Effect of Knowledge Hiding on Employees Creativity

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It is important to identify which factors are crucial in impeding or promoting the knowledge hiding among employees is a vital area for business research. This paper is focused on two important areas knowledge hiding and employee creativity. Recently knowledge hiding has gained much attention from the research scholars. The aim of this paper is to explore how knowledge hiding effects on employee's creativity. Drawing on social exchange theory it is purposed that if employees hide their knowledge than it stimulates the reciprocal effect in which other colleagues are also not ready to share their ideas, knowledge, and information with them. Case study as a research methodology was used and 43 semi-structured interviews were conducted to collect the data from the respondents of the case study company. After data collection, for data analysis, this study used open, axial and selective coding. The findings of this study are mixed as they suggest that all three types of knowledge hiding i.e. rationalized hiding, evasive hiding and playing dumb increase and decrease employee's creativity in the organization. This study provides insight that knowledge hiding behaviors must discourage employees to increase their creativity. The findings of this could be used as a benchmark for other developing countries as well as the first world economies who have been struggling with the affairs of knowledge hiding and its effect on employee's creativity. Based on our results this study also provides some important practical and theoretical implications. Suggestions for future research are also presented.
Keywords: Knowledge hiding, employees' creativity.

INTRODUCTION

Practitioners and research scholars have shown great curiosity in understanding the factors that enhance employee's creativity, and helpful in the generation of novel, unique and potentially valuable ideas (Amabile, 1983; Shalley 1991; Černe, 2012). The generation of unique and useful ideas by employees is considered a core competency for organizations (Lin, 2007). Excess of studies available on the concept of knowledge sharing (e.g. Bavik, Tang, Shao, & Lam, 2017; Tangaraja & Rasdi, 2013; Ipe, 2003; Bartol & Sarivastava, 2002), and on how knowledge sharing affects creativity (Perry-Smith & Shalley, 2003; Perry-Smith, 2006). However, limited literature is available in the concept of knowledge hiding (Connelly, Zweig, Webster, & Trougakos, 2012; Demirkasimoglu, 2015). Organizations encourage their employees to share knowledge by giving a number of benefits and rewards (Bock, Zmud, Kim, & Lee, 2005). Despite giving benefits to employees for knowledge sharing number of employees are reluctant to share their knowledge with the other members of the organization (Connelly & Zweig, 2015; Rhee & Choi, 2017). There might be a number of reasons for knowledge hiding such as fear of losing their control, power and status, fear of being evaluated by other members (Ulrike, Jurgen, Beatriz, & Friedrich, 2005; Bordia, Irmer, & Abusah, 2006). As a result, people do not share their knowledge (Connelly & Zweig, 2015). Knowledge hiding is an attentional attempt to hide knowledge from the ones who requested it (Connelly, Zweig, Webster, & Trougakos, 2012). Fortune 500 companies bear 31.5 billion US dollars every year due to knowledge hiding (Babcock, 2004). Likewise, 46 % of the respondents in China hide their knowledge (Peng, 2012) and this percentage is increased in United states as Connelly et al. (2012)

reported that 76 % of the respondent admits that they hide knowledge.

knowledge hiding and their possible outcomes are largely unexplored (Connelly et al., 2012). Černe, Nerstad, Dysvik, & Škerlavaj (2014) argued that knowledge hiding reduces the creativity of knowledge hider. Drawing on social exchange theory (Blau, 1964) it is assumed that distrust loops occur among knowledge hiders and knowledge seekers. If knowledge hiding affects the creativity of knowledge hiders than individuals, managers and organizations need to identify how to minimize the effect. First, the aim of this study is to answer and understand that under what circumstances people hide their knowledge and how it affects the creativity of employees. Second how managers and organizations take measures to reduce knowledge hiding and to reduce its effect on creativity. The qualitative research approach used to answer understudied phenomena. Finally, this study also presents some important research implications and future research agenda. We also discuss the important implications of this study.

LITERATURE REVIEW

This part of the study reviews the existing literature relevant to knowledge hiding and creativity. To complete this demand and in order to make sure that the problem is well-defined and research design is well-thought (Yin 1994), a variety of sources such as journals, books, conference proceedings, and websites were reviewed (Perry, 2001).

Knowledge hiding

Knowledge hiding is an attentional attempt to obscure knowledge that is requested by the other member of the organization (Connelly et al., 2012). Connelly et al. (2015) further divided knowledge hiding into three types rationalized

hiding (when a knowledge hider has a clear explanation of the knowledge hiding), evasive hiding (hider provide misleading or partial knowledge to knowledge seeker) and playing dumb (hider pretend that he or she doesn't have the requested knowledge at all). Knowledge hiding can also be explained as that employees do not fully participate to contribute to organizational knowledge (Lin & Haung, 2010).

Research scholars suggest that knowledge hiding may have positive intent in some conditions people might hide knowledge to protect the feelings of others, to protect themselves from the feelings of embracement (Abusah et al., 2006; Connelly et al., 2012; Connelly, Černe, Dysvik, & Škerlavaj 2019). Employees hide knowledge because sometimes it enables them to improve their time management skills and focus on core tasks without any distractions (Mudambi & Navarra 2004). Moreover, People hide knowledge when they think they might face complex questioning from the other members of the organization (Connelly et al., 2015), and the fear of losing position which they hardly won after spending number of years in education and training, fear of receiving extra responsibilities, escaping from the external assessment of their knowledge and lastly hoarding of knowledge by subordinates and superiors (Demirkasimoglu, 2015). On the other hand, knowledge hiding has many negative consequences, it may negatively affect the collaborative environment in the organization, successful implementation of procedures and policies, developments of the novel and improved ideas, and as a result, it will affect the individual, team and organizational performance (Peng, 2013). Knowledge hiding also restricts the creative abilities of employees (Černe, 2012; Černe et al., 2014).

Creativity

Before establishing the relationship between knowledge hiding and creativity the first question arises in the minds is that what is creativity. Prior to explaining creativity, it is important to understand the difference between creativity and innovation. There is a hot debate in the literature that what is the difference between creativity and innovation (McLean, 2005). So, this study first explains the difference between creativity and innovation. Creativity is defined as:

> *"the ability to produce work that is both novel (i.e., original, unexpected) and appropriate (i.e., useful, adaptive concerning task constraints)" (Sternberg and Lubart 1999, p. 3).*

Furthermore, innovation is defined as the development and execution of novel ideas (Schutte & Malouff, 2020; Van deVen & Angle, 1989). Amabile, Conti, Coon, Lazenby, & Herron (1996) explains the difference between innovation and creativity as the successful implementation of creative ideas are knows as innovation.

Creativity is examined and understood as a vague and complex concept (Kremer, Villamor, & Aguinis, 2019; Runco, 2008). Boden (1994) stated that creativity is a paradox, mystery and some say a puzzle. Beck (2005) stated that creativity is helpful in improving health and mental clarity, resolving conflicts and problems, better emotional state and continuous adaptation. It is argued that creativity has number of benefits, motivates to think

out of the box (Weisberg, 2009), improve problem-solving skills (Runco, 1994), prerequisite for innovation (Amabile et al., 1994), improve your ability to focus (Shalley, Zhou ,& Oldham, 2004), reduces stress and anxiety (Curry & Kasser, 2005), promotes risk-taking intentions (Dewett, 2007) and it leads to the feelings of pride, satisfaction, and accomplishment (Burroughs & Glen, 2004). Additionally, creativity improves organizational performance (Migdadi, 2005), individual performance (Lim & Gilson, 2013) and team performance (Yang & Choi, 2009), and farther leads to organizational success (Grimm & Brandert, 2016).

Knowledge hiding and creativity

Amabile (1997) stated that creativity is very much dependent on knowledge sharing, and it might be significantly influenced by knowledge hiding (Černe et al., 2014). Origination of creative ideas is strongly dependent on the approaches and perspectives that people share via social interactions (Perry-Smith, 2006). Černe et al. (2014) further stated that as individuals display a high level of knowledge hiding and it resulted in the decrease level of creativity of the same individual. Drawing on social exchange theory (Blau, 1964), it is argued that knowledge sharing enhance creativity (Connelly et al., 2014), and if employees hide their knowledge than it stimulates the reciprocal effect in which other colleagues are also not ready to share their ideas, knowledge, and information with them. Literature suggests that there is a negative relationship between knowledge hiding and employee creativity (Černe, 2012; Černe et al., 2014). Based on the above arguments it is argued that if employees hide knowledge in the organizations then it will negatively affect the creativity of employees and thus it affects the individual performance, team performance, and organizational performance. As a result, it will negatively affect the collaborative environment of the organization and thus it leads organizations towards poor performance and this might affect the success of organizations.

Research Methodology

Qualitative Approach

There is a number of ways for the collection of data in qualitative research; it comprises interviews and written visual analysis or observations (Goetz & LeCompte, 1981). It is not possible to draw any boundary around different types of data collection methods (Holland, Thomson, & Henderson, 2004). Every method has its own merits and demerits. In this study, we use the qualitative method because the systematic study is missing in Pakistan that how knowledge hiding affects employee's creativity.

Interview protocol

While it is familiar with qualitative studies (Spradley 1979), this study used a semi-structured questionnaire for interviews consisted of open-ended questions. This study adopted 21-item, open response questionnaire to measure knowledge hiding from (Connelly et al., 2012) and 13-item, an open-ended questionnaire from (Zhou & George, 2001) to measure creativity.

Population and sample

The population is that in which all the elements are in accordance with the criteria of the study (Burns and Grove

(1993). The population in this research study includes all senior leaders/managers and employees of various organizations. We used a combination of two techniques i.e. purposive and convenience sampling for the purpose to select informants. For the selection of informants at senior levels, purposive sampling is used which includes the CEO and managing director of the organization. It is called purpose sampling because it has been chosen with the purpose (Bryman & Bell, 2007) to get insights about their views which they believe in and follow. On the other side to hire informants from different followers we used convenience sampling that is those employees who can come would be interviewed (Bryman & Bell, 2007). To select the members from population sampling is used. The targeted population consists of a cluster of individuals from which samples are drawn. A convenient sampling is used in this study because they are to be done at the correct place at the right time (Polit & Hungler 1994). This is a rigorous technique having a selection of available subjects. It is dreadful due to money, time and hard work and data can be of poor quality and may cause credibility issues (Marshall 1996).

Data analysis

This study used verbatim quotations during data analysis. Information was examined by means of comparative methods and inductive reasoning (Yeung, 1997). Coding's that are used in the data analysis was open, axial and selective. At first, this study used *"open coding"* with a specific goal to recognize the features and dimensions of various perceptions and concepts that are available for collected information. Open coding was used specifically to categorize and label the variety of characteristics of phenomena that are understudied. The expertise of the researcher is required to ensure that the categorization of data is done in such a way that it should helpful during further steps of data analysis (Strauss & Corbin, 1990). It is recommended that data should not be deleted because of the non-availability of a category, and there should not be any overlapping of data and it should not befall in between two or more categories.

After that, we used *"axial coding"* for connecting the basic categories jointly at the stage of dimensions and identified characteristics or features. Moreover, in the final stage, this study used "selective coding" to refine and integrate the theory. To accomplish the purposes this study used a systematic approach to accomplish transcript analysis that is similar to Turner (1981), was appropriate as recommended by Yeung (1997), selected from a critical realist point of view using qualitative data.

Themes	Quotes
Knowledge Hiding	**"During the starting point of my career, I was always willing to share my knowledge. But after sometimes I came to know that if you share your knowledge with the people than it would be difficult to survive in the market because my knowledge is my unique selling point".**
	"Once my friend asked me to help her in an assignment because I am good in sciences, because of friendship apparently I couldn't refuse but in heart, I didn't want to help her because I feared she might get good marks than me".
	"Yes, this happened a lot of times. If I share my knowledge than who needs my expertise which I have learned or gained after much struggle, failures, and experiences".
	"Yes, I do because there are some people who got promotions after I shared my knowledge and expertise with them and I didn't get. So why would I share my knowledge if people get promotions and I didn't".
	"I usually do this. Because people are so selfish in our organization. Leg pulling is one of the major reasons. So never expose yourself completely because this will cost you much".
	"Once during the preparation of competitive exam my fellow asked me to help him in getting quality material for a certain topic, I agreed to help him, but I didn't share quality material which I had collected after a lot of effort".
	"Yes, I often provide misleading or partial information to the people who harmed me a lot in the past. Normally it depends on who is requesting information".
	"I do provide incomplete information because I do not want to waste my time on answering irrelevant questioning raised by the knowledge seeker".
	"Yes, because I do not want to waste my time rather I can utilize my time on more important projects and goals".
	"Normally I do this because I don't want to engage myself in a debate that has no benefit to me".
	"My colleague wanted me to help him out in a task given by boss, I promised to help him to give an idea how to do that task, but after that, I realized that the information he required is much complicated and cannot be explained accurately".
	"I do not share my knowledge with specific people who already harmed me professionally because of knowledge sharing. So why would I share my knowledge with those people who already harmed me? I pretended in front of them that I didn't know anything about the requested information".
	"Sometimes we are working on the projects of the that can be beneficial for us, so we don't share information with the people when they request it".
	"Normally I don't share information with my colleagues in the organization".
	"If the person is my competitor in the organization than I am not able to deny directly. I will try to get rid of them by involving different kinds of discussions or stories".
Creativity	"In my case creativity can be increased by hiding knowledge because you can solely focus on your own goals rather than involving and wasting your time by answering the irrelevant question".
	"Knowledge hiding keeps you motivated because you only rely on your own abilities rather than depending on others, focusing on the task, working smartly, keeping personal goals alive, taking interest in work, making it challenge for yourself, strive for continuous improvement is helpful in improving performance".
	"If you are not dependent on anyone then you have to survive your own so hiding knowledge some time affects your creativity, efficiency. performance and work quality in the organization".
	"Yes, in case if you want to keep your competitive advantage and you have complete knowledge about the idea you want to implement. If the idea fails then you are the only one to take the responsibility".
	"New innovative ideas distinguish you from others and are quite helpful. I usually do not share my ideas within the organization because people can use ideas, I just share my ideas with my friends who are not working in the organization".
	"Creative ideas come when you think out of the box, and being a person who can try new ideas. But these ideas necessarily not mean they are the solution for the problem they can be modified with the help of others. So, knowledge hiding can reduce creativity in some situations".
	"Problems should be understood first by identifying root causes of problems and try to resolve them, cause and effect are the best to approach".

	"**Searching out different alternatives to doing work, and keeping all the pros and cons in mind and selecting the best alternative but cannot do with the help of others. But that help not necessarily means from the colleagues within the organization. one can seek help from online available resources**".
	"Goals can be achieved through proper planning to build a roadmap and strictly following it couple with staying motivated. commitment to yourself, facing every hardship with a positive attitude is helpful to achieve goals".

Findings and discussion

The findings of this study suggest that three types of knowledge hiding (rationalized hiding, evasive hiding, and playing dumb) have mix results i.e. is a negative and positive association with creativity. In the next part of the study, we will discuss in detail the main categories of knowledge hiding, why people hide knowledge and how it affects the creativity of employees.

Knowledge hiding

Employees in organizations are regularly involved in knowledge hiding (Connelly et al., 2012). This study identifies that three types of knowledge hiding behavior (rationalized hiding, evasive hiding and playing dumb) exist in the case study organization. The findings of this study are consistent with earlier studies (e.g. Connelly et al., 2012; Connelly & Zweig, 2014).

Rationalized hiding

When employees of the organization have reasons to hide knowledge from their colleagues than it is known is rationalized hiding (Connelly et al., 2012; Demirkasimoglu, 2015). Respondents of this study have associated different reasons with hiding knowledge. Rationalized hiding is associated with the problems they are facing from their organizations and colleagues.

> "At the start of my professional career, I was always willing to share my knowledge. But after sometimes I came to know that if you share your knowledge with the people than it would be difficult to survive in the market because my knowledge is my unique selling point".
>
> "Once my friend asked me to help her in an office assignment because I am good at business analysis, because of friendship apparently I couldn't refuse but in heart, I didn't want to help her because I feared she might get a promotion".

From the above statement of respondents, we can argue that employees within the organization do rationalize hiding and there are reasons to hide knowledge. Organizations must develop a mechanism and systems through which people share their knowledge on request and credit must be given to the person who shared knowledge. People do rationalize hiding when they perceived that their survival in the organization is difficult and they do not receive much appreciation after sharing the knowledge.

> "Yes, I hide my knowledge a lot of times. If I share my knowledge than who needs my expertise which I have learned or gained after much struggle, failures, and experiences".

> "Yes, I do because there are some people who got promotions after I shared my knowledge and expertise with them and I didn't get. So why would I share my knowledge if people get promotions and I didn't"

When employees in the organization are not treated fairly after knowledge sharing, they involved in rationalized hiding. Knowledge gaining or learning is a long process that needs a lot of time and mental energy. Employees start gaining knowledge from their mentors, colleagues, self-education and informal and formal training (Serenko & Bontis, 2016). Knowledge gained by employees after a lot of struggle develops a sense of psychological ownership (Possessive feelings that employees develop about something). Sense of psychological ownership is more likely to restrict them from knowledge sharing (Li, Yuan, Ning, & Li-Ying, 2015), and that's results in rationalized hidings by employees (Demirkasimoglu, 2015). Friendly, positive and smooth organizational culture in which all employees are motivated and committed towards organizational goals is helpful in discouraging the psychological ownership of knowledge (Serenko & Bontis, 2016). Organizations must develop a collaborative environment within the organization to reduce rationalized hiding and knowledge sharing mechanisms and processes that should be implemented in the organization.

Evasive hiding

Evasive hiding is known as when employees within the organizations are involved in providing incomplete or partial knowledge (Connelly et al., 2015). People involved in this type of hiding pretend that the required information will be provided or only share a small portion of the information. Employees provide misleading or incorrect information to their colleagues. Such as:

> "Once during the preparation of competitive exam my fellow asked me to help him in getting quality material for a certain topic, I agreed to help him, but I didn't share quality material which I had collected after a lot of effort".
>
> "Yes, I often provide misleading or partial information to the people who harmed me a lot in the past. Normally it depends on who is requesting information".

People involve in evasive hiding behavior when they don't enjoy a friendly relationship with their colleagues in the organization (Connelly & Zweig, 2014). Workers engage in evasive hiding due to a lack of trust and poor knowledge-sharing climate within the organization. Trust is one of the major factors in facilitating knowledge sharing behavior (Ipe, 2003). Collaborative environment and trust among colleagues impede evasive hiding in the organization and fosters knowledge sharing among employees.

> "My colleague wanted me to help him out in a task given by boss, I promised to help him to give an idea how to do that task, but after that, I realized that the information he required is much complicated and cannot be explained accurately".

Sometimes employees in the organizations involve in evasive hiding when the requested information is complicated and cannot be shared easily. They offer lame excuses that the

information is complex or intricate and could not be accurately explained. Lack of knowledge sharing facilities (Fraser, Marcella, & Middleton, 2000), resources and infrastructure, the physical environment and non-accessibility of informal and formal meetings complicate the knowledge sharing process (Riege, 2005), and it increases evasive hiding behavior in employees. Top management can control evasive hiding behaviors by providing maximum opportunities of face to face conversation and discourage the use of e-mails in regular communications.

Playing dumb

The annoying behavior that is adopted by the employees is known as playing dumb (Connelly & Zweig, 2014; Demirkasimoglu, 2015). Employees with this behavior pretend that they don't have the requested knowledge at all. They suggest their colleagues contact anyone else or simply apologize. Even when they have the requested information. The following quotes from the respondents confirm that employees within organizations are involved in playing dumb.

> *"I do not share my knowledge with specific people who already harmed me professionally because of knowledge sharing. So why would I share my knowledge with those people who already harmed me? I pretended in front of them that I didn't know anything about the requested information".*
>
> *"Sometimes we are working on the projects of the that can be beneficial for us, so we don't share information with other colleagues when they request it".*

People involved in knowledge hiding behavior such as playing dumb pretend that they do not have the required knowledge to provide them assistance. The responses suggest that employees in the organizations to some extent involved in playing dumb. Employees play dumb due to a number of reasons such as contributions and associations in knowledge sharing but no rewards (Bock & Kim 2002), personal interest, fear of exploitation, losing power, losing control, losing confidentiality and losing resources (Barson et al., 2000). Playing dumb within the organizations is much challenging, it leads employees to spend much time and resources to find out the solution that has been previously developed by any other member of the organization. The environment in organizations affects the knowledge of hiding or knowledge sharing behavior in the organization (Connelly & Zweig, 2014). Therefore, managers can reduce playing dumb behavior of the employees by improving the organizational environment, interpersonal relationships and reducing distrust among employees.

Organizations that want to discourage the knowledge hiding should provide their employees' opportunities such as face to face conversation (Ardichvili, Page, & Wentling, 2003), openness to new ideas (Cummings, 2004). It motivates employees to share their ideas with employees and sometimes novel ideas are best because they are hard to imitate. Knowledge sharing also increased by involving employees in multidisciplinary projects (Fong, 2003), organizing brainstorming sessions, role plays, seminars, training sessions and video presentations (Yang, 2004). Top management of the

organization also helps its employees by setting up a good example by sharing maximum information and knowledge within the organization (Lin, 2007). Thus, new organizational policies and procedures are likely to change the knowledge hiding behavior of the employees.

Knowledge hiding and creativity

In knowledge management, a relevant issue is reducing the negative outcomes of knowledge hiding (Černe et al., 2012). There is little understanding of the outcomes of knowledge hiding behaviors (Connelly & Zweig, 2014). As stated by Černe et al. (2014) that knowledge hiding reduces the creativity of employees and provokes reciprocal distrust loop which further promotes knowledge hiding. Respondents of this study stated that knowledge hiding has a positive and negative effect on creativity. One respondent stated:

> *"In my case creativity can be increased by hiding knowledge because you can solely focus on your own goals rather than involving and wasting your time by answering the irrelevant question".*
>
> *"Knowledge hiding keeps you motivated because you only rely on your own abilities rather than depending on others, focusing on the task, working smartly, keeping personal goals alive, taking interest in work, making it challenge for yourself, strive for continuous improvement is helpful in improving performance".*

From these statements, it can be argued that people think that creativity can be enhanced with the help of knowledge hiding. The reason might be that they do not trust their colleagues, they trust in their own abilities knowledge and skills. Employees believe knowledge is their power because they have obtained it after a lot of hard work, their way of doing it better than anyone in the organization or they can achieve their own goals rather than wasting their time and energy by answering the questions of their colleagues which have no benefit to them. This finding makes an important contribution to the literature, as the literature so far has ignored the positive association between knowledge hiding and creativity. While some respondents have different views about knowledge hiding and creativity.

> *"If you are not dependent on anyone then you have to survive your own so hiding knowledge some time affects your creativity, efficiency. performance and work quality in the organization".*
>
> *"Creative ideas come when you think out of the box, and being a person who can try new ideas. But these ideas necessarily not mean they are the solution for the problem they can be modified with the help of others. So, knowledge hiding can reduce creativity in some situations".*

Knowledge hiding affects the creativity of knowledge hiders and may have negative consequences for knowledge hider. Knowledge hiding in employees impedes their creativity, managers in the organizations need to identify how to enhance the knowledge sharing behavior of the employees which in turn positively affects the creativity and motivation of employees. The success and failure of the work depend on the motivational climate in the organization, the climate can affect the social

exchange behavior that developed the distrust loop (Černe et al., 2014). Černe et al. (2014) claimed people working in a motivational climate that values workforce learning, cooperation, effort, and self-development employees may view knowledge hiding as a destructive force that obstructs creativity and mutual benefit of the organization. Knowledge hiding reduces the creativity of the employees which in turn affects their efficiency, performance, and quality of work. Organizations should take precautionary measures to reduce knowledge hiding and its negative effects on creativity. Therefore, different remedial strategies, policies, and procedures should be implemented by the management to control the negative effects of knowledge hiding in the organization.

CONCLUSION AND RECOMMENDATIONS

This research investigated the two important areas of knowledge hiding and employee creativity. Building mainly on social exchange theory (Blau, 1964), a single case study as a research methodology has been used and data were collected through semi-structured interviews from 43 respondents including mangers and employees.

The results of this study suggest that employees usually involve in different types of knowledge hiding (Evasive hiding, playing dumb and rationalized hiding) and these different types of knowledge hiding increase or decrease employee's creativity. Findings reveal that when employees acquire knowledge after a log of struggle and hard work people usually hide their knowledge and don't want to share it with others. However, Knowledge hiding may benefit individuals, but it does not benefit the organization. Therefore managers, need to promote a collaborative environment where employees can trust and share knowledge with there employees so the overall creativity of the individual within the organization can be increased.

Theoretical and practical contributions

Our research has some important practical and theoretical implications. This research contributes in the literature of knowledge hiding (Connelly et al., 2012; Lin & Haung, 2010; Demirkasimoglu, 2015) an employee's creativity (Runco, 2008; Beck, 2005) by providing the empirical evidence on the relationships between knowledge hiding and employee's creativity. Moreover, this study foregrounds the ways knowledge hiding can affect employee's creativity.

Furthermore, we suggest that leadership by promoting knowledge sharing can reduce the knowledge hiding behaviors among employees. Top leadership and management might overcome the issues of knowledge hiding such as rationalized hiding, evasive hiding and playing dumb by promoting and motivating knowledge sharing behaviors.

Limitations and future research

This study has also some limitations. The results of this study cannot be generalized due to the use of a single case study as a research methodology. Therefore, multiple organizations as case studies can be used by future researchers for better understating about the understudy phenomena. This study focused on three types of knowledge hiding (Evasive hiding, playing dumb and rationalized hiding) on employees' creativity. Future research can study knowledge hiding with other variables such as

employee's green creativity, employee's green knowledge, and employees' green behaviors.

Furthermore, knowledge hiding behaviors and employee's creativity may vary in a different context. Future researchers must focus on organizations working in different sectors that can offer a better understanding of knowledge hiding behaviors and employee's creativity.

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Appendix

Knowledge Hiding Connelly et al., 2012

In this specific situation, I . . .

1. Agreed to help him/her but never really intended to
2. Agreed to help him/her but instead gave him/her information different from what s/he wanted
3. Told him/her that I would help him/her out later but stalled as much as possible
4. Offered him/her some other information instead of what he/she really wanted
5. Looked into the request to make sure my answers were accurate
6. Explained everything very thoroughly
7. Answered all his/her questions immediately
8. Told my coworker exactly what s/he needed to know
9. Went out of my way to ensure that I understood the request before responding
10. Pretended that I did not know the information
11. Said that I did not know, even though I did
12. Pretended I did not know what s/he was talking about
13. Said that I was not very knowledgeable about the topic
14. Explained that I would like to tell him/her, but was not supposed to
15. Explained that the information is confidential and only available to people on a particular project
16. Told him/her that my boss would not let anyone share this knowledge
17. Said that I would not answer his/her questions
18. I am a ''pack rat'' when it comes to information
19. I tend to accumulate and store information
20. I like to stockpile information just in case I might need it
21. I never throw away any information that I think might be useful in the future

Creativity Zhou and George 2001

1. Suggests new ways to achieve goals and objectives
2. Comes up with new and practical ideas to improve performance
3. Searches out new technologies, processes, techniques, and/or product ideas (adopted from Scot & Bruce, 1996)
4. Suggests new ways to increase the quality
5. Is a good source of creative ideas
6. Not afraid to take risks
7. Promotes and champions ideas to others (adopted from Scot & Bruce, 1996)
8. Exhibits creativity on the job when given the opportunity to
9. Develops adequate plans and schedules for the implementation of new ideas (adopted from Scot & Bruce, 1996)
10. Often has new and innovative ideas
11. Comes up with creative solutions to problems
12. Often has a fresh approach to problems
13. Suggests new ways of performing work tasks