

# Knowledge donating and hiding as an organizational basis for intersectoral collaboration: a review of the literature

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## Abstract

The present article presents a literature review on the relationship between knowledge donating and hiding strategies as an organizational basis for intersectoral collaboration. The literature finds that sharing or hiding behavior is a question of individual motivation, which can affect the collaboration process among individuals in a public or private organization. An understanding of this motivation can help organizations to transform their management strategies, thus improving internal and inter-organizational collaboration processes. The review identified various strategies— motivational, social, and national cultural—that are considered to influence individual and group creative capacity and, in turn, on social and technological innovation, the creation of competitive advantage within an organization, and the development of social responsibility policies. The results indicate a lack of consensus regarding motivations, as well as a limited depth of knowledge regarding the behavioral strategies involved in knowledge hiding.

## Resumen

El presente artículo presenta una revisión de literatura sobre la relación entre las estrategias de donación y ocultación de conocimiento como una base organizativa para la colaboración intersectorial. La literatura encuentra que el acto de compartir u ocultar es una cuestión de motivación individual, que puede afectar el proceso de colaboración entre individuos en una organización pública o privada. La comprensión de esta motivación puede ayudar a las organizaciones a transformar sus estrategias de gestión, mejorando así los procesos de colaboración internos e interorganizacionales. La revisión identificó varias estrategias— motivacionales, sociales y culturales nacionales—que se considera que influyen la capacidad creativa individual y grupal y, a su vez, en la innovación social y tecnológica, la creación de ventaja competitiva dentro de una organización, y el desarrollo de políticas de responsabilidad social. Los resultados indican una ausencia de consenso respecto a motivaciones, así como conocimiento limitado respecto a las estrategias de comportamiento involucradas en la ocultación de información.

## Keywords:

Knowledge donating, knowledge hiding, knowledge-sharing motivation, knowledge-sharing behavior, social innovation, intersectoral collaboration.

## **Introduction**

Sharma (2018) considers knowledge as an intangible resource that gains in organizational, social, and cultural value when it is enriched through the addition of information and personal experience and then shared. This depends on the interplay of internal (for instance, intrinsic motivation) and external (organizational environment) processes to transform a motivation into knowledge-sharing strategies, behaviors and actions (Hernaus, Černe, Connelly, Poloski & Škerlavaj, 2018; Gagne et al., 2019; Connelly, Černe, Dysvik & Škerlavaj, 2019). These processes are an example of how knowledge-based management (such as data-analysis and knowledge management programs) is used to create competitive advantages in the development of products and services.

Knowledge transfer stems from an implicit and explicit desire to share that knowledge, and depends on whether the environment inhibits or stimulates the development of a strategy for doing so (Connelly, Zweig, Webster & Trougakos, 2012). Once a strategy has been defined for donating or hiding knowledge, it may or may not be reinforced based on existing organizational conditions (Gagne et al., 2019) or on intersectoral collaboration (De Vries, Eiling, Brenman & Vermeulen, 2019). This gives rise to key actions, with consequent impacts on the knowledge recipient (Fauzi, Nya-Ling, Thursamy & Ojo, 2019).

Investigating these strategies enables an understanding of their repercussions on the performance and participation of the individuals and groups involved, as well as the productivity and output of the organization itself. According to Buckland and Murillo (2013), when collaboration unfolds between organizations (that is, intersectoral collaboration), the concept of social innovation manifests itself.

## **Objectives**

The purpose of this article is to explore how knowledge donating and hiding has been studied in the academic literature, to shed light on collaborative knowledge-sharing behavior within and between organizations (De Vries et al., 2019; Fauzi et al., 2019).

## **Theoretical antecedents**

Hernández-Ascanio, Tirado-Valencia, and Ariza-Montes (2016) note that social innovation is a complex process involving various groups of actors that interact at various levels (e.g., territorial) with a view to correcting variances or imbalances between the political, judicial, and cultural environments and the reality of social activity. Over time, these social interactions become dynamic processes in which there are interconnected factors that can inhibit or stimulate social innovation by way of collaboration (Andion, Dias & Furlenetto, 2020).

The need for innovative proposals to address ecological, social, and economic problems explains the interest in understanding the intersectoral collaboration process (Buckland & Murillo, 2013), with special emphasis on how information is shared between individuals and organizations (Cunill-Grau, Fernadez, & Thezá, 2013). Another study stresses the need for a common goal in which sharing the knowledge and experience of each of the

individuals involved, from each organization, whether public or private, is crucial (Del Chiappa, Bregoli & Kim, 2018).

Knowledge sharing is understood as knowledge transfer between a donor and a recipient (De Vries, Van Den Hooff & De Ridder, 2006; Gagne, 2009; Connelly et al., 2012). From the point of view of the donor, the process begins with an intrinsic motivation that enables the realization of activities for the pleasure of doing so, a consideration that is affected by the social or organizational environment (Stover, Bruno, Uriel & Liporace, 2017).

As noted above, knowledge transfer begins with an implicit and explicit desire to share it, and with the environment or context in which the action of sharing or hiding knowledge occurs, along with the resultant impact on the recipient (Van Den Hooff & De Ridder, 2004; Fauzi et al., 2019).

Knowledge donating entails a person communicating the knowledge they possess—an active process that presupposes an interest in sharing knowledge with another (Van den Hoff & de Ridder, 2004). This interest may be boosted or curtailed by their intrinsic motivations and by the environmental, technological, logistical, organizational, and cultural context (Nguyen, 2019).

Knowledge hiding is a relatively new construct, having been developed in 2011 by Connelly et al. (2012) based on the proposal of Pearson, Anderson, and Porath (2004) regarding discourteous behavior in which there is a desire to harm. Individual strategies also include partial sharing, full hiding, and hoarding—a form of knowledge hiding (Connelly et al., 2012; Gagne et al., 2019). These strategies, if carried out, can have an impact on the performance or creativity of the colleague with whom the information should be shared, but this can be indirect and not necessarily direct since organizational activity tends to be carried out in groups (Černe, Nerstad, Dysvik & Škerlavaj, 2013); thus, the impact is often felt most greatly at the level of joint inter-organizational tasks.

In turn, knowledge hoarding is understood as the retention of knowledge that may or may not be shared (Connelly et al., 2012; Holten, Hancock, Persson, Hansen & Hogh, 2016). Though understood as a form of knowledge hiding, there is a difference in the process: the former transpires between two parties (a donor and a recipient) while the latter is an act by a single person that has an impact on others within an organization (Holten et al., 2016).

### ***Analytical approaches***

Intersectoral collaboration entails the interaction of individuals within an organization, and corresponds to the motivational approach (Zhang, ASCE, & Ng, 2013). These organizations constitute a social collective analyzed from a social approach (Lin, Hung & Chen, 2009) and are steeped in a national culture—or cultures, in cases of international collaboration (Ali, Ali, Leal-Rodriguez, & Albort-Morant, 2018).

### ***Motivational approach***

Prior studies have pointed to intrinsic or extrinsic factors that hinder or encourage sharing by individuals. Gagné (2009) notes that autonomous motivation and external factors promote an intention to share knowledge. Subsequent studies argue that there are distinct motivations for knowledge sharing and hiding (Connelly et al., 2019; Hernaus et al., 2018; Gagne et al., 2019).

Few of the studies reviewed examine the influence of intrinsic motivation, despite its effects on individual knowledge-sharing in the workplace, and, in turn, on individual prosocial motivation or collaboration (Bolino & Grant, 2016; Nguyen, 2019; Fauzi et al., 2019).

The studies draw on a range of motivational theories, such as planned behavior (Ahn, Sura & An, 2018); reasoned action (Wu, 2020); and self-determination (Tangaraja, Mohd Rasdi, Ismail & Abu, 2015); while others propose that intrinsic motivation (such as receiving help, reciprocity) influences the strategy, action, or behavior of knowledge donating or hiding (Connelly et al., 2019; Nguyen, 2019; Gagne et al., 2019).

### ***Social approach***

The articles reviewed show that there are three lines of social analysis: i) internal, which focuses on how individuals within an organization donate or hide knowledge, based on theories of exchange, capital, leadership, and social support (Dysvik, Buch & Kuvaas, 2015; Jain, Sandhu & Goh, 2015; Yadav, Choudhary & Jain, 2019); ii) external, concerning forms of donating outside the organization, based on theories of social capital and social media (Ahn et al., 2018; Liu, Suh & Wagner, 2018), with a view to understanding improvements in innovation capacity in more than one organization: and iii) external with social responsibility, which explores personal and organizational commitment to donating knowledge in pursuit of recognition (Jansen, Gossling & Bullens, 2011; Middleton & Lee, 2020).

### ***National culture approach***

The culture of each nation and region amounts to a shared social environment that defines the way in which each individual shares and interacts with others; this implies that each society or culture reacts differently in developing its donating or hiding strategies and behavior (Ahn et al., 2018).

In his cultural dimensions theory, Hofstede (2011) argues that there are some collectivist societies (such as China) and other individualist ones (such as the United Kingdom), and that being one or the other affects the likelihood of a citizen sharing or hiding knowledge (Casey, Riseborough & Krauss, 2015; Chang, Hsu, Shiau & Cheng, 2016): in some cases, by moderating group or individual creativity (Ali et al., 2018), and in others, by moderating the knowledge management process across various organizations (Liu, Chan, Zhao & Liu, 2018).

## Methodology

The present study examines how the relationship between knowledge donating and hiding strategies have been discussed in the literature. To this end, four steps were followed to compile published articles and identify relevant studies conducted over the period 2011–2020. To this end, the Web of Science and SCOPUS databases, which contain studies published by established publishers and journals, were chosen.

The construct of knowledge donating was used, an active process of delivering or sharing knowledge (Dysvik et al., 2015)

Initially, the data compilation was to begin from the earliest article related to knowledge donating or hiding in the selected databases. But it was then decided to choose 2011 as a starting point, since this was the year in which Connelly et al. (2012) developed the knowledge hiding construct.

First, in the search for articles, key words such as the following were selected: “knowledge donating,” “knowledge hiding,” “motivational approach,” “national culture approach,” and “social approach,” taking into account studies published between 2011 and 2020. Then, the keyword “national culture approach” was broken down into its component words, resulting in 221 papers. Subsequently, the papers were reviewed and classified so as to select those related to the field of management and discard those pertaining to other sciences.

Finally, only research and review articles were selected, leaving 101 papers.

Of these, 13 were already included in the SCOPUS database, giving a final total of 88 papers.

Drawing on the studies by Xiao and Lee (2018) and Ruiz de Castilla, Jaeger-Vargas, Ouebe-Flores, and Ortigueira-Sanchez (2019) as a basis for the present literature review, the selected articles were read, analyzed, and classified by author, year of publication, journal, publisher, database, keywords, study type, theories, first-order constructs, objective, main contribution, methodology, statistical procedure, country of analysis, and number of citations.

## Main results

The 88 papers selected were distributed across 66 journals and 20 publishers. The studies reviewed show that an understanding of the motivation to donate or hide information helps organizations to transform their management strategies, and to improve internal and inter-organizational collaboration processes. The review enabled the identification of various motivational (Zhang et al., 2013; Nguyen, 2019), social (Lin et al., 2009; Ahn et al., 2018), and national cultural (Ali et al., 2018; Liu et al., 2018) strategies that are considered to have an influence on individual and group creative capacity and, in turn, on social and technological innovation (Buckland & Murillo, 2013; De Vries et al., 2019), the creation of competitive advantage within an organization (Mahdi, Nassar & Almsafir, 2018), and the development of social responsibility policies (Calvo, 2015).

The journals in which most of the papers were published are presented in Table 1, and the publishers, in Table 2. Both tables show the ranking, from highest to lowest number, of papers published about knowledge donating or hiding.

**Table 1** Main journals that publish studies about knowledge donating and hiding (2011–2020)

#	Journal	#Articles
1	Journal of Brand Management	9
2	Journal of Organizational Behavior	3
3	Asia Pacific Journal of Human Resources	2
4	European Journal of Work and Organizational Psychology	2
5	Human Resource Management Journal	2
6	International Journal of Contemporary Hospitality Management	2
7	Journal of Business Research	2
8	Knowledge and Process Management	2
9	Knowledge Management Research and Practice	2
10	Kybernetes	2
11	Leadership and Organization Development Journal	2
12	Management Decision	2
13	VINE Journal of Information and Knowledge Management Systems	2
14	Academy of Management Annals	1
15	ACADEMY OF MANAGEMENT JOURNAL	1
16	Academy of Management Learning and Education	1
17	Applied Psychology	1
18	ASIA PACIFIC JOURNAL OF INNOVATION AND ENTREPRENEURSHIP	1
19	Asia-Pacific Journal of Business Administration	1
20	Baltic Journal of Management	1
21	Chinese Management Studie	1
22	Computers and Education	1
23	Computers in Human Behavior	1
		44 (50% of 88 articles)

**Source:** Own elaboration

**Table 2** Main publishers of studies about knowledge donating and hiding

#	Publisher	#Articles
1	Emerald Group Publishing Ltd.	36
2	Elsevier	14
3	John Wiley and Sons	8
4	Routledge	6
5	Blackwell Publishing Ltd	4
6	SAGE Publications	4
7	Springer	3
8	Palgrave Macmillan Ltd.	2
9	Academy of Management	1
10	American Psychological Association Inc.	1
11	George Washington University	1
12	Gyandhara International Academic Publications	1
13	Hong Kong Bao Long Accounting and Secretarial Limited	1
14	IGI Global	1
15	Informing Science Institute	1
16	MDPI AG	1
17	Pacific Asia Conference on Information Systems	1
18	Society for Personal Research	1
19	Wiley-Blackwell Publishing	1
20	World Scientific Publishing Co. Pte. Ltd	1
Total articles		88

**Source:** Own elaboration

As to the methodology used, 67 quantitative studies and 21 qualitative studies were identified. Moreover, the majority (26%) of the qualitative studies were found to be conceptual, while in the case of the empirical qualitative studies (Table 3), there is a clear trend toward statistical procedure. On the other hand, the use of structural equation modeling (SEM) predominates across quantitative and empirical studies alike (Table 4).

**Table 3** Methodology and statistical procedures utilized in qualitative studies

Type of article	Statistical procedure	#Studies	Authors (Publication year)
Conceptual	Non-statistical	7	Abubakar A.M., Elrehail H., Alatailat M.A., Elçi A. (2019); Anand A., Centobelli P., Cerchione R. (2020); Costas J., Grey C. (2014); Guenter H., van Emmerik I.J., Schreurs B. (2014); Kang S.-W. (2016); Pearse N.J. (2017); Sarkheyli A., Alias R.A., Carlsson S., Kajtazi M. (2016)
			Akgün A.E., Keskin H., Ayar H., Okunakol Z. (2017); Butt A.S. (2020); Butt A.S., Ahmad A.B. (2020); Qureshi A.M.A., Evans N. (2015)
Explanatory	Case study	4	Zhang G., Wang X., Duan H. (2019)
	Social media analysis	1	Burnette M. (2017); Muqadas F., Rehman M., Aslam U., Ur-Rahman U. (2017)
Literature review	Thematic analysis	2	Anand A., Walsh I., Moffett S. (2019); Bolino M.C., Grant A.M. (2016); Tangaraja, Gangeswari; Rasdi, Roziah Mohd; Ismail,
	Non-statistical	4	



Systematic review	2	Maimunah; Abu Samah, Bahaman (2015); Xiao M., Cooke F.L. (2019) Castaneda D.I., Cuellar S. (2020); Martins V.W.B., Rampasso I.S., Anholon R., Quelhas O.L.G., Leal Filho W. (2019)
Meta-analytical path model	1	Bedi A. (2019)

**Source:** Own elaboration

**Table 4** Methodology and statistical procedures utilized in qualitative studies

Statistical procedure	#Studies	Authors (Publication year)
Factorial component analysis	1	Ahn, Jong-Chang; Sura, Suaini; An, Jong-Chol (2018)
Moderated hierarchical regression	1	Dysvik, Anders; Buch, Robert; Kuvaas, Bard (2015)
Ordinal regression analysis	1	Jansen, Patty; Gossling, Tobias; Bullens, Toon (2011)
Structural equation modeling	48	Afsar B. (2016); Akhavan, Peyman; Hosseini, S. Mahdi (2016); Ali I., Ali M., Leal-Rodríguez A.L., Albort-Morant G (2019); Ali M., Ali I., Albort-Morant G., Leal-Rodríguez A.L (2020); Bari, Muhammad Waseem; Abrar, Muhammad; Shaheen, Sadia; Bashir, Mohsin; Fanchen, Meng (2019); Caniëls M.C.J., Hatak I. (2019); Černe, Matej; Hernaus, Tomislav; Dysvik, Anders; Skerlavaj, Miha (2017); Connelly C.E., Ford D.P., Turel O., Gallupe B., Zweig D. (2014); Connelly C.E., Zweig D. (2015); Cremer S., Loebbecke C. (2020); Dubey R., Gunasekaran A., Childe S.J., Bryde D.J., Giannakis M., Foropon C., Roubaud D., Hazen B.T. (2019); Feng, Jiaojiao; Wang, Changyu (2019); Ghani U., Zhai X., Spector J.M., Chen N.-S., Lin L., Ding D., Usman M. (2020); Holten A.-L., Hancock G.R., Persson R., Hansen Å.M., Hogh A. (2016); Jahanzeb S., De Clercq D., Fatima T. (2020); Jain, Kamal Kishore; Sandhu, Manjit Singh; Goh, See Kwong (2015); Jha S. (2019); Jiang Z., Hu X., Wang Z., Jiang X. (2019); Kim S.S. (2019); Kim T.T., Lee G. (2013); Kim, Taegoo Terry; Lee, Gyehee; Paek, Soyong; Lee, Seunggil (2013); Kipkosgei F., Son S.Y., Kang S.-W. (2020); Le P.B., Lei H. (2017); Le P.B., Lei H. (2018); Li Y., Shi D., Li X., Wang W. (2015); Liu, Lili; Suh, Ayoung; Wagner, Christian (2018); Lombardi S., Cavaliere V., Giustiniano L., Cipollini F. (2020); Maqbool S., Černe M., Bortoluzzi G. (2019); Middleton, Gilroy Hughdonald; Lee, Hyoung Tark (2020); Nguyen T.-M., Dinh V.T., Nham P.T. (2019); Ogunmokun O.A., Eluwole K.K., Avci T., Lasisi T.T., Ikhide J.E. (2020); Pan W., Zhang Q., Teo T.S.H., Lim V.K.G. (2018); Pirkkalainen H., Pawlowski J.M., Pappa D. (2017); Rahlin N.A., Awang Z., Abdul Rahim M.Z., Bahkia A.S. (2020); Ratasuk A., Charoensukmongkol P. (2020); Rhee, Young Won;

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		Choi, Jin Nam (2017); Singh S.K (2019); Sung S.Y., Du J., Choi J.N. (2018); Tuyet-Mai Nguyen (2019); Umrani W.A., Siyal I.A., Ahmed U., Ali G., Sayed H., Umrani S. (2019); Valaker V., Yanakiev Y., Lofquist E.A., Dominique D. (2016); Valdez-Juárez L.E., De Lema D.G.-P., Maldonado-Guzmán G. (2016); Wang Y.-S., Lin H.-H., Li C.-R., Lin S.-J (2014); Wu D. (2020); Wu T.-Y., Liu Y.-F., Hua C.-Y., Lo H.-C., Yeh Y.-J. (2019); Xiao X., Liu F., Zhou F., Chen S. (2018); Yadav, Mohit; Choudhary, Sangita; Jain, Shubhi (2019);
Hayes's serial mediation model	1	Gürlek M., Çemberci M. (2020)
Path analysis	1	Louis K.S., Murphy J. (2017)
Multiple regression analysis	2	Cavaliere V., Lombardi S. (2015); Edú-Valsania S., Moriano J.A., Molero F. (2016)
Hierarchical linear modeling	3	Bogilović S., Černe M., Škerlavaj M. (2017); Huo W., Cai Z., Luo J., Men C., Jia R. (2016); Zhu Y.-Q., Gardner D.G., Chen H.-G. (2018)
Multi-level structural equations modeling	3	Bavik Y.L., Tang P.M., Shao R., Lam L.W. (2018); Buvik M.P., Tvedt S.D. (2017); Nerstad C.G.L., Searle R., Černe M., Dysvik A., Škerlavaj M., Scherer R. (2018)
Common-method variance	1	Klingbeil C., Semrau T., Ebers M., Wilhelm H. (2019)
Monte Carlo model	1	Burmeister A., van der Heijden B., Yang J., Deller J. (2018)
Multiple hierarchy regression	1	Dey T., Mukhopadhyay S. (2018)
Hierarchical regression method	1	Bhattacharya S., Sharma P. (2019)
Mediation process analysis	1	Max Evans M., Frissen I., Wensley A.K.P. (2018)
Hierarchical linear modeling	1	Černe M., Nerstad C.G.L., Dysvik A., Škerlavaj M. (2014)
Random coefficient modeling		

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**Source:** Own elaboration

The relationship between knowledge donating and hiding is analyzed based on the underlying constructs and theoretical approaches. Thus, a list was compiled of the most widely used theoretical approaches and constructs in the articles in order to identify trends in the literature. Table 5 gives an overview of the main approaches and the authors who employ them, showing that social exchange theory was the most widely used—by studies ranging from Černe et al. (2013), in the provocatively titled *What Goes Around Comes Around*, which discusses knowledge hiding, motivational climate, and

creativity in organizations, to more recent works such as that of Anand, Centobelli and Cerchione (2020), which asks *Why should I share knowledge with others?*

**Table 5** Theoretical approaches most used in the study of knowledge donating and hiding

Theories	#Studies	Definition
Social exchange theory	18	Anand A., Centobelli P., Cerchione R. (2020); Bari, Muhammad Waseem; Abrar, Muhammad; Shaheen, Sadia; Bashir, Mohsin; Fanchen, Meng (2019); Bogilović S., Černe M., Škerlavaj M. (2017); Caniëls M.C.J., Hatak I. (2019); Černe M., Nerstad C.G.L., Dysvik A., Škerlavaj M. (2014); Holten A.-L., Hancock G.R., Persson R., Hansen Å.M., Hogh A. (2016); Jha S. (2019); Jiang Z., Hu X., Wang Z., Jiang X. (2019); Kim S.S. (2019); Kipkosgei F., Son S.Y., Kang S.-W. (2020); Muqadas F., Rehman M., Aslam U., Ur-Rahman U. (2017); Nerstad C.G.L., Searle R., Černe M., Dysvik A., Škerlavaj M., Scherer R. (2018); Rhee, Young Won; Choi, Jin Nam (2017); Sarkheyli A., Alias R.A., Carlsson S., Kajtazi M. (2016); Singh S.K (2019); Wang Y.-S., Lin H.-H., Li C.-R., Lin S.-J. (2014); Wu T.-Y., Liu Y.-F., Hua C.-Y., Lo H.-C., Yeh Y.-J. (2019); Yadav, Mohit; Choudhary, Sangita; Jain, Shubhi (2019)
Self-determination theory	7	Ali M., Ali I., Albort-Morant G., Leal-Rodríguez A.L. (2020); Bavik Y.L., Tang P.M., Shao R., Lam L.W. (2018); Buvik M.P., Tvedt S.D. (2017); Tangaraja, Gangeswari; Rasdi, Roziah Mohd; Ismail, Maimunah; Abu Samah, Bahaman (2015); Tuyet-Mai Nguyen (2019); Umrani W.A., Siyal I.A., Ahmed U., Ali G., Sayed H., Umrani S. (2019); Zhu Y.-Q., Gardner D.G., Chen H.-G. (2018)
Social capital theory	7	Akhavan, Peyman; Hosseini, S. Mahdi (2016); Dysvik, Anders; Buch, Robert; Kuvaas, Bard (2015); Jain, Kamal Kishore; Sandhu, Manjit Singh; Goh, See Kwong (2015); Kim T.T., Lee G., Paek S., Lee S. (2013); Kim, Taegoo Terry; Lee, Gyehee; Paek, Soyon; Lee, Seunggil (2013); Pearse N.J. (2017); Tangaraja, Gangeswari; Rasdi, Roziah Mohd; Ismail, Maimunah; Abu Samah, Bahaman (2017); Tangaraja, Gangeswari; Rasdi, Roziah Mohd; Ismail, Maimunah; Abu Samah, Bahaman (2015)
Planned behavior theory	6	Ahn, Jong-chang; Sura, Suaini; An, Jong-Chol (2018); Akgün A.E., Keskin H., Ayar H., Okunakol Z. (2017); Dey T., Mukhopadhyay S. (2018); Nguyen T.-M., Dinh V.T., Nham P.T. (2019); Rahlin N.A., Awang Z., Abdul Rahim M.Z., Bahkia A.S. (2020); Tuyet-Mai Nguyen (2019)
Social learning theory	5	Bavik Y.L., Tang P.M., Shao R., Lam L.W. (2018); Buvik M.P., Tvedt S.D. (2017); Ghani U., Zhai X., Spector J.M., Chen N.-S., Lin L., Ding D., Usman M. (2020); Umrani W.A., Siyal I.A., Ahmed U., Ali G., Sayed H., Umrani S. (2019); Gürlek M., Çemberci M. (2020)
Knowledge management theory	4	Feng, Jiaojiao; Wang, Changyu (2019); Ogunmokun O.A., Eluwole K.K., Avci T., Lasisi T.T., Ikhide J.E. (2020); Pan W., Zhang Q., Teo T.S.H., Lim V.K.G. (2018); Sung S.Y., Du J., Choi J.N. (2018)
Others	41	

**Source:** Own elaboration

It is worth noting that several studies use more than one theoretical approach; for instance, Anand et al. (2020) refer to five approaches as a basis for proposing why knowledge should be shared with others and why some employees are not always willing to do so.

Next, Table 6 sets out the constructs most employed in the set of studies. The complexity of the analysis of some studies entailed the use of up to 12 constructs, as was the case of the paper by Muqadas, Rehman, Aslam and Ur-Rahman (2017), who find that employees of public sector universities tend to accumulate knowledge—for them, synonymous with hiding—rather than sharing it.

**Table 6** Constructs most used in the study of knowledge donating and hiding

Constructs	#Studies	Definition
Knowledge sharing	9	Connelly C.E., Ford D.P., Turel O., Gallupe B., Zweig D. (2014); Bavik Y.L., Tang P.M., Shao R., Lam L.W. (2018); Kang S.-W. (2016); Xiao X., Liu F., Zhou F., Chen S. (2018); Nerstad C.G.L., Searle R., Černe M., Dysvik A., Škerlavaj M., Scherer R. (2018); Ogunmokun O.A., Eluwole K.K., Avci T., Lasisi T.T., Ikhida J.E. (2020); Lombardi S., Cavaliere V., Giustiniano L., Cipollini F. (2020); Anand A., Centobelli P., Cerchione R. (2020); Ali M., Ali I., Albort-Morant G., Leal-Rodríguez A.L. (2020)
Knowledge donating	6	Tuyet-Mai Nguyen (2019); Cavaliere V., Lombardi S. (2015); Tangaraja, Gangeswari; Rasdi, Roziah Mohd; Ismail, Maimunah; Abu Samah, Bahaman (2015); Jain, Kamal Kishore; Sandhu, Manjit Singh; Goh, See Kwong (2015); Kim, Taegoo Terry; Lee, Gyehee; Paek, Soyon; Lee, Seunggil (2013); Akhavan, Peyman; Hosseini, S. Mahdi (2016)
Knowledge hiding	8	Bhattacharya S., Sharma P. (2019); Bogilović S., Černe M., Škerlavaj M. (2017); Ali M., Ali I., Albort-Morant G., Leal-Rodríguez A.L. (2020); Jiang Z., Hu X., Wang Z., Jiang X. (2019); Jahanzeb S., De Clercq D., Fatima T. (2020); Singh S.K. (2019); Černe M., Nerstad C.G.L., Dysvik A., Škerlavaj M. (2014); Xiao M., Cooke F.L (2019)
Knowledge collecting	5	Tuyet-Mai Nguyen (2019); Tangaraja, Gangeswari; Rasdi, Roziah Mohd; Ismail, Maimunah; Abu Samah, Bahaman (2015); Jain, Kamal Kishore; Sandhu, Manjit Singh; Goh, See Kwong (2015); Kim, Taegoo Terry; Lee, Gyehee; Paek, Soyon; Lee, Seunggil (2013); Akhavan, Peyman; Hosseini, S. Mahdi (2016)
Knowledge-sharing behavior	4	Sarkheyli A., Alias R.A., Carlsson S., Kajtazi M. (2016); Dey T., Mukhopadhyay S. (2018); Afsar B. (2016); Tangaraja, Gangeswari; Rasdi, Roziah Mohd; Ismail, Maimunah; Abu Samah, Bahaman (2015);
Knowledge-sharing intention	4	Kim S.S. (2019); Tuyet-Mai Nguyen (2019); Dey T., Mukhopadhyay S. (2018); Akhavan, Peyman; Hosseini, S. Mahdi (2016)
Others	52	

**Source:** Own elaboration

## Conclusions

This review of the literature shows that, in seeking to understand knowledge sharing and hiding, all studies attempt to discern the motivations and strategies of individuals who engage in these practices within organizations (Gagne et al., 2019). However, the studies do not succeed in integrating knowledge donating and hiding, since the two constructs are not used jointly, as can be seen in Table 7.

**Table 7** Constructs most used in the study of knowledge donating and hiding

Author (year)	Sharing	Donating	Hiding	Collecting
Connelly C.E., Ford D.P., Turel O., Gallupe B., Zweig D. (2014)	X			
Bavik Y.L., Tang P.M., Shao R., Lam L.W. (2018)	X			
Ali M., Ali I., Albort-Morant G., Leal-Rodríguez A.L. (2019)	X			
Kang S.-W. (2018)	X			
Xiao X., Liu F., Zhou F., Chen S. (2018)	X			
Nerstad C.G.L., Searle R., Černe M., Dysvik A., Škerlavaj M., Scherer R. (2018)	X			
Ogunmokun O.A., Eluwole K.K., Avci T., Lasisi T.T., Ikhida J.E. (2020)	X			
Lombardi S., Cavaliere V., Giustiniano L., Cipollini F. (2020)	X			
Anand A., Centobelli P., Cerchione R. (2020)	X			
Tangaraja, Gangeswari; Rasdi, Roziah Mohd; Ismail, Maimunah; Abu Samah, Bahaman (2015)		X		X
Akhavan, Peyman; Hosseini, S. Mahdi (2016)		X		X
Tuyet-Mai Nguyen (2019)		X		X
Kim T.T., Lee G., Paek S., Lee S. (2013)		X		X
Jain, Kamal Kishore; Sandhu, Manjit Singh; Goh, See Kwong (2015)		X		X
Cavaliere V., Lombardi S.(2015)		X		
Bhattacharya S., Sharma P. (2019)			X	
Bogilović S., Černe M., Škerlavaj M. (2017)			X	
Jiang Z., Hu X., Wang Z., Jiang X. (2019)			X	
Singh S.K. (2019)			X	
Černe M., Nerstad C.G.L., Dysvik A., Škerlavaj M. (2014)			X	
Xiao M., Cooke F.L. (2019)			X	

**Source:** Own elaboration

The results indicate a lack of consensus regarding the study of motivations, and various theories abound: achievement goal, belonging, competition, self-determination, and planned behavior.

The diversity of these theories owes partly to the evolution of motivational theory-based on psychological research into human behavior (Stover et al., 2017) and interactions in the social environment—and of the approaches (social, economic, or organizational) employed in the studies.

Some studies highlight the existence of intrinsic (e.g. receipt of help, self-efficiency) extrinsic (e.g. reciprocity), and organizational socialization (e.g. social media) factors that, taken together, may explain the motivation for sharing knowledge, but not the motivation for hiding it (Tangaraja et al., 2018). Other studies find that cultural intelligence moderates the relationship between knowledge hiding and individual creativity, but affects group creativity (Bogilovic, 2017). On the other hand, the effect of knowledge donating or hiding is observed in group leader–member dyads, and is moderated by motivational, social, economic, and cultural exchange within physical or virtual organizations such as international software development firms with multicultural teams (Dusvik, 2015; Akgün, Keskin, Ayar, & Okunakol, 2017; Feng et al., 2019). The studies reviewed suggest a lack of depth in the understanding of behavioral strategies related to knowledge hiding that may explain the interactions between donors and recipients.

Finally, we think that, in the context of interorganizational collaboration, it is necessary to understand the complex process of how individuals motivate themselves, plan, decide, and drive knowledge sharing with a view to creating new or reinforcing existing knowledge. This in turn can propel innovation (e.g. technological) at the organizational level and effective knowledge transfer (e.g. social, between organizations) at the intersectoral and, at times, the intercultural levels. According to the articles reviewed, the strategy of donating knowledge or hiding it among members of an organization depends on: the type of knowledge (e.g. specialized); the individual (e.g. intrinsic motivation), the organization (e.g. knowledge sharing policies, user-friendly computer systems): and the leadership and culture of knowledge exchange (Akgün et al., 2017; Nguyen, 2019; Gagne et al., 2019).

It is interesting to observe how knowledge donating and sharing is unfolding in the face of the coronavirus pandemic. Some scientists are donating knowledge developed through sampling and experiments on the effects of the virus on humans, primarily in hospitals and clinics. On the other hand, pharmaceutical laboratories are keeping their vaccine-production formulas strictly confidential in the hope of obtaining economic benefit, impacting collaboration between organizations. Both behaviors serve to exemplify what the literature has found with regard to knowledge donating and hiding.

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