

## Knowledge hoarding: A literature review

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ABSTRACT

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The main purpose of this study is to present a framework on the construct, knowledge hoarding by investigating and distinguishing it from related concepts such as knowledge sharing and knowledge hiding. Furthermore, it aims to strengthen our understanding of knowledge hoarding by defining the construct in detail while seeking answers to why employees hoard their knowledge. The present study contains a discussion of related research on knowledge hoarding and its implications for organizations, managers and employees. By integrating research from the fields of knowledge management, human resources management and organizational behavior, this paper attempts to clarify a number of issues about this concept and aims to offer a factual report on what research has to say about it. Knowledge is not an individual, but an organizational asset. In today's business environment, hoarding knowledge erodes one's power rather than constituting a source of power. In order to remain competitive in the future, organizations will need to abandon their ideas of information hoarding and embrace knowledge management. Downsizing in organizations and the potential loss of employment due to the global economic crisis alerts the managers to be sensitive to the reasons why the individuals avoid sharing their knowledge. The managerial level should attempt to break the hoarding cycle and create new models for interaction and knowledge sharing. It is important to examine why some employees would sometimes prefer to keep knowledge to themselves. Thus, the present study seeks an answer to that area of under-investigated research.

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## 1. Introduction

Beginning with the 20<sup>th</sup> century, which may be viewed as “the century of the exponential growth of knowledge” (Sammons, 2005, p. xiii), the global competitiveness rests on the knowledge and the skills of the workforce (Kern & Nielsen, 2008, p. 47). The knowledge capital has become the critical resource rather than the financial capital which is crucial in traditional firms to exploit economies of scale of physical work, but less critical as a source of power (Drucker, 1993, p. 18; Hinds & Pfeffer, 2003, p. 3; Huber, 2001, p. 72; Osterloh, 2007, p. 161). Thus, the managers now see knowledge management as the most critical technology for achieving their corporate goals and the key driver to long term success for their organizations (Guhl, 1999, p. 23; The Economist Intelligence Unit, 2005, p. 4). Knowledge management is a complex process that is driven by power equations within the organization (Andrews & Delahaye, 2000, p. 803; Ipe, 2003, p. 355). A fundamental part in knowledge management is to spread knowledge and make it accessible and usable between individuals as well as organizational units (Paulin & Suneson, 2012, p. 81; Riege, 2007, p.63). In a similar vein, knowledge sharing is also a complex

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process, in order that the knowledge holders have different perceptions about organizational or self-ownership of information (Jarvenpaa & Staples, 2001) and actively make decisions about what knowledge they would share with whom and when. This is because, in the intensely competitive work environment, knowledge is regarded as a valuable commodity that shall not be shared casually (Andrews & Delahaye, 2000, p. 803). It is a fact that the individuals cannot be compelled to share their individual knowledge which resides in their brains and their bodily skills with others but can only do so willingly (Empson, 2001, p. 843; Lam, 2000, p. 491). So the willingness of individuals to share the knowledge that they have when the organization needs it, is the key in knowledge sharing (Zyngier & Nagpal, 2015).

Acknowledging knowledge is considered as an individual's private asset (McLure Wasko & Faraj, 2000), as a central resource, a source of power (Bell, 1999, p. 128; Hislop, 2003, p. 185; Michailova & Husted, 2003, p. 61), wealth, social stature (Baskerville & Dulipovici, 2006, p. 5) and indispensability (Jain, 2012, p. 752; Pfeffer, 1992; Terrett, 1998, p. 68) as a critical tool. Thus as an individual's competitive advantage (Osterloh & Frey, 2000, p. 545); as a way to keep a job even in an uncertain environment; thus as an insurance policy against redundancy, as necessary for one's professional survival (Fuller, 2001, p. 65; Jain, 2012, p. 752; Terrett, 1998, p. 68), as a valuable commodity that shall not be shared casually (Andrews & Delahaye, 2000, p. 803) or in other words "hoarding of knowledge" is one of the fundamental issues of modern organizations (von Krogh et al., 2000, p. 45; Welschen et al., 2012, p. 23). It is also regarded as the evil twin of knowledge sharing (Hansen, 2011, p. 3). The present paper presents a theory of knowledge hoarding and its implications for the organizations, managers and employees in order to provide a basis for future research.

## **2. Literature Review**

### *2.1. What is Knowledge Hoarding?*

Knowledge is not just a type of property to be possessed and transferred, it is an innately human quality, it is also an attribute that can partly define and distinguish one person from another (Dulipovici & Baskerville, 2007, p. 189). Knowledge acquired during the course of one's job belongs to the organization rather than the individual. However, some individuals perceive it as their personal intellectual property and do not share it with the others in their organizations. This phenomenon of not sharing knowledge by amassing and protecting it as one might amass and protect other treasures (Bansal et al., 2009, p. 33; Ford, 2008, p. 118) or an individual's deliberate and strategic concealment of knowledge or the fact that they may possess relevant knowledge is defined as "knowledge hoarding" (Evans et al., 2015, p. 495). It is an unproductive remnant of era when workers are trained to play it close to the chest (Woods, 2001, p. 30). Knowledge transfer is hindered by withholding the knowledge either by hiding or hoarding it. Knowledge hiding is an intentional concealment of knowledge requested by another individual (Webster et al., 2008, pp. 2-4) whilst hoarding is the accumulation of knowledge that may or may not be shared at a later date (Hislop, 2003).

### *2.2. Who is the Knowledge Hoarder?*

Nowak (2014, p. 78) defines the knowledge hoarder as the one who fears that the more he/she tells, the more he/she gives his/her power away and the one who feels that the more he/she tells the others everything, the less he/she will have power left at all so he/she withholds information. In a similar vein; Patterson defines the knowledge hoarder as the one "who thinks it is necessary for them to keep certain facts about a system or technology to themselves" and adds that we've all worked with a knowledge hoarder (Northcutt, 2004). These individuals have exclusive control of key corporate knowledge and by blocking the free exchange of knowledge, they use that fact to establish a position of power and constitute knowledge monopolies in organizations. They may "rent" their expertise to accomplish a task or solve a problem rather than selling their knowledge even at a high price, since their monopoly will cease to exist once their knowledge is genuinely shared (Davenport & Prusak, 198, p. 43; Fuller, 2001, p. 65; Terrett, 1998, p. 68).

### 2.3 *Why Do the Employees Hoard their Knowledge?*

The natural inclination of employees at every level in almost every organization is to hoard knowledge, especially knowledge that is deemed valuable (Liao, 2008, p. 1884; Ryan & Shinnick, 2011, p. 246; Tiwana, 2000, p. 37). Maybe that's because hoarding is in the genes of the human beings. The human ego, the desire to directly or indirectly dominate others on the basis of knowledge, financial incentives, the competitive work culture, discontent or frustration with the company and the old fashioned bureaucratic organizational structures hinder the free flow of knowledge and constitute several thrusts against knowledge management. In brief; the problem of knowledge hoarding arises when the employees conceal their knowledge from others for obtaining personal gains (Michailova & Husted, 2003, p. 61) and pursue strategies to make themselves indispensable in their work environments (Jain, 2012, pp. 751-752; Leonard, 2014). Another reason that knowledge hoarding often occurs is that there are no proper platforms for effective knowledge sharing. Knowledge management, which can provide these knowledge sharing platforms and technologies, can be used as a catalyst to drive a new economy mindset in an organization, through facilitation of transparency and openness thus creating a culture of knowledge sharing (Du Plessis, 2005, p. 200; 2006, p. 22). In the absence of an organized knowledge management initiative, hoarding often also takes place within functional silos in the organization, especially where competition exists between various areas of the business. In organizations with a competitive internal work environment, the contributor of an idea may be assuming a great deal of personal vulnerability by revealing the secrets of their own competitive edge by considering it necessary for their professional survival and may feel they are better off hoarding rather than sharing what they know. They may be reluctant to share crucial knowledge for fear of losing ownership, a position of privilege, superiority. They may resent not being adequately rewarded for sharing hard won success and over time they will come to believe that it is in their own interest to hoard knowledge. This way, the knowledge is always available and they do not need to compete with the other employees or chase around the organization for a particular piece of information. They will not share their knowledge in order not to make themselves vulnerable to job loss and therefore hoard their knowledge as an insurance policy against redundancy, protect their personal value, decrease their substitutability, become indispensable within the organization (Barson et al., 2000; Baskerville & Dulipovici, 2006, p. 5; Byrne, 2001, p. 44; Cabrera & Cabrera, 2002, p. 694; Davenport et al., 1992, p. 54; Du Plessis, 2006, pp. 21-22; Fuller, 2001, p. 65; Gray, 2001; Hargadon & Sutton, 2000; Husted & Michailova, 2002a, p. 4; Lengnick-Hall & Andrad, 2008, p. 61; Michael, 2003, p. 24; Szulanski, 1996, p. 31; Terrett, 1998, p. 68; Trauth, 1999; Wang, 2004, p. 380) or they will simply not be unwilling to devote time and resources to support the transfer (Szulanski, 1996, p. 31). In the uncertain and insecure business environment, a common stereotype is that older workers hoard knowledge because they are more insecure and feel threatened by younger workers (Empson, 2001, p. 844; Oye, Salleh & Noorminshah, 2011, p. 71).

According to Foucault (1980, p. 52) "it is impossible for knowledge not to engender power" as it is "not possible for power to be exercised without knowledge". As a resource it becomes strategic due to its shortage instead of its ubiquity (Cairo et al., 2009, p. 152) and rarity may make all the difference to the value of given knowledge (Davenport & Prusak, 1997, p. 120), knowledge gives the owner bargaining power (Willman et al., 2001, p. 900). Chow et al. (2000, p. 90) assert that both the propensity to hoard knowledge and the motivational factors behind such behavior depend on the nature of the knowledge to be shared, employees' national culture, the relationships among employees and the culture of the organization. Accordingly "knowledge is power" culture differs in different parts of the world regarding the labor market. In the developed world, knowledge is shared more freely and openly, whilst in the developing world knowledge is hoarded to a greater extent. It is probably because there is an oversupply of labor in some of the countries in the developing world and the labor market is fiercely competitive. In the developed world, knowledge is shared more freely and openly as the feeling is that knowledge sharing builds a person's reputation as a specialist in a specific area taking into account that the knowledge, skills and experience are what sets an individual apart from others and ensures that they can obtain a position

in an organization and retain it (du Plessis, 2006, p. 22). In organizations where expertise is highly regarded, but mentoring and assisting others is not, rational people may be less likely to share their expertise and accordingly their power in which those who are receiving the information and expertise may use it against the interests of the person providing it. This leads to the fact that, paradoxically, organizations in which knowledge has become the key organizational “currency”, it becomes too valuable for the employees to just give away. This reinforces a tendency of the individual hoarding knowledge from others in the organization. In order to make information-based organizations successful, companies need to harness the power of politics and allow the employees to negotiate the use and definition of knowledge, just as the exchange of other currencies are negotiated (Davenport et al., 1992, p. 53; Hinds & Pfeffer, 2003, p. 12; Husted & Michailova, 2002a, p. 21; Leonard & Sensiper, 1998, p. 123).

#### *2.4 Why is Knowledge Hoarding Considered as a Negative Act in Organizations?*

As Robin Morgan (1994, p. 194) quotes “Knowledge is power. Information is power. The secreting or hoarding of knowledge or information may be an act of tyranny camouflaged as humility.” Knowledge hoarding takes place due to a “knowledge is power” syndrome in most organizations (Du Plessis, 2005, p. 200). This wholly irrational and unfounded mindset places the value of knowledge to the individual ahead of its value to the company (Lilleoere & Hansen, 2011, p. 128; Kluge et al., 2001, p. 35; Terrett, 1998, p. 68). Because the ethical expectation for employees is to share knowledge (Wang, 2004, p. 380), the knowledge hoarding appears as a moral failure and the knowledge hoarder as the one who needs to be taught greater concern for his/her colleagues (Fuller, 2001, p. 65). It is often considered as a disease within the information ecosystem of an organization and thus negative in terms of knowledge management practices and the informational capabilities of an organization (Hansen, 2011, p. 3). The decision to share or hoard tacit knowledge is largely individual. Whilst the decision to hoard knowledge is often rational and well justified from the perspective of the individual, it is destructive from an organizational point of view (Husted & Michailova, 2002b, p. 65).

#### *2.5 What are the Potential Consequences of Knowledge Hoarding?*

For employees who are participating in knowledge management initiatives, sharing knowledge has the potential benefits of improving a person’s status as well as creating opportunities for the development of new knowledge. It also has the risk that it involves employees giving away the source of their expertise, status, and power (Hislop, 2005, p. 54). In knowledge hoarding, critical knowledge is centered in or controlled by just one person and cannot be obtained except through that person. Thus, it has the advantage that it may protect an individual’s expertise. However, it also constitutes a threat to the continuity of the organization’s knowledge base and productivity. In the case that the knowledge hoarder leaves the organization, the knowledge is lost because there is no backup source. In some cases, the hoarded knowledge is not the knowledge itself but how that knowledge can be accessed, filtered, or organized. Either way, the consequence of lost knowledge is the same. If the knowledge hoarder does not leave, many who could profit from the knowledge have no easy way to access it or may not know it exists and so must either do without the knowledge, squander valuable time trying to find it, or generate it from scratch as if it did not exist. Because the free flow of knowledge increases its value, knowledge hoarding reduces the worth of the knowledge asset, lessens the likelihood of its enhancement, and prevents its widest utilization by the greatest number of employees because it runs the risk that the importance of the knowledge hoarder’s knowledge may not be recognized and rewarded (Beazley et al., 2002, p. 60; Hislop, 2005, p. 54).

#### *2.6 Why Should the Employees Share Their Knowledge rather than Hoarding it?*

Successful knowledge management programs rely on sharing, not hoarding (Kluge et al., 2001, p. 35). Thus, the management should make the employees understand that there is more value in sharing knowledge than in hoarding it. The employees shall recognize that they build their own knowledge as an asset for themselves, to increase their visibility and make themselves more marketable. Sharing one’s knowledge with others shows the others what one knows and in the specialist environment they work,

the others ask for his/her knowledge. That also creates a culture of openness, transparency and innovation among the employees. Thus, the most powerful individuals in the future of an organization will be those who do the best job of transferring knowledge to others (Du Plessis, 2006, p. 84; Peters, 1993).

### *2.8 What should be done in order to Prevent Employees from Hoarding Their Knowledge?*

In order to encourage effective knowledge sharing and abandon knowledge hoarding by creating a knowledge sharing organizational culture; effective knowledge sharing strategies should be applied. First; the right environment should be established by encouraging natural sharing to achieve individual and organizational objectives, by integrating knowledge sharing practices into strategic business objectives, human resources practices and the organization's culture. Knowledge should be treated as a corporate resource that cannot be hoarded by any particular subsidiary or business unit and thus knowledge hoarding should be banned (Davenport et al., 1998, p. 43; Gupta & Govindarajan, 2000, p. 79; Hall & Sapsed, 2005; Hawamdeh et al., 2010, p. 11, Kulkarni & Freeze, 2011, p. 1093; Milne, 2007, p. 28; O'Neill & Adya, 2007, p. 430; Riege, 2007, p. 53; Tiwana, 2000, p. 58). Second; since knowledge is perceived as power, the employees should be convinced that the benefits of sharing outweigh the cost of losing the power (Hawamdeh et al., 2010, p. 11). Third; the top management should believe that power comes from sharing knowledge and not from hoarding it (Ryan & Shinnick, 2011, p. 246; Stewart, 1991, p. 47; Tiwana, 2000, p. 58). Although the employees are most commonly rewarded for what they know, not what they share in most cases (Dalkir, 2005, pp. 132), they should be appreciated for their knowledge contribution and be acknowledged as the true owner of knowledge (Gupta & Govindarajan, 2000, p. 79; Rechberg & Syed, 2013, p. 839). The management needs to convince the employees to reject the old school thinking that they are being measured by what they know and do individually so hoarding their knowledge does not give them a competitive advantage (Milne, 2007, p. 28; Woods, 2001, p. 20). Although the "knowledge is power" belief may have been true in times when knowledge obsolescence used to take years and when hoarders created leverage and power bases by hanging into what they knew; today, when knowledge is perishable and the shelf life of expertise is limited due to the new technologies, products, and services continually pouring into the marketplace, it does not hold or increase its worth over time; instead it may quickly become obsolete or inaccurate. Thus, there is nothing less powerful than hanging on to knowledge whose time has expired (Allee, 1997a, p. 10; 1997b, p. 71; Goman, 2013; Weiss, 1999, p. 63). Actually in today's knowledge society, hoarding knowledge ultimately erodes one's power. Today, the most powerful ones are those who become a source of knowledge by sharing what they know (Allee, 1997a, p. 10; Bozarth, 2014; Dalkir, 2005, p. 186; Greco, 1999, p. 19; Merrill, 2012; Pan, 2001, p. 433; Woods, 2001, p. 20). The management should create a knowledge sharing culture, where knowledge sharing is the norm, not the exception, where people are encouraged to work together, to collaborate and share, and where they are rewarded for doing so (Dalkir, 2005, p. 186). The successful management of this power relationship overall is therefore predicated on effective and consensual management, based on a legitimate exercise of authority which can then result in the development of an overall environment of trust (Kelly, 2007, p. 136).

After common barriers to knowledge sharing are identified, the managers can then work to develop ways to manage and improve the knowledge sharing process in order to lessen (or even eliminate) the greatest barriers. This action could unlock vast organizational potential by improving the efficiency of knowledge sharing within an organization (Lindsey, 2011, p. 58). While overcoming knowledge barriers, organizations should give enough consideration to the barriers human nature poses to information sharing and suggest them that they should share their knowledge rather than trying to hoard something that can be easily acquired (Merrill, 2012). However, knowledge sharing constitutes a major challenge in the field of knowledge management and too often, actual knowledge sharing does not just fall below executives' expectations. Unfortunately, it does not even match the perceptions about the extent to which knowledge is being shared within their organizations. It is certain that creating an environment in which employees are willing to participate in knowledge management initiatives by abandoning knowledge hoarding and embracing knowledge sharing is the key to success (Giles & Hancy, 1998, p. 423; Greengard, 1998; Gupta & Govindarajan, 2000, p. 71). Because hoarding often leads to negative consequences such as

empire building, reinvention of the wheel, feelings of isolation, and resistance to ideas from outside an organization (Dalkir, 2005, p. 133).

### 3. Review of Related Studies

In their research which analyzed the perception of the concept of knowledge management of Australian industry sector areas; Ionescu et al. (2006) found that 91% of the respondents had confirmed that “knowledge is power”. Patel and Ragsdell (2011) explored the ethical concerns raised about the sharing of knowledge by academics in two faculties at a British university, and the influence of those concerns on the willingness of academics to share their knowledge with the help of a pilot study. Of the 20 respondents, 16 agreed or strongly agreed with the adage “Knowledge is a source of power”. When the respondents were asked whether the hoarding of knowledge was an unacceptable practice, 13 of the 20 respondents strongly agreed. The findings of Muhenda and Lwanga (2014) revealed that 76% of the respondents agreed that knowledge is power and it is always advantageous to be a source of knowledge. However, the study could not find out how knowledge is considered as a source of power because the respondents could not clearly articulate how knowledge makes them feel powerful.

In the study conducted by Ford (2008, p. 128), 8 of a total of 28 knowledge workers stated that they might not be sharing their knowledge in order to protect themselves (knowledge is power and control, fear of a missed opportunity, credit stealing). The findings of the study of Garfield (2006) revealed that one of the knowledge sharing barriers is that the people are rewarded for not doing it. He added that they hoard their knowledge and thus get people to beg for their help, or they receive rewards, recognition, or promotions based on doing other tasks. The solution he presented for this barrier is to work with all managers in the organization to encourage them to reinforce the desired behaviors and stop rewarding the wrong behaviors. In their qualitative study, Ford and Staples (2008) established that knowledge sharing and withholding are separate but related behaviors. Their study distinguished between six different combinations of high and low sharing and hoarding, ranging from full knowledge sharing with minimal hoarding to active knowledge hoarding with minimal sharing. The study of Otto and van den Hoof (2014) revealed that a lack of ability to share (both cognitive and situational), various motivations to hoard knowledge (related to rewards, safety and enjoyment) and a lack of awareness of what to share, with whom to share, why to share and how to share are the three factors affecting knowledge hoarding. Their findings also revealed that these three main reasons for knowledge hoarding are influenced by the organizational culture, the organizational structure, the management of the organization and the information and communications technology infrastructure of the organization.

The findings of the study of Hansen (2011) revealed that within the context investigated, the distribution, handling and quality of knowledge depend on the structures governing the environment. The study also concluded that although within the context in question knowledge hoarding is predominantly negative, it is also possible that certain positive elements come from a very knowledge hostile environment potentially outweighing the negatives and creating new opportunities and competitive advantages for the organization. The findings of the study of Zyngier (2002) revealed that knowledge hoarding is one of the obstacles faced in the development and execution of a knowledge management strategy. The findings of the study of Holten et al. (2016) revealed that knowledge hoarding was both an antecedent and a consequent of negative acts. First, over time, knowledge hoarding was indirectly related to negative acts mediated by trust and justice. Second, negative acts were both directly and indirectly related to knowledge hoarding over time. The study thus points to the existence of a vicious circle of negative acts, psychological states of trust and justice, and knowledge hoarding behaviors, which presumably will affect both individual and organizational outcomes negatively. The study of Andolšek (2011) explores knowledge sharing and hoarding processes in the organizations through social exchange theory. The findings of the study of Cong et al. (2007) indicated that in the Chinese public sector, employees tend not to share what they know and the norm is knowledge hoarding rather than knowledge sharing. To change the existing knowledge hoarding culture and encourage people to get involved actively in the knowledge management

process of knowledge sharing in public sector, they suggested several ways such as building a formal recognition and reward system to compensate the knowledge sharing behaviors of the public employees, both for sharing knowledge with others and using other's knowledge, not necessarily in monetary terms and embedding knowledge sharing into daily activities.

#### **4. Methodology**

The reason this paper has focused on knowledge hoarding is that, the downsizing in organizations and the potential loss of employment due to the global economic crisis, alerts the organizations to be sensitive to the reasons why the individuals avoid sharing their knowledge. The managerial level is attempting to break the hoarding cycle and create new models for interaction and knowledge sharing. Whereas Otto and van den Hoof (2014, p. 196) stress that there is a surprising lack of attention to knowledge hoarding, Witherspoon et al. (2013, p. 269) also stated that research on knowledge hoarding is almost entirely gleaned from a small number of case studies and anecdotes from managers and practice and so the construct. The study is also governed by the question of Stauffer (1999) "Why people hoard knowledge?" as well as Webster et al.'s (2008, p. 3) call that it is important to examine why some employees would sometimes prefer to keep knowledge to themselves. This paper therefore seeks an answer to that area of under-investigated research (Witherspoon et al., 2013, p. 269).

#### **5. Discussion**

Knowledge hoarding by which an employee centers in or controls critical knowledge and does not let anyone except him/her obtain it in order to protect his/her individual expertise, constitutes a threat to the continuity of the organization's knowledge base and productivity. Hence, it is important for the managers to determine the potential barriers that hinder knowledge sharing and among them, especially the reasons that lead the employees sometimes to prefer to keep their knowledge and their expertise to themselves. Knowledge hoarders are those who gather and guard knowledge for personal preservation and future use. They believe that their jobs are directly related to their expertise and in order to protect their job in times of downsizing when firings or layoffs occur, they prefer to keep what they know and do not share it with the others. This is their insurance plan. Preventing knowledge sharing hampers the ability for the employees to learn and grow. It also stands in the way of the organization's success as well as the success of the knowledge hoarder. As long as the knowledge hoarder does not share what he/she knows, no one can recognize what they know and the importance of this knowledge. This will decrease their visibility. In order to encourage effective knowledge sharing, the managerial level should attempt to break the hoarding cycle and create new models for interaction and knowledge sharing. This can only be achieved by letting the employees know that knowledge is not an individual, but an organizational asset and that there is more value in sharing knowledge than hoarding it. It should be kept in mind that in today's business environment, hoarding knowledge erodes one's power rather than constituting a source of power. The organizations should show their employees that they embrace knowledge sharing by emphasizing positive relationships and trust among employees, by explaining the mutual benefits of the employees in sharing their knowledge and by making knowledge sharing a part of the organizational culture. The organizations should include professional development courses as part of their corporate learning and development training. This may not only provide employees with the opportunity to sharpen their skills, but also boost their confidence. The managers should recognize and reward not only the ones who skillfully do their job, but the ones who are also good at teaching the others how to do the same. Because there is not any knowledge management system or process change which can enhance knowledge management capabilities if the organizational culture discourages sharing and instead, promotes hoarding. In conclusion, organizational culture, the management of the organization and trust among employees are the three factors which play an important role in knowledge management and determine whether the employees share their knowledge with others or prefer to hoard it from them. The researcher hopes that this paper could be beneficial to providing some insight on the reasons which can trigger protecting knowledge from other employees, as well as the reasons which lead to knowledge hoarding in the organizations. In practical terms, one development implication that follows from the present paper is that in

the organizations, the paradigm has to shift from “knowledge is power” to “sharing knowledge is more powerful”. This is only possible by creating and developing an organizational culture that facilitates knowledge sharing and encourages the employees to share their expertise with others.

## 6. Limitations and Future Research

The present paper is limited to contain a discussion of related research on knowledge hoarding and its implications for organizations, managers and employees. Studies were limited to the ones which are reported in English. The present review undoubtedly missed some articles in this field. However, the researcher believes that the present search strategy yielded an unbiased sample of recent relevant studies. While making a literature review on this construct, the researcher has found out that there are only comparatively few validated measures developed to capture knowledge withholding (e.g. Lin & Huang, 2010; Peng, 2012; Stenius et al., 2016) and knowledge hiding (e.g. Connelly et al., 2012). There only two knowledge hoarding given in Holten et al. (2016, p. 220) and Muhenda and Lwanga (2012, p. 283). In the study of Holten et al. (2016) knowledge hoarding was measured by one item targeting the occurrence of information withholding among employees (“Do employees withhold information from each other?”). And in the study of Muhenda and Lwanga (2012) knowledge hoarding was measured by 11 items that were adapted from prior research. Because the researcher could not find an adequate or appropriate existing scale to measure this important construct, further research may focus on developing a new scale.

## 7. Practical Implications

To the researcher’s knowledge this is the first published comprehensive literature review on the construct of knowledge hoarding. The contribution of this paper lies in the creation of a framework that explains what knowledge hoarding is and why it occurs in organizations and its suggestions on preventing knowledge hoarding in organizations.

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