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# The Role of Perceived Supervision, Organizational Support and Co-Workers Support to Discourage Knowledge Hiding in Organizations Le rôle de la supervision perçue, du soutien organisationnel, et du soutien des collègues pour décourager la dissimulation des connaissances dans les organisations El papel de la supervisión percibida, del apoyo organizacional y del apoyo de los compañeros de trabajo para desalentar el ocultamiento del conocimiento en las organizaciones

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#### Résumé de l'article

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# The Role of Perceived Supervision, Organizational Support and Co-Workers Support to Discourage Knowledge Hiding in Organizations

Le rôle de la supervision perçue, du soutien organisationnel, et du soutien des collègues pour décourager la dissimulation des connaissances dans les organisations

El papel de la supervisión percibida, del apoyo organizacional y del apoyo de los compañeros de trabajo para desalentar el ocultamiento del conocimiento en las organizaciones

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# ABSTRACT

In past literature, the variables that may discourage knowledge hiding in organizations have attracted less attention than the variables that actually cause it. We develop a construct: "Positively Perceived Supervision". The more supervision is positively perceived, the less employees are inclined to hide their knowledge from their supervisors and from their co-workers. The more employees perceive support from co-workers, the less they will be inclined to hide knowledge from them. Surprisingly, the more employees perceive support from their organization, the more they will be inclined to hide knowledge from their supervisor and co-workers. This leads to managerial implications.

Keywords: Fair supervision, Non-abusive supervision, Supportive supervision, Knowledge hiding, Organizational support, Co-worker support

# Résumé

Dans la littérature, les variables qui peuvent décourager la dissimulation de connaissances dans les organisations ont attiré moins d'attention que les variables qui la causent réellement. Nous développons un construit : «Supervision perçue positivement». Plus la supervision est perçue positivement et moins les employés sont enclins à cacher des informations à leurs managers et collègues. Plus les employés perçoivent du soutien de la part de leurs collègues, moins ils sont enclins à leur cacher leurs connaissances. Etonnamment, plus les employés perçoivent du soutien de lus ils sont enclins à cacher leurs connaissances à leur superviseur et à leurs collègues. Cela a des implications managériales.

Mots-Clés : Supervision juste, supervision non-abusive, supervision bienveillante, dissimulation des connaissances, soutien organisationnel, soutien des collègues

### Resumen

En la literatura, las variables que pueden desalentar el ocultamiento de la información en las organizaciones han recibido menos atención que las variables que realmente lo causan. Hemos desarrollado un constructo: "Percepción positiva de supervisión". Cuanto más positivamente se perciba la supervisión, menos se inclinan los empleados a ocultarle información de sus gerentes y colaboradores. Mientras más apoyo reciban los empleados de sus colegas, es menos probable que oculten sus conocimientos. Sorprendentemente, cuanto más perciben los empleados el apoyo de su organización, más se inclinan a ocultar sus conocimientos a sus supervisores y colegas. Esto tiene implicaciones gerenciales.

Palabras Clave: Supervisión justa, supervisión no abusiva, supervisión de apoyo, ocultación del conocimiento, apoyo organizacional, apoyo de compañeros de trabajo

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In an organizational context, and as highlighted in the literature (Bartol & Srivastava, 2002; Connelly, Zweig Webster & Trougakos, 2012), the term "knowledge" does encompass "the information, ideas, and expertise relevant for tasks performed by organizational members" (Connelly *et al.*, page 65). Knowledge is one of the main resources of organizations (Bock *et al*, 2005) and is critical to their long-term performance (Nonaka and Takeuchi, 1995). Thus, knowledge has to be managed, knowledge sharing closely monitored and knowledge hiding behaviors discouraged.

Even though it cannot be imposed, knowledge sharing should be nurtured and facilitated in organizational settings (Anand & Walsh, 2016). For instance, knowledge sharing may sometimes facilitate collaboration and business in cross-cultural settings (Barrett & Oborn, 2010). In multinational firms, where business is conducted on the international scene, culturally diverse colleagues have to work together, and managers have to guide international teams that are culturally heterogeneous. This cultural diversity can stimulate creativity at work, but only if organizational members do not hide their knowledge from each other (Bogilović, Černe, & Škerlavaj, 2017). Yet, despite the many efforts to foster knowledge sharing within organizations, employees often hide their knowledge. Even though not actively and purposely hiding knowledge does not always imply sharing it, knowledge can definitely not be shared if it is hidden. Thus, knowledge hiding should be avoided in organizations and knowledge hiding and its possible causes have been receiving increasing attention from researchers and practitioners alike (Burmeister et al., 2018; Connelly et al., 2012). However, variables that may actually discourage knowledge hiding in organizations have attracted less attention, and this is the focus of the present article. In order to help understand knowledge management in organizations, and how knowledge hiding may be discouraged, we investigate in this paper some relationships between employees, between employees and supervisor, and between the employees and the organization, through a survey administered in knowledge-intensive firms.

Supervisors play a role in the willingness of employees to share their knowledge (Kim *et al.*, 2015; Kim *et al.*, 2016) or hide their knowledge (Ladan *et al.*, 2017; Lanke, 2018). The literature has investigated for various purposes, different facets of supervision as perceived by organizational members, e.g., abusive supervision (Connelly *et al.*, 2012), supportive supervision (Anderson *et al.*, 2002),

and fair supervision (Colquitt, 2001). It has examined the negative effects of abusive supervision on employees' knowledge sharing (Lee *et al.*, 2017; Kim *et al.*, 2015; Kim *et al.*, 2016; Kim and Yun, 2015; Wu and Lee, 2016) and its influence on employees' knowledge hiding (Khalid *et al.*, 2018; Ladan *et al.*, 2017; Lanke, 2018). However, non-abusive, supportive and fair supervision have never been studied together as the dimensions of a single construct and little is known about whether these three facets have actual adverse effect on employees' knowledge-hiding behaviors. In this article, we model what we name "positively perceived supervision" as a multi-dimensional first-degree reflective, second-degree formative construct (Edwards, 2001; Law, Wong & Mobley, 1998) and show the significance of this construct for discouraging knowledge hiding within organizations. As co-worker and organizational support have also been shown to reduce the tendency of employees not to share knowledge while abused by their supervisors (Kim *et al.*, 2015; Kim *et al.*, 2016; Lee *et al.*, 2017), we also test the possible adverse influence of these constructs on knowledge hiding.

This article sets out to answers the following research questions:

- 1. Does positively perceived supervision discourage employee knowledge hiding behaviors?
- 2. Does organizational support and co-worker support reduce the propensity of employees to hide knowledge?

The article is organized as follows. Using the literature, we first define the various constructs investigated and their possible relationships, leading us to lay down our hypotheses. We then describe our methodology and provide our results, before discussing them, their managerial implications, their limitations, and concluding.

# The Various Constructs of Our Research

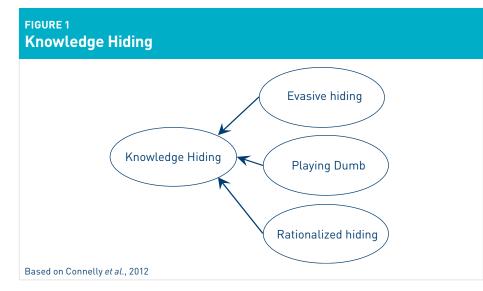
In this section, we investigate the various concepts/constructs called upon in our research and we lay down our hypotheses.

#### Knowledge Hiding

Organizations make efforts to facilitate knowledge-sharing activities to increase the performance of individuals and gain competitive advantage (Wang and Noe, 2010). However, not all individuals are willing to share their knowledge in every

situation (Anand and Walsh, 2016). Some researchers suggest that people can hide knowledge from others due to personality characteristics, intrinsic values, or situational constraints (Anand *et al.*, 2019; Connelly *et al.*, 2012). Research also suggests that the propensity not to share and to hide knowledge may result mainly from interpersonal dynamics (Connelly *et al.*, 2012). In this context, researchers have defined "knowledge hiding" as a theoretical construct to describe people's behavior in resisting the sharing of knowledge with others. Knowledge hiding is "an intentional attempt by an individual to withhold or conceal task information, ideas, and know-how that has been requested by another person" (Connelly *et al.*, 2012, p. 65). In organizations, knowledge hiding can significantly damage relationships at work, create distrust among co-workers, result in knowledge gaps, and lead to lower individual and organizational performance (Hernaus *et al.*, 2019).

Connelly *et al.*'s (2012) significant work that defined and modeled knowledge hiding, found that it is not just the refusal to share knowledge but is a multi-dimensional construct comprising three factors that explain the behaviors behind hiding: rationalized hiding, evasive hiding and playing dumb (See Figure 1).



In rationalized hiding, hiders provide a justification for failing to provide the knowledge requested by others. They justify this behavior with a convincing reason or put the blame on another party. In evasive hiding, hiders try to protect their knowledge by providing either incorrect information or a misleading promise to fulfill the request in the future, even though there is no intention to do so (Connelly et al., 2012). Playing dumb includes behaviors through which hiders pretend to be ignorant, or simply behave as if they are unfamiliar with the knowledge that is being required (Connelly et al., 2012). Using Connelly el al. (2012) measures of knowledge hiding, we investigate in the present study how this phenomenon may be discouraged However, we argue that within organizations employees might be differently inclined to hide their knowledge from different categories of people. For instance, organizational members, who perceive their supervisor as being abusive may be inclined to withhold knowledge from that supervisor but willing to share it with co-workers, particularly if they perceive them are supportive. Therefore, we argue that hiding knowledge from supervisors and co-workers should be considered and assessed separately (See Figure 2).

#### **Positively Perceived Supervision**

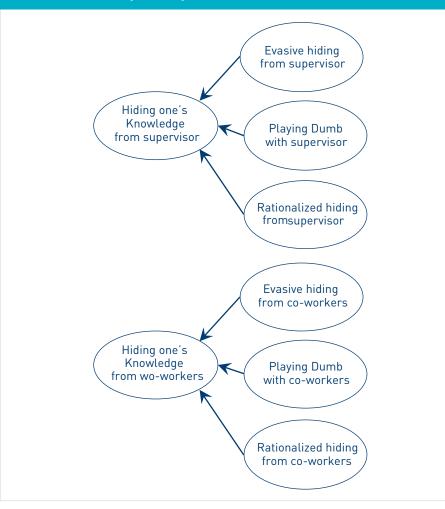
The literature highlights different aspects of supervisors' behavior and impact on employees and suggests that supervisors can play a role in the willingness of employees to share their knowledge (Kim *et al.*, 2015; Kim *et al.*, 2016) or hide their knowledge (Ladan *et al.*, 2017; Lanke, 2018). We argue that knowledge hiding is a factorially complex outcome that requires "predictors that are also factorially complex" (Edwards, 2001: 149). We study in this section, several aspects of supervision that have been investigated separately in the literature to explain other phenomena and could have an impact on employee's knowledge hiding behaviors.

Employees often perceive their supervisors as rather abusive or non-abusive, based on their behavior toward them. Abusive supervisors are perceived as displaying characteristics such as ridiculing, humiliating, discouraging, and creating hostility (Tepper, 2007). Supervisors' abusive behavior can cause employees to reduce their organizational commitment, decrease their job performance and increase counterproductive behavior (Connelly *et al.*, 2012; Kim *et al.*, 2015; Zhang *et al.*, 2019). When employees are abused by their supervisors, they are more likely to quit the organization, have increased job dissatisfaction, and develop psychological distress (Tepper, 2000). Wu and Lee (2016)



#### **FIGURE 2**

Knowledge hiding from supervisor and from co-workers to be assessed separately



found that abusive supervision is negatively related to employee knowledge-sharing behavior and that employees are more likely to share knowledge with co-workers and not with supervisors while abused. In their study, Kim et al. (2016) found that abusive supervision discourages employees from sharing knowledge with others and has an effect on employees' job-related performance. When employees are abused by their supervisor, they may resist knowledge sharing (Kim et al., 2015; Kim et al., 2016; Lee et al., 2017), and abusive supervision leads to active employee knowledge-hiding behaviors (Khalid et al., 2018). Employees perceive their knowledge base to be valuable and the feeling of being "mistreated or not given due respect" by supervisors will encourage them toward knowledge-hiding behaviors (Kim et al., 2016). Finally, when employees perceive that they are not being treated well by their supervisor, they may seek revenge by withholding knowledge from safe and easy targets (co-workers) (Khalid et al., 2018; Mitchell and Ambrose, 2007; Skarlicki and Folger, 1997). Supervision research in the literature has focused mostly on destructive consequences of abuse (Lee et al., 2017).

Supervisors are sometimes unfair in their attitudes to the contributions made by employees in organizations (Holten *et al.*, 2016). Employee satisfaction in organizations depends on the rewards and resources that are fairly distributed (distributive justice) in response to their contribution to organizational success (Colquitt, 2001; Ibragimova *et al.*, 2012; Leventhal, 1976). "Distributive justice" is the term used to describe employees' perceptions of fairness in recognition of their contribution to organizational expectations (Colquitt, 2001; Cropanzano and Ambrose, 2001; Deutsch, 1975). According to Colquitt (2001) and Holten *et al.* (2016), distributive justice can be witnessed through the outcomes that employees receive from their work (e.g., pay raises, promotions). Distributive justice is fostered when organizations allocate equity or equality (rewards and resources distributed in accordance with recipients' contributions) norms for employees, and allocations can maximize productivity and improve cooperation (Leventhal, 1976). Thus, distributive justice (Colquitt, 2001), as distributed through supervisors, may be understood as fair supervision and has been shown to lead to employee satisfaction.

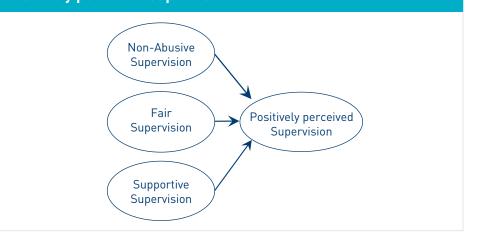
Perceived supervisor support is defined as the general views that are developed by employees concerning the degree to which supervisors value their contributions and care about their well-being (Eisenberger *et al.*, 2002). If a supervisor's

behavior is perceived as supportive, it may help increase employee performance, provide strong emotional support, improve job satisfaction, and develop strong work relations (Anderson et al., 2002; Gonzalez-Morales et al., 2016; Yagil, 2006). Employees who feel supported by their supervisor perform better, are more committed to their employer (Frear et al., 2018), and are likely to demonstrate high levels of job-related performance (Kim et al., 2015). Some researchers have proposed that supervisor support helps to reduce stress, increase positive attitudes and behaviors (Carlson and Perrewe, 1999), and increase affective commitment (Casper et al., 2011). predicts several positive employee and work outcomes (Dysvik et al., 2014). Supportive supervision includes a type of social support which reduces the negative effects of stress and strain for employees, and supportive leaders are those who provide emotional, informational, instrumental, and appraisal support to followers (House, 1981; Paustian-Underdahl et al., 2013). Moreover, those employees who receive high levels of supervisor support tend to increase their efforts to exceed their responsibilities in return for the benefits provided by their supervisors (Shanock and Eisenberger, 2006). Supportive supervision is also understood as supportive leadership (Paustian-Underdahl et al., 2013). Ladan et al. (2017, p. 60) proposed that, when employees hide knowledge, transformational leadership through psychological ownership of knowledge may influence employees to refrain from knowledge-hiding behaviors that may negatively affect the organization and encourage knowledge sharing to improve the performance of the organization. Anderson et al. (2002) envisages and assesses supportive supervision as work-family balance facilitated by supervisors through supportive policies.

We argue that although supervisors may display non-abusive behaviors toward an employee, they may also, somewhat independently, exhibit fairness or unfairness in appreciating and recognizing the contributions made by that employee as well as demonstrating supportive behaviors related to work-family balance. Thus, two supervisors with different assessments of fairness, non-abusive behaviors and support may be equally positively perceived. Therefore, and beyond each single of the three highlighted dimensions, we argue that it is the global perception of supervision that appears important to assess, in terms of impact on knowledge hiding behaviors: each dimension could be extremely significant when considered individually on its own but less so when investigated as part of a whole as it could be counteracted by another dimension. Thus, we propose to study the impact of

supervision on employees' knowledge hiding behaviors through a construct that we name "positively perceived supervision", which includes three complementary facets / dimensions: non-abusive supervision, fair supervision and supportive supervision (see Figure 3). Contrary to other studies, which investigate some dimensions of perceived supervision as unidimensional constructs, referring to single separate theoretical concepts (Hattie, 1985), we investigate the concept of positively perceived supervision as a single overall aggregate construct, which is a "composite of its dimensions, meaning the dimensions combine to produce the construct" (Edwards, 1998: 147). Variation in a multidimensional construct implies variation in any or all of its dimensions (Ibid.). Thus, the same assessment of such a construct may correspond to counteracting actions from its various dimensions. For instance, a supervisor who is non-abusive but also non-supportive of work family balance may score the same (with similar impact on employees' knowledge hiding behaviors) as one who is abusive but also supportive of work family balance. Therefore, it appears essential to assess positively perceived supervision as an expression of the three identified relevant dimensions, and not only of one of these dimensions.

#### FIGURE 3 Positively perceived supervision





Hypothesis 1a: The more supervision is perceived positively by employees, the less they will be inclined to hide their knowledge from their supervisors.

Hypothesis 1b: The more supervision is perceived positively by employees, the less they will be inclined to hide their knowledge from their co-workers.

#### Perceived Co-Worker Support and Organizational Support

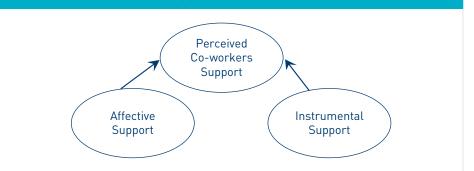
As well as the supervisor, the organization and co-workers are major partners for employees and sources of social support in the workplace (Kim *et al.*, 2015; Kim *et al.*, 2016, Lee *et al.*, 2017; Shoss *et al.*, 2013). Ducharme and Martin (2000) suggest that the term "social support" helps to describe the relationship between work, co-workers, and well-being in a workplace. Co-worker support is a form of social support that comes from co-workers (Woo and Chelladurai, 2012). It is the most relevant form of social support for employees in the workplace (Kossek *et al.*, 2011). It refers to employees' beliefs about the extent to which co-workers provide desirable resources in the form of emotional support (e.g., showing concern) and instrumental support (e.g., helping with work tasks) (Xu *et al.*, 2017). This support can be affective support and provide the recipient with feelings of being accepted and cared for; it can also be instrumental support and involve material assistance in response to specific needs (See Figure 4).

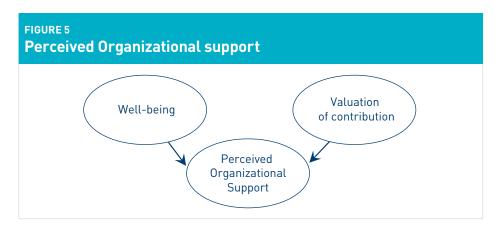
The availability of co-worker support may result in reduced turnover intentions and effective service recovery performance (Poon, 2011). Individuals who receive negative treatment from their supervisors may get support from their co-workers, their family, and their organization (Shoss *et al.*, 2013). If supervisors are abusive, co-worker support becomes a more salient and important source of social support. Strong support from co-workers and supervisors improves the work environment by relieving employee stress (Poon, 2011). Co-worker support not only alleviates the negative effects of job characteristics that employees experience, it also enhances psychological well-being and the performance of employees (Sloan, 2012).

# Hypothesis 2: The more employees perceive support from co-workers, the less they will be inclined to hide knowledge from them.

Perceived organizational support refers to the general beliefs of employees about how much the organization values their contribution and cares about their well-being (Eisenberger *et.al.*, 2002; Eser and Ensari, 2008) (See Figure 5).

### FIGURE 4 Perceived Co-worker support





Eisenberger *et al.*, (1986) proposes that supervisor's attitudes towards subordinates are indicators of organizational support because a supervisor, as an agent of the organization, has discretion and responsibility for managing and accessing subordinates' performance. However, and although many studies do highlight the relationship between supervisory treatment of employees and perceived organizational support (Rhoades & Eisenberger, 2002), it has been

also highlighted in the literature that an organization is mostly perceived as embodied by top management (Russo, Miraglia and Borgogni, 2013) whereas employees may vary in the extent to which they perceive their direct supervisors as embodying the organization (Shoss et al., 2013). Thus, perceived supervisor support and perceived organizational support may be considered as two separate construct and some scholar did differentiate them e.g., Rhoades & Eisenberger, 2002, Eisenberger et al., 2002; Hutchison, 1997; Kottke & Sharafinski, 1988). Hence, it can be argued that although employees may attach the relationships they have with their supervisors to their overall perceptions of the organization - only to the extent that supervisors are identified with the organization (Eisenberg, et al., 2002; Rhoades & Eisenberg, 2002) - employees can also perceive the two relationships as being separate and different: they may differentiate their perception of their supervisor from their experience with the organization as a whole. For instance, an employee might perceive her supervisor as supportive of her work-family balance through the authorization of fluctuating timetables that reflect children's school schedules. The same employee might consider the organization as non-supportive of her work-family balance because of a general rule implemented within the organization that forbids more than three days off work to mind a sick child. Thus, without contravening organizational rules, the supervisor might be perceived by the employee as granting more flexibility. In this paper, we consider the construct of perceived supervision at the functional and operational level and based on person-to-person relationship, whereas organizational support is considered in a holistic perspective as a broad perception of the organization, an entity embedded in a set of rules and norms.

When employees feel supported by their organization, they develop a strong sense of commitment toward it (Woo and Chelladurai, 2012). Organizational support can reduce absenteeism and increase work performance. Concern and consideration by organizations can trigger various psychological mechanisms in employees. First, support from the organization should fulfill the socio-emotional needs of employees, enhancing their organizational membership. Second, perceived organizational support should reinforce employees' perceptions that the organization appreciates and rewards good performance (Eser and Ensari, 2008; Rhoades and Eisenberger, 2002). Organizational support potentially increases the positive attitudes of employees at work, which may result in positive emotional associations with the organization itself, thereby increasing affective commitment (Eisenberger *et al.*, 2010; Maertz *et al.*, 2007) and decreasing turnover intentions (Mathieu and Zajac, 1990). Perceived organizational support affects employees' perceptions that the organization cares about their well-being and values their contributions. Therefore, this is a situational factor that can influence employees' attitudes to knowledge hiding and other work outcomes (Alnaimi and Rjoub, 2019). Furthermore, research has shown that organizational support in the workplace is positively related to knowledge sharing (Han *et al.*, 2018; Yang *et al.*, 2018)

Hypothesis 3a: The more employees perceive support from their organization, the less they will be inclined to hide knowledge from their supervisor.

*Hypothesis 3b: The more employees perceive support from their organization, the less they will be inclined to hide knowledge from their co-workers.* 

All hypotheses are summarized in Figure 6.

# **Methodology**

In this section we present our data collection procedures, our statistical approach and the measures we used for each construct investigated in our nomological network.

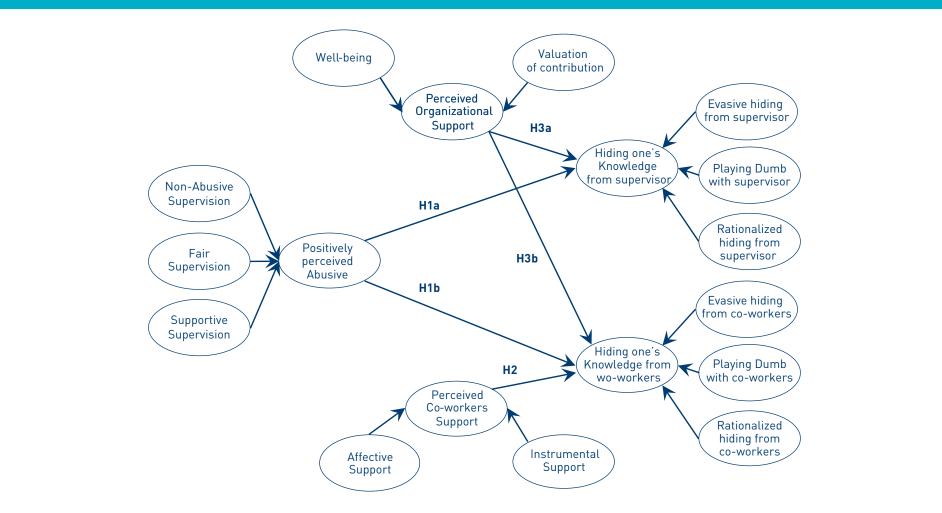
#### Data Collection and Treatment

The data were collected between December 2018 and March 2019 through an online survey. Even though anonymity was guaranteed in writing, the subject of perceived supervision is a sensitive topic, and we found that respondents were not always prepared to answer our questions and disclose the perception they had of their supervisors. Therefore, we used snowball sampling whereby we first sent the survey to employees, whom one of the authors knew in various organizations and who we felt could answer our survey without putting themselves in danger. We then asked each of these respondents to send the survey to people they knew and whom they could reassure about its purpose. This sampling method is deemed acceptable in hard-to-reach populations (Goodman, 2011).

As the explained variables of our model are related to knowledge hiding, we purposely sampled as first "seed" respondents, people who belong to knowledge intensive firms (consulting firms and higher education institutions) where knowledge management is essential and knowledge sharing usually broadly



FIGURE 6 The research model



nurtured. We expected that many respondents would belong to the same institutions as the original respondents, which proved correct (see Appendix A). The "seed" respondents belong to three well-established higher education institutions (One French, one Indian and the third American, all middle-sized, employing between 200 and 500 employees, including administrative staff and professors) and one well-established large international French-based consulting firm (currently employing 4257 employees).

We kept collecting data until the rules of thumb (Barclay *et al.*, 1995; Cohen, 1992; Hair *et al.*, 2017) were achieved. Both Barclay *et al.* (1995) and Hair *et al.* (2017) recommend that the sample size should be "ten times the largest number of structural paths directed at a particular construct in the structural path model". Cohen (1992) recommends a sample size that takes into account a statistical power of 80%.

As proposed by Ringle, Sarstedt and Straub (2012), we used a partial-leastsquares (PLS) approach and bootstrapping as a resampling technique (500 random samples) to generate t statistics (Chin, 1998), because our model was fairly complex (with several aggregate constructs), we did not have data with a normal distribution and had reflective and formative constructs in our model: PLS does not require data with a normal distribution (Fornell and Cha, 1994); it supports both reflective and formative constructs (Gefen *et al.*, 2000).

We received 174 completed questionnaires. Five were discarded due to missing data in research-critical items, resulting in a final sample size of 169. This number of respondents and non-normal data are sufficient to perform partial-least-squares structural equation modeling (PLS-SEM) analysis. We used SmartPLS (Ringle, Wende and Becker, 2015) Version 3.2.6 for this study. The bootstrapping setting was tuned to 500 samples, using a bias-corrected and accelerated bootstrap with no sign changes and a two-tailed method. Demo-graphic categorical variables (age, gender, industry, country) were included in the questionnaire, which allowed us to keep track of the population (see Appendix A for the characteristics related to our sample).

#### Measures

All measures were assessed using 5-point Likert scales with anchors of 1= *Completely false* or *Never*, depending on the question, and 5= *Completely true* or *All the time*, depending on the question. Details of all items are provided in Appendix B. We adapted Connelly *et al.*'s (2012) knowledge hiding scales to our context as they provide a comprehensive, three-dimensional (playing dumb, evasive hiding and rationalized hiding) measure that takes account of the different facets of this construct. Each reflective dimension was assessed through three items (see Appendix B), and we assessed separately employees' knowledge hiding from their manager (KH\_MAN) and from their co-workers (KH\_CW).

For the positively perceived supervision (PS) measurement model, we drew from the literature and adapted to our context Peng *et al.*'s (2014) abusive supervision scale (ABUS\_SUP: we reverse-coded respondents' answers to obtain a score for non-abusive supervision<sup>1</sup>), Anderson *et al.*'s (2002) scale for supervision supportive of work–family balance (SUPP\_SUP), and Colquitt's (2001) and Leventhal's (1976) scales for distributive justice (FAI\_SUP: fair supervision). Each of these three dimensions was assessed with four items.

Finally, for perceived organizational support and perceived co-worker support, we employed the scales used by Woo and Chelladurai (2012). However, to adapt the scales to our context, we went back to the original scales used by Eisenberger *et al* (1986, 1997) for organizational support and Ducharme and Martin (2000) for co-worker support. Perceived organizational support was modeled with two dimensions (OS\_VC: valuation of contribution and OS\_WB: well-being), each assessed with five items. Perceived co-worker support was modeled with two dimensions (COWS\_AFF: affective and COWS\_IS: instrumental), each assessed with four items. Full details of the items and scales used are provided in Appendix B.

# Results

#### Measurement Models

For all explanatory variables, which were aggregate second-order constructs (first-order reflective, second-order formative), i.e., PS, OS, and COWS, the indicator-re-use approach (Lohmöller, 1989; Ringle *et al.*, 2012) was applied to test the measurement models; in this approach, all indicators of the lower-order components are re-used in the higher-order component. For the reflective dimensions of all measurement models, item loadings, reliability, and

<sup>1.</sup> If a respondent answered 1 (never), the score entered was 5 and if a respondent answered 4 (often), the score entered was 2 (5-4+1)



discriminant validity (if the constructs share more variance with their own measures than with other constructs, and if indicators load more strongly on their own constructs than on others) were confirmed through factor analysis.

Table 1 shows the cross-loadings for all reflective constructs. These should be greater than.707 for all items representing the same latent variable. If this is so, it shows that more than half of the variance is captured by the constructs. The loadings for the items of each block were similar in their representation of the underlying construct (see Table 1), confirming convergent validity. Discriminant validity was ensured through each construct square root of the Average Variance Extracted (AVE), which must be greater than its correlation with other factors (Gefen *et al.*, 2000) (see Table 1). Reliability was assessed using Cronbach's alphas and composite reliability (CR). Alphas should be greater than.70 (Nunnally, 1978) and CR should meet the minimum requirement of 0.7. AVE (convergent validity) greater than.50, meaning that 50% or more variance should be accounted for (Fornell, Claes and Larcker, 1981). All the criteria were largely met (see Table 2).

There were no collinearity issues among the predictor constructs: all VIF values were below 5 (see Appendix C) and all paths of the measurement models were significant (see Table 3).

For the explained variable knowledge hiding, which was also an aggregate second-order construct (first-order reflective, second-order formative), we used a two-stage approach in order to obtain the "true" AVE (Ringle *et al.*, 2012). For this explained aggregate construct, the indicator re-use approach (Lohmöller, 1989) was applied during the first stage. Then, the latent variable scores for the lower-order components, obtained during the first stage, served as manifest variables for the higher-order components during the second stage. During this latter stage, the knowledge hiding construct was incorporated into the structural model.

Our results support the internal validity and reliability of the various scales that were used.

#### Structural Model

All the paths of our model were significant (see P values in Table 4). Hypotheses 1a, 1b and 2 are supported. However, surprisingly, the opposite of our hypotheses 3a and 3b is supported.

# Discussion

In this section we investigate the theoretical and managerial contributions of our work as well as its limitations and possible avenues for future research.

#### **Theoretical and Managerial Contributions**

The knowledge management literature has emphasized the importance of knowledge sharing and knowledge creation for organizational success (Holten et al., 2016). Hence, non-sharing behaviors influenced by perceived supervision can lead to potential negative outcomes for organizations. In this context, the role of supervisors is critical as they have sufficient influence to drive employees to share or hide their knowledge (Kim et al., 2015; Khalid et al., 2018). The literature is abundant about negative effects that different facets of supervision may have individually on knowledge sharing within organizations; it is much scarcer about the possible positive effects of each of these facets, or of supervision considered as a holistic, multi-faceted construct, to discourage knowledge hiding behaviors. Few works in the literature have empirically investigated the relationship between supervision and a reduction in knowledge-hiding behavior. The first theoretical contribution of our study is the modeling of positively perceived supervision through its different facets (fair, supportive, and non-abusive), the development of the corresponding index to assess it through the adaptation of existing scales, and showing that the higher this index, the less employees are inclined to hide knowledge. Our work allows three different general supervision-related constructs/dimensions, previously studied independently and to our knowledge never together, to be indexed by a single quantity assessing positively perceived supervision, which provides higher criterion-related validity than its dimensions (Edwards, 2001). We argue that the aggregate construct of positively perceived supervision, and resulting index, is theoretically meaningful and parsimonious as an overall abstraction of the three highlighted dimensions.

Although several researchers have suggested that supervisors can have a destructive effect on knowledge-sharing behaviors (Kim *et al.*, 2015; Lee *et al.*, 2018), there is still a lack of research into supervisor behaviors that may discourage employee knowledge-hiding behaviors. The present paper starts to address this gap: in our work, we found that positively perceived supervision has a negative influence on employee knowledge hiding. This finding suggests that the way supervision is perceived by employees as a significant role to play in organizational knowledge management towards reducing knowledge hiding.



## TABLE 1 Loadings and cross-loadings

		Affective Support	Instrumental Support	Fair Supervision	Non-Abusive Supervision	Supportive Supervision	Well-being	Valuation of Contribution	Sq. Root of AVE
	COWS_1_AF	0.809	0.629	0.277	0.193	0.208	0.393	0.325	
Affective Courses	COWS_2_AF	0.867	0.634	0.283	0.17	0.199	0.299	0.289	0.00/
Affective Support	COWS_3_AF	0.853	0.687	0.228	0.18	0.164	0.263	0.291	0.834
	COWS_4_AF	0.805	0.662	0.316	0.261	0.284	0.39	0.416	
	COWS_5_IS	0.505	0.69	0.261	0.172	0.147	0.302	0.238	
nstrumental	COWS_6_IS	0.672	0.857	0.314	0.308	0.271	0.469	0.424	0.015
Support	COWS_7_IS	0.643	0.804	0.214	0.174	0.166	0.32	0.297	0.815
	COWS_8_IS	0.716	0.893	0.353	0.264	0.216	0.386	0.371	
	FAI_SUP_1	0.3	0.381	0.898	0.544	0.582	0.571	0.475	
Fair Supervision	FAI_SUP_2	0.287	0.33	0.881	0.538	0.502	0.506	0.447	0.051
	FAI_SUP_3	0.233	0.188	0.802	0.347	0.531	0.439	0.41	0.851
	FAI_SUP_4	0.305	0.284	0.822	0.433	0.475	0.49	0.431	
	ABUS_SUP_1	0.255	0.268	0.394	0.845	0.431	0.289	0.233	
Non-abusive	ABUS_SUP_2	0.174	0.204	0.45	0.86	0.475	0.389	0.31	0.835
Supervision	ABUS_SUP_3	0.211	0.244	0.569	0.823	0.422	0.331	0.307	0.835
	ABUS_SUP_5	0.166	0.241	0.425	0.814	0.432	0.364	0.253	
	SUPP_SUP_1	0.219	0.167	0.573	0.489	0.817	0.525	0.461	
Supportive	SUPP_SUP_3	0.23	0.248	0.483	0.496	0.854	0.397	0.388	0.000
Supervision	SUPP_SUP_4	0.14	0.1	0.399	0.296	0.8	0.276	0.257	0.823
	SUPP_SUP_5	0.238	0.286	0.547	0.424	0.82	0.415	0.425	
	0S_10_WB	0.402	0.454	0.558	0.427	0.462	0.879	0.757	
Mall hairs	OS_6_WB	0.341	0.351	0.527	0.358	0.485	0.836	0.726	0.834
Well-being	0S_7_WB	0.3	0.322	0.371	0.376	0.35	0.777	0.563	0.834
	0S_9_WB	0.348	0.382	0.459	0.238	0.325	0.838	0.735	
	05_1_VC	0.264	0.348	0.357	0.165	0.258	0.628	0.779	
Valuation of	0S_2_VC	0.315	0.326	0.465	0.291	0.424	0.783	0.884	0.001
Contribution	05_3_VC	0.296	0.287	0.343	0.184	0.336	0.521	0.761	0.821
	OS_4_VC	0.412	0.394	0.515	0.419	0.512	0.789	0.854	

Le rôle de la supervision perçue, du soutien organisationnel, et du soutien des collègues pour décourager la dissimulation des connaissances dans les organisations **42** 

#### TABLE 2

# Construct validity and discriminant validity – results of the reflective construct assessments

Construct	ltem	AVE	Composite Reliability	Cronbach's Alpha
Affective Support	4	0.695	0.901	0.853
Instrumental Support	4	0.664	0.887	0.828
Fair Supervision	4	0.725	0.913	0.873
Non-abusive Supervision	4	0.698	0.902	0.856
Supportive Supervision	4	0.677	0.893	0.842
Well-being	4	0.695	0.901	0.853
Valuation of Contribution	4	0.674	0.892	0.838

### TABLE 3

# Path estimates – measurement models – explanatory variables

Paths	Coefficient	T Statistics	P Values
Fair Supervision $ ightarrow$ Positively perceived supervision	0.392 ***	17.596	0.000
Non-abusive Supervision $ ightarrow$ Positively perceived supervision	0.438 ***	14.325	0.000
Supportive Supervision $\rightarrow$ Positively perceived supervision	0.357 ***	16.712	0.000
Affective Support $\rightarrow$ Co-worker Support	0.540 ***	30.021	0.000
Instrumental Support $\rightarrow$ Co-worker Support	0.519 ***	28.769	0.000
Valuation of Contribution $ ightarrow$ Organizational Support	0.509 ***	28.992	0.000
Well-being $\rightarrow$ Organizational Support	0.534 ***	32.353	0.000

\*\*\* Significant at p < 0.001 \*\* Significant at p < 0.01 \* Significant at p <0.05 ns Not Significant at p < 0.05

#### TABLE 4 Structural paths

	Original Sample	T Statistics	P Values	Hypothesis Results
Positively perceived supervision $ ightarrow$ Knowledge Hiding from Managers	-0.578 ***	5.946	0.000	H1a supported
Positively perceived supervision $ ightarrow$ Knowledge Hiding from Co-workers	-0.332 ***	3.135	0.002	H1b supported
Co-worker Support $\rightarrow$	-0.336 ***	4.453	0.000	H2 supported
Knowledge Hiding from Co-workers	0.189 *	1.963	0.050	H3b not supported
Organizational Support $ ightarrow$ Knowledge Hiding from Co-workers	0.187 *	2.162	0.031	H3a not supported

\*\*\* Significant at p < 0.001 \*\* Significant at p < 0.01 \* Significant at p <0.05 ns Not Significant at p < 0.05 = ns Not Significan

A further contribution of our study is the investigation of the role of organizational support and co-worker support on knowledge-hiding behaviors. Although researchers have previously found that organizational support and co-worker support can suppress the effects of abusive supervision and encourage people to share knowledge (e.g., Anand and Dalmasso, 2019; Kim et al., 2016; Lee et al., 2017;), surprisingly, we found that, when confronted with positively perceived supervision in the investigated nomological network, organizational support tends to encourage knowledge-hiding behavior, whereas co-worker support tends to reduce it. When organizational support, embedded in implemented rules and norms, is perceived as significant, this could create a sense of strong psychological ownership among employees, and thus encourage them to hide knowledge to defend their territory (Peng, 2013). Knowledge hiding can reduce innovation in organizations and become a threat to the organizational innovation process (Khalid et al., 2018). However, it has been shown that knowledge hiding may be reduced if supervisors adopt transformational leadership behaviors (Ladan et al., 2017). As a consequence of our findings, we would propose that organizations should perhaps be advised to consider ensuring that supervisors are trained to develop strong interpersonal relationships with employees, which can help to facilitate knowledge-sharing activities. In firms, beyond implemented rules and norms, supervisors should be made aware of the significance of their role and of the importance of the global perception of their multi-faceted supervisory role to discourage knowledge-hiding behaviors. Even though, perception of supervision may be considered subjective, it does help to understand how this perception is built. As a consequence, some managers could perhaps rethink their supervision styles, which in turn might contribute to improved collaboration and increased productivity of their firm.

Finally, our results contribute to international management research. Although knowledge sharing is important in every organization, our findings are grounded and validated in a cross-cultural data set that includes American, Indian, and French respondents as well as respondents from various other nationalities, all of them working in international firms. According to Boddewyn (2004), international management requires not only unidirectional movement of international borders, but also two-directional learning encountered by managers outside their home environments. Indeed, the quality and value of relationships between employees and their supervisor is a significant feature of most

workplaces. However, cultural values play an important role in understanding how supervisors behave with co-workers, and how it may affect employees' response to various aspects of their work environment (Kernan *et al.*, 2011).

Therefore, managers / supervisors involved in managing and supervising subordinates, both physically and electronically, across various countries and cultural contexts, should pay specific attention as to how their behavior may be perceived through the lenses of different cultural values and norms as it will impact employee knowledge hiding behavior. Furthermore, and as cultural values are enacted differently at individual level (Debus *et al.*, 2019), and coworker support appears important to discourage knowledge hiding, this social support should be nurtured by managers, more particularly in multinational firms.

#### Limitations and Future Research

This study has some limitations that point to new avenues for future research. We had to apply the snowball sampling method because, early in the data collection process, we discovered the reluctance of employees to disclose their perceptions of their supervisors (sensitive population: Goodman, 2011). We also purposely targeted knowledge intensive firms in the present study. Our number of participants did not allow us include control variables and effect multi-group comparisons. To extend our work, future research could focus on other specific types of organizations or groups (e.g., manufacturing, online firms, small firms, start-ups, blue-collar workers, etc.), and use larger samples if possible. One could for instance investigate whether a different non-probability sampling method (e.g., guota sampling) and a higher number of respondents would lead to the same cut-off thresholds for hypotheses 3a and 3b (p values = 0.031 and 0.05 respectively), reduce them, or perhaps lead to the verification of our hypotheses 3a and 3b, which was not the case in this study. One could also conduct multi-group analyses based on age, seniority, and / or years of service within a firm. Also, exploratory qualitative studies could provide a deeper understanding of investigated phenomena and future research may, therefore, benefit from being conducted using this type of approach to investigate further the causality link in the relationships examined in our study.

Furthermore, characteristics such as self-serving leadership (Peng *et al.*, 2018) and personality antecedents, such as machiavellianism, narcissism, and psychopathy, have been found to impact knowledge-hiding behavior

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(Pan *et al.*, 2018). Therefore, another possible avenue for further investigation is whether the behavior of supervisors is primarily based on their own individual characteristics or if it is partly due to work situations. Our study included respondents of various nationalities, but we did not have a sufficient number of respondents to perform a multi-group comparison. Some of our findings could differ from one cultural context to the next since culture, norms and policies have been identified as important predictors of KS behavior (Wang and Noe, 2010). Future studies could therefore investigate and compare different cultural contexts.

# Conclusion

Hiding knowledge in organizations may be considered as unethical and unhealthy, leading to a reduction in employee innovation and a decrease in organizational performance (Hernaus *et al.*, 2019; Serenko and Bontis, 2016). With the aim of understanding individuals' knowledge-hiding behaviors in organizations, this empirical study investigated positively perceived supervision, modeled as a multi-dimensional construct with three different dimensions: supportive (work-family balance), fair, and non-abusive. The resulting index is found to negatively influence employees' knowledge-hiding behaviors in relation to their supervisors and co-workers. Furthermore, we found that co-worker support reduced the propensity of employees to hide knowledge from their co-workers, whereas, surprisingly, organizational support increased their propensity to hide knowledge from their supervisor and co-workers.

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# APPENDIX A Sample characteristics (N = 169)

	Characteristics	Frequency	Percentage (%)
Gender	Male	87	51.5
	Female	82	48.5
Age	Between 21 and 30	46	27.2
	Between 31 and 40	73	43.2
	Between 41 and 50	25	14.8
	Between 51 and 60	21	12.4
	More than 60	4	2.4
Country	France	81	47.9
	India	46	27.2
	USA	6	3.6
	Other	16	9.5
	N/A	20	11.8
Industry	Higher education institutions (Teach + Admin)	111	65.7
	IS consulting	16	9.5
	Manufacturing and sales	11	6.5
	Entertainment	5	3
	Finance	4	2.4
	E-commerce	3	< 2
	Human resources	3	< 2
	Travel	3	< 2
	Marketing	2	1.2
	Other (professional services, wellness, healthcare, sports)	11	6.5

APPENDIX B Details of the	e scales used*			
ABUS_SUP_1	My manager tells me my thoughts and feelings are stupid ®			
ABUS_SUP_2	My manager puts me down in front of others ®	Abusive supervision		Peng <i>et al.</i> (2014)
ABUS_SUP_3	My manager makes negative comments about me to others ®	insi		2012
ABUS_SUP_4	My manager doesn't give me credit for jobs requiring a lot of effort ®	Ab Ab		Ler
ABUS_SUP_5	My manager blames me to save himself/herself embarrassment ®	ى س		
SUPP_SUP_1	My manager is supportive when I have a personal problem	ce]	L L	02)
SUPP_SUP_2	My manager accommodates me when I have family or personal business to take care of, for example, medical appointments, meeting with child's teacher, etc.	Supportive supervision (Work-family balance)	erceived supervision	<i>al.</i> (2002)
SUPP_SUP_3	My manager is understanding when I talk about personal or family issues that affect my work	Supportive Supervision	sup	n et
SUPP_SUP_4	I feel comfortable bringing up personal or family issues with my manager	Su Su	eivec	Anderson <i>et</i>
SUPP_SUP_5	My manager really cares about the effects that work demands have on my personal and family life		Perce	And
FAI_SUP_1	Your manager's evaluation of your work reflects the effort you have put into it	e		11) 776)
FAI_SUP_2	Your manager's evaluation of you is appropriate for the work you have completed	Fair supervision (Distributive justice)		Colquitt (2001) Leventhal (1976)
FAI_SUP_3	The evaluation of your work by your manager reflects what you have contributed to the organization	' sup )istri just	,	entha
FAI_SUP_4	Your manager's evaluation of you is justified, given your performance			Leve
COWS_1_AF	My co-workers care about me			
COWS_2_AF	I feel close to my co-workers	Affective support	t	tin
COWS_3_AF	My co-workers take a personal interest in me	ffec	support	Mar 012
COWS_4_AF	My co-workers are friendly with me	_ < 0	s, sl	oo ai (2
COWS_5_IS	My co-workers would fill in if needed when I am absent	tal	kers	Ducharme and Martin (2000) Woo and Chelladurai (2012)
COWS_6_IS	My co-workers are helpful in getting job done	Instrumental support	Co-worker	harr 2001 Nella
COWS_7_IS	My co-workers give me useful advice on job problems, when needed	trur supl	င်	
COWS_8_IS	My co-workers will pitch in and help if needed	lus		
OS_1_VC	The organization values my contribution to its well-being	on sister		
0S_2_VC	The organization strongly considers my goals and values	on o vees utio		and
0S_3_VC	If I decided to quit the organization would try to persuade me to stay	Valuation of employees' contribution	t	
OS_4_VC	The organization cares about my opinions	alu emp	support	] ∑]
OS_5_VC	The organization feels that hiring me was a definite mistake ®	/ 0	l su	997 (20
OS_6_WB	The organization really cares about my well-being	,	nal	5, 1 Irai
OS_7_WB	Help is available from the organization when I have a problem	well-	Organization	Eisenberg (1986, 1997) Woo Chelladurai (2012)
OS_8_WB	The organization would ignore any complaint from me ®	, se	niz	g (` Jell
OS_9_WB	The organization is willing to extend itself in order to help me perform my job to the best of my ability	ye. beir	)rga	Ct Ct
0S_10_WB	The organization cares about my general satisfaction at work	Employees	0	sen
0S_11_WB	The organization shows very little concern for me ®	<u>–</u> Ц		ü
0S_12_WB	The organization cares more about making a profit than about me ®			

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•	•	•	•	•	•	•	•	•	•	•	•

### APPENDIX B Details of the scales used\*

When my manager asks for my help, I agree to help him/her but don't really intend to					
When my manager asks for my help, I agree to help him/her but instead I give him/her information different from what he/she wants	sive	or			
When my manager asks for my help, I tell him/her that I will help him/her out later but stall as much as possible	Eva hid				
When my manager asks for information, I offer him/her other information instead of what he/she really wants		npe	12)		
When my manager asks for information, I pretend that I do not have the information he/she needs			(2012)		
When my manager asks for information, I say that I do not know, even though I do	ving nb	fro	al.		
When my manager asks for information, I pretend I do not know what he/she is talking about	Play dur	dge	ly et		
When my manager asks for help on a topic, I pretend that I am not very knowledgeable about this topic		wle	onnelly		
When my manager asks for specific information that he/she knows I have, I pretend that this information is confidential and only available to people on a particular project	lized	ng kno	Con		
When my manager asks for knowledge that he/she knows I have, I tell him/her that our boss will not let anyone share this knowledge	hidir	Hidi			
When my manager asks for knowledge that I have, I say that I will not answer his/her questions	Rat				
When my co-workers ask for help, I agree to help them but never really intend to					
When a co-worker asks for help, I agree to help him/her but instead give him/her information different from what he/she wanted	sive	ers			
When a co-worker asks for help, I tell him/her that I will help him/her out later but stall as much as possible	Eva: hid	ork			
When a co-worker asks for help, I offer him/her some other information instead of what he/she really wants		<b>∧</b>   <b>∧</b>	12)		
When a co-worker asks for information, I pretend that I do not have the information he/she needs			(201		
When a co-workers ask for information, I say that I do not know, even though I do	/ing dr	fro	al.		
When a co-worker asks for information, I pretend I do not know what he/she is talking about	Play	dge	ly et		
When a co-worker asks for help on a topic, I pretend that I am not very knowledgeable about the topic		vled	onnelly		
When a co-worker asks for specific information that he/she knows I have, I explain that the information is confidential and only available to people on a particular project	lized	ng kno	Con		
When a co-worker asks for knowledge that he/she knows I have, I tell him/her that our boss will not let anyone share this knowledge					
When a co-worker asks for knowledge that I have, I say that I will not answer his/her questions	Rat				
	When my manager asks for my help, I agree to help him/her but instead I give him/her information different from what he/she wants         When my manager asks for information, I offer him/her other information instead of what he/she really wants         When my manager asks for information, I pretend that I do not have the information he/she needs         When my manager asks for information, I pretend that I do not have the information he/she needs         When my manager asks for information, I pretend that I do not know, even though I do         When my manager asks for information, I pretend that I an not very knowledgeable about this topic         When my manager asks for specific information that he/she knows I have, I pretend that this information is confidential and only available to people on a particular project         When my manager asks for knowledge that he/she knows I have, I tell him/her that our boss will not let anyone share this knowledge         When my manager asks for help, I agree to help him/her but instead give him/her information different from what he/she wanted         When my co-workers asks for help, I agree to help him/her but instead give him/her information different from what he/she wanted         When a co-worker asks for help, I offer him/her some other information instead of what he/she really wants         When a co-worker asks for help, I offer him/her some other information instead of what he/she really wants         When a co-worker asks for help, I agree to help him/her that I will help him/her out later but stall as much as possible         When a co-worker asks for help, I offer him/her some other informa	When my manager asks for my help, I agree to help him/her but instead I give him/her information different from what he/she wantsAn oppingWhen my manager asks for my help, I tell him/her that I will help him/her out later but stall as much as possibleMen my manager asks for information, I offer him/her other information instead of what he/she really wantsMen my manager asks for information, I pretend that I do not have the information he/she needsMen my manager asks for information, I pretend that I do not know went hough I doMen my manager asks for information, I pretend I do not know went hough I doMen my manager asks for information, I pretend I do not know what he/she is talking aboutMen my manager asks for information, I pretend that I am not very knowledgeable about this topicMen my manager asks for knowledge that he/she knows I have, I pretend that this information is confidential and only available to people on a particular projectMen my manager asks for knowledge that he/she knows I have, I tell him/her that our boss will not let anyone share this knowledgeMen my manager asks for help, I agree to help him/her user really intend toWhen my co-worker asks for help, I agree to help him/her bat i will help him/her out later but stall as much as possibleMen a co-worker asks for help, I agree to help him/her some other information he/she needsMen a co-worker asks for information, I pretend that I do not know what he/she is talking aboutMen my manager asks for information, I pretend that I do not know what he/she really wantsWhen a co-worker asks for help, I lett him/her that I will help him/her out later but stall as much as possibleMen a co-worker asks for information, I pretend that I do not know what he/she is talking aboutMen aco-worker asks for information, I pretend that I do not know what he/she i	When my manager asks for my help, I agree to help him/her but instead I give him/her information different from what he/she wantsasymptWhen my manager asks for information, I offer him/her other information instead of what he/she really wantsmanager asks for information, I offer him/her other information instead of what he/she really wantsmanager asks for information, I pretend that I do not have the information he/she needsmanager asks for information, I syst that I 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though I domanager asks for information, I say that I do not know what he/she is talking aboutmanager asks for information, I say that I do not know what he/she is talking aboutmanager asks for help, I agree to help him/her or ut atter but stall as much as possiblemanager asks for information, I say that I do not know what he/she is talking aboutmanager ask		

\*Items with the sign (a), were reversed. Items shaded in gray were removed. In aggregate constructs, it is generally advised that all first-order reflective dimensions be assessed with the same number of items (Ringle *et al.*, 2012). Therefore, we removed unnecessary items based on the smallest number of a dimension in the same construct, while verifying it did not alter Cronbach's alphas.

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•	•	•	•	•	•	•	•	•	•	•	•

# APPENDIX C MULTICOLLINEARITY - INNER MODEL

	VIF
Affective Support $\rightarrow$ Co-worker Support	2.592
Co-worker Support $\rightarrow$ Knowledge Hiding from Co-workers	1.292
Fair Supervision $\rightarrow$ Perceived Supervision	1.817
Instrumental Support $\rightarrow$ Co-worker	2.592
Non-abusive Supervision $\rightarrow$ Perceived Supervision	1.566
Organizational Support $ ightarrow$ Knowledge Hiding from Co-workers	1.691
Organizational Support $ ightarrow$ Knowledge Hiding from Managers	1.505
Perceived Supervision $ ightarrow$ Knowledge Hiding from Co-workers	1.531
Perceived Supervision $\rightarrow$ Knowledge Hiding from Managers	1.505
Supportive Supervision $ ightarrow$ Perceived Supervision	1.748
Valuation of contribution $\rightarrow$ Organizational Support	3.386
Well-being $\rightarrow$ Organizational Support	3.386



#### APPENDIX D Bootstrapping results using PLS-SEM method

