# ANTECEDENTS OF KNOWLEDGE HIDING IN ORGANIZATIONS:

# A STUDY ON KNOWLEDGE WORKERS

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## Abstract

The purpose of this research is to reveal the antecedents of knowledge hiding. In this context, workplace ostracism, abusive supervision, organizational injustice, distrust in coworkers, and career ambition were addressed as the antecedents of knowledge hiding. Research data were collected from employees of companies operating in the information technology (IT) industry in the İstanbul region of Turkey. Structural equation modeling (SEM) was used to test the hypotheses. According to the findings, workplace ostracism, abusive supervision, organizational injustice, distrust in coworkers, and career ambition positively and significantly affect knowledge hiding. The explanatory power of antecedents in relation to knowledge hiding is substantial *(R^2 = 0.702).* As a result, this research contributes to the literature by testing a comprehensive research model on the antecedents of knowledge hiding.

*Keywords*: *Organizational Behavior, Knowledge Hiding, Knowledge Workers, IT Industry.*

## 1. INTRODUCTION

In the management literature, knowledge hiding has attracted considerable attention since the seminal study of Connelly et al. (2012). Knowledge hiding is a common behavior in organizations. Organizations use different management styles to facilitate information sharing among employees. But, it is unrealistic to think that all employees want to share their knowledge (Xiao and Cooke, 2019). Many employees deliberately hide the knowledge demanded by organizations and colleagues. This fact is named knowledge hiding in the literature (Connelly et al., 2012; Zhao et al., 2019). Many employees in organizations do not share and hide their knowledge with others. Effective knowledge management is the main source of competitive advantage for organizations today (Gagné et al., 2019). In the literature, it is emphasized that knowledge hiding can have a negative effect on a firm's ability to be competitive and innovate (Černe et al. 2017; Butt, and Ahmad, 2019). Organizations can only benefit from individual knowledge when employees share their knowledge with other organization members (Burmeister et al., 2019). Therefore, it is necessary to find an answer to the question why employees hide their knowledge. This research aims to reveal the antecedents of knowledge hiding in order to find an answer to this question. The research model developed based on the purpose of the research is presented in Figure 1. Connelly et al (2019) emphasized that "there will be instances where the overall construct is of interest; in these cases, the entire measure should be used" (p. 780). Since this research aims to reveal the antecedents of the overall construct of knowledge hiding, not the antecedents of the individual dimensions of knowledge hiding, the above suggestion of Connelly et al. (2019) was followed.

This research is conducted on knowledge workers. Knowledge hiding is very common among such employees (Fong et al., 2018; Abubakar et al., 2019). In knowledge-intensive industries, it is valuable to be knowledgeable, and all benefits such as pay and promotion are linked to it. Therefore, knowledge workers can increase the benefits they obtain in the organization by hiding their knowledge from others (Jha and Varkkey, 2018). When the literature is examined, it is seen that the majority of studies focus on the consequences of knowledge hiding (Bogilović, Černe, and Škerlavaj, 2017; Fong et al., 2018; Arain et al., 2020) and there are relatively few studies examining the antecedents of knowledge hiding (Connelly et al., 2012; Zhao and Xia, 2017). In this study, workplace ostracism, abusive supervision, organizational injustice, distrust in coworkers, and career ambition are investigated as the antecedents of knowledge hiding. As a result, this research is expected to contribute to the literature as it tests a comprehensive research model on the antecedents of knowledge hiding.
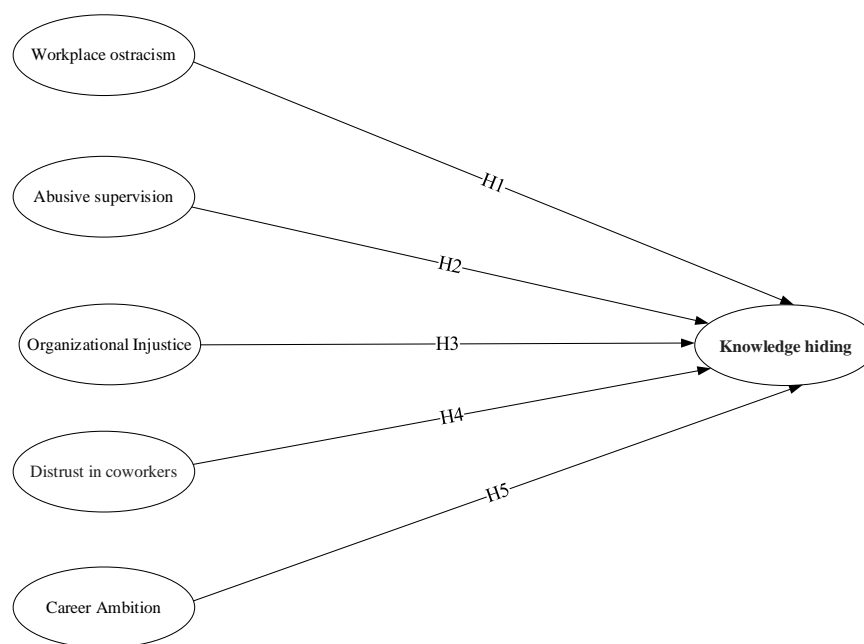
**Figure 1.** Research model

## 2. LITERATURE REVIEW

### 2.1. Knowledge Hiding

Knowledge hiding is "as an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person" (Connelly et al. ,2012, p. 65). Connelly et al. (2012) determined that the concept of knowledge hiding consists of three dimensions: evasive hiding, playing dumb, and rationalized hiding. Evasive hiding refers to giving false knowledge to the other party or making a fallacious promise for a response, although there is no intention to share knowledge in reality. Essentially, evasive hiding includes distraction and deception (Connelly et al., 2012). Playing dumb refers to pretending not to know the knowledge requested or to pretend not to understand what the person asking for knowledge is talking about (Connelly and Zweig, 2015). Rationalized hiding refers to providing justifications and explanations in order not to provide the knowledge to the person requesting knowledge. Rationalized hiding is not necessarily a scam, but instead includes providing reasonable explanations to hide demanded knowledge (Connelly et al., 2019).

### 2.2. Workplace Ostracism and Knowledge Hiding

Workplace ostracism is defined as "the extent to which an individual perceives that he or she is ignored or excluded by others" (Ferris et al., 2008; p. 1348). Workplace ostracism can

have negative consequences for organizations. For example, Zhao, Peng, and Sheard (2013) found that Workplace ostracism positively influences counterproductive work behavior. In this regard, workplace ostracism may increase knowledge hiding. This relationship mechanism can be explained based on the reciprocity principle of the social exchange theory (Blau, 1964). According to the principle of reciprocity, the individual perceiving a negative treatment responds to the other party with a negative behavior (Cropanzano and Mitchell, 2005). In other words, when the first party perceives that they are treated negatively, they will behave negatively towards the second party (Gürlek and Yeşiltaş, 2020). Previous studies emphasize that individuals who experience negative experiences in the workplace tend to hide more knowledge (Connelly et al. 2012; Riaz, Xu, and Hussain, 2019). When excluded individuals are faced with a request for knowledge, they may tend not to cooperate and may hide information (Zhao et al., 2016). Based on the above theoretical discussion, the following hypothesis has been proposed.

H$_1$. Workplace ostracism has a positive effect on knowledge hiding

## 2.3. Abusive Supervision and Knowledge Hiding

Tepper (2000) defined abusive supervision as "subordinates' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact" (p. 178). Abusive supervisors tend to mock, yell, and humiliate their subordinates (Feng and Wang, 2019; Gürlek and Yeşiltaş, 2020). Knowledge hiding may occur as a reaction to abusive supervision (Khalid, Gulzar, & Khan, 2020). According to the displaced aggression theory, the person who is treated badly can show her/his reaction to a more appropriate target rather than directly to her/his supervisors (Dollard et al., 1939; Hoobler and Brass, 2006). Generally, employees can show their reactions to other organization members instead of directly showing them to their supervisors due to retaliation and fear of being fired (Gürlek, 2020a). When employees see abusive treatment by their supervisors, they can try to take revenge by hiding knowledge from targets such as colleagues (Khalid et al., 2018). Based on the above arguments, the following hypothesis has been put forward. Based on the above arguments, the following hypothesis has been developed.

H$_2$. Abusive supervision has a positive effect on knowledge hiding

## 2.4. Organizational Injustice and Knowledge Hiding

Organizational injustice is defined as "an employee's belief that he or she (or someone else) has been treated unfairly" (Ambrose, Seabright, and Schminke, 2002, p. 950). Employees

may feel wronged if they feel that their rewards (awards, bonuses, promotions, etc.) are not proportional to their contribution (Jahanzeb, De Clercq, and Fatima, 2020). This bad experience affects their behavior negatively (Greenberg, 2010). Employees who experience injustice in the organization face sad and devastating consequences. Emotionally, individuals experience anger in the face of injustice and often try to correct the injustice they suffered by retaliation (Barclay and Skarlicki, 2009). In other words, employees who suffer injustice may try to equalize the score by hiding knowledge (Khalid et al., 2018). Hence, employees can hide their knowledge as a result of the injustice they experience. Researchers assume a relationship between organizational injustice and hiding knowledge (Huo et al., 2016; Jahanzeb, De Clercq, and Fatima, 2020). Perceived unfair treatment may increase hiding knowledge (Connelly et al. 2012). Based on the above theoretical background, the following hypothesis has been proposed.

H3. Organizational injustice has a positive effect on knowledge hiding

### 2.5. Distrust in Coworkers and Knowledge Hiding

Distrust in coworkers refers to the employee's confident negative expectations regarding coworkers' behavior (Lewicki, McAllister, and Bies, 1998; Liao and Chun, 2016). Interpersonal relationships affect whether the employee is likely to knowledge hiding (Arain et al., 2019). It is stated that employees tend to hide knowledge from coworkers they do not trust (Černe et al., 2014; Connelly and Zweig, 2015). When the level of distrust of the employee towards his / her coworkers is high, the possibility of hiding knowledge may increase (Wang et al., 2019; Singh, 2019; Butt and Ahmad, 2019) Based on the above theoretical discussion, the following hypothesis is presented.

H4. Distrust in coworkers has a positive effect on knowledge hiding

### 2.6. Career Ambition and Knowledge Hiding

In our age, knowledge is indisputably the main driving force of individual and organizational development (Gürlek, 2020b). Knowledge gives power, success and status to employees who own it (Jha and Varkkey, 2018). Knowledge is regarded as a factor that employees can use to improve their status in the organization. Individuals seeking power and position within the organization tend to hide or accumulate information. Individuals with a desire for power may try to make themselves indispensable for the organization by hiding information (Webster et al., 2008). In this regard, career ambition can increase knowledge hiding. Career ambition refers to the desire of employees to reach higher status positions within the organizational hierarchy (Gürlek, 2020c). Employees can raise their power and status in the

organization by possessing and controlling knowledge. Therefore, ambitious employees can develop a very strong psychological ownership of knowledge and can hide it from others (Peng, 2013). Individuals who want to climb the career ladder quickly can use their knowledge for their own purposes rather than sharing them with others. Therefore, career ambition can trigger Knowledge hiding. Based on the above arguments the following hypothesis has been proposed.

H$_5$. Career ambition has a positive effect on knowledge hiding

## 3. RESEARCH METHOD

### 3.1. Sample

Data were gathered from employees of companies operating in the IT industry in the İstanbul region of Turkey. The convenience sampling method was used to select both companies and employees. In order to collect data, HR managers were contacted and the purpose of the research was explained. Subsequently, they were asked to assist in data collection. A total of 18 companies agreed to participate in the research. While part of the questionnaires was delivered physically to the managers in the companies, the other part sent online. Managers were asked to distribute questionnaires to employees. A total of 500 questionnaires were delivered to companies. A total of 327 usable data were returned.

### 3.2. Scales

Knowledge hiding was evaluated using a 12-item scale developed by Connelly et al. (2012). Connelly et al (2019) stated that "there will be instances where the overall construct is of interest; in these cases, the entire measure should be used" (p. 780). This research aims to reveal the antecedents of the overall construct of knowledge hiding, not the antecedents of the individual dimensions of knowledge hiding. For this reason, knowledge hiding is addressed with a holistic approach within the scope of the research, and the overall measurement of knowledge hiding is focused. Overall measurement is consistent with the recommendation of Connelly et al. (2019). Workplace ostracism was measured using a 10-item scale developed by Ferris et al., (2008). Abusive supervision was measured using Tepper's (2000) short version of the Abusive supervision scale (Mitchell and Ambrose, 2007). Mitchell and Ambrose (2007) shortened the scale considering the active acts of abuse of the supervisors. This scale consists of five items. Organizational injustice was measured using a four-item scale developed by Hodson et al. (1994). Distrust in coworkers was measured with five items adapted from the study of McAllister, Lewicki, and Bies (2000). Career ambition was evaluated with four items from Van Vianen's (1999) study. The Turkish validity of the career ambition scale was

previously conducted by Gürlek (2020c). Therefore, the Turkish form of the scale was obtained from the researcher. Since all the other scales used in the study were taken from the English literature, a linguistic validity study was conducted. The scales were translated into Turkish using the back translation method (Brislin, 1976).

## 3.3. Data Analysis

Research hypotheses were tested with SmartPLS statistical software using PLS-SEM (Ringle et al., 2015). Hair et al. (2011) specified that "If the research is exploratory or an extension of an existing structural theory, select PLS-SEM" (p. 144). Considering that the relationships between the variables examined in this study have not been adequately examined, this research is exploratory. Therefore, it is convenient to use PLS-SEM. The research model was tested following the two-step approach (Anderson and Gerbing 1988). In the first step, the measurement model was tested to verify the validity of the measurements used. In the second step, the structural model was tested.

## 4. RESULTS

### 4.1. Measurement Results

Considering the above-mentioned suggestions of Connelly et al. (2019), knowledge hiding is included in the measurement model as overall structure. Besides, other variables are included as the first order because of their one-dimensional nature. Measurement model results are presented in Table 1. Average Variance Extracted (AVE) values were used to evaluate convergent validity. It was seen that AVE values were above 0.660. Therefore, convergent validity was established (Fornell and Larcker, 1981). Composite reliability (CR) values were used in the construct reliability (CR) assessment. It was determined that the CR values were above 0.900. Accordingly, composite reliability was fulfilled (Bagozzi and Yi, 1988). Finally, it was seen that Cronbach's Alpha values were above 0.80. Accordingly, each structure had internal consistency (Nunnally, 1978).

Table 1. Measurement model results

| Variables | *C .Alfa* | CR | AVE |
|---|---|---|---|
| Workplace ostracism | 0.945 | 0.954 | 0.722 |
| Abusive supervision | 0.872 | 0.907 | 0.661 |
| Organizational injustice | 0.873 | 0.913 | 0.725 |
| Distrust in coworkers | 0.871 | 0.912 | 0.722 |
| Career ambition | 0.897 | 0.928 | 0.764 |
| Knowledge Hiding | 0.943 | 0.951 | 0.617 |

First, Heterotrait-Monotrait (HTMT) criterion was used to evaluate the discriminant validity. As seen in Table 2, HTMT values were found to vary between 0.526 and 0.827. HTMT values lower than 0.85 indicates that the discriminant validity was fulfilled (Henseler et al., 2015). Second, Fornell-Larcker criteria was also used to control the discriminant validity. It was found that the square root of each AVE (values in bold) is greater than the inter-construct correlations (see Table 2). This result shows that discriminant validity was fulfilled (Fornell and Larcker, 1981).

Table 2. Discriminant validity

| HTMT criteria | 1 | 2 | 2 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1.Organizational injustice | | | | | | |
| 2. Knowledge Hiding | 0.706 | | | | | |
| 3. Workplace ostracism | 0.535 | 0.688 | | | | |
| 4.Distrust in coworkers | 0.526 | 0.762 | 0.827 | | | |
| 5.Career ambition | 0.696 | 0.784 | 0.538 | 0.645 | | |
| 6.Abusive supervision | 0.585 | 0.730 | 0.629 | 0.601 | 0.813 | |
| **Fornell-Larcker criteria** | | | | | | |
| 1.Organizational injustice | **0.852** | | | | | |
| 2. Knowledge Hiding | 0.654 | **0.785** | | | | |
| 3. Workplace ostracism | 0.512 | 0.659 | **0.850** | | | |
| 4.Distrust in coworkers | 0.476 | 0.692 | 0.755 | **0.850** | | |
| 5.Career ambition | 0.625 | 0.729 | 0.505 | 0.574 | **0.874** | |
| 6.Abusive supervision | 0.530 | 0.668 | 0.577 | 0.527 | 0.729 | **0.813** |

**4.2. Hypotheses Tests**

According to SEM results, SRMR value is 0.070. According to this result, the research model fits well with the data (Hu and Bentler, 1999). Test results are shown in Table 3. According to the findings, workplace ostracism positively and significantly affects knowledge hiding ($\beta = 0.138$; $p < 0.05$). Abusive supervision positively and significantly affects knowledge hiding ($\beta = 0.147$; $p < 0.05$). Organizational injustice affects knowledge hiding positively and significantly $\beta = 0.215$; $p < 0.001$). Distrust in coworkers positively and significantly affects knowledge hiding ($= 0.252$; $p < 0.001$). Career ambition positively and significantly affects knowledge hiding ($\beta = 0.279$; $p < 0.001$). According to these findings, $H_1$, $H_2$, $H_3$, $H_4$ and $H_5$ were supported. When evaluated in terms of explanatory power, the total variance of knowledge hiding explained by antecedents is quite high ($R^2 = 0.702$).

Table 3: Hypothesis test results

|  | β | t value | p value | Result |
|---|---|---|---|---|
| H$_1$: Workplace ostracism -> Knowledge hiding | 0.138 | 2.225 | 0.05 | Supported |
| H$_2$: Abusive supervision -> Knowledge hiding | 0.147 | 2.343 | 0.05 | Supported |
| H$_3$: Organizational injustice-> Knowledge hiding | 0.215 | 4.804 | 0.001 | Supported |
| H$_4$: Distrust in coworkers -> Knowledge hiding | 0.252 | 3.715 | 0.001 | Supported |
| H$_5$: Career ambition -> Knowledge hiding | 0.279 | 5.546 | 0.001 | Supported |

## 5. Conclusion and Discussion

In the literature, there has been considerable interest in why employees share knowledge, while there is little interest in why they hide their knowledge (Singh, 2019). Knowledge hiding is common in organizations. For example, Peng (2013) reported that 46 of the knowledge workers hide knowledge. It is reported that Fortune 500 companies lost at least 31.5 billion dollars annually due to problems in sharing knowledge (Babcock, 2004). Therefore, there is a need to reveal the antecedents that contribute to knowledge hiding in the workplace. In other words, it is necessary to find an answer to the question of why employees hide their knowledge. Based on the question above, this research aimed to reveal the antecedents of knowledge hiding. The research sample consists of knowledge workers from the IT industry. The reason why the research was conducted on knowledge workers is that knowledge hiding is observed intensively among such workers (Jha and Varkkey, 2018).

Research findings show that workplace ostracism, abusive supervision, organizational injustice, distrust in coworkers, and career ambition positively and significantly affect knowledge hiding. Accordingly, employees who are excluded by other organization members in the workplace hide the knowledge they have. This finding is consistent with previous literature (Zhao et al., 2016; Riaz and Hussain, 2019). Verbal and non-verbal hostile behaviors of supervisors trigger employees to hide information. This finding is consistent with previous theoretical assumptions (Khalid et al., 2018; Feng, and Wang, 2019). Employees who perceive unfair treatment hide more information. In this regard, organizational injustice is among the determinants of information retention, consistent with the previous theoretical background (Jahanzeb et al., 2020). According to the findings, distrust in coworkers triggers knowledge hiding. This finding confirms the assumptions of Connelly et al. (2019). In addition, individuals who want to gain power and position within the organization tend to hide knowledge. Ambitious employees develop very strong ownership of knowledge and hide it from others.

This research provides the following contributions to the literature and practitioners. The majority of previous research has focused on the consequences of knowledge hiding (e.g.

Bogilović et al., 2017). However, there are relatively few studies examining the antecedents of knowledge hiding (e.g. Zhao and Xia, 2017). For this reason, this research contributes to the literature by testing the five antecedents of knowledge hiding together around a comprehensive model. Moreover, this research contributes to practitioners by showing the factors that cause employees to hide knowledge to organizations and managers.

This research has several limitations. This research is cross-sectional. Future research may collect longitudinal data. The research was conducted on a limited sample. Future research could be conducted on larger samples. This research focused on knowledge workers working in the information technology industry. Future research could be conducted in other industries. Within the scope of the research, five antecedents of knowledge hiding were identified. Other studies may test more comprehensive models. Although this research addresses the antecedents of knowledge hiding, it does not examine the conditions under which employees hide knowledge. In this regard, future research can include moderator variables in the research model.

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