family members advocated the 'big family' culture, as Mg 5 stated: *The knowledge should not be secret. It should belong to the company.* This culture deeply influenced not only the perceptions and behaviours of family members but also non-family employees, including with regard to knowledge sharing. The data of Mg1 could illuminate this argument.

Our owner-manager often says, 'We are the family members.' I am a member of this 'big family'. To make the family better, I would like to contribute my knowledge to other family members.

By contrast, even though agreeing with the 'big family' culture, most non-family people felt stressed when the top managers excessively emphasised it and pushed them to behave in ways that followed that value. As a result, they opted to hide their knowledge. A non-family manager demonstrated this:

Some top managers required to use their names to register the patents instead of mine. In fact, they did nothing. Meanwhile, they also told me that: 'all the knowledge should belong to the firm, as the company is our big family'. This unfair excuse makes me hide my knowledge. (Mg2)

The above viewpoints from family and non-family people revealed that the 'big family' culture represents a collective corporate culture in this small family business. Therefore, it could trigger employees to share and hide knowledge simultaneously.

Furthermore, under the 'big family' culture, the workplace interpersonal relationships among employees were intimate. Many participants perceived the relationship with their colleagues as 'friendship' in this company. It was the foundation for employees to share knowledge because they increased their sense of trust toward the people who received knowledge from them. As Mg1 described:

Even if I have different viewpoints from others, I would like to solve the disagreements through sharing instead of hiding knowledge or having no conversation. After discussing it, we are still close friends, as usual.

Surprisingly, the data from two participants revealed that this type of friendship could also drive their knowledge hiding when they found that other people whose relationships were intimate to them were making mistakes in public. That was because pointing out the mistakes of colleagues openly might lead to others losing face and their friendship being destroyed. As explained by Em8:

When I see that my peers work in the wrong way in public, I cannot correct their

mistakes openly because if I directly do so, they'll feel embarrassed, and I would also feel embarrassed. This would also damage our friendship.

To summarise, influences by family involvement, the corporate characteristics, including the role of the owner-manager, collective culture, and close interpersonal relationships, triggered knowledge sharing and hiding behaviours and coincidentally impacted employee motivations for these behaviours. For example, supported by the owner-manager, the collective culture and close friendship could enhance the sense of trust of employees towards their colleagues; thereby, knowledge sharing fostered the learning of other people. By contrast, the same corporate environment made employees distrust and fear being replaced by others. Hence, they chose to hide tacit knowledge, which was less instrumental for the learning of employees at work, although some reasons were not necessarily detrimental to the company, for example, protecting friendships.

Family involvement characteristics produced individual motivations for sharing and hiding behaviours. The sense of trust was the salient motivation for knowledge sharing practices. This argument was underpinned by the statement from Em5.

It depends on whom I will share. If the audience is those whose relationship is close to me, I'll enjoy sharing my experience as much as I can. However, if sharing is with those with whom I rarely communicate, I may not share too much because I don't have to help those whom I don't trust too much.

On the other side, this statement also illustrated that, to some extent, a sense of distrust might lead employees to hide knowledge. Em2 told a story about this argument.

There was a newcomer joining our department, called L. One colleague told me something negative about him, which brought me a bad impression of him. So, when the manager assigned me as his mentor, I was reluctant to teach him. Therefore, I only introduced the basic and superficial things to deceive him.

Another motivation for knowledge hiding was fear of being replaced by others because the owner-manager was more likely to provide better treatment to the family members than the non-family. This made the non-family worry about being replaced by other colleagues if they shared the core knowledge. The following perception from Em2 demonstrates why they had this fear:

I spent much time learning the export laws and operating. When another colleague wanted to know, I would generally talk about it, not in detail. This was how I kept my knowledge ownership.

The company adopted a "996" timetable, meaning that employees worked from 9 a.m. to 9 p.m. each day and six days per week. Due to the favouritism of the owner-manager, the family

members could not necessarily follow this regulation strictly. Nevertheless, the non-family members could not break this rule. Thus, this situation made them generate much psychological burden and dissatisfaction. Also, working overtime led to an imbalance between work and life. Therefore, the non-family people preferred hiding knowledge. As Em3 expressed:

No matter how hard I work, the top managers do not want to offer a bonus. They only care about their interests. Following this crazy timetable, I felt that I am just a working machine. Therefore, why shouldn't I hide knowledge to play dumb?

Due to the favouritism of the owner-manager, the family member could obtain bonuses in their monthly wages, but the non-family members could not do so. Hence, the non-family employees shortened external motivations to share knowledge; as such, knowledge hiding happened. As Em1 stated:

Compared to our province's average salary, our wages are below this level. Besides, there is no bonus on our monthly wage. It doesn't inspire me to share knowledge because knowledge sharing tasks are beyond my job duties.

As concluded, influenced by the corporate context, a sense of trust was discovered as the primary intrinsic motivation for knowledge sharing, whereas a sense of distrust, fear of being replaced by others and time pressure were the inside drivers for hiding caused by unfairness. Additionally, a lack of bonuses might engender non-family employees to hide knowledge. It was evident that the bonuses were external motivations for knowledge sharing. These motivations for knowledge hiding were likely to be unhelpful for the learning of their colleagues in the company. Interestingly, all the family members conveyed that nothing made them hide knowledge because sharing knowledge helps employees' learning to be enabled, achieving common goals for their family and business.

Discussion and conclusion

This study aims to investigate how small family business enhances learning in the workplace by exploring: (1) how employees share and hide their knowledge; and (2) why they share and hide tacit knowledge.

The methods of knowledge sharing and hiding

The findings illustrate that the small family business adopts formal and informal learning approaches for knowledge sharing. It differs from the previous outcomes in which people prefer sharing knowledge in informal ways because of the small size of family businesses (Cunningham, Seaman & McGuire, 2017). As Zahra, Neubaum & Larrañeta, (2007) suggested, formal knowledge sharing practices should apply to help knowledge sharing in

family firms; however, in the meantime, the family businesses need to notice that these approaches may cause knowledge sharing to be less flexible than it could be. Therefore, the case-study business has a wise approach to helping employees learn (Nugroho, 2018; Park & Kim, 2018; Fullwood & Rowley, 2021) in a combination of formal and informal learning mechanisms.

Meanwhile, employees often use rationalised and playing dumb methods to hide knowledge, concerned with the classification of Connelly, Zweig, Webster & Trougakos (2012). Precisely, when telling others they have no time, employees explained rejection of knowledge sharing when their colleagues asked for help (Connelly, Zweig, Webster & Trougakos, 2012). As such, it tends to be rationalised hiding. Furthermore, whilst employees pretend not to know the expertise or ignore the knowledge requested within these knowledge-hiding behaviours, these hiding behaviours conform to playing-dumb hiding (Connelly, Zweig, Webster & Trougakos, 2012). Hence, it indicates that employees primarily used playing dumb and rationalised methods to hide their tacit knowledge; however, no evident evasive hiding behaviours have been found in the studied company.

The above situations occur, primarily, due to the collective culture. Zhang, Luo & Nie (2017) stated that Chinese employees in the collective culture might not perform a particular behaviour that will do harm to the company. Evasive hiding is detrimental to this company because delivering false knowledge to mislead other people will '*make my colleagues get into trouble at work*' (Em6). Working in the 'big family' culture, employees play dumb to protect interpersonal relationships as soon as they realise that sharing knowledge might bring conflicts to their colleagues. Hence, playing dumb becomes the principal method for knowledge hiding rather than deliberately sharing false expertise. Nevertheless, regardless of which method employees use, it is evident that knowledge hiding is not helpful for organisational learning because hiding behaviours impede the opportunities for knowledge delivery and mutual learning among employees (Mubarak, Osmadi, Khan, Mahdiyari & Riaz, 2021).

Reasons for knowledge sharing and hiding

Our study explains the reasons for simultaneous knowledge sharing and hiding from the corporate context of family involvement and individual motivations based on SDT. From the corporate context perspective, the support of owner-manager, the 'big family' culture and intimate relationships enhance the sense of trust of employees towards their colleagues; thereby, knowledge sharing occurs to enhance learning in the studied company (Nugroho, 2018; Park & Kim, 2018).

Conversely, the same corporate context results in the owner-manager providing unfairness between family and non-family members in terms of the privileges of the family members, unequal compensations and working hours, even though she knows these issues may cause knowledge hiding of non-family people, which is not instrumental to organisational learning; these findings are consistent with Zhou (2019). Owner-managers in Chinese family businesses are challenging to treat non-family and family members equally concerning promotion, salary, and trust (Zhou, 2019).

In this case, knowledge hiding behaviours concur with sharing by impeding the motivations of people for sharing and generating motivations for hiding (Stenius, Hankonen, Ravaja & Haukkala, 2016). On one side, the '996' timetable or no bonuses makes non-family people feel lost in motivation for knowledge sharing, thereby undermining their well-being in sharing (Stenius, Hankonen, Ravaja & Haukkala, 2016). Meanwhile, these circumstances render the non-family people distrustful of their colleagues and fearful of being substituted. Hence, they decide to hide knowledge instead of sharing it.

Within SDT, intrinsic motivations from an interest in the activity are associated with an inherent desire for autonomy, competency and relatedness (Gagne & Deci, 2005). Thus, trust can be viewed as intrinsic motivation for knowledge sharing in this study because employees feel happy when sharing knowledge with those they trust, which arises from their internal well-being of relatedness (Haas, 2019). Meanwhile, differential treatments enable non-family people to distrust their colleagues because their knowledge may be learned by others, and they fear being replaced at work. Time pressure caused by the '996' timetable concerns the intrinsic autonomy of people, namely, their desire to self-regulate their actions according to their values and lifestyles (Haas, 2019). At this point, distrust and psychological pressure from unfair treatment may impede intrinsic motivation for knowledge sharing of non-family employees and generate motivation for knowledge hiding.

By contrast, low compensations inspire non-family people to hide knowledge because sharing knowledge is an extra workload, but they cannot obtain corresponding returns. Performing knowledge sharing and hiding appear to be goal-oriented behaviours in line with whether they can be satisfied by external incentives (Ryan & Deci, 2000). Thus, herein, external incentives could be considered extrinsic motivations for knowledge sharing and hiding.

Taking all consequences together (see Table 3), the family-involvement characteristic positively influences intrinsic motivations for knowledge sharing--trust; thus, employees could autonomously participate in workplace formal and informal sharing activities to help the learning of other colleagues. However, meanwhile, this contextual characteristic also

engenders unfairness toward non-family members, undermining their sharing motivation and bringing about their hiding motivations concurrently—distrust, fears of being replaced by others and time pressure. As a result, knowledge hiding occurs to impede organisational learning.

Table 3. Methods and reasons for knowledge sharing and hiding behaviours

Behaviours	Description	Reasons	Outcomes to learning
Knowledge sharing	Formal and informal	Organisational: The owner-manager’s support, the ‘big family’ culture and intimate relationships	Helpful
		Motivational:	
		Intrinsic: Trust and confidence Extrinsic: Rewards	
Knowledge hiding	Rationalised and playing-dumb	Organisational: Unfairness in terms of the privileges of the family members, unequal compensations and working hours; interpersonal relationships	Impeding
		Motivational:	
		Distrust, fears of being replaced and time pressure Extrinsic: Lack of rewards	

This paper investigated knowledge sharing and hiding simultaneously in a small Chinese family business. Employees often shared knowledge during formal and informal activities, whereas, at the same time, they also hid knowledge by rationalised and playing-dumb approaches. Both sharing and hiding behaviours were triggered by intrinsic and extrinsic motivations affected by family-involvement characteristics in the case-study company. It was worth noting that unfairness toward the non-family group was the main reason for the knowledge hiding phenomenon. When experienced people shared knowledge in formal and informal circumstances, their colleagues were able to learn new skills and expertise. However, as soon as knowledge hiding took place, it impeded the learning pathway for less-experienced people; as a result, knowledge hiding was not helpful for organisational learning in the small family business.

Implications to HRD theory and practices

Our study has two implications for HRD theory. First, this study contributes to extending the understanding of organisational learning in a small family business from knowledge sharing and hiding perspectives. The outcomes show that employees often choose formal and informal knowledge sharing styles to help the learning of colleagues; coincidentally, they also use playing dumb and rationalise methods to hide knowledge, which is not beneficial for organisational learning. These behaviours are primarily affected by the family involvement context in small family businesses and the intrinsic motivations of employees. Furthermore, these consequences also reflect the contributions to a new research topic in knowledge

management studies--simultaneous knowledge sharing and hiding, which is a significant field of HRD (McGuire, 2014).

Second, the current paper provides valuable evidence on knowledge hiding behaviours in the HRD field (Wang, Han, Xiang & Hampson, 2018; Yang & Lee, 2021) based on SDT. In this project, distrust and psychological pressure from unfair treatment may be motivations for knowledge hiding associated with internal needs of people of relatedness, competence and autonomy (Haas, 2019). By contrast, monetary incentives (bonuses) as external motivations (Ryan & Deci, 2000) concurrently affect the sharing and hiding behaviours of employees, which either helps or impedes organisational learning in the small family business context. Consequently, SDT enables a deepening understanding of how knowledge sharing and hiding influence organisational learning or HRD from a motivational dimension.

Practically, the case-study company is a 'good practice' for understanding organisational learning in the small family business context. Differing from the majority of previous literature (Cunningham, Seaman & McGuire, 2017), the small family business studied applies formal learning approaches in combination with informal interactions to encourage experienced employees to share knowledge rather than in a singular style (Zahra, Neubaum & Larrañeta, 2007). It facilitates less-experienced people to learn and acquire knowledge and enhance creativity. Moving forward, knowledge sharing practices among individuals bring knowledge to the organisation, strengthening knowledge innovativeness that is most valuable for survivability for the case-study company. Thus, this case study may reference HRD practices in a broader context, especially in the post-covid period.

Moreover, this research can make decision-makers in small family businesses mindful of various individual motivations for knowledge sharing and hiding. In doing so, they may take appropriate HRD actions to enhance the sharing motivations of employees and improve their hiding motivations in the long and short run. In the long run, decision-makers should use the 'big family' culture wisely because it renders the co-occurrence of knowledge sharing and hiding and influences employee learning. Remarkably, unfairness between the family and non-family employees caused by the 'big family' culture is the primary reason for knowledge hiding. Establishing an advantageous culture and resolving the conventional unfairness in this context is challenging and time consuming. Therefore, in this context, owner-managers need to consider building a long-standing and helpful culture and solving unfair issues to motivate experienced members to share knowledge and facilitate less-experienced members to learn.

In the short term, it is urgent that practitioners should pay attention to improving the compensation and working hours of junior employees. Recognition and rewarding practices

could increase the confidence of employees and trust in the company. Meanwhile, the dearth of rewards and long working hours for non-family people engender their psychological burden. In the period post covid, it is pivotal for small family businesses to care for the mental health of employees and to offer flexible working hours. Through various HRD practices, improving matters with regards to these problems may be beneficial to recovering the motivations of employees for knowledge sharing and lessening the motivations for knowledge hiding in a short period. To this end, it is likely to enhance organisational learning.

Limitations and suggestions for future research

This paper envisages suggestions for further investigations. At first, although interviewing twenty-two participants in a single case study could produce an in-depth understanding of knowledge hiding, it may limit the generalisation of findings to a broader context (Easterby-Smith, Thorpe & Jackson, 2021). A single case study was conducted in China. Thus, it is possible to infer similar outcomes in other countries. Significantly, the current study discovered the typical representation of the collective culture dimensions, which varies from other cultures. Therefore, it is suggested that subsequent researchers could consider probing parallel topics through multiple comparative case study approaches in more nations that share common or contrasting contextual features. Second, this paper suggests that future scholars and practitioners may consider measuring correlations among the concepts of individual motivations, contextual factors, knowledge sharing, hiding and organisational learning.

Summary

To conclude, this paper responds to a call for future research on learning in SMEs and provides valuable evidence on the enhancement of organisational learning in a Chinese small family business. The consequences can contribute to future research and practices within Chinese family businesses and SMEs and facilitate key decision-makers being mindful of the significance of knowledge sharing and hiding to organisational learning in the post-Covid period. Our study advances a focus on HRD in SMEs from knowledge sharing and hiding perspectives.

References

- Ahluwalia, S., Mahto, R. V. & Walsh, S. T. (2017). Innovation in small firms: Does family vs. non-family matter? *Journal of Small Business Strategy*, 27(3), 39-49.
- Al-Eisa, A. S., Furayyan, M. A. & Alhemoud, A. M. (2009). An empirical examination of the effects of self-efficacy, supervisor support and motivation to learn on transfer intention. *Management Decision*, 47(8), 1221-1244.
- Altheide, D. L. & Schneider, C. J. (2012). *Qualitative media analysis* (2nd ed.). Sage Publications.
- Argote, L. (2011). Organisational learning research: Past, present and future. *Management Learning*, 42(4), 439-446.
- Bartol, K. M. & Srivastava, A. (2002). Encouraging knowledge sharing: The role of organisational rewards systems. *Journal of Leadership and Organization Studies*, 9(1), 64-76.
- Botero, I. C., Barroso Martinez, A., Sanguino, G. & Binhote, J. (2022). The family's effect on knowledge sharing in family firms. *Journal of Knowledge Management*, 26(2), 459-481.
- Bryman, A. & Bell, E. (2015) *Business Research Methods* (4th ed.). Oxford University Press.
- Chai, K. H., Gregory, M. & Shi, Y. (2003). Bridging islands of knowledge: a framework of knowledge sharing mechanisms. *International Journal of Technology Management*, 25(8), 703-727.
- Charmaz, K. (2006). *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. SAGE.
- Chatterjee, S., Chaudhuri, R., Thrassou, A. & Vrontis, D. (2021). Antecedents and consequences of knowledge hiding: The moderating role of knowledge hidiers and knowledge seekers in organisations. *Journal of Business Research*, 128(2021), 303-313.
- Chirico, F. (2008). Knowledge accumulation in family firms: Evidence from four case studies. *International Small Business Journal*, 26(4), 433-462.
- Chrisman, J. J., Kellermanns, F. W., Chan, K. C. & Liano, K. (2010). Intellectual foundations of current research in the family business: An identification and review of 25 influential articles. *Family Business Review*, 23, 9-26.
- Connelly, C. E., Zweig, D., Webster, J. & Trougakos, J. P. (2012). Knowledge hiding in organisations. *Journal of Organisational Behavior*, 33(1), 64–88.
- Connelly, C. E. & Zweig, D. (2015). How perpetrators and targets construe knowledge hiding in organisations. *European Journal of Work and Organizational Psychology*, 24(3), 479-489.
- Cormican, K., Meng, C., Sampaio, S. & Wu, Q. (2021). Towards Sustainable Knowledge Sharing Practices: An Analysis of Organizational Level Enablers. *Sustainability*, 13(23), 12934-12951.

- Cress, U., Kimmerle, J. & Hesse, F. W. (2006). Information exchange with shared databases as a social dilemma: The effect of metaknowledge, bonus systems, and costs. *Communication Research*, 33(5), 370-390.
- Cunningham, J. (2020). Identifying as an outsider: implications for non-family in small family firms. *The International Journal of Human Resource Management*, 31(22), 2785-2807.
- Cunningham, J., Seaman, C. & McGuire, D. (2017). Perceptions of knowledge sharing among small family firm leaders: A structural equation model. *Family Business Review*, 30(2), 160-181.
- Denzin, N. K. & Lincoln, Y. S. (2011) *The SAGE Handbook of Qualitative Research* (4th ed.). SAGE.
- Dodgson, M. (2016). Organisational learning: a review of some literatures. *Organisation Studies*, 14(3), 375-394.
- Dong, Y., Bartol, K. M., Zhang, Z. X. & Li, C. (2017). Enhancing employee creativity via individual skill development and team knowledge sharing: Influences of dual-focused transformational leadership. *Journal of Organizational Behavior*, 38(3), 439-458.
- Easterby-Smith, M., Thorpe, R. & Jackson, P. (2021). *Management Research* (7th ed.). SAGE.
- Fiol, C. M. & Lyles, M. A. (1985). Organisational learning. *Academy of management review*, 10(4), 803-813.
- Fullwood, R. & Rowley, J. (2021). The role of knowledge sharing in volunteer learning and development. *Nonprofit Management and Leadership*, 32(1), 121–139.
- Gagne, M. (2009). A model of knowledge sharing motivation. *Human Resource Management*, 48, 571-589.
- Gagne, M. & Deci, E.L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.
- Gagné, M., Tian, A. W., Soo, C., Zhang, B., Ho, K. S. B. & Hosszu, K (2019). Different motivations for knowledge sharing and hiding: The role of motivating work design. *Journal of Organizational Behavior*, 40(7), 783–799.
- Haas, E. J. (2019). Using self-determination theory to identify organisational interventions to support coal mineworkers' dust-reducing practices. *International Journal of Mining Science and Technology*, 29(3), 371-378.
- Hadjielias, E., Christofi, M. & Tarba, S. (2021). Knowledge hiding and knowledge sharing in small family farms: A stewardship view. *Journal of Business Research*, 137(2021), 279–292.
- Henan government: TOP 100 Private Family Firms in Henan Province (2020, October 26). Retrieved from <http://www.henan.gov.cn/2020/10-26/1837134.html>
- Henan news: The number of small and micro businesses in Henan increased by 2.31% in 2020 (2021, January 11). Retrieved from <http://news.hnr.cn/djn/article/1/1348598473817198592>

- Hon, A. H., Fung, C. P. & Senbeto, D. L. (2022). Willingness to share or not to share? Understanding the motivation mechanism of knowledge sharing for hospitality workforce. *Journal of Hospitality Marketing & Management*, 31(1), 77-96.
- 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.
- Iebra Aizpurúa, L., Zegarra Saldaña, P. E. & Zegarra Saldaña, A (2011). Learning for sharing: an empirical analysis of organisational learning and knowledge sharing. *International Entrepreneurship and Management Journal*, 7(4), 509-518.
- Ipe, M. (2003). Knowledge sharing in organisations: A conceptual framework. *Human Resource Development Review*, 2(4), 337-359.
- Islam, M. A., Jantan, A. H., Khan, A. M., Rahman, M. H. & Monshi, O. (2018). Impact of motivational factors on knowledge sharing behaviour of managers in Ready Made Garments (RMG) Industry of Bangladesh. *Journal of Business and Retail Management Research*, 13(1), 179-189.
- Jeon, S., Kim, Y. G. & Koh, J. (2011). An integrative model for knowledge sharing in communities-of-practice. *Journal of Knowledge Management*, 15(2), 251-269.
- Kumaraswamy, K. S. N. & Chitale, C. M. (2012). Collaborative knowledge sharing strategy to enhance organisational learning. *Journal of Management Development*, 31(3), 308-322.
- Lee, S., Kim, B. G., & Kim, H. (2012). An integrated view of knowledge management for performance. *Journal of Knowledge Management*. 16(2), 183-203.
- Lin, W. B. (2013). Research on knowledge sharing and interpersonal relationships: empirical study of family firms and non-family firms. *Quality & Quantity*, 47(1), 151-166.
- McGuire, D. (2014). *Human Resource Development* (2nd ed.) Sage.
- Motoc, A. (2020). Knowledge Dynamics in Family Business. *Management Dynamics in the Knowledge Economy*, 8(2), 145–157.
- Mubarak, N., Osmadi, A., Khan, J., Mahdiyar, A. & Riaz, A. (2021). What Makes People Hide Knowledge? Influence of Passive Leadership and Creative Self-Efficacy. *Frontiers in Psychology*, 12(740880), 1-8.
- Nguyen, T. M., Malik, A. & Budhwar, P. (2022). Knowledge hiding in organisational crisis: The moderating role of leadership. *Journal of Business Research*. 139(2022), 161–172.
- Noe, R. A., Clarke, A. D. & Klein, H. J. (2014). Learning in the Twenty-First-Century Workplace. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 245–275.
- Nugroho, M. A. (2018). The effects of collaborative cultures and knowledge sharing on organisational learning. *Journal of Organizational Change Management*, 31(5), 1138-1152.

- Oliveira, M., Curado, C. & de Garcia, P. S. (2021). Knowledge hiding and knowledge hoarding: a systematic literature review. *Knowledge and Process Management*, 28(3), 277-294.
- Park, S. & Kim, E. J. (2018). Fostering organisational learning through leadership and knowledge sharing. *Journal of Knowledge Management*, 22(6), 1408-1423.
- Peng, H. (2013). Why and when do people hide knowledge? *Journal of Knowledge Management*, 17(3), 398-415.
- Pereira, V. & Mohiya, M. (2021). Share or hide? Investigating positive and negative employee intentions and organisational support in the context of knowledge sharing and hiding. *Journal of Business Research*, 129(2021), 368–381.
- Polanyi, M. & Sen, A. (2009). *The Tacit Dimension*. University of Chicago Press.
- Rezwan, R. B. & Takahashi, Y. (2021). The Psychology behind Knowledge Hiding in an Organization. *Administrative Sciences*, 11(2), 57-95.
- Ryan, R. M. & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Saru, E. (2007). Organisational learning and HRD: how appropriate are they for small firms? *Journal of European Industrial Training*, 31(1), 36–51.
- Stenius, M., Hankonen, N., Ravaja, N., & Haukkala, A. (2016). Why share expertise? A closer look at the quality of motivation to share or withhold knowledge. *Journal of Knowledge Management*, 20(2), 181-198.
- Short, H. (2019). Learning in SMEs. *Human Resource Development International*, 22(5), 413–419.
- Si, Y. (2020). *Research on the causes and economic consequences of internal strife in family firms: Taking Ba Wang as Example*. CNKI. <https://oversea.cnki.net/Kreader/CatalogViewPage.aspx?dbCode=cdmd&filename=1021521031.nh&tablename=CMFD202101&compose=&first=1&uid=>
- Sparrow, J. (2001). Knowledge management in small firms. *Knowledge and Process Management*, 8(1), 3–16.
- Swart, J. & Kinnie, N. (2010). Organisational learning, knowledge assets and HR practices in professional service firms. *Human Resource Management Journal*, 20(1), 64-79.
- Swift, P. E. & Hwang, A. (2013). The impact of affective and cognitive trust on knowledge sharing and organisational learning. *The Learning Organization*, 20(1), 20-37.
- Tsang, E. W. (2020). Family firms and internationalisation: An organisational learning perspective. *Asia Pacific Journal of Management*, 37(1), 205-225.
- Wang, W. T. & Hou, Y. P. (2015). Motivations of employees' knowledge sharing behaviors: A self-determination perspective. *Information and Organization*, 25(1), 1-26.
- Wang, Y., Han, M. S., Xiang, D., & Hampson, D. P. (2018). The double-edged effects of perceived knowledge hiding: empirical evidence from the sales context. *Journal of Knowledge Management*, 23(3), 279-296.

- Wen, P. & Wang, R. (2021). Does knowledge structure matter? Key factors influencing formal and informal knowledge sharing in manufacturing. *Journal of Knowledge Management* <https://www.emerald.com/insight/content/doi/10.1108/JKM-06-2021-0478/full/html?skipTracking=true>
- Xiong, C., Chang, V., Scuotto, V., Shi, Y. & Paoloni, N. (2021). The social-psychological approach in understanding knowledge hiding within international R&D teams: An inductive analysis. *Journal of Business Research*, 128(2021), 799–811.
- Yang, J. T. (2007). The impact of knowledge sharing on organisational learning and effectiveness. *Journal of Knowledge Management*, 11(2), 83-90.
- Yang, Q. & Lee, Y. C. (2021). Why Do People Hide Knowledge in the Online Knowledge Community? An Integrated Framework of Protection Motivation, Self-Determination, and Social Exchange Beliefs. *Sustainability*, 13(17), 9885-9109.
- Yeo, R., Stubbs, J. & Barrett, M. (2016). Team-Based Knowledge Sharing: Learning Through Complex Work Challenges. *International Journal of HRD Practice Policy and Research*, 1(1), 65-83.
- Yeung, A. C., Lai, K. H. & Yee, R. W. (2007). Organisational learning, innovativeness, and organisational performance: a qualitative investigation. *International Journal of Production Research*, 45(11), 2459-2477.
- Yi, J. (2009). A measure of knowledge sharing behavior: scale development and validation. *Knowledge Management Research & Practice*, 7(1), 65-81.
- Yin, R. K. (2018). *Case study Research and Applications: Design and Methods*. (6th ed.) Sage.
- Zahra, S. A. (2012). Organisational learning and entrepreneurship in family firms: Exploring the moderating effect of ownership and cohesion. *Small Business Economics*, 38(1), 51-65.
- Zahra, S. A., Neubaum, D. O. & Larrañeta, B. (2007). Knowledge sharing and technological capabilities: The moderating role of family involvement. *Journal of Business Research*, 60(10), 1070–1079.
- Zhang, M., Luo, M. F. & Nie, R. (2017). An analysis of individuals' hiding intention of tacit knowledge in university research team. *Information Studies: Theory & Application*, 40(7), 74–79.
- Zhou, J. Z. (2019). A Study of Family Business in China. *Economic Studies & Analyses*. 13(2), 152–160.
- Zhou, Y. (2015). The development prospects of China's SMEs under the background of economic globalisation: opportunities and challenges. *Market Modernisation*, 2015(1), 255.
- Zhu, D. F. (2020). *The Research on the Path to Improve the Leadership of Small and Medium-Sized Family Enterprises-- A Case Study of a Company*. CNKI. <https://cdmd.cnki.com.cn/Article/CDMD-10459-1020045413.htm>