Journal of Business Research 135 (2021) 19–27

Contents lists available at ScienceDirect

Journal of Business Research

journal homepage: www.elsevier.com/locate/jbusres

Knowledge hiding in socioeconomic settings: Matching organizational and environmental antecedents

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ARTICLE INFO

Keywords:
Knowledge Hiding
Social Setting
Employees' perceptions
Organization-Environment dichotomy
Employees' orientation
SMEs

ABSTRACT

Managerial studies have long approached socioeconomic settings as "isolated" domains interested in defending themselves from the "external environment". As a consequence, several managerial models have been developed to address employees and decision makers in protecting 'internal resources' as a means to ensure organizations' suitable long-term survival. Building upon this wide and generally recognized assumption, the paper adopts the interpretative lens provided by a resource-based view and relationship marketing to investigate the influence of employees' perceptions about internal organizational assets and environmental dynamics on employees' orientation to knowledge hiding as a way to protect individual knowledge. The perceptions of 525 employees engaged in 21 Italian innovative small and medium enterprises have been analyzed using structural equation modeling. The paper underlines the need to support employees in overcoming an isolation-based view of socioeconomic settings in order to enhance knowledge value through a definition of human-based managerial models and research paths.

1. Introductory reflections

Social and economic domains are typically considered by current managerial and business studies as relational spaces inside which actors interact in order to exchange resources useful for satisfying market needs and expectations (Del Giudice, Caputo, & Evangelista, 2016; Sterman, 2010). Despite this widely recognized assumption, studies interested in analyzing organizations' approaches to resource management seem to be still influenced by a sort of 'preservation' logic according to which any kind of organized entity should mainly defend their proprieties as a way for ensuring its survival over time (Trent, 2007).

Following the above-mentioned logic, human resources have long been trained to focus the attention on a competitive view in which individual success depends on the subjective abilities to perform activities better and/or to have more resources to use to ensure the functioning of work processes (Šikýř, 2013). As a clear consequence of this, a strong orientation towards competition has affected all socioeconomic sectors, and only in the last few decades has a radical change in perspective seemed to emerge with the aim to underline the multiple advantages that it is possible to obtain from collaboration within organized entities (Agranoff, 2006; Del Giudice, Carayannis, & Della Peruta, 2011; Di Fatta, Caputo, & Dominici, 2018).

Several research streams and interdisciplinary contributions have recalled the attention on the multiple opportunities that socioeconomic organizations can obtain from the combination of their competencies (Lundvall, Johnson, Andersen, & Dalum, 2002), from the matching of their productive processes (Chen, Tsou, & Ching, 2011), and from the building of strong networks both in the supply and sale markets (Hacki & Lighton, 2001). This change in perspective has completely disoriented consolidated approaches to management and requires new models and tools capable of supporting social economy actors in building collaborative paths correctly (Caputo et al., 2019a; Saviano, Barile, & Caputo, 2017).

This need has attracted the attention of researchers and practitioners in multiple challenging domains of socioeconomic settings with relevant outcomes in terms of innovative business models for coproduction (Fjeldstad & Snow, 2018), codesign (Sembada, 2018), and market networking (Caputo & Evangelista, 2019; Gay, 2014), but a challenging area seems to be still 'blocked' in the 'competitive box': the *knowledge*

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https://doi.org/10.1016/j.jbusres.2021.06.012
Received 2 February 2021; Received in revised form 30 May 2021; Accepted 3 June 2021
Available online 16 June 2021

domain.

For a long time, knowledge has not been considered in business and managerial studies because of the impossibility of clearly defining and managing it (Caputo, Giudice, Evangelista, & Russo, 2016; Daňa, Caputo, & Ráček, 2020; Del Giudice & Maggioni, 2014). Only in the last few decades has a challenging debate around the contribution of knowledge to organizations' performance attracted the interest of researchers, practitioners, and decision makers interested in encapsulating it for maximizing economic outcomes for the actors engaged in its production (Fuller, 2012). Despite the peculiarities of knowledge, it has long been approached using models and approaches developed for 'tangible' resources, with multiple negative impacts on its understandability and management (Halawi, Aronson, & McCarthy, 2005). Without recalling the multiple limitations of consolidated managerial approaches applied to the domain of knowledge, one of the main weaknesses that is attracting attention in the managerial field refers to the ways in which human resources approach knowledge as an exclusive resource that must be defended by others (Caputo et al., 2019b; Peng, 2013).

In such a direction, the stimulating concept of *knowledge hiding* (KH) in terms of an "intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person" (Connelly, Zweig, Webster, & Trougakos, 2012, p. 65) has been developed and investigated from multiple viewpoints (Connelly, Černe, Dysvik, & Škerlavaj, 2019). Interesting contributions have discussed the reasons for which KH is higher in competitive domains (Hernaus et al., 2019) and for the influence of perceived organizational politics on KH practices (Malik et al., 2019). Several insights have also been formulated in order to reduce KH orientation by promoting social exchanges and mastery climates (Černe, Nerstad, Dysvik, & Škerlavaj, 2014) or stimulating employees' goal orientation (Rhee & Choi, 2017) and prosocial motivation (Anand, Centobelli, & Cerchione, 2020; Škerlavaj, Connelly, Cerne, & Dysvik, 2018).

Despite all these stimulating contributions among others, KH seems to still be a sort of black box in which human resources are trapped. Recognizing the relevance of this topic for managerial and business studies, the paper aims at investigating the following research question: *What are the organizational and environmental antecedents that are able to influence employees' orientation to knowledge hiding in socioeconomic settings?*

Accordingly, the interpretative lens provided by the resource-based view (RBV) and relationship marketing (RM) has been used to enrich the current debate about KH in order to depict the dichotomic representation of KH both as a resource (RBV) and as relationships activator or limiter (RM). The adopted conceptual framework is used to identify possible antecedents of KH with reference to employees' perceptions, motivations, and orientations. After this, their relationship with the employees' orientation to knowledge hiding inside the organization has been tested by analyzing the data collected from a sample of 525 employees engaged in 21 innovative small and medium enterprises (ISMEs) in Italy using the structural equation modeling (SEM). Results enrich current studies about KH by underling the need for supporting employees in overcoming an isolation-based view of socioeconomic settings in order to enhance knowledge value through a definition of human-based managerial models and research paths.

With the aim of contributing to the open debate about the KH, the rest of paper is structured as follows: in Section 2, the conceptual background on which proposed reflections are based is presented. In Section 3, a literature review about previous managerial contributions interested in KH and knowledge management practices is given and in Section 4 the research path is presented. In Section 5, the main results of the empirical research are presented. Finally, in Section 6, the results of the study are discussed, and preliminary conclusion remarks are formulated, while in the Section 7 limitations of the study and theoretical and practical implications of the research are briefly presented, and future directions for research are traced.

2. Theoretical background and conceptual lens

Several previous scholars have defined the current competitive environment as "hyper turbulent", as it is characterized by increasing uncertainty and a growth in the speed of socioeconomic settings (Del Giudice et al., 2016; Frank et al., 2019). The hyper turbulent context entails greater complexity in firms' actions, and, at the same time, this makes it more difficult to implement effective strategies to leverage their competitiveness (Wu, 2010). Furthermore, the race for innovation in the last two decades has prompted several firms to invest in sophisticated technological systems to encourage the spread of knowledge within the companies in order to stimulate knowledge sharing among human resources as key pillars to define and influence socioeconomic settings' configuration and evolution (Hislop, 2002; Papa, Chierici, Ballestra, Meissner, & Orhan, 2020).

By applying the lens of RBV, knowledge has become a critical resource for firms and between employees within the organizational environment (Halawi et al., 2005; Liu, He, & Zhu, 2020; Malhotra & Majchrzak, 2019; Singh, 2008).

According to the RBV approach, the sustainability of competitive advantage does not only derive from firms' investments aimed at discouraging competitors but also from greater internal efficiency and the control of rare and inimitable resources (Halawi et al., 2005). The sustainability of the competitive advantage refers to the possibility of no-replicability of resources by other firms (Finney, Campbell, & Powell, 2005; Lin & Wu, 2014).

To maintain a competitive advantage over time, both barriers to imitation and low interaction with the market (external environment) are necessary, as bordering a privileged path ensures firms' survival (Dibrell, Craig, & Hansen, 2011; Finney et al., 2005; Liu et al., 2020).

Knowledge, a fundamental internal resource for achieving a sustainable competitive advantage, follows the founding dynamics of the RBV, and since it has other resources, it is strictly "confined" and "restricted" within the organization (Meso & Smith, 2000; Papa et al., 2020; Singh, 2008; Trent, 2007). Having recognized knowledge as a relevant resource for firms, several organizations have begun to invest in knowledge management systems (Matayong & Mahmood, 2013).

By moving the knowledge lens from the intraorganizational to the interorganizational level and by following the RM perspective, several previous studies have examined knowledge as a relational resource (Caputo, Soto-Acosta, Chiacchierini, Mazzoleni, & Passaro, 2020; Del Giudice et al., 2016; Papa, Dezi, Gregori, Mueller, & Miglietta, 2018). By applying the lens of RM, firms make deals and partnerships to share information and skills with other organizations so that the whole external environment can benefit from the strategic interconnection (Caputo et al., 2020; Papa et al., 2018).

Uncertainty and hyper competitiveness permit knowledge to become a fundamental asset for competition (Abdulkader, Magni, Cillo, Papa, & Micera, 2020; Papa et al., 2020). Knowledge has also become a cornerstone of the development of competitive advantage, deriving from the interrelation between organizations from the perspective of sharing resources (Abdulkader et al., 2020; Corvino, Caputo, Pironti, Doni, & Bianchi Martini, 2019; Hsu & Chang, 2014; Malhotra & Majchrzak, 2019).

Finally, the more the source of competitive advantages shifts from tangible to intangible resources, the more the structure of relations is aimed at exploiting and leveraging knowledge (Caputo et al., 2020). This leads to the assumption that knowledge sharing in partnerships is a relevant relational resource. Indeed, as a consequence of the removal of barriers and isolation mechanisms created by organizations, the main results are continuous innovation paths, higher quality relations, and knowledge sharing in the whole external environment (Abdulkader et al., 2020; Hsu & Chang, 2014; Papa et al., 2018).

3. Literature review and hypotheses development

3.1. Knowledge hiding and competitiveness

Intraorganizational knowledge refers to the possibility of developing and sharing knowledge inside the organization, without the need for contamination from the external environment (Daňa et al., 2020). Keeping knowledge hidden can be a strategic action in developing the value of knowledge as an internal resource. Knowledge management practices within the organization are able to guide the information generated within the firm and to maintain an internal climate of trust among employees (Černe, Hernaus, Dysvik, & Škerlavaj, 2017; Hsu & Chang, 2014). Similarly, previous authors have highlighted how a high level of internal competitiveness between employees can generate cognitive bias in the processes of knowledge activation and sharing (Connelly et al., 2012; Hislop, 2002; Matayong & Mahmood, 2013; Singh, 2019).

The RBV emphasizes the importance of an organization's internal resources over external ones. Firms are unique as they are composed of a peculiar mix of resources (Benoit, Baker, Bolton, Gruber, & Kandampully, 2017), defining as a strategic asset the ones that are rare, valuable, imperfectly imitable, and no-substitutable (Lin & Wu, 2014). Resources are a set of tangible and intangible assets that a firm can directly or indirectly control. Following the RBV, intangibles (i.e., knowledge) and human resources are the most relevant assets since they are rare and consequently more difficult to imitate (Šikýř, 2013; Sparrow, Brewster, & Harris, 2004). Therefore, intangible resource can have a greater impact in terms of competitive advantage within the organizational environment (Liu et al., 2020).

Knowledge management practices still remain a weakness for several organizations since employees are often reluctant to share information or knowledge with colleagues (Černe et al., 2014, 2017; Connelly et al., 2012; Singh, 2019). Previous scholars have developed few theories on the antecedents of knowledge withholding or KH, which can be defined as the behavior that leads to intentionally hiding and/or withholding the knowledge that someone else has requested (Abdullah, Dechun, Ali, & Usman, 2019; Černe et al., 2017; Peng, 2013; Singh, 2019; Škerlavaj et al., 2018).

Hsu and Chang (2014) highlighted employees' perception of interpersonal antecedents in the process of transmitting knowledge inside the organization. The authors found that interpersonal trust and employees' perceptions about internal competitiveness have opposite effects on knowledge-sharing processes: while the former has a positive effect on knowledge sharing, the latter has a distinctly negative effect, thus increasing, in a specular way, the probability of KH. In this sense, interpersonal factors increase employees' perceptions about internal competitiveness (Connelly et al., 2012; Peng, 2013).

By applying psychological ownership theory, there are specific social-psychological reasons for the intention to hide knowledge among employees (Issac & Baral, 2018; Kelley et al., 2003; Xiong, Chang, Scuotto, Shi, & Paoloni, 2019). Moreover, following Peng (2013), KH can derive from psychological and strictly personal features related to employees' perceptions about internal competitiveness. For instance, knowledge-based psychological ownership has a strong impact on knowledge withholding and KH processes (Kelley et al., 2003; Peng, 2013; Škerlavaj et al., 2018).

Following this line of research, we assume that:

H_1: *Employees' perceptions about internal competitiveness are positively related to employees' orientation to knowledge hiding inside the organization.*

Interorganizational competitiveness stimulates an increase in firms being "isolated" from each other through the development of barriers in order to defend internal resources from the possibility of imitation by other firms (Del Giudice & Maggioni, 2014; Serenko & Bontis, 2016). In this vein, Tsai (2001) noted that employees' perceptions about external competitiveness stimulate knowledge-sharing processes inside the organization as a factor capable of activating innovation processes, increases a firm's performance, and guarantees the sustainability of a competitive advantage. Following Wang, Wang, and Liu (2018), the more competitive the external environment, the more the internal resources of the organization tend to lock the knowledge inside the organization. This mechanism stimulates the processes of defense of organizations' internal knowledge that firms maintain and develop (Gosain, Malhotra, & El Sawy, 2004; Han, Masood, Cudjoe, & Wang, 2020; Malhotra & Majchrzak, 2019).

By following the conservation resources theory, Liu et al. (2020) noted that the perception of employees on external competitiveness generates motivational mechanisms in order to promote the processes of internal knowledge sharing at the expense of interorganizational knowledge sharing (i.e., towards external environment).

Following the RBV's perspective, it is noted that resources are strategic assets of sustainable competitive advantage and therefore they are highly "guarded" and "protected" by the whole organization (Dibrell et al., 2011; Finney et al., 2005; Liu et al., 2020; Trent, 2007). Indeed, the RBV approach expects that the organization "defends" its internal resources through mechanisms of isolation or the construction of barriers between the organization (internal environment) and the market (external environment) (Finney et al., 2005; Halawi et al., 2005; Wu, 2010).

The motivations of "isolated" firms, in which knowledge is not shared with the external environment, derive from its definition as a relevant resource, which allows firms to implement innovation processes only if the knowledge remains "locked" within the organization (Kemp & Hanemaaijer, 2004; Peng, 2013; Singh, 2019; Škerlavaj et al., 2018; Wang et al., 2018). Indeed, a highly competitive external environment risks easily eroding the organization's competitive advantage deriving from the exploitation of internal resources (Kemp & Hanemaaijer, 2004; Tsai, 2001). On the other hand, the competitive external environment triggers collaborative and synergistic stimuli among the internal employees of the organization, who realize that in order to survive a highly competitive market, there is a need for a close-knit and synergistic internal organizational environment (Škerlavaj et al., 2018; Wang et al., 2018). Therefore, following the RM perspective and based on the dynamic and highly competitive external context, employees' orientation to KH inside the organization is reduced to internal policies of sharing and the smooth circulation of knowledge among employees (Černe et al., 2014; Kemp & Hanemaaijer, 2004).

Accordingly, we assume that:

H_2: *Employees' perceptions about external competitiveness are negatively related to employees' orientation to knowledge hiding inside the organization.*

3.2. Knowledge hiding and internal organizational structure

Despite facing revolutionary changes due to the exploitation of disruptive technologies and the digitization of organizations, several firms still remain anchored to internal organizational structures typical of the pre-Industry 4.0. For instance, especially SMEs maintain a highly hierarchical internal structure in which employees are allowed few autonomous actions and are not included in the strategic plans of the firm (Del Giudice et al., 2016). On the other hand, the internal hierarchization can offer very high efficiency levels: it requires a low level of horizontal coordination and the control is all entrusted to vertical relationships (hierarchical control). These types of organizational structures are typical for SMEs that are unwilling to "open" strategic plans to the external environment (Audretsch & Keilbach, 2007; Ferdous & Polonsky, 2014). In this scenario, the intraorganizational relations risk being weak, as the organizational climate does not trigger a system of trust and collaboration between employees (Li, Chen, Liu, & Peng, 2014; Vătămănescu, Cegarra-Navarro, Andrei, Dincă, & Alexandru, 2020). In fact, due to an internal hierarchical structure, employees are led not to exploit the advantages of collaboration and, in the same way, to keep secret the information and knowledge they possess at the expense of internal synergies (Ferdous & Polonsky, 2014).

An internal hierarchization can distort the perceptions of employees regarding the treatment of shared knowledge and therefore the reward systems within the organization (Audretsch & Keilbach, 2007; Majchrzak & Malhotra, 2016). Furthermore, in the socioeconomic setting, the "isolated domains" approach of internal resources stands out, even among the organization's employees, especially if the organizational climate of trust or collaboration has not been established but there is, on the contrary, a highly internal hierarchization (Anderson & Lewis, 2014). In this context, employees consider themselves competitors, thus triggering processes of obscuring and hiding knowledge to defend it and keep it secret as much as possible in order to activate the process of isolated domains and to protect individual knowledge at the expense of the entire organization (Audretsch & Keilbach, 2007; Ferdous & Polonsky, 2014).

Following this prospective, we assume that:

H_3: *Employees' perceptions about internal hierarchization are positively related to employees' orientation to knowledge hiding inside the organization.*

While maintaining the internal organizational structure level of analysis, the opposite structure of the internal hierarchization is the collaborative approach (Del Giudice, Arslan, Scuotto, & Caputo, 2017). Collaboration within the organization is measured by evaluating the willingness of employees to "open up" to other colleagues and to the whole organization (Abdullah et al., 2019; Del Giudice et al., 2011; Papa et al., 2020). Internal collaboration between employees stimulates aspects of knowledge sharing and creation, both at an individual and organizational level (Ferdous & Polonsky, 2014). At the same time, RM's approach stimulates internal collaboration and the orientation towards a synergistic opening of internal knowledge (Caputo et al., 2020; Del Giudice et al., 2016; Papa et al., 2018).

The exchange of information and knowledge between organizations has a high potential for creating economic value (Caputo et al., 2019b, 2020). The perspective of RM pushes for collaboration inside and outside the organization for the creation of synergistic paths (Caputo et al., 2019b; Saviano, Caputo, Mueller, & Belyaeva, 2018).

Černe et al. (2014) investigated the link between creativity (as a proxy of collaboration) and KH. The scholars started from a simple intuition: following previous research (e.g., Perry-Smith, 2006), seems that sharing knowledge among colleagues leads to an improvement in individual creativity and internal collaboration. Thus, it is reasonable to expect that when employees intentionally withhold their knowledge, the opposite effect occurs, i.e., both individual creativity and collaboration in the organization are going to be reduced (Černe et al., 2017; Ferdous & Polonsky, 2014; Singh, 2019). Therefore, there is a negative impact of KH on the levels of individual creativity and collaboration, thus highlighting a relevant aspect: those who hide their knowledge not only damage the creativity of their colleagues but also the internal collaborations within the whole organization (Černe et al., 2014).

Following this perspective, the explanation of the processes of knowledge withholding or KH are based on the norm of reciprocity (Gouldner, 1960), which underlies the theory of social exchange and collaboration (Blau, 1964). As a matter of fact, when an employee intentionally decides not to share knowledge with a colleague, a circuit of mistrust and noncollaboration is triggered, and this can lead employees to not reveal more information or knowledge within the organization (Černe et al., 2014, 2017; Connelly et al., 2012; Singh, 2019). Instead, on the contrary, the propensity for internal collaboration implies employees' orientation to knowledge sharing inside the organization.

Therefore, we argue that:

H_4: *Employees' perceptions about internal collaboration are negatively related to employees' orientation to knowledge hiding inside the organization.*

4. Research method and data collection

This study adopted a quantitative approach based on the collection of primary data through the use of a structured survey directed to support a quantification of employees' perceptions.

Selected items and queries proposed by consolidated managerial literature have been used for quantifying each investigated variable as shown in Table 1.

Considering a population of 1564 ISMEs located in Italy (https://aida.bvdinfo.com, 2020), the research focused on 140 ISMEs located in the Campania Region, and a random sample of 50 ISMEs were selected and invited to participate in the survey in January 2020. After two rounds of reminder emails, 21 ISMEs agreed to participate in the survey.

The main features of the ISMEs involved in the survey are reported in Table 2.

Thanks to the support provided by the human resources managers of ISMEs participating in the study, a structured survey organized using a seven-point-based Likert was sent from May to July 2020 to 2145 employees using an online platform.

At the end of the data collection process, 569 surveys were collected and 525 have been considered correctly completed and used for the study (response rate: 24.47%).

A test for nonresponse bias was performed to see if early and late respondents significantly differed in their responses (Armstrong & Overton, 1977). No significant differences ($p < 0.413$) were identified between the surveyed early and late respondents.

The main characteristics of the respondents are reported in Table 3.

The reliability of the data was verified via Cronbach's alpha because it is one of the most commonly accepted measures of internal consistency reliability for scores produced by a research instrument in managerial studies (Hinkin, 1995).

After this, the validity of the data was verified through a construct

Table 1
Description of investigated variables.

Variables	Brief description	N. of items	Literature references
Employees' orientation to knowledge hiding inside the organization	This variable aims at measuring employees' perceptions about advantages and disadvantages that they can subjectively obtain from knowledge hiding in socioeconomic settings.	12	Connelly et al., 2012
Employees' perceptions about internal competitiveness	This variable aims at measuring employees' evaluations of the general level of competitiveness that exists inside the organization among employees.	9	Wang et al., 2018
Employees' perceptions about external competitiveness	This variable measures employees' perceptions about the level of competitiveness of the market/sector in which their organizations are actively engaged.	8	Kemp & Hanemaaijer, 2004
Employees' perceptions about internal hierarchization	This variable includes items related to employees' perceptions about the model through which the organizations manage relationships among their multiple decision levels.	12	Ferdous & Polonsky, 2014
Employees' perceptions about internal collaboration	This variable includes items for measuring employees' perceptions about opportunities and possibilities for collaborative relationships and paths inside the organization.	11	Ferdous & Polonsky, 2014

Table 2
Analyzed ISMEs.

Sector	
Service	6
Industry	5
Manufacturing	5
Transport	3
Others	2
Number of employees	
< 10	5
10–30	11
30–50	5
Annual Revenues (average for the last 5 years)	
< 100,000 €	7
100,000€–250,000	12
> 250,000 €	2

Table 3
Respondents' main features.

Sex	
Men	246
Female	275
Not declared	4
Age	
18–25	137
26–40	165
20	203
> 60	20
Annual salary	
< 30,000 €	245
30,000 €–50,000 €	209
> 50,000 €	71
Level of study	
Secondary school	97
High School	176
University	252

validity and the hypotheses reported in the following Table 4 were tested via SEM using LISREL 9.10.

Finally, Ahmad, Zulkurnain, and Khairushalimi (2016) suggestions were followed in order to test the fitness of the model reported in Fig. 1 using the following indexes: chi-square (χ^2), degrees of freedom (df), chi-square-to-degree-of-freedom ratio (χ^2/df), goodness of fit index (GFI), normed fit index (NFI), comparative fit index (CFI), standardized root mean square residual (SRMSR) and root mean square error of approximation (RMSEA).

5. Results

As a first step of the research process, the reliability of data collected using the structured survey was verified measuring the Cronbach's alpha (α) coefficients.

As underlined by Nunnally (1978), a Cronbach's alpha value equal to or higher than 0.70 demonstrates a suitable level of reliability for the data in the field of applied research. Table 5 reports the α coefficients, and it shows that all the coefficients overcome the cut-off values value suggested by Nunnally.

Table 4
Hypotheses under study.

N.	Hypotheses	Relation
1	Employees' perceptions about internal competitiveness → Employees' orientation to knowledge hiding inside the organization	+
2	Employees' perceptions about external competitiveness → Employees' orientation to knowledge hiding inside the organization	–
3	Employees' perceptions about internal hierarchization → Employees' orientation to knowledge hiding inside the organization	+
4	Employees' perceptions about internal collaboration → Employees' orientation to knowledge hiding inside the organization	–

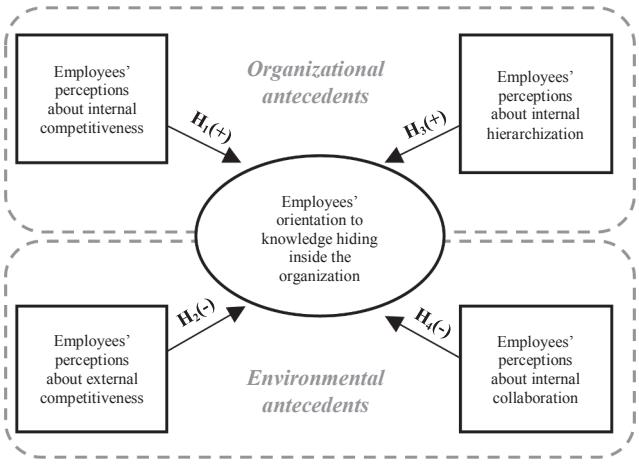

Fig. 1. The conceptual model.

After that the reliability of data was verified, formulized hypotheses were tested using LISREL 9.10, and the fitness of the model was tested by calculating several fitness indexes as reported in Table 6.

Specifically, the fitness indexes used for evaluating the validity of the conceptual model include GFI (goodness-of-fit index), NFI (normed fit index), CFI (comparative fit index), SRMSR (standardized root mean square residual) and RMSEA (root mean square error of approximation).

As suggested by consolidated literature, the following threshold values have been considered: > 0.90 for GFI (Jöreskog & Sörbom, 1996), > 0.90 for NFI (Hu & Bentler, 1999), > 0.90 for CFI (Hoe, 2008), and a combinatorial rule of RMSEA < 0.06 and SRMR < 0.08 (Hooper, Coughlan, & Mullen, 2008).

As summarized by the data reported in Table 5, if the model fitness exceeds conventional thresholds, then the model can be considered suitable.

Focusing on the results reported in Table 5, it was determined that the hypotheses H_1 ($\beta = 0.721$, $p < 0.001$), H_2 ($\beta = 0.649$, $p < 0.001$), and H_3 ($\beta = 0.529$, $p < 0.001$) were supported, while H_4 ($\beta = 0.212$, $p = 0.831$) was not supported with reference to the specific data analyzed.

6. Discussion and conclusion

The main purpose of this study was to investigate the need to support employees in overcoming an isolation-based view of socioeconomic settings in order to enhance knowledge value. To accomplish this, we investigated the influence of employees' perceptions about internal organizational assets and environmental dynamics on employees' orientation to KH.

In Section 5, the results show that three out of four hypotheses were statistically confirmed, demonstrating that employees' orientation is significant for KH inside the organization. *Au contraire*, there is no statistical significance concerning H4 displaying a lower connection between employees' perceptions and knowledge value through internal collaboration.

Table 5
Cronbach's alpha coefficients of independent variables.

Independent variables	α
Employees' perceptions about internal competitiveness	0.729
Employees' perceptions about external competitiveness	0.703
Employees' perceptions about internal hierarchization	0.821
Employees' perceptions about internal collaboration	0.741

Table 6
Results of hypotheses tested via SEM.

Hypothesis under study		Standardized regression coefficient (β)	P-value
H_1 (+)	Employees' perceptions about internal competitiveness → Employees' orientation to knowledge hiding inside the organization	0.721	***
H_2(-)	Employees' perceptions about external competitiveness → Employees' orientation to knowledge hiding inside the organization	0.649	***
H_3(+)	Employees' perceptions about internal hierarchization → Employees' orientation to knowledge hiding inside the organization	0.529	0.031
H_4(-)	Employees' perceptions about internal collaboration → Employees' orientation to knowledge hiding inside the organization	0.212	0.831
Model fit indexes: GFI (0.931), NFI (1.02), CFI (1.124), RMSEA (0.052), SRMR (0.062)			

Note: ***: Standardized regression coefficient is significant at the 0.001 level (two-tailed).

The analysis and the conceptual model are focused on innovative SMEs and contribute to knowledge regarding the influence of employees' perceptions about internal organizational settings and environmental dynamics on employees' orientation to KH as a way to protect individual knowledge from others' use. This can be considered as a way to ensure organizations' suitable long-term survival.

As well stated in literature, KH represents a tacit but older matter rising within the business and the organizations when individuals approach themselves to share or exchange concealed and specific knowledge that would be useful to enhance learning and innovation processes (Singh, Del Giudice, Tarba, & De Bernardi, 2019).

According to the work of Singh, Del Giudice, Nicotra, and Fiano (2020), we can consider the KH as a "dark side" of absorptive organizational innovation capacity representing a critical competitive resource aid to generate, exchange, and stimulate employees' knowledge and skills necessary to stay relevant and competitive in knowledge-intensive settings (Santoro, Bresciani, & Papa, 2020; Singh et al., 2020). Likewise, KH adapts the concept of desorptive capacity, i.e., the ability of an individual to successfully facilitate the knowledge orientation inside and outside the organization, being absorbed with the support of information and communication technologies and exploiting it through the main dimensions of our model (competitiveness, hierarchization, and collaboration) (Caputo et al., 2019a).

Although the subject of knowledge dissemination and innovation hiding is typically studied, the phenomenon of knowledge hiding is receiving growing attention in the literature because the depreciation of embedded knowledge and the funding of heterogeneous knowledge outside the firms are elicited by personal experience (Nielsen, 2005). Therefore, the challenge of KH boosts organizations and leaders to sustain the creation of collaborative workplaces (i.e., internal agora) fluidifies the search for knowledge within familiar internal groups and leads to a collaborative embeddedness and cultural relatedness as repositories of internal knowledge relationships within the organization (Hong & Nguyen, 2009).

ISMEs informally performed many innovations and frequently created knowledge spillovers, thus being considered desorptive-oriented (Audretsch & Keilbach, 2007). In this vein, we conceptually design a positive view of a brand new concept of KH, here introduced by the authors, of *reflexive knowledge hiding* (RFH) that intentionally matches the desorptive capacity related to the relationship marketing for market and technological competitiveness with the absorptive capacity aiming to enhance the probability of ambidextrously exploring and exploiting learning capabilities (Del Giudice et al., 2016; Majchrzak & Malhotra, 2016) and to leverage intraorganizational sharing of information and knowledge creation (Malhotra, Gosain, & Sawy, 2005).

With the aim of contributing to the open debate about KH, the originality of our proposed model is focused mainly on the extent of knowledge, neglecting the wisdom of knowledge-sharing behavior (Reychav & Weisberg, 2010), revealing the ways in which employees' intentions operate as an antecedent of embedded and tacit knowledge more clearly than other measures. Similarly, we are conscious that the previous literature has hardly addressed how the distance in the dissemination of knowledge (i.e., KH) among individuals fosters or binds competitiveness and collaboration (Hult, Ketchen, & Arrfelt, 2007). This consideration is confirmed because the results show no evidence for the fourth hypothesis that rejects the correlation between the latent variable employees' perceptions about internal collaboration with the employees' orientation to KH inside the organization.

This result highlights the importance of organizational ties and cohesion versus learning equivalence serving as a source of similar behavior among employees, influencing the relationship between managerial ties and opportunities taken (Li et al., 2014; Mizruchi, 1993).

Although the subject has been addressed in previous studies, our findings should strive to discourage KH rather than reinforcing the consideration concerning RFH that it is harmful to colleagues, managers, and employees in supporting mutual engagement and collaborative knowledge access. Based upon these assumptions, we can state that the role of KH is becoming a vital topic to investigate, even if it has been rather neglected in the management literature. This consideration also confirms the preference for employees' retention strategies and organizational culture to drive entrepreneurship and innovation in knowledge-intensive settings (Singh et al., 2019).

7. Implications and directions for future research

According to RBT, our research design has been built on the consideration that the survival of innovative firms depends on internal development and external sourcing in order to thrive over time (Capron & Mitchell, 2009).

With a limited understanding of the employee's intentions and orientation, the best "bespoke suit" for enhancing knowledge competitiveness should consider different capability-sourcing modes to access and share knowledge and to encourage employees to direct their ability to develop knowledge and capabilities towards internal organizational contexts.

This fact leads to some interesting theoretical and managerial implications. On the one hand, we cannot forget the organizational implication that KH under a knowledge-intensive and digital competition can generate with reference to technology management and product innovation (Malhotra et al., 2005; Soto-Acosta, Del Giudice, & Scuotto, 2018). On the other hand, theoretically, we should consider balancing the KH from the perspectives of both the inbound hider resource (i.e., the employee) and the outbound knowledge hiding destination (i.e., the other employees). This implies that innovative firms should consider why the various types of KH (i.e., playing dumb, concealment hiding, evasive hiding, etc.) may have different outcomes and may impact on different organizational settings (Černe et al., 2014; Luo & Donthu, 2007; Rhee & Choi, 2017).

In such a vein, ISMEs can be considered as predictor settings of KH because the knowledge and innovation providers more frequently are engaged in a social and direct relationship (Singh, 2019). This implies that executors of KH rationalized in our hypotheses support in practice claims that the organization of socioeconomic settings endorses knowledge creation and innovation process as new experiences and learning new practices (Audretsch & Keilbach, 2007).

Furthermore, the negative correlation between employees' perceptions about external competitiveness and employees' orientation to

knowledge hiding confirm that the beliefs about the employees' honesty strengthen internal collaboration, sustaining learning-by-doing and training-by-interacting processes (Vătămănescu et al., 2020).

Finally, our research model may also foster implications for policy-makers because it provides preliminary reflections on which act improves current models for analysing and sustaining virtuous knowledge exchange, also with reference to developing countries and family-business SMEs (Anand & Hassan, 2019; Del Giudice et al., 2017).

From a theoretical point of view, the manuscript contributes to the managerial literature by answering the call for a better understanding of KH and knowledge enhancement within business contexts grounded on the lens of RBT and RM. Specifically, the study elucidates the role of Human Resource Management strategies and the dynamic learning modes in the process of creation, dissemination, and exchange of knowledge (Arain, Bhatti, Hameed, & Fang, 2019; Del Giudice & Maggioni, 2014; Papa et al., 2020).

Beyond knowledge appropriation mechanisms, this study suggests that the intangible dimension related to the employees' intention and orientation support a firm's competitiveness and innovativeness in the long term. This relevant implication infers those researchers should combine the organizational and environmental drivers affecting the KH looking not only at the innovation performance but also at the individual and collective learning performance (Anderson & Lewis, 2014; Cillo, Garcia-Perez, Del Giudice, & Vicentini, 2019; Hayes & Allinson, 1998). In such a direction, the research provides an interesting stimulus for reflections with reference to the ways in which human resources should be selected, managed, and supervised for reducing knowledge-hiding orientation. In fact, from the research, it clearly emerges that there is a need to overcome an individualistic representation of employees, with the aim to extend current human resource management in order to include an in-depth evaluation about the ways in which each actor can be integrated and/or is aligned with the consolidated socioeconomic settings within the organization (Jacoby, 2018)

Despite the appropriateness of the methodology, the main limitation of this quantitative study is well established in the management literature, especially concerning the questions of "how" and "what" are the enabling factors at the organizational and individual level that encourage employees' free-riding and knowledge hiding within ISMEs related to sharing ideas and knowledge (Babič, Černe, Connelly, Dysvik, & Škerlavaj, 2019). Therefore, a qualitative study should further investigate the micro or the macro foundations of the variables under investigation.

Certainly, our research design is not exhaustive and does not exclude that future research could test empirically the importance of other relevant items related to the KH. More importantly, the analysis should be extended by proposing cross-industry or cross-cultural inquiries among different countries.

Finally, our empirical investigation does not investigate whether the employees' perceptions and employees' intentions emphasize the creativeness of the knowledge hider (Černe et al., 2014) or encourage collaboration for knowledge sharing (Singh, 2019). Hence, the thoughts presented in this work aim to stimulate researchers to pursue in future studies further details about the relationship between absorptive and desorptive capacities in mutually interacting knowledge clusters. Certainly, other works in this field of research are needed to test empirically the importance of this topic.

Acknowledgement

The article is based on the study funded by the Basic Research Program of the HSE University.

References

Abdulkader, B., Magni, D., Cillo, V., Papa, A., & Micera, R. (2020). Aligning firm's value system and open innovation: A new framework of business process management beyond the business model innovation. *Business Process Management Journal, 26*(5), 999–1020.

Abdullah, M. I., Dechun, H., Ali, M., & Usman, M. (2019). Ethical leadership and knowledge hiding: A moderated mediation model of relational social capital, and instrumental thinking. *Frontiers in Psychology, 10*. https://doi.org/10.3389/fpsyg.2019.02403.

Agranoff, R. (2006). Inside collaborative networks: Ten lessons for public managers. *Public Administration Review, 66*, 56–65.

Ahmad, S., Zulkurnain, N. N. A., & Khairushalimi, F. I. (2016). Assessing the validity and reliability of a measurement model in Structural Equation Modeling (SEM). *Journal of Advances in Mathematics and Computer Science, 1–8*. https://doi.org/10.9734/BJMCS/2016/25183.

Anand, A., Centobelli, P., & Cerchione, R. (2020). Why should I share knowledge with others? A review-based framework on events leading to knowledge hiding. *Journal of Organizational Change Management, 33*(2), 379–399.

Anand, P., & Hassan, Y. (2019). Knowledge hiding in organizations: Everything that managers need to know. *Development and Learning in Organizations, 33*(6), 12–15.

Anderson, E. G., Jr., & Lewis, K. (2014). A dynamic model of individual and collective learning amid disruption. *Organization Science, 25*(2), 356–376.

Arain, G. A., Bhatti, Z. A., Hameed, I., & Fang, Y.-H. (2019). Top-down knowledge hiding and innovative work behavior (IWB): A three-way moderated-mediation analysis of self-efficacy and local/foreign status. *Journal of Knowledge Management, 24*(2), 127–149.

Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of marketing research, 14*(3), 396–402.

Audretsch, D. B., & Keilbach, M. (2007). The theory of knowledge spillover entrepreneurship. *Journal of Management Studies, 44*(7), 1242–1254.

Babič, K., Černe, M., Connelly, C. E., Dysvik, A., & Škerlavaj, M. (2019). Are we in this together? Knowledge hiding in teams, collective prosocial motivation and leader-member exchange. *Journal of Knowledge Management, 23*(8), 1502–1522.

Benoit, S., Baker, T. L., Bolton, R. N., Gruber, T., & Kandampully, J. (2017). A triadic framework for collaborative consumption (CC): Motives, activities and resources & capabilities of actors. *Journal of Business Research, 79*, 219–227.

Blau, P. M. (1964). *Exchange and power in social life*. John Wiley & Sons.

Capron, L., & Mitchell, W. (2009). Selection capability: How capability gaps and internal social frictions affect internal and external strategic renewal. *Organization Science, 20*(2), 294–312.

Caputo, F., Cillo, V., Candelo, E., & Liu, Y. (2019a). Innovating through digital revolution: The role of soft skills and Big Data in increasing firm performance. *Management Decision, 57*(8), 2032–2051.

Caputo, F., & Evangelista, F. (2019). Information sharing and cognitive involvement for sustainable workplaces. In Information Resources Management Association (USA) (Ed.), Corporate social responsibility: Concepts, methodologies, tools, and applications (pp. 1403–1420). IGI Global.

Caputo, F., Garcia-Perez, A., Cillo, V., & Giacosa, E. (2019b). A knowledge-based view of people and technology: Directions for a value co-creation-based learning organisation. *Journal of Knowledge Management, 23*(7), 1314–1334.

Caputo, F., Giudice, M. D., Evangelista, F., & Russo, G. (2016). Corporate disclosure and intellectual capital: The light side of information asymmetry. *International Journal of Managerial and Financial Accounting, 8*(1), 75–96.

Caputo, F., Soto-Acosta, P., Chiacchierini, C., Mazzoleni, A., & Passaro, P. (2020). Smashing local boundaries for sustain companies' innovativeness: The role of international R&D teams. *Journal of Business Research, 128*, 641–649.

Černe, M., Hernaus, T., Dysvik, A., & Škerlavaj, M. (2017). The role of multilevel synergistic interplay among team mastery climate, knowledge hiding, and job characteristics in stimulating innovative work behavior. *Human Resource Management Journal, 27*(2), 281–299.

Černe, M., Nerstad, C. G., Dysvik, A., & Škerlavaj, M. (2014). What goes around comes around: Knowledge hiding, perceived motivational climate, and creativity. *Academy of Management Journal, 57*(1), 172–192.

Chen, J. S., Tsou, H. T., & Ching, R. K. (2011). Co-production and its effects on service innovation. *Industrial Marketing Management, 40*(8), 1331–1346.

Cillo, V., Garcia-Perez, A., Del Giudice, M., & Vicentini, F. (2019). Blue-collar workers, career success and innovation in manufacturing. *Career Development International, 24*(6), 529–544.

Connelly, C. E., Černe, M., Dysvik, A., & Škerlavaj, M. (2019). Understanding knowledge hiding in organizations. *Journal of Organizational Behavior, 40*(7), 779–782.

Connelly, C. E., Zweig, D., Webster, J., & Trougakos, J. P. (2012). Knowledge hiding in organizations. *Journal of Organizational Behavior, 33*(1), 64–88.

Corvino, A., Caputo, F., Pironti, M., Doni, F., & Bianchi Martini, S. (2019). The moderating effect of firm size on relational capital and firm performance: Evidence from Europe. *Journal of Intellectual Capital, 20*(4), 510–532.

Daňa, J., Caputo, F., & Ráček, J. (2020). Complex network analysis for knowledge management and organizational intelligence. *Journal of the Knowledge Economy, 11*(2), 405–424.

Del Giudice, M., Arslan, A., Scuotto, V., & Caputo, F. (2017). Influences of cognitive dimensions on the collaborative entry mode choice of small- and medium-sized enterprises. *International Marketing Review, 34*(5), 652–673.

Del Giudice, M., Caputo, F., & Evangelista, F. (2016). How are decision systems changing? The contribution of social media to the management of decisional liquefaction. *Journal of Decision systems, 25*(3), 214–226.

Del Giudice, M., Carayannis, E. G., & Della Peruta, M. R. (2011). *Cross-cultural knowledge management: Fostering innovation and collaboration inside the multicultural enterprise* (Vol. 11). Springer Science & Business Media.

Del Giudice, M., & Maggioni, V. (2014). Managerial practices and operative directions of knowledge management within inter-firm networks: A global view. *Journal of Knowledge Management, 18*(5), 841–846.
Dibrell, C., Craig, J. B., & Hansen, E. N. (2011). How managerial attitudes toward the natural environment affect market orientation and innovation. *Journal of Business Research, 64*(4), 401–407.
Di Fatta, D., Caputo, F., & Dominici, G. (2018). A relational view of start-up firms inside an incubator: The case of the ARCA consortium. *European Journal of Innovation Management, 21*(4), 601–619.
Ferdous, A. S., & Polonsky, M. (2014). The impact of frontline employees' perceptions of internal marketing on employee outcomes. *Journal of Strategic Marketing, 22*(4), 300–315.
Finney, R. Z., Campbell, N. D., & Powell, C. M. (2005). Strategies and resources: Pathways to success? *Journal of Business Research, 58*(12), 1721–1729.
Fjeldstad, Ø. D., & Snow, C. C. (2018). Business models and organization design. *Long Range Planning, 51*(1), 32–39.
Frank, A. G., Mendes, G. H., Ayala, N. F., & Ghezzi, A. (2019). Servitization and Industry 4.0 convergence in the digital transformation of product firms: A business model innovation perspective. *Technological Forecasting and Social Change, 141*, 341–351.
Fuller, S. (2012). *Knowledge management foundations*. Routledge.
Gay, B. (2014). Open innovation, networking, and business model dynamics: The two sides. *Journal of Innovation and Entrepreneurship, 3*(1), 1–20.
Gosain, S., Malhotra, A., & El Sawy, O. A. (2004). Coordinating for flexibility in e-business supply chains. *Journal of Management Information Systems, 21*(3), 7–45.
Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*(2), 161–178.
Hacki, R., & Lighton, J. (2001). The future of the networked company. *The McKinsey Quarterly, 3*, 26–39.
Halawi, L. A., Aronson, J. E., & McCarthy, R. V. (2005). Resource-based view of knowledge management for competitive advantage. *The Electronic Journal of Knowledge Management, 3*(2), 75.
Han, M. S., Masood, K., Cudjoe, D., & Wang, Y. (2020). Knowledge hiding as the dark side of competitive psychological climate. *Leadership & Organization Development Journal*. https://doi.org/10.1108/LODJ-03-2020-0090.
Hayes, J., & Allinson, C. W. (1998). Cognitive style and the theory and practice of individual and collective learning in organizations. *Human relations, 51*(7), 847–871.
Hernaus, T., Cerne, M., Connelly, C., Vokic, N. P., & Škerlavaj, M. (2019). Evasive knowledge hiding in academia: When competitive individuals are asked to collaborate. *Journal of Knowledge Management, 23*(4), 597–618.
Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management, 21*(5), 967–988.
Hislop, D. (2002). Mission impossible? Communicating and sharing knowledge via information technology. *Journal of Information Technology, 17*(3), 165–177.
Hoe, S. L. (2008). Issues and procedures in adopting structural equation modeling technique. *Journal of Applied Quantitative Methods, 3*(1), 76–83.
Hong, J. F., & Nguyen, T. V. (2009). Knowledge embeddedness and the transfer mechanisms in multinational corporations. *Journal of World Business, 44*(4), 347–356.
Hooper, D., Coughlan, J., & Mullen, M. (2008). *Structural equation modelling: Guidelines for determining model fit*. Dublin Institute of Technology.
Hsu, M. H., & Chang, C. M. (2014). Examining interpersonal trust as a facilitator and uncertainty as an inhibitor of intra-organisational knowledge sharing. Information Systems Journal, 24(2), 119–142. https://aida.bvdinfo.com, 2020.
Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1–55.
Hult, G. T. M., Ketchen, D. J., & Arrfelt, M. (2007). Strategic supply chain management: Improving performance through a culture of competitiveness and knowledge development. *Strategic Management Journal, 28*(10), 1035–1052.
Issac, A. C., & Baral, R. (2018). Dissecting knowledge hiding: A note on what it is and what it is not. *Human Resource Management International Digest, 26*(7), 20–24.
Jacoby, S. M. (2018). *The embedded corporation: Corporate governance and employment relations in Japan and the United States*. Princeton University Press.
Jöreskog, K. G., & Sörbom, D. (1996). *PRELIS 2 user's reference guide: A program for multivariate data screening and data summarization: A preprocessor for LISREL*. Scientific Software International.
Kelley, H. H., Holmes, J. G., Kerr, N. L., Reis, H. T., Rusbult, C. E., & Van Lange, P. A. M. (2003). *An atlas of interpersonal situations*. Cambridge University Press.
Kemp, R. G. M., & Hanemaaijer, J. J. (2004). Research Report H200406. Perception of competition. A measurement of competition from the perspective of the firm. SCientific AnaLysis of Entrepreneurship and SMEs, Zoetermeer, Holland.
Li, Y., Chen, H., Liu, Y., & Peng, M. W. (2014). Managerial ties, organizational learning, and opportunity capture: A social capital perspective. *Asia Pacific Journal of Management, 31*(1), 271–291.
Lin, Y., & Wu, L. Y. (2014). Exploring the role of dynamic capabilities in firm performance under the resource-based view framework. *Journal of Business Research, 67*(3), 407–413.
Liu, Y., He, H., & Zhu, W. (2020). Motivational analyses of the relationship between negative affectivity and workplace helping behaviors: A conservation of resources perspective. *Journal of Business Research, 108*, 362–374.
Lundvall, B.Å., Johnson, B., Andersen, E. S., & Dalum, B. (2002). National systems of production, innovation and competence building. *Research Policy, 31*(2), 213–231.
Luo, X., & Donthu, N. (2007). The role of cyber-intermediaries: A framework based on transaction cost analysis, agency, relationship marketing and social exchange theories. *Journal of Business & Industrial Marketing, 22*(7), 452–458.
Majchrzak, A., & Malhotra, A. (2016). Effect of knowledge-sharing trajectories on innovative outcomes in temporary online crowds. *Information Systems Research, 27*(4), 685–703.
Malhotra, A., & Majchrzak, A. (2019). Greater associative knowledge variety in crowdsourcing platforms leads to generation of novel solutions by crowds. *Journal of Knowledge Management, 23*(8), 1628–1651.
Malhotra, A., Gosain, S., & Sawy, O. A. E. (2005). Absorptive capacity configurations in supply chains: Gearing for partner-enabled market knowledge creation. *MIS Quarterly, 29*, 145–187.
Malik, O. F., Shahzad, A., Raziq, M. M., Khan, M. M., Yusaf, S., & Khan, A. (2019). Perceptions of organizational politics, knowledge hiding, and employee creativity: The moderating role of professional commitment. *Personality and Individual Differences, 142*, 232–237.
Matayong, S., & Mahmood, A. K. (2013). The review of approaches to knowledge management system studies. *Journal of Knowledge Management, 17*(3), 472–490.
Meso, P., & Smith, R. (2000). A resource-based view of organizational knowledge management systems. *Journal of Knowledge Management, 4*(3), 224–234.
Mizruchi, M. S. (1993). Cohesion, equivalence, and similarity of behavior: A theoretical and empirical assessment. *Social Networks, 15*(3), 275–307.
Nielsen, B. B. (2005). The role of knowledge embeddedness in the creation of synergies in strategic alliances. *Journal of Business Research, 58*(9), 1194–1204.
Nunnally, J. C. (1978). An overview of psychological measurement. In B. B. Wolman (Ed.), *Clinical Diagnosis of Mental Disorders* (pp. 97–146). Boston, MA: Springer.
Papa, A., Chierici, R., Ballestra, L. V., Meissner, D., & Orhan, M. A. (2020). Harvesting reflective knowledge exchange for inbound open innovation in complex collaborative networks: An empirical verification in Europe. *Journal of Knowledge Management*. https://doi.org/10.1108/JKM-04-2020-0300.
Papa, A., Dezi, L., Gregori, G. L., Mueller, J., & Miglietta, N. (2018). Improving innovation performance through knowledge acquisition: The moderating role of employee retention and human resource management practices". *Journal of Knowledge Management, 24*(3), 589–605.
Peng, H. (2013). Why and when do people hide knowledge? *Journal of Knowledge Management, 17*(3), 398–415.
Perry-Smith, J. E. (2006). Social yet creative: The role of social relationships in facilitating individual creativity. *Academy of Management Journal, 49*(1), 85–101.
Reychav, I., & Weisberg, J. (2010). Bridging intention and behavior of knowledge sharing. *Journal of Knowledge Management, 14*(2), 285–300.
Rhee, Y. W., & Choi, J. N. (2017). Knowledge management behavior and individual creativity: Goal orientations as antecedents and in-group social status as moderating contingency. *Journal of Organizational Behavior, 38*(6), 813–832.
Santoro, G., Bresciani, S., & Papa, A. (2020). Collaborative modes with cultural and creative industries and innovation performance: The moderating role of heterogeneous sources of knowledge and absorptive capacity. *Technovation, 92*, Article 102040.
Saviano, M., Barile, S., & Caputo, F. (2017). Re-affirming the need for systems thinking in social sciences: A viable systems view of smart city. In S. Vrontis, T. Weber, & E. Tsoukatos (Eds.), *Global and national business theories and practice: Bridging the past with the future* (pp. 1552–1567). EuroMed Press.
Saviano, M., Caputo, F., Mueller, J., & Belyaeva, Z. (2018). Competing through consonance: A stakeholder engagement view of corporate relational environment. *Sinergie Italian. Journal of Management, 36*(Jan-Apr), 61–80.
Sembada, A. (2018). The two sides of empowering consumers to co-design innovations. *Journal of Services Marketing, 32*(1), 8–18.
Serenko, A., & Bontis, N. (2016). Understanding counterproductive knowledge behavior: Antecedents and consequences of intra-organizational knowledge hiding. *Journal of Knowledge Management, 20*(6), 1199–1224.
Šikýř, M. (2013). Best practices in human resource management: The source of excellent performance and sustained competitiveness. *Central European Business Review, 2*(1), 43–48.
Singh, S. K. (2008). Role of leadership in knowledge management: A study. *Journal of Knowledge Management, 12*(4), 3–15.
Singh, S. K. (2019). Territoriality, task performance, and workplace deviance: Empirical evidence on role of knowledge hiding. *Journal of Business Research, 97*, 10–19.
Singh, S. K., Del Giudice, M., Nicotra, M., & Fiano, F. (2020). How Firm Performs Under Stakeholder Pressure: Unpacking the Role of Absorptive Capacity and Innovation Capability. *IEEE Transactions on Engineering Management*. https://doi.org/10.1109/TEM.2020.3038867.
Singh, S. K., Del Giudice, M., Tarba, S. Y., & De Bernardi, P. (2019). Top management team shared leadership, market-oriented culture, innovation capability, and firm performance. *IEEE Transactions on Engineering Management*. https://doi.org/10.1016/j.techfore.2019.05.032.
Škerlavaj, M., Connelly, C. E., Cerne, M., & Dysvik, A. (2018). Tell me if you can: Time pressure, prosocial motivation, perspective taking, and knowledge hiding. *Journal of Knowledge Management, 22*(7), 1489–1509.
Soto-Acosta, P., Del Giudice, M., & Scuotto, V. (2018). Emerging issues on business innovation ecosystems: The role of information and communication technologies (ICTs) for knowledge management (KM) and innovation within and among enterprises. *Baltic Journal of Management, 13*(3), 298–302.
Sparrow, P., Brewster, C., & Harris, H. (2004). *Globalizing human resource management*. Psychology Press.
Sterman, J. (2010). *Business dynamics*. Irwin/McGraw-Hill.
Trent, R. J. (2007). Strategic supply management: Creating the next source of competitive advantage. *J. Ross Publishing*.
Tsai, W. (2001). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal, 44*(5), 996–1004.

Vătămănescu, E. M., Cegarra-Navarro, J. G., Andrei, A. G., Dincă, V. M., & Alexandru, V. A. (2020). SMEs strategic networks and innovative performance: A relational design and methodology for knowledge sharing. *Journal of Knowledge Management, 24*(6), 1369–1392.

Wang, H., Wang, L., & Liu, C. (2018). Employee competitive attitude and competitive behavior promote job-crafting and performance: A two-component dynamic model. *Frontiers in Psychology, 9*, 2223.

Wu, L. Y. (2010). Applicability of the resource-based and dynamic-capability views under environmental volatility. *Journal of Business Research, 63*(1), 27–31.

Xiong, C., Chang, V., Scuotto, V., Shi, Y., & Paoloni, N. (2019). The social-psychological approach in understanding knowledge hiding within international R&D teams: An inductive analysis. *Journal of Business Research, 128*, 799–811.

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