Consequences of top-down knowledge hiding: a multi-level exploratory study

Atif Saleem Butt

Department of Management, American University of Ras Al Khaimah, Ras al Khaimah, United Arab Emirates

Abstract

Purpose – The purpose of this paper is to explore the multi-level (individual, interpersonal and firm) consequences of top-down knowledge hiding in firms.

Design/methodology/approach – This study uses a multiple case study methodology by studying nine United Arab Emirates (UAE)-based firms. Furthermore, 26 semi-structured interviews with managers based in 9 different firms are undertaken.

Findings – Based on the qualitative interviews and comprehensive data analysis, four individual, one interpersonal and two firm-level consequences emerged. In addition, the consequences of top-down knowledge hiding are not multi-level, but multi-faceted too.

Research limitations/implications – This study has some limitations. First, the results of this study are not generalizable to a broader population. Second, this study explores behavioral patterns with respect to UAE culture only.

Practical implications – Firms can use the findings from this study to understand the multi-level and multi-faceted consequences of top-down knowledge hiding in firms. Also, this study provides some constructive guidelines to firms/senior management to mitigate the consequences of knowledge hiding in firms.

Originality/value – This study contributes to knowledge hiding literature by revealing multi-level and multi-faceted consequences of top-down knowledge hiding in firms.

Keywords Qualitative research, Case study methods, Knowledge hiding, Top-down management

Paper type Research paper

1. Introduction

Knowledge sharing between firms is one of the most important attributes contributing to the success of a firm (Issac and Thomas, 2019). Furthermore, knowledge sharing between firms brings firms closer with the potential to develop long term business relationships (Cheng *et al.*, 2008; Samuel *et al.*, 2011). Additional studies focusing on the importance of knowledge sharing in a buyer-supplier relationship found that knowledge sharing helps firms to innovate and contribute effectively to the firms' success (Cheng *et al.*, 2008). Furthermore, Ajmal and Kristianto (2012) found that knowledge sharing between firms results in reduced uncertainty and better decision-making, eventually leading to superior business performance by exchange partners. While knowledge sharing between firms plays an important, it is essential to mention that knowledge hiding can take place in organizations. Connelly *et al.* (2012, p. 65) define knowledge hiding is defined as "an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person." Such knowledge hiding within firms can harm the firms' ability to remain competitive and innovative. Černe *et al.* (2014, 2017) stated that individuals within firms can engage in

knowledge hiding behavior to preserve their indispensability and career prospects. Serenko and Bontis (2016) argued that knowledge hiding usually takes place in firms when perpetrators (knowledge hiders) want to address their selfish motives. These authors further stated that individuals may also hide knowledge to comply with the norms of reciprocity and expectations.

While existing studies provide some evidence on why individuals hide knowledge, other researchers argue that knowledge can generate negative consequences (Connelly *et al.*, 2012; Černe *et al.*, 2014; Butt and Ahmad, 2020). Notably, these authors argue that the consequences of top-down (top-down management means a formal and informal relationship between senior staff and his/her subordinate(s) in the execution of the assigned roles and duties in supporting the company to achieve the business goals) knowledge hiding can span from individual to interpersonal and firm-level. For instance, Butt and Ahmad (2019) argued that top-down knowledge hiding may result in higher turnover intentions among the victims of knowledge hiding. These authors argue that top-down (knowledge hiding can affect an individuals' (knowledge seekers') ability to contribute to the best of their potential. Wang *et al.* (2019) and Butt (2019), on the other hand, argued that if a knowledge seeker is unable to attain requested knowledge, he/she may have to rely on additional sources and perform extra time-consuming work. Knowledge hiding can also harm the interpersonal relationship between the knowledge seeker and the perpetrator. For instance, knowledge hiding between the knowledge seeker and the perpetrator may result in a trust deficit. Consequently, both knowledge seeker and hider may no longer remain actively engaged and productive in their work (Serenko and Bonti, 2016). Such volunteer turnover can be costly for firms. The effects of knowledge hiding can also be felt at the firm-level. Particularly, Peng (2013) noted that knowledge hiding can affect the firms' reputation or results in higher turnover while Butt and Ahmad (2019) stated that knowledge hiding can result in higher turnover for firms. Unveiling multi-level (individual, interpersonal and firm) consequences of knowledge hiding has also been identified as an area calling for further research (Butt and Ahmad, 2019; Connelly *et al.*, 2019; Butt, 2019; Černe *et al.*, 2014; Connelly and Zweig, 2015). In particular, Connelly *et al.* (2019) stated that the full range of the outcomes of knowledge hiding (above and beyond interpersonal relationship characteristics) has yet to be explored to better understand how multi-level consequences relate to each other. This study fills this important gap in knowledge hiding literature. Therefore, the objective of this study is to unveil the multi-level (individual, interpersonal and firm) consequences of top-down knowledge hiding in firms. The following research question is developed from a review of the literature to guide this study: *What are the multi-level consequences of top-down knowledge hiding*?

This study contributes to the knowledge of hiding literature in at least four distinct ways. First, this study presents the multi-level consequences of top-down knowledge hiding in firms. Our results also state that the consequences of knowledge hiding are very widespread in the United Arab Emirates (UAE) firms. Second, the consequences presented in this study are not only multi-level but also multi-faceted, and it also affects the perpetrator too. Third, findings from this study are cross-disciplinary and can be applied to other disciplines including Organizational Behavior, Marketing, Sales and Information Management. Fourth, our study contributes to practice. It does so by developing a comprehensive model on the multi-level consequences of top-down knowledge hiding, which can provide a myriad of benefits to firms to design policies to mitigate the negative consequences of intra-organizational knowledge hiding.

This paper is organized as follows: First, existing literature on knowledge hiding is reviewed and a potential gap is identified. A review of the literature resulted in the evolution

and design of this qualitative study. An explanation of the case study method that is used to collect primary data collection and cross-case analysis is also provided. Moving on, the steps taken to recruit key respondents, collect data and validate the findings are presented. Then, the results of the content analysis are presented in detail. Finally, results are discussed in detail, and the theoretical and practical implications of the study are drawn alongside research limitations and suggestions for future research.

2. Literature review

2.1 Knowledge hiding

Davenport and Prusak (1998, p. 5) defined knowledge as a fluid mix of framed experience, values, contextual information and expert insights that provide a framework for evaluating and incorporating new experiences and information. Connelly *et al.* (2012) that knowledge hiding should be distinguished from other constructs such as knowledge sharing and knowledge leakage in at least two distinct ways. At first, these authors argue that knowledge is a deliberate and intentional willingness to hide knowledge from someone who has requested it within firms. However, it is not necessarily important that the perpetrator will hide knowledge upon request.

Furthermore, Connelly *et al.* (2012) argued that knowledge hiding can be distinguished in three distinct ways, namely, evasive knowledge hiding, playing dumb and rationalized hiding. In evasive knowledge hiding, one who possesses knowledge intentionally tries fake and wrong information to the one who requests knowledge. It might also be an instance when a perpetrator makes a false promise of providing the required information in due course. Second, in playing dumb, a perpetrator tries to show a lack of familiarity with the required knowledge. Finally, perpetrators can also begin to blame other members for failing to provide them with the required information, justified as rationalized hiding.

Intra-organizational knowledge hiding can have negative outcomes for individuals. For instance, Connelly and Zweig (2015) and Holten *et al.* (2016) reported that knowledge hiding between two co-workers adversely affects knowledge seekers' ability to be creative. Labafi (2017) has further cautioned that knowledge hiding can harm employees' productivity. There might be other consequences of knowledge hiding. For instance, we argue that victims of knowledge hiding may begin to feel their jobs at or in other instances, it may affect their career progression in the firm. On the other hand, it is arguable that knowledge hiding might decline the trust. In addition, managers may perceive that managers may have to put on extra efforts to accomplish their tasks if they are not able to gain access to the required knowledge. Such extra efforts could be very time consuming and demanding on the time of knowledge seeker.

While these authors argue that knowledge hiding can adversely affect knowledge seeker, it is worth mentioning that the effects of knowledge hiding can also be felt at the interpersonal level. For instance, knowledge hiding may decline the interpersonal trust between the knowledge seeker and the perpetrator. Prior research argues that trust is an important antecedent of a successful business relationship behavior and its absence may result in knowledge hiding (Butt, 2019). Huo *et al.* (2016) also established that trust plays a mediating role between psychological ownership and knowledge hiding behavior and that justice further negatively moderated the relationship between territoriality and knowledge hiding. They further stated that interactive justice negatively moderates the relationship between territoriality and rationalized, as well as evasive hiding. In addition, whether managers hide knowledge or not also depend on different types of leadership styles that they possess (Pradhan *et al.*, 2019; Weightman, 2019). For instance, a study found that

extravert managers play dumb with their co-workers but neuroticism discourages such a kind of knowledge hiding behavior (Yao *et al.*, 2020).

In other instances, Issac *et al.* (2020) also argued that knowledge hiding does not only impact individuals but firms as well. In particular, they contended that knowledge hiding in firms can result in higher turnover among knowledge seekers. This paper also proposes that individuals who become a victim of knowledge hiding may resign from their positions. Such volunteer turnover can be costly for firms. Also, firms might struggle to find a suitable replacement and new individuals might not be able to show the same level of productivity. Butt and Ahmad (2019) further contended that top-down knowledge hiding can harm affect the firms' reputation in the competition, resulting in reduced business volume. Knowledge hiding can also adversely affect the relationship between perpetrator and knowledge seeker. For instance, Serenko and Bontis (2016) contended that knowledge hiding between connected parties (knowledge seeker and knowledge hider) and can affect the trust level between them, and they may not share the same level of chemistry when it comes to working on important business tasks. Cerne *et al.* (2017) argued that the relationship between manager and subordinate can lead to the distrust loop. Connelly *et al.* (2019), has also contended that knowledge hiding between perpetrator and knowledge seeker can harm their business relationship in the area of trust and loyalty while Wang *et al.* (2019) argued that intra-organizational knowledge hiding can increase performance in the sales industry and works as a positive performance. While these studies argued that the effects of top-down knowledge hiding can transcend from knowledge seekers to a relationship between knowledge seekers and perpetrators, as well as firms. Most of these arguments are anecdotal and there is no empirical evidence to validate the claims. Second, there is no empirical study that combines the effects of top-down knowledge hiding at different levels (individual, interpersonal and firm) to understand whether the effects do trigger down from one level to another. Connelly *et al.* (2019) have made repeated calls to explore the multi-level consequences of top-down knowledge hiding. The next section discusses the methodology.

3. Methodology

This article adopts a multiple case study methodology by considering nine UAE-based firms – unit of analysis in this study are firms According to Eishenhardt (1989), multiple case studies are preferred as they enable comparisons that allow researchers to test if the findings can be replicated. Additionally, while the case study organizations do vary in terms of industry, they are similar in their overall size (large) and are all UAE-based firms. Case study methodology has also been used because of the underexplored nature of the research topic and because the main objective of the study is to answer "how and/or "why questions (Creswell, 2014). In addition, a case study allows for an overall understanding of the complex phenomenon under investigation by allowing researchers to carry on an empirical inquiry that investigates a bounded contemporary phenomenon within a real-life context (Yin, 2009). The case study also helps researchers to develop a detailed understanding of a complicated issue or object, which can extend experience or add strength to what is already known through previous research (Yin, 2013).

3.1 Study sample and sampling

In this study, 26 managers from 9 different firms were interviewed. The managers interviewed in this study belonged to different industries (such as logistics, insurance, metal, plastic, frozen food and pet products) and positions (Operations Managers, Procurement Manager, Sales Manager, Customer Service Manager and Accounts Managers). *Further information is provided in* Table 1. These key respondents had been the victim of knowledge

hiding from their Senior Managers. To begin the sampling process, we relied on four different industry forums to explain the objectives of our research and to further exchange contact information with the managers. All contacts were then pooled, and following Creswell (2013), knowledgeable respondents were selected using a purposive (expert) sampling method to begin the interview process. In addition, it was very hard for researchers to locate additional participants knowing the consequences of intra-organizational knowledge hiding. Therefore, at the end of the interviews, we requested managers to facilitate contact with another manager (snowball sampling) who have been a victim of knowledge hiding and can provide further information on the phenomenon of interest (Biernacki and Waldorf, 1981). This process resulted in a final sample of 26 interviews from 9 different companies.

3.2 Data collection

Data was collected through semi-structured interviews as Yin (1994, 2003) argues that interviews are very interesting methods to tackle deep and complex issues. All participants were assured of anonymity, which resulted in accurate and unbiased response to the phenomena of interest. An interview protocol was developed following Creswell's approach

Organization type	Industry	Size	Staff	Position of interviewees	Length of Interview
Case study 1	Logistics	Large	20,000–30,000	Operations Manager (P1)	60 min
				Supply Chain Manager (P2)	70 min
				Business Unit Coordinator (P3)	60 min
Case study 2	Automobile	Large	15,000–20,000	Logistics Manager (P4)	80 min
				Area Sales Manager (P5)	90 min
				Sales Manager (P6)	75 min
Case study 3	Freight forwarder	Large	15,000–20,000	Customer Service Manager (P7)	90 min
				Operations Manager (P8)	90 min
				Sales Manager (P9)	90 min
Case study 4	Plastic	Large	15,000–20,000	Sales Manager (P10)	65 min
				Accounts Manager (P11)	60 min
					70 min
Case study 5	Metal	Large	20,000–30,000	Customer Service Manager (P12)	75 min
				Sales Manager (P13)	80 min
Case study 6	Pet products	Large	25,000–30,000	Operations Manager (P14)	90 min
				Operations Manager (P15)	90 min
				Project Coordinator (P16)	85 min
Case study 7	Care spare parts	Large	20,000–30,000	Procurement Manager (P17)	75 min
				Procurement Manager (P18)	70 min
				Supply Chain Manager (P19)	67 min
Case study 8	Paper products	Large	20,000–30,000	Area Operations Manager (P20)	90 min
				Procurement Manager (P21)	85 min
				Accounts Manager (P22)	60 min
Case study 9	Glass products	Large	25,000–30,000	Procurement Manager (P23)	90 min
				Customer Service Manager (P24)	85 min
				Customer Service Manager (P25)	85 min
				Procurement Manager (P26)	90 min

Notes: [a]Size determined based on employee numbers as per The World Bank classification. [b]Employee figures are taken from annual reports and/or company websites

Table 1.
Profile of case study companies

(2013). In total, 20 managers were based in the Northern part of the UAE (including Ras Al Khaimah, Fujairah etc.), while 6 respondents were based on the Southern side of UAE including Abu Dhabi and Al Ain, which lead to telephone interviews in such instance. Furthermore, most of the interviewees were locals (UAE-based nationals). Saturation was attained after 30 interviews as additional interviews yielded no new information Saturation is the point when new codes do not occur in the data (Fusch and Ness, 2015). Therefore, 26 interviews were deemed enough for data collection purposes. Also, we relied on companies' reports, websites and social media for triangulation, as suggested by Creswell (2013) and Yin (2009), to develop a converging line of inquiry. Any differences that emerged as a result of going through secondary data were discussed with respondents in the follow-up meetings, and adjustments were made accordingly.

All interviews were conducted in English throughout and lasted for 60–90 min. All interviews were conducted in English throughout and lasted for 60–90 min. An interview protocol was developed following Creswell's (2013) approach, which suggests open-ended questions. The interview questions were developed after a thorough brainstorming session. All questions that came to the researchers' minds within our research question were listed. Once a list was developed, we started cutting questions and topics that seemed redundant. We also consulted academic literature to find out what kind of questions other researchers might have asked in studies of similar topics. Furthermore, it is appropriate to mention that interview questions were designed in a way that targeted specific individuals (such as knowledge seeker in this study) as suggested by Connelly *et al.* (2012; 2019), and further incorporates specific situations/incidents, as it is easier to recall negative consequences. An interview protocol is provided in Appendix.

3.3 Data coding and analysis

In analyzing the data, we began by synthesizing the material for each case and conducted a within-case analysis to understand the consequences of top-down knowledge hiding in firms. Based on the understanding of each case, we then conducted the cross-case analysis to identify similar or contrasting patterns or variations in patterns across the four cases. We began the within-case analysis by reading all the transcripts to a single case and documents provided. Furthermore, we also wrote down a description of each case as suggested by Yin (2009) and added each case to the case database as suggested by Eisenhardt (1989). We then began reading transcripts for the second time and applied Glaser *et al.*'s (2013) model paradigm, which includes open, selective and theoretical coding. It is also pertinent to mention that this study does not rely on grounded theory methodology. Rather, it only uses a coding paradigm proposed by Glaser *et al.* (2013) coding paradigm. At first, during open coding, we read every single transcript line by line and began to sort the data into incidents, acts and ideas and assigned a specific code to each of them (dismissal of perpetrator, etc.). NVIVO was considered appropriate to assist with the open coding. Once relevant theoretical categories emerged through open coding, we relied on selective coding to interpret the categories and their corresponding properties and to see how each category is inter-linked or cross-cutting. We also used selective coding to perform a rigorous content analysis around each category, to further refine the constructs. This process was further facilitated by using NVIVO 10 software to better observe the relationship between emerging categories. Finally, theoretical coding was used to develop a theory and to focus on the variable of interest only (core variables). Theoretical coding also facilitated the process of creating a predictive statement about the phenomena.

To ensure the trustworthiness of the findings, the four principles of Guba and Lincoln (1994) were strictly followed throughout the data collection period.

- *Credibility*: the participants were asked to review the interview transcripts and provide feedback on any misunderstandings.
- *Transferability*: diverse participants were chosen to represent variations in the type of positions and responsibilities. Additionally, this study provides all information including the number and type of participants, the number of firms and the data collection procedure.
- *Dependability*: the codes developed were compared with the codes by the other researchers for the same transcripts. The inter-code comparison was found satisfactory with 82% similarity.
- *Conformability*: the findings were supported by quotes, regular reviews of data and analysis procedures to avoid any judgmental bias.

4. Results and findings

4.1 Personal reputation

Discussion with knowledge seekers (respondents) thoroughly revealed that they felt their reputation at stake once they did not have full knowledge to perform their roles. Interviews with two respondents (P2 and P7) stated that it is very common in their organization for senior management to deliberately hide knowledge from their peers and subordinates. Even worse than that, respondents confirmed that there is no mechanism in their firm to report such issues to the top-level management so knowledge hiding behavior can be mitigated. These respondents narrated that their peers around them began to feel that respondents do not know how to do their job properly or exceed their role expectations to earn a good reputation. An excerpt from an interview of P7 stated that:

> My boss deliberately kept me in the corner and did not take me on board when I asked him to assist in designing a new customer database for one of our clients. I had a good reputation for handling such projects when I entered the firm initially but now colleagues believe that it is not eventually the case. They are not aware of the reality that I am purposely kept out of this project assignment. What is even worse that nobody cares about this prevailing knowledge hiding behavior in our organizations. There is no mechanism and system in place to cope with this issue.

Two interviews with knowledge seekers (P2 and P7) stated that they are usually get hired based on your competencies and skills that you are going to bring into this company. However, if your peers do not see you delivering, they began to doubt your identity at a professional level. These respondents contended that they are, actually, fully motivated to work with their seniors on a one-on-one basis, but their Senior Managers do not take them on board, neither they cooperate fully. These knowledge seekers argued that knowledge hiding perpetrators possess a strong reputation in the company because they hold that specific knowledge, and it adversely affects the knowledge seekers' reputation on the other side when knowledge is deliberately hidden from them. Like respondents P7, P8, they confirmed that their companies do not have any mechanism and policies in place to take any strict action against these perpetrators.

4.2 Suboptimal work performance

Throughout the narratives, victims of knowledge hiders stressed that they experienced a substantial decline in their work performance. Furthermore, respondents argued that being inefficient, requesting knowledge from an alternate source and lack of creativity resulted in suboptimal work performance. These are explained below in Sections 4.2.1-4.2.3.

4.2.1 Inefficiency. Several respondents (P1, P2, P3, P7, P9, P11, P10, P11, P12, P13, P14, P16, P17, P21, P22 and P23,) argued that their work performance declined once their Senior Managers deliberately hid knowledge from them. They further argued that a lack of knowledge made it extremely difficult for them to complete their work tasks and problem-solving skills. Interviews with three respondents (P1, P3 and P9) unveiled that once their Senior Managers did not provide requested information and left them on their own; they experienced much more time to solve technical issues in their company's software system. Consider what P9 has to say about how perpetrators' knowledge hiding from them directly affects their work performance:

> I was relatively new to this company and approached my team leader to understand the cause of a minor bug in our company's database that we use to maintain our customer records. However, he said that he is also not familiar with this bug and will get back to me, which never happened. It was an extra effort for me, and I lost much time and made several mistakes. It literally took me over 3 hours to correct this issue.

Additional interviews with two respondents (P3 and P9) also revealed that victims of knowledge hiding find it challenging to resolve the issue on an expedited basis. They also stated that when you do not have full information to perform a certain task, it takes your considerable amount of energy and time, which cannot be equated to the desired outcome. These respondents further went on arguing that Senior Managers' knowledge hiding behavior has badly affected their ability to contribute to the best of their potential.

4.2.2 Requesting knowledge from an alternate source is time-consuming. An in-depth discussion with respondents (P5, P6 and P8) revealed that when managers were deprived of their right to gain new knowledge from their Senior Managers, this deteriorated their work performance as they had to rely on alternate sources of information to get their work accomplished. Respondents narrated that approaching alternate sources took their substantial amount of time and energy, which they could have spent on other productive works. Respondents also narrated that approaching alternate sources increased the stress level and further declined their motivation. Further discussion with the respondents above unveiled that victims of knowledge hiders had to make contacts with their colleagues within the same hierarchy or sometimes even their friends employed at different organizations in the competition to seek the required knowledge to complete their work tasks. Consider what P8 has to say:

> If you do not have full information and know-how, you have to rely on other means to acquire the knowledge needed to perform your task. As a result, you lost plenty of time including loss of valuable resources.

An additional interview with one of the respondents (P9) narrated that he was very much enthusiastic and passionate about his role as a Sales Manager. Consequently, he approached his Area Sales Managers to learn additional selling techniques to increase business volume for the company and to make a mark, but his Senior Manager refused to provide him with the requested knowledge. Since then, he has been relying on various platforms to improve his selling and communication skills such as the internet and contacting other Sales Managers in competition. This respondent argued that this is a complicated and lengthy process that has taken his considerable amount of time. This respondent argued that he could have spent that energy elsewhere to improve his work productivity but it did not happen because he did not get any support from his top-level management.

4.2.3 Suppressed creativity. Respondents' stories thoroughly revealed that they were not able to be innovative and creative in their roles because they did not have full knowledge to perform their jobs. Respondents also narrated that they did not know how to handle their

tasks in a different way because they lacked the knowledge to do so. Besides, they were not able to engage in brainstorming sessions and bringing new and innovative ideas on a table for discussion with their peers as they have did not possess enough knowledge. Furthermore, respondents blamed their Senior Managers for their lack of creativity because they did not provide them with the full knowledge to bring creativity in their roles.

Interviews with six respondents (P6, P7, P8, P9, P12 and P13) argued that their Senior Managers willingly neglected them when they approached them with a request to train them on a new software project. These two respondents narrated that the clients wanted their company to solve issues relating to updating the customer query database but that required a new and innovative way. Respondents narrated that they were so keen to learn about that project and were willing to bring new ways of updating their customers' database query but they could not do so because their Senior Managers were not prepared to take them on board and said that it is not the right time for them to handle this big project. The respondents further narrated that their Senior Managers never requested them to attend a meeting to discuss the new ways of handling the project even when they made several requests to be a part of the team.

4.3 Escalation

Discussion with respondents revealed that knowledge hiding can become widespread in the firms, which further resulted in victims of knowledge hiding resigning from their positions or the perpetrators being expelled from the firms or demoted. Furthermore, respondents, interestingly reported that they took the initiative to report other Senior Managers in their firms when they were victimized of knowledge hiding. Some respondents also reported that the Senior Managers who intentionally hid knowledge from them were expelled from the organization while in some instances, knowledge hiders resigned from their positions as the last option. These are explained below in detail in Sections 4.3.1-4.3.3

4.3.1 Resignation of a victim of knowledge hiding. Interestingly, many stories from the respondents' interviews (P3, P4, P5, P6, P7, P8, P9 and P10) revealed that they eventually informed their employers about their intention to resign because they were not treated well by their upper management. An interview with two respondents (P3 and P4) revealed that conflict between them and their respective Senior Managers became so critical and worse that knowledge hiding targets decided to resign from their positions and served their employers with a required notice period. Consider an excerpt from the quote of P6:

> My circumstances and growing conflicts with the line manager had developed such consequences that I decided to the left this organization.

In addition, interviews with other respondents (P21, P22, P23, P24, P25 and P26) revealed similar stories. These respondents narrated that they decided to resign overnight (on a very short notice), once they were not given access to full information/knowledge by their Senior Managers and were left in isolation in the company. These respondents argued that they had no point and intention to serve in a company where they are not given enough opportunity to learn and grow. Consider the following short quote by P23:

> The discrepancies and personal resentments that I developed with my project manager encouraged me to the left this company overnight.

4.3.2 Dismissal of the perpetrator. Contrary to the resignation by knowledge hiders as discussed above, some respondents, confidently stated that they escalated that matter (supervisors' knowledge hiding behavior) with other Senior Managers in the firm, which

eventually resulted in a dismissal of the perpetrator. Respondents narrated that they decided to fight back to the best of their potential, which was eventually paid off.

An interview with P10 unveiled that he approached his Senior Manager with a request to gain expertize on how to develop customers' query. However, his manager, bluntly, refused to provide him with any such information. The respondent further said that he made a couple of attempts to resolve this matter outrightly with the knowledge hider but there was no success. Eventually, the knowledge hider approached the chief executive officer (CEO) of his company to discuss such behavior of his Senior Manager. Consequently, the knowledge hider was laid off from the company for his unethical action and his appeal was unsuccessful too. The respondent narrated that his company has very straight and strict policies on what sort of behaviors are acceptable/unacceptable and there is no room for perpetrators, especially employees, who intentionally hide knowledge from their colleagues and junior managers in this company. Consider an excerpt from an interview with P10:

> Well, I was really willing to get his support on this new project of one of our biggest clients but he was not so cooperative. Eventually, his action resulted in a notice of his termination once my company's CEO became aware of this. I still remember that he lodged a complaint asking for another chance but he did not get any success in his appeal.

4.3.3 Office politics. Respondents (P17, P18, P19, P20, P21, P22, P23 and P24) revealed that they escalated the matter about their supervisors' knowledge behavior to other senior officials in the company. Some respondents also argued that initially, they did not have any intention to escalate this matter (that their supervisors intentionally refused to provide the required knowledge) to the upper management, but they were eventually left with no choice. An interview with a respondent P5 unveiled that he was not interested in letting others know in a company know that he has a conflict with his superordinate. However, the conflict between the knowledge seeker and perpetrator got worse and he eventually had to approach the CEO of his company to intervene. This respondent argued that this harmed the reputation of knowledge hiders and an organization on the whole. The following quote by P17 testifies to this:

> Honestly speaking, I was not in a mood for an escalation with my project manager in the first place, once he decided to provide me with the request knowledge. However, I thought its better if my CEO knows about the facts without me directly asking him for any action against my project manager.

4.4 No negative consequences

Managers' narrative revealed that knowledge hiding does not necessarily have a negative consequence. In many instances, managers thoroughly revealed that they explicitly confronted the perpetrator with his knowledge of hiding behavior. Managers' stories also revealed that they did their utmost to deescalate the growing conflict by talking in private with the perpetrator and to resolve the matter easily.

An interview with a respondent P7 revealed that when his Senior Manager refused to cooperate with him, resulting in a conflict. He made contact with his Senior Manager and requested to discuss why his Senior Manager is so unwilling to share knowledge with him, and if there is any way this matter can be settled. He argued that he was keen to settle the dispute with his Senior Manager, who was not willing to cooperate and to further reconcile the matter in a friendly manner. The following quote by P1 testifies to this:

> I think it depends on the individual. There is certainly a way to resolve issues with your seniors provided you know what to do. I mean, I usually request a meeting with my senior managers at

their convenience when they are not in a position to answer my questions. I do this to resolve any problem.

Another interview with respondent P2 provided support to the above findings. This respondent, interestingly, argued that knowledge hiding does not always generate negative consequences - contrary to the popular belief that knowledge hiding will always lead to negative outcomes. This respondent further stated that there is a possibility to deescalate a situation and ease off things with your senior management, who willingly ignore you in the company, provided you follow the right attitude.

4.5 Poor working relationship

Respondents' stories further unveiled that when their Senior Managers intentionally hid knowledge from them, it adversely affected their work relationship with them. Respondents also argued that once their Senior Manager was not supportive enough, they avoided contact with the knowledge hiders and then tried to manage things on their own rather than relying on perpetrators. Respondents also narrated that they experienced an aloof relationship with their superordinates and began to experience barriers between each other. Respondents also argued that they felt reduced trust and loyalty toward the knowledge hiders, which adversely affected their working relationship with them. These are discussed in Sections 4.5.1 and 4.5.2 below.

4.5.1 Reduced interpersonal trust. Interestingly, knowledge seekers argued that they felt a trust deficit in their business relationship once their Senior Managers begin to hide knowledge from them for no obvious reasons. Some interesting and surprising stories emerged as a result of detailed discussion with victims of knowledge seeker.

Further interviews with managers (P10, P11, P12 and P13) reported that they experienced a trust deficit once they were no longer being assisted and supported by their senior management to achieve their career goals. These respondents argued that they became reluctant to approach and ask them for any assistance as they believed that they may even provide them with the wrong information, which can put their jobs at stake. These respondents further stated that they were not ready to discuss their problems with their Senior Managers, whom they were reporting to, neither they were telling them about any issues they were facing while performing their organizational role as they had a belief that these Senior Managers will begin to exploit on their weak situations. Knowledge seekers further unveiled that sometimes they had very interesting and innovative business ideas that they wanted to discuss with their Senior Managers but they were not ready to do so because they felt a trust deficit in their business relationship. Consequently, they either kept their ideas to themselves or rather discuss it with someone else in the company. Consider the following quote by P10:

> It is very simple. If my boss is going to hide knowledge from me, I will not trust him when it comes to sharing any new important business ideas which can help this company grow. They do not help us when we need them because they want to secure their interests, so why should I share my business ideas with them, which can help me grow my career in this company. This is all because they deliberately hide knowledge from us for many reasons, which harms the trust level between us.

Furthermore, interviews with respondents P6, P7, P8, P9 and P12 revealed similar stories stating that knowledge hiding affects the trust level between knowledge hider and knowledge seeker. In fact, knowledge seekers become reluctant to engage in any brainstorming session with their Senior Managers because they do not trust them that they will keep their ideas or help them progress in the firm. Knowledge seekers further narrated

that they also do not trust their Senior Managers' intention to keep their secrets and any personal issues. Respondents went on say that they remained reluctant to talk about their weaknesses and areas of improvement with the knowledge hiders because they believe that they will expose them to the other peers in the company instead of providing them with constructive feedback on how to improve or in other sense, may present information to the top-level management in a different way, which can impact their reputation in the firm.

4.5.2 Reduced loyalty. Knowledge seekers' stories revealed that they did not want to stay loyal to the knowledge hiders. Knowledge seekers (respondents) revealed that their Senior Managers' intentional knowledge hiding compelled them to avoid supporting and stand beside them when senior management needed their help for certain reasons such as covering additional shifts and working extra hours.

An interview with two managers who have been a victim of knowledge hiding (P8 and P16) stated that they did not want to help their senior management, which intentionally hid knowledge from them. One of the respondents (P8) reported that his Senior Manager deliberately hid knowledge from him. Consequently, he decided to take a step back and do no help that Senior Manager in difficult times. This respondent narrated that his Senior Manager and a knowledge seeker once called him and requested that he has to leave the country for some emergency reasons and wants him to cover his work shift, which will be paid in addition to his normal salary. However, the respondent refused to cover his Senior Managers' shift and argued that he already has much work to cover. Besides, the respondent contended that he intentionally did this.

Another discussion with four respondents (P18, P19, P15 and P16) revealed pretty much similar stories. These four respondents stated that you do not stay loyal to the employees in a firm who intentionally hide knowledge from you. Two of these respondents (P2 and P7) argued that they have been very loyal to their line managers. For instance, they used to cover their line managers' extra shifts when their line managers requested but once they find out that their line managers not engaging with them or do not take them on board when it comes to disseminating important business knowledge, they modified their work behavior and stop doing any professional favors to the Senior Managers (knowledge hiders).

4.6 Higher turnover

Throughout the stories, knowledge seekers revealed that they were going to quit their jobs because they did not feel any determination and dedication toward their job. Respondents revealed that their Senior Managers' deliberate attempt to intentionally hide knowledge from them set a foundation for them to feel less dedicated toward their company. Discussion with four respondents (P11, P21, P25 and P26) revealed interesting stories regarding how knowledge hiding compelled them to think of quitting their jobs. These respondents argued that when you do not have full knowledge, you do not feel fully engage in your organizational role. Furthermore, you have a lack of satisfaction toward your job because you do not know how/when to handle different organizational tasks as you do not have full knowledge to do so. Specifically, P11 and P21 narrated that knowledge hiding between top-down management is a major cause manager to quit their jobs. In addition, even victims of knowledge hiding are not in a position to quit. They, nevertheless, are no longer engaged in their position. Respondents also felt that they are not being valued in the company, which affected their loyalty toward the organization. These respondents confirmed that they if they have an opportunity elsewhere, and if the circumstances permit, they will simply quit because knowledge hiding norms in their company are not going to change regardless. Consider a quote by P11.

Let me tell you that the knowledge hiding culture in my company creates much frustration among employees here. They become lazy and demoralized when superordinates do not volunteer their knowledge with knowledge seekers. I can tell you that many employees in my company are only working because they do not have any other option yet. The majority of the employees in my company are sneakily looking for other jobs, where they feel that they are being valued and have open access to resources with an opportunity to learn.

4.7 Reduced business volume

Respondents' stories from supplying firms revealed that their firms' business volume began to decline as a result of deliberate knowledge hiding in their company.

An interview with a respondent P4 revealed that they received a project from one of their largest customers to develop new software, which would improve their customers' online query system. The respondent narrated that he was a part of a team and working under his Senior Manager who took full responsibility for completing that project. Once, his Senior Manager wanted him to handle a part of that project but he did not have full knowledge to respond to a specific issue and when he approached his Senior Manager for help, the Senior Manager declined that he did not know how to do that. Consequently, the respondent handled the query based on his prior experience, which resulted in an unexpected error. This action completely terminated the functionality of the project. Finally, the project had to be initiated from scratch, which took an additional three months and this affected the customers' timeline too. Respondent narrated that his Senior Managers' intentional knowledge hiding affected the project, which badly affected their relationship with their customers because they no longer trust the skills of them as a supplier. The respondent confirmed that they had lost that customer.

Another interview with P5 provided support to the above findings. This respondent narrated that they have lost many clients because they have failed to handle their customers' needs on time. For instance, when knowledge is not passed on properly to junior employees from their Senior Managers, they make mistakes while handling customers' projects, which adversely affect their business relationship with clients. An excerpt from P5 revealed that:

My senior managers do not give me full knowledge when it comes to handling a customers' project, mistakes then become evident, and we have to extend deadlines for our customers, this eventually harms our relationship with our customers and we lose business (Table 2).

5. Conclusions

While there are plenty of studies on intra-organizational knowledge hiding (Butt and Ahmad, 2019; Connelly *et al.*, 2019; Butt, 2019; Wang *et al.*, 2019; Connelly *et al.*, 2012; Cerne *et al.*, 2014); they have ignored that knowledge hiding can affect individuals, interpersonal relationships and firms. Therefore, the main purpose of this study was to explore the multi-level consequences of top-down knowledge hiding in firms. Upon pursuing this goal, we found that the effects of top-down knowledge hiding are not only limited to knowledge seekers. Instead, they also span over interpersonal relationships between knowledge seeker and perpetrator, as well as firms. We believe that findings from our study can provide a wealth of benefits to UAE/Gulf Cooperation Council and Middle East region-based firms as most countries in this region are now moving from oil-based economy to knowledge-based economy, in which knowledge would be considered as a source of competitive advantage (Drucker, 1969). Findings also unveil that knowledge hiding has the potential to adversely affect knowledge seekers' work performance.

VJIKMS

Individual-level consequences of top-down knowledge hiding

	Case study 1	Case study 2	Case study 3	Case study 4	Case study 5	Case study 6	Case study 7	Case study 8	Case study 9
Personal reputation	Knowledge seekers personal reputation becomes at stake	Knowledge seekers personal reputation becomes at stake	Knowledge seekers personal reputation becomes at stake to some extent	Knowledge seekers personal reputation becomes at stake	Knowledge seekers personal reputation becomes at stake to a great extent	Knowledge seekers personal reputation becomes at stake	Knowledge seekers personal reputation becomes at stake	Knowledge seekers personal reputation becomes at stake	Knowledge seekers personal reputation becomes at stake
Suboptimal work performance	Victims of knowledge seekers experience diminished work performance due to inefficiency and lack of creativity	Victims of knowledge seekers experience diminished work performance due to inefficiency	Victims of knowledge seekers experience limited diminished work performance because they need to request substitute knowledge	Victims of knowledge seekers experience diminished work performance to some extent due to inefficiency	Victims of knowledge seekers experience diminished work performance due to inefficiency	Victims of knowledge seekers experience diminished work performance due to lack of creativity	Victims of knowledge seekers experience diminished work performance due to inefficiency	Victims of knowledge seekers experience diminished work performance due to lack of creativity	Victims of knowledge seekers experience diminished work performance due to inefficiency
Escalation	Knowledge seeker(s) resigns from their positions	Knowledge seeker(s) approach Senior Managers in the company to escalate the matter	Knowledge seekers approach Senior Managers to escalate the matter	Knowledge seekers approach Senior Managers to escalate the matter resulting in dismissal of the perpetrator	Knowledge seekers approach Senior Managers to escalate the matter	Knowledge seekers approach Senior Managers in the company to escalate the matter resulting in dismissal of the perpetrator	Knowledge seekers approach Senior Managers to escalate the matter	Knowledge seekers approach Senior Managers to escalate the matter	Knowledge seekers approach Senior Managers in the company to escalate the matter resulting in dismissal of the perpetrator

(continued)

Table 2.
Summary of findings and cross-case analysis

	Case study 1	Case study 2	Case study 3	Case study 4	Case study 5	Case study 6	Case study 7	Case study 8	Case study 9
Ne negative consequences	Knowledge seekers approach Senior Managers to deescalate the situation	Knowledge seekers approach Senior Managers to deescalate the situation	Knowledge seekers do not approach Senior Managers to deescalate the situation	Knowledge seekers do not approach Senior Managers to deescalate the situation	Knowledge seekers approach Senior Managers to deescalate the situation	Knowledge seekers approach Senior Managers to deescalate the situation	Knowledge seekers do not approach Senior Managers to deescalate the situation	Knowledge seekers approach Senior Managers to deescalate the situation	Knowledge seekers approach Senior Managers to deescalate the situation
Interpersonal level consequence of top-down knowledge hiding									
Poor working relationship	Knowledge seekers do not trust and stay loyal to their senior officials when they purposely hide knowledge from them	Knowledge seekers do not trust their senior officials when they purposely hide knowledge from them	Knowledge seekers do not remain loyal to their senior officials when they purposely hide knowledge from them	Knowledge seekers do not trust and stay loyal to their senior officials when they purposely hide knowledge from them	Knowledge seekers do not trust and stay loyal to their senior officials when they purposely hide knowledge from them	Knowledge seekers do not trust and stay loyal to their senior officials when they purposely hide knowledge from them	Knowledge seekers do not trust and stay loyal to their senior officials when they purposely hide knowledge from them	Knowledge seekers do not trust their senior officials when they purposely hide knowledge from them	Knowledge seekers do not remain loyal to their senior officials when they purposely hide knowledge from them
Firm-level consequences of top-down knowledge hiding									
Higher turnover	Knowledge seekers intend to resign from their positions when they do not get access to the requested information	Knowledge seekers intend to resign from their positions when they do not get access to the requested information	Knowledge seekers intend to resign from their positions when they do not get access to the requested information	Knowledge seekers do not intend to resign from their positions when they do not get access to the requested information	Knowledge seekers intend to resign from their positions when they do not get access to the requested information	Knowledge seekers intend to resign from their positions when they do not get access to the requested information	Knowledge seekers do not intend to resign from their positions when they do not get access to the requested information	Knowledge seekers intend to resign from their positions when they do not get access to the requested information	Knowledge seekers intend to resign from their positions when they do not get access to the requested information

(continued)

Table 2.

|	Case study 1	Case study 2	Case study 3	Case study 4	Case study 5	Case study 6	Case study 7	Case study 8	Case study 9
Firms' business volume declines	Firms' business volume declines substantially when knowledge hiding culture prevails in it	Firms' business volume declines substantially when knowledge hiding culture prevails in it	Firms' business volume declines substantially when knowledge hiding culture prevails in it	Firms' business volume declines to some extent when knowledge hiding culture prevails in it	Firms' business volume declines to some extent when knowledge hiding culture prevails in it	Firms' business volume declines substantially when knowledge hiding culture prevails in it	Firms' business volume declines substantially when knowledge hiding culture prevails in it	Firms' business volume declines substantially when knowledge hiding culture prevails in it	Firms' business volume declines to some extent when knowledge hiding culture prevails in it

Table 2.

Knowledge hiding behavior can harm the victims' ability to contribute to the best of his potential including problem-solving and cognitive skills, which will eventually affect a firms' success. Furthermore, in some instances, respondents reportedly escalated their Senior Managers' knowledge hiding behavior with upper management, resulting in an expulsion of the perpetrator. However, this practice was not found to be very common in UAE firms. Results suggest a presence of fear and reluctance among junior employees, when it comes to making complaints against their senior management, who intentionally hide knowledge from them – at least is the case in UAE-based firms. These findings are in agreement with a recent study on the role of knowledge hiding in UAE-based firms (Butt and Ahmad, 2019; Arain *et al.*, 2019). It is also worth mentioning that victims of knowledge hiding, who wanted to progress in their field, demonstrated a dire need to resign from their position. Most of the respondents, who have been a victim of knowledge hiding argue that they are only working for the company because they do not have any other opportunity. This is certainly alarming for firms as such turnover can cost a huge amount of money to firms. Furthermore, the replacement of employees could take much time resulting in a productivity loss. Firms can also lose valuable clients if the knowledge hiding culture prevails. Indeed, when managers do not have full knowledge to perform their roles, they will make mistakes when handling customers' queries, which will affect their business relationship with clients. Contrary to the popular belief that knowledge hiding will always generate negative consequences, many instances appeared where victims of knowledge hiding deescalated their conflicts with senior management. However, that action is not very much prevalent in UAE-based organizations as employees were found to be reluctant and lazy when it came to handling conflicts with their superordinates. These findings provide empirical support to a recent study on knowledge hiding, arguing that managers based in Middle Eastern firms might be reluctant to dissolve conflicts with their upper management (Butt, 2019; Arain *et al.*, 2018; Arain *et al.*, 2019).

6. Implications for theory and practitioners

Our study contributes to the knowledge hiding literature in five distinct ways. At first, several studies have made repeated calls for a study to examine multi-level consequences of top-down knowledge hiding (Arain *et al.*, 2019; Černe *et al.*, 2014; Connelly *et al.*, 2019; Butt and Ahmad, 2019; Černe *et al.*, 2014; Connelly and Zweig, 2015). Therefore, the first contribution of this study is that it responds to their calls by exploring the multi-level consequences of top-down knowledge hiding. Precisely, our study contributes to knowledge hiding literature by unveiling consequences at the individual, interpersonal and firm-level. Our second contribution to knowledge hiding literature is that we present multi-faceted consequences of knowledge hiding. For instance, our results present individual-level consequences of knowledge hiding in the form of a lack of personal reputation, suboptimal work performance, escalation and de-escalation. While at knowledge hiding was found to be harming the working relationship between a supervisor-supervisee relationship in the area of trust and loyalty, and further results in higher turnover and reduced business volume for firms. Third, findings from this study can also be applied to other management disciplines such as Organizational Behavior, Marketing, Sales and Information Management. For instance, Labafi (2017) from information management discipline has empirically shown that knowledge hiding can have serious negative consequences for firms. However, this study did not reveal the nature of the consequences. Findings from this study build on this body of literature by outlining the consequences of knowledge hiding in a top-down relationship in firms. Furthermore, Arain *et al.* (2018) found that reduced trust between supervisor-supervisee relationships compels supervisors to intentionally hide knowledge from their

subordinates, and further affect their work performance. Findings from this study provide empirical support to their arguments. Previous literature also suggested that knowledge hiding can adversely affect individuals' work performance (Serenko and Bontis, 2016). However, this study argues that it is not only individuals who are affected by top-down knowledge hiding. Instead, it can also have negative consequences for firms. Results also highlight that knowledge hiding behavior does not just affect individual managers but also affects organizations and interpersonal relationships between managers and their senior management.

Fourth, a model presented in this study about top-down knowledge hiding in firms is not only multi-faceted but it also spans across three different level of analysis such as individual, interpersonal and organizational level and can help researchers understand the multi-level nature of consequences of knowledge hiding in top-down management in firms. For instance, a model (Figure 1) presented in this study links organizational-level knowledge hiding to social learning and identity theory. While at the interpersonal level, findings support the notion of social exchange theory to explain the mechanism underlying the consequences such as distrust. This research, therefore, puts together different literature, which explains consequences of knowledge hiding in organizations (Černe et al., 2014; Connelly and Zweig, 2015; Connelly et al., 2012), and connects the dots of the knowledge hiding puzzle to establish a much deeper understanding of consequences of knowledge hiding.
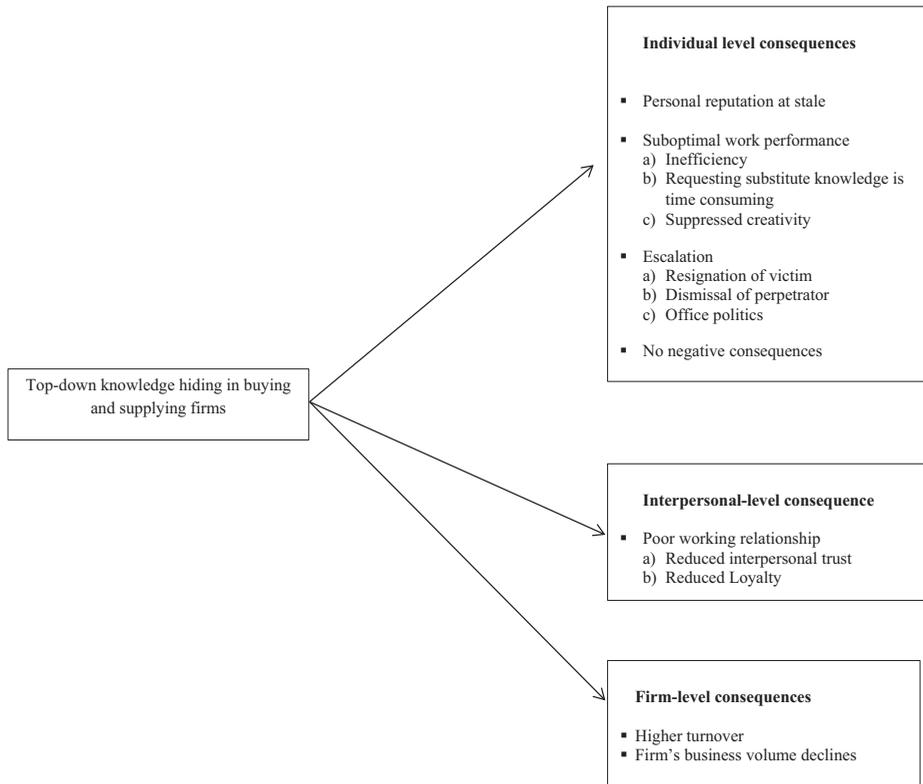
Figure 1.
Proposed theoretical model of consequences of top-down knowledge hiding in firms

The findings of this study have direct implications for firms as well. They highlight that top-down knowledge hiding within firms can have serious negative consequences not only for individual knowledge seekers but on the firms as well. As some of the respondents openly disclosed that they found their work productivity diminishing substantially once they were not able to access requested knowledge from their senior officials. This study suggests that firms can have a serious blow if the knowledge hiding culture prevails in their organizations. Indeed, if managers are not productive and creative, this can adversely impact the firms' performance as well.

Furthermore, a volunteer turnover by victims of knowledge hider can substantially increase the firms' costs when it comes to hiring new employees. Almost every respondent raised this issue. Many respondents simply stated that they would prefer to quit their job if circumstances permit if they become a victim of knowledge hiding. Moving on, firms should also note that if knowledge hiding is a part of the culture (which is in most cases in UAE-based firm), then this will directly affect the reputation of firms, in particular, supplying firms can lose valuable clients as no good customer would prefer to work supplying firms, which engages in unacceptable practices. Issac and Baral (2019) also argued that knowledge hiding destroys a firms' reputation. Consequently, this study suggests that firms introduce and implement strong policies and procedures to eliminate or at least mitigate the consequences of knowledge hiding in firms. Perhaps, firms should encourage their senior officials to begin the process of developing friendly ties with their subordinates as this will bridge a gap between the knowledge hider and knowledge seeker. Such close friendly ties can also play an important role in developing higher trust and loyalty between supervisor-supervisee relationships.

Most importantly, this study suggests that firms coach its senior management on the negative consequences of top-down knowledge hiding, and how it can badly affect firms. Some respondents also took an initiative to resolve conflicts with their upper management and eventually deescalated the situation. However, it is worth noticing that such firms have policies in place, which encouraged junior management to raise their voice against any unethical or unacceptable behavior by their upper management. This study, therefore, suggests firms should have policies in place, which encourage junior management to echo their voice if/when they become a victim of knowledge hiding, and outrightly discuss this matter with other seniors in firms. Doing so will help connected parties to deescalate the situation without any negative consequences.

7. Research limitations and future research directions
While the findings from this qualitative research intimate us about the consequences of top-down knowledge hiding, it is pertinent to mention that the results from this study are based on a limited sample of 26 interviews with managers of firms based in UAE. This is one of the limitations of the qualitative study. Additionally, caution should be taken when applying the results of this study to a broader population as this study intends to build a theory and is exploratory. There are further avenues for future research. First, future research should ask the same question in this study in Western cultures (the USA, Canada, etc.) as behavioral patterns vary from one culture to another, which might lead to different outcomes. Another possibility is to empirically test the findings in this study to demonstrate its generalizability. Additionally, many respondents argued that knowledge hiding can also take place between managers from partnering firms. Future research should, therefore, explore determinants and consequences of knowledge hiding between two managers from partnering firms. Future research should also use longitudinal data to better capture the understanding of reasons for knowledge hiding between top-down management. Another

avenue of future research is to collect dyadic data from both managers and their Senior Managers to confirm the findings as subordinates may not necessarily have the full picture, and there could be various biases arising from personal relationships or misconceptions. Furthermore, another possible extension of this work could be to collect data on knowledge hiding at multi-level. For example, Senior Managers hiding knowledge from managers and then managers hiding knowledge from their subordinates and to future explore whether the impacts of Senior Managers' knowledge hiding from their managers move down to managers' knowledge hiding from their subordinates. Finally, future research should explore how organizations can develop policies that can encourage the culture of knowledge sharing while at the same time discouraging the culture of knowledge hiding in organizations.

References

Ajmal, M.M. and Kristianto, Y. (2012), "Knowledge sharing in the supply chain", in *Decision-Making Theories and Practices from Analysis to Strategy (376-388)*, IGI Global.

Arain, G.A., Bhatti, Z.A., Ashraf, N. and Fang, Y.H. (2018), "Top-down knowledge hiding in organizations: an empirical study of the consequences of supervisor knowledge hiding among local and foreign workers in the Middle east", *Journal of Business Ethics*, Vol. 164 No. 3, pp. 1-15.

Biernacki, P. and Waldorf, D. (1981), "Snowball sampling: problems and techniques of chain referral sampling", *Sociological Methods and Research*, Vol. 10 No. 2, pp. 141-163.

Butt, A.S. (2019), "Antecedents of knowledge hiding in a buyer-supplier relationship", *Knowledge and Process Management*, Vol. 26 No. 4, pp. 346-354, doi: 10.1002/kpm.1618.

Butt, A.S. and Ahmad, A.B. (2019), "Are there any antecedents of top-down knowledge hiding in firms? Evidence from the United Arab Emirates", *Journal of Knowledge Management*, Vol. 23 No. 8, pp. 1605-1627.

Butt, A.S. and Ahmad, A.B. (2020), "Strategies to mitigate knowledge hiding behavior: building theories from multiple case studies", *Management Decision*. doi: 10.1108/MD-01-2020-0038.

Černe, M., Hernaus, T., Dysvik, A. and Škerlavaj, M. (2017), "The role of the multilevel synergistic interplay among team mastery climate, knowledge hiding, and job characteristics in stimulating innovative work behavior", *Human Resource Management Journal*, Vol. 27 No. 2, pp. 281-299.

Černe, M., Nerstad, C.G., Dysvik, A. and Škerlavaj, M. (2014), "What goes around comes around: knowledge hiding perceived motivational climate, and creativity", *Academy of Management Journal*, Vol. 57 No. 1, pp. 172-192.

Cheng, J.H., Yeh, C.H. and Tu, C.W. (2008), "Trust and knowledge sharing in green supply chains", *Supply Chain Management: An International Journal*, Vol. 13 No. 4, pp. 283-295.

Connelly, C.E. and Zweig, D. (2015), "How perpetrators and targets construe knowledge hiding in organizations", *European Journal of Work and Organizational Psychology*, Vol. 24 No. 3, pp. 479-489.

Connelly, C.E., Černe, M., Dysvik, A. and Škerlavaj, M. (2019), "Understanding knowledge hiding in organizations", *Journal of Organizational Behavior*, Vol. 40 No. 7, pp. 779-782.

Connelly, C.E., Zweig, D., Webster, J. and Trougakos, J.P. (2012), "Knowledge hiding in organizations", *Journal of Organizational Behavior*, Vol. 33 No. 1, pp. 64-88.

Creswell, J.W. (2013), *Steps in Conducting a Scholarly Mixed Methods Study*, Sage.

Creswell, J.W. (2014), *A Concise Introduction to Mixed Methods Research*, SAGE publications.

Davenport, T.H. and Prusak, L. (1998), *Working Knowledge: How Organizations Manage What They Know*, Harvard Business Press.

Eisenhardt, K.M. (1989), "Making fast strategic decisions in high-velocity environments", *Academy of Management Journal*, Vol. 32 No. 3, pp. 543-576.

Fusch, P.I. and Ness, L.R. (2015), "Are we there yet? Data saturation in qualitative research", *The Qualitative Report*, Vol. 20 No. 9, p. 1408.

Glaser, B., Bailyn, L., Fernandez, W., Holton, J.A. and Levina, N. (2013), "What grounded theory is …", in *Academy of Management Proceedings*, Academy of Management, Briarcliff Manor, NY, Vol. 2013 No. 1, p. 11290.

Guba, E.G. and Lincoln, Y.S. (1994), "Competing paradigms in qualitative research", *Handbook of Qualitative Research*, Vol. 2 Nos 163/194, p. 105.

Holten, A.-L., Robert Hancock, G., Persson, R., Marie Hansen, Å. and Høgh, A. (2016), "Knowledge hoarding: antecedent or consequent of negative acts? The mediating role of trust and justice", *Journal of Knowledge Management*, Vol. 20 No. 2, pp. 215-229.

Huo, W., Cai, Z., Luo, J., Men, C. and Jia, R. (2016), "Antecedents and intervention mechanisms: a multilevel study of R&D team's knowledge of hiding behavior", *Journal of Knowledge Management*, Vol. 20 No. 52, pp. 880-897.

Issac, A. and Thomas, T. (2019), "Whom to appease and whom to circumvent: analysing knowledge sharing with social networks", *Global Knowledge, Memory and Communication*, Vol. 69 Nos 1/2, pp. 75-93., doi: 10.1108/GKMC-03-2019-0041.

Issac, A.C. and Baral, R. (2019), "Knowledge hiding in two contrasting cultural contexts", *VINE Journal of Information and Knowledge Management Systems*, Vol. 50 No. 3.

Issac, A., Baral, R. and Bednall, T. (2020), "Don't play the odds, play the man: estimating the driving potency of factors engendering knowledge hiding behavior in stakeholders", *European Business Review*, Vol. 32 No. 3, doi: 10.1108/EBR-06-2019-0130.

Labafi, S. (2017), "Knowledge hiding as an obstacle of innovation in organizations a qualitative study of the software industry", *AD-minister*, pp. 131-148.

Peng, H. (2013), "Why and when do people hide knowledge?", *Journal of Knowledge Management*, Vol. 17 No. 3, pp. 398-415.

Pradhan, S., Srivastava, A. and Mishra, D.K. (2019), "Abusive supervision and knowledge hiding: the mediating role of psychological contract violation and supervisor directed aggression", *Journal of Knowledge Management*, Vol. 24 No. 2.

Samuel, K.E., Goury, M.L., Gunasekaran, A. and Spalanzani, A. (2011), "Knowledge management in the supply chain: an empirical study from France", *The Journal of Strategic Information Systems*, Vol. 20 No. 3, pp. 283-306.

Serenko, A. and Bontis, N. (2016), "Understanding counterproductive knowledge behavior: antecedents and consequences of intra-organizational knowledge hiding", *Journal of Knowledge Management*, Vol. 20 No. 6, pp. 1199-1224.

Wang, Y., Han, M.S., Xiang, D. and Hampson, D.P. (2019), "The double-edged effects of perceived knowledge hiding: empirical evidence from the sales context", *Journal of Knowledge Management*, Vol. 23 No. 2, pp. 279-296.

Weightman, J. (2019), "Business ops: hiding knowledge management practices in plain sight", *Business Information Review*, Vol. 36 No. 4, pp. 188-195.

Yao, Z., Zhang, X., Luo, J. and Huang, H. (2020), "Offense is the best defense: the impact of workplace bullying on knowledge hiding", *Journal of Knowledge Management*, Vol. 24 No. 3.

Yin, R.K. (1994), "Discovering the future of the case study. Method in evaluation research", *Evaluation Practice*, Vol. 15 No. 3, pp. 283-290.

Yin, R.K. (2009), *Case Study Research: Design and Methods*, 4th ed., Library of Congress Cataloguing-in-Publication Data, United States.

Yin, R.K. (2013), "Validity and generalization in future case study evaluations", *Evaluation*, Vol. 19 No. 3, pp. 321-332.

Further reading

Ahmad, A.B., Liu, B. and Butt, A.S. (2019a), "Scale development and construct clarification of change recipient proactivity", *Personnel Review*, doi: 10.1108/PR-02-2019-0091.

Ahmad, B.A., Liu, B. and Butt, A.S. (2019b), "Predictors and outcomes of recipients' change proactivity in public organizations of the Kurdistan region of Iraq", *International Public Management Journal*, pp. 1-29.

Andreeva, T. and Kianto, A. (2012), "Does knowledge management really matter? Linking knowledge management practices, competitiveness and economic performance", *Journal of Knowledge Management*, Vol. 16 No. 4, pp. 617-636.

Anand, P. and Jain, K.K. (2014), "Big five personality types and knowledge hiding behavior: a theoretical framework", *Archives of Business Research*, Vol. 2 No. 5, pp. 47-56.

Babcock, P. (2004), "Shedding light on knowledge management", *HR Magazine*, Vol. 49 No. 5, pp. 46-51.

Barratt, M., Choi, T.Y. and Li, M. (2011), "Qualitative case studies in operations management: Trends, research outcomes, and future research implications", *Journal of Operations Management*, Vol. 29 No. 4, pp. 329-342.

Bogilović, S., Černe, M. and Škerlavaj, M. (2017), "Hiding behind a mask? Cultural intelligence, knowledge hiding, and individual and team creativity", *European Journal of Work and Organizational Psychology*, Vol. 26 No. 5, pp. 710-723.

Bordia, P., Irmer, B.E. and Abusah, D. (2006), "Differences in sharing knowledge interpersonally and via databases: the role of evaluation apprehension and perceived benefits", *European Journal of Work and Organizational Psychology*, Vol. 15 No. 3, pp. 262-280.

Burmeister, A., Fasbender, U. and Gerpott, F.H. (2019), "Consequences of knowledge hiding: the differential compensatory effects of guilt and shame", *Journal of Occupational and Organizational Psychology*, Vol. 92 No. 2, pp. 281-304.

Butt, A.S. (2018), "Personal relationships and higher agency costs: a study of buyers and suppliers in the Australian manufacturing and service sector", *Operations and Supply Chain Management – An International Journal*, Vol. 11 No. 3, pp. 140-150.

Butt, A.S. (2019a), "Guanxi and intra-organizational conflicts: evidence from the Chinese logistics industry", *Management Research Review*, Vol. 42 No. 4, pp. 495-505.

Butt, A.S. (2019b), "Personal relationships in supply chains", *International Journal of Integrated Supply Management*, Vol. 12 No. 3, pp. 193-204.

Butt, A.S. (2019c), "Absence of personal relationship in a buyer–supplier relationship: the case of buyers and suppliers of logistics services provider in Australia", *Heliyon*, Vol. 5 No. 6, pp. 1-5.

Butt, A.S. (2019d), "Determinants of top-down knowledge hiding in firms: an individual-level perspective", *Asian Business & Management*, doi: 10.1057/s41291-019-00091-1.

Butt, A.S. (2019e), "Consequences of top-down knowledge hiding in firms: a pilot study", *Heliyon*, Vol. 5 No. 12, pp. 1-5, doi: 10.1016/j.heliyon.2019.e03000.

Butt, A.S. (2020), "Mitigating knowledge hiding in a buyer–supplier relationship: an exploratory study", *Knowledge and Process Management*. doi: 10.1002/kpm.1626.

Butt, A.S. and Ahmad, A.B. (2019), "Personal relationship and conflicts in supply chains: exploration of buyers and suppliers in Australian manufacturing and service sector", *Benchmarking: An International Journal*, Vol. 26 No. 7, pp. 2225-2241.

Butt, A.S., Sohal, A. and Prajogo, D. (2019), "Personal relationships and loyalty in the supply chain", *Journal of Developing Areas*, Vol. 53 No. 3, pp. 239-246.

Butt, A.S., Ahmad, A.B. and Shah, S.H.H. (2020a), "Knowledge hiding in a buyer-supplier relationship: a pilot study", *Knowledge and Process Management*, doi: 10.1002/kpm.1631.

Butt, A.S., Shah, S.H.H. and Sheikh, A.Z. (2020b), "Is guanxi important in a buyer-supplier relationship? Case of Chinese logistics industry", *Journal of Asia Business Studies*, Vol. 14 No. 1, pp. 1-14.

Butt, A.S., Shah, S.H.H., Noor, S. and Ali, M. (2020c), "Knowledge hiding in a buyer-supplier relationship - present and future scope", *International Journal of Knowledge Management*, Vol. 16 No. 2, pp. 18-29.

Demirkasimoglu, N. (2016), "Knowledge hiding in academia: is personality a key factor?", *International Journal of Higher Education*, Vol. 5 No. 1, pp. 128-140.

Fang, Y.H. (2017), "Coping with fear and guilt using mobile social networking applications: knowledge hiding, loafing, and sharing", *Telematics and Informatics*, Vol. 34 No. 5, pp. 779-797.

Fong, C. and Slotta, J.D. (2018), "Supporting communities of learners in the elementary classroom: the common knowledge learning environment", *Instructional Science*, Vol. 46 No. 4, pp. 533-561.

Ford, D.P. and Staples, D.S. (2008), "What is knowledge sharing from the informer's perspective?", *International Journal of Knowledge Management (IJKM)*, Vol. 4 No. 4, pp. 1-20.

González, J.C. (2017), "The role of knowledge management in supply chain management: a literature review", *Journal of Industrial Engineering and Management (JIEM)*, Vol. 10 No. 4, pp. 711-788.

He, W., Fang, Y. and Wei, K.K. (2009), "The role of trust in promoting organizational knowledge seeking using knowledge management systems: an empirical investigation", *Journal of the American Society for Information Science and Technology*, Vol. 60 No. 3, pp. 526-537.

Hernaus, T., Cerne, M., Connelly, C., Poloski Vokic, N. and Škerlavaj, M. (2018), "Evasive knowledge hiding in academia: when competitive individuals are asked to collaborate", *Journal of Knowledge Management*, Vol. 23 No. 4, pp. 597-618.

Li, W. (2009), "Online knowledge sharing among Chinese and American employees: explore the influence of national cultural differences", *International Journal of Knowledge Management (Management)*, Vol. 5 No. 3, pp. 54-72.

Malik, O.F., Shahzad, A., Raziq, M.M., Khan, M.M., Yusaf, S. and Khan, A. (2019), "Perceptions of organizational politics, knowledge hiding, and employee creativity: the moderating role of professional commitment", *Personality and Individual Differences*, Vol. 142, pp. 232-237.

Peng, G., Wang, H., Dong, J. and Zhang, H. (2018), "Knowledge-based resource allocation for collaborative simulation development in a multi-tenant cloud computing environment", *IEEE Transactions on Services Computing*, Vol. 11 No. 2, pp. 306-317.

Singh, S.K. (2019), "Territoriality, task performance, and workplace deviance: Empirical evidence on the role of knowledge hiding", *Journal of Business Research*, Vol. 97, pp. 10-19.

Appendix. Interview protocol

- Could you please tell me about your position here?
- How long have you been associated with this organization?
- What are your current responsibilities?
- Whom do you report to?
- Amongst the key Senior Managers that you report, can you think of anyone who intentionally hid knowledge from you?
- Can you think of any particular situation, when your Senior Manager intentionally hid knowledge from you?
- Can you tell me more about that specific situation?
- What impact, if any, knowledge hiding had on you as an individual?
- How did this impact your work performance?

- Do you believe that knowledge hiding had any impact on your work relationship with your Senior Manager who hid knowledge from you?
- Is it likely a case that knowledge hiding can impact firms?
- What your firm has done so far to tackle this issue?

Wrap up

Thank you very much indeed for this interview. You will receive a copy of this report once we are done with the data collection and analysis process. Please just do not hesitate to get in touch with us if you have any questions.

Corresponding author
Atif Saleem Butt can be contacted at: atifbutt10@hotmail.com