

# KNOWLEDGE HIDING IN SMALL MEDIUM ENTERPRISE OWNED BY FAMILY BUSINESS: THE ROLE OF KNOWLEDGE COMPLEXITY, PSYCHOLOGICAL OWNERSHIP AND AVOIDANCE MOTIVATION

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## Abstract

This study aims to formulate and answer phenomena related to the competitiveness of family business-based SMEs in the era of disruption from the perspective of knowledge hiding behavior (KHB), which is influenced by knowledge complexity (KC), psychological ownership (PO) and moderated by avoidance motivation (AM). This research is a survey research type with a quantitative approach. The analytical technique used is SEM-PLS with the help of analysis tools using SMART-PLS 3.0. In addition, simple slope analysis is used to see the moderating role of avoidance motivation in moderating the effect of psychological ownership on knowledge hiding. Respondents in this study were 187-line managers from 78 SMEs. The sampling technique used was non-probability sampling with a saturated sampling method. The results showed that all hypotheses were accepted, which means that psychological ownership has a positive and significant effect on knowledge sharing, and avoidance motivation can moderate psychological ownership on knowledge sharing. This study contributes to examine the source and effect KHB, thereby providing a method for SMEs, particularly in Indonesia, to effectively reduce KHB. This study also finds AM as a moderating variable that modulates the effect of KC on KH, whereas this was rarely explored in earlier study.

**Keywords:** Avoidance Motivation; Knowledge Complexity; Knowledge Hiding; Psychological Ownership

**JEL Classification:** D83, D91, L32

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## INTRODUCTION

Indonesia is one of the G-20 countries that has contributed significantly to improving the world economy after the Covid-19 pandemic. Indonesia's GDP

growth before the Covid '19 pandemic in 2018 reached 5.07%, with a GDP value of \$ 10,425 trillion, where the growth was consistently positive in the 2010-2017 period (Worldbank.org, 2021). One of the

business sectors that contributes significantly to the Indonesian economy is the SME sector or small-medium enterprise (SME). SME is the most critical business sector in the Indonesian economy, almost 97 percent of Indonesia's workforce is absorbed in the business sector and contributes 61.07 percent to Indonesia's GDP. However, the SME sector's contribution to GDP decreased in 2019 due to the pandemic (Kemenkopukm.go.id, 2020). The central government carried out several efforts, such as providing working capital, digital guidance, and marketing to revive the SME sector (Kemenkeu.go.id, 2021). Therefore, this research is expected to assist efforts to revive the SME sector during a pandemic by increasing sustainability and good competitive advantage.

Based on the knowledge-based view (KBV), a good and sustainable competitive advantage can be obtained by disseminating the knowledge possessed to produce better production outputs and using knowledge to meet market needs and win market share in their business sector (Grant, 1996; Martín-de Castro et al., 2011). During the Covid-19 pandemic, Christa and Kristinae, (2021) found that SMEs in Indonesia who share knowledge and utilize this knowledge to produce product innovations can survive the crisis with sustainable business performance. In addition, innovation in product output and knowledge-based work methods can be practical tools for companies to survive in disruption and digitalization (Yu et al., 2013). Applying relevant knowledge to produce better product output can improve the quality of a sustainable business through product innovation and market dominance (Mejri et al., 2018). Therefore, managing the knowledge capacity of SMEs is very important for business sustainability.

For knowledge to become an object of ownership, it must possess certain features that initiate the process of ownership formation (Peng, 2013; Xinyan and Qin,

2006). The identification of these qualities was based on two key factors. First, the features should be intrinsic to a piece of knowledge but not necessarily relevant to an individual. Therefore, they should not necessitate an individual's perception but could be objectively defined if necessary. Second, they must be appealing and applicable in the context of ownership, i.e., they must be able to address the routes to build ownership feelings (Pierce and Jussila 2011). Although several alternative qualities exist, this research concentrates on the complexity of knowledge. The complexity of an object is crucial when addressing its function: e.g., job complexity in understanding the development of job-related ownership (Pierce and Jussila 2009), task complexity in understanding information processing (Browne et al. 2007; Bystrom and Jarvelin 1995), and knowledge complexity in studying hiding (Connelly et al. 2011). Complexity is also a crucial characteristic of knowledge (Teece 1987). Uniqueness was chosen due to the innate human drive to own, an essential component of psychological possession (Grandori 2001). With distinctive products and personal profiles, individuals strive to demonstrate their uniqueness and attempt to distinguish themselves from others (Snyder and Fromkin 1980).

However, in organizational practice, SME business actors often do not share their knowledge with employees or the business community, so company innovation is hampered and not relevant to dynamic environmental conditions (Hadjielias et al., 2022). SMEs in several contexts and business sectors globally are often owned and managed by family businesses (Howorth et al., 2014). SMEs managed by family businesses seek to seek, collect, and manage business knowledge for future generations of their families to have a business advantage compared to their competitors. Hence, knowledge hiding is crucial for family businesses (Howorth & Robinson, 2021).

However, Bock et al. (2005) explained that companies that have closed information and knowledge flow cause the knowledge capacity of employees in several production lines to be below so that employee and business performance is lower than in companies that have available information and knowledge flows. Previous research found that knowledge hiding in organizations can harm organizations, such as disrupting organizational functionality (Gagné, 2009), reducing organizational creativity and productivity (B. L. Connelly et al., 2011), and hampering business unit performance (Steinel et al., 2010). Negative reciprocal relationships between employees (Černe et al., 2012) reduce the business's growth potential and effectiveness (Haas & Park, 2010). Therefore, this study focuses on knowledge hiding behavior in SMEs managed by family businesses.

One of the factors that can influence the behavior of individuals doing knowledge hiding is psychological ownership (Wang et al., 2019). Psychological ownership is an individual's perception of the ownership relationship of an object with their self-concept and makes the object a part of themselves (Pierce et al., 2003). In the world of work, knowledge related to work and industry results from the accumulation of individual interactions with work. It becomes an essential part of the individual's self-identity in their business (H. Peng & Pierce, 2015). When employees share knowledge related to their work and business, they will feel they lose the exclusivity of ownership of expertise in their work, which threatens their self-identity in their work (Pierce et al., 2003).

In the context of a family business, psychological ownership reflects high stewardship in the company (Neubaum & Krämer, 2017). Employees with stewardship behavior have a strong sense of ties to the organization and have a high level of psychological ownership of the company (le Breton-Miller & Miller, 2009; Vallejo, 2009). Azizi et al., (2021) found that the

level of employee stewardship in family businesses is higher when compared to non-family business firms and shows a high level of competitive advantage with employee stewardship behavior. However, stewardship behavior by employees can harm the knowledge transfer process within the organization and lead to knowledge hiding behavior so that organizational innovation can be hampered and function on the production line can be dependent (Hadjielias et al., 2022). Hadjielias et al. (2022) describe the influence of stewardship on knowledge hiding behavior qualitatively. Research that explains the relationship between stewardship and knowledge hiding empirically is still very limited. Therefore, this study aims to empirically explain the relationship between stewardship and knowledge hiding by testing the effect of psychological ownership as a reflection of stewardship on knowledge hiding behavior.

In the relationship between psychological ownership and knowledge hiding, motivational factors can strengthen and weaken the relationship between the two variables, namely avoidance motivation (Wang et al., 2019). Avoidance motivation is an impulse to behave based on the desire to avoid losses, losses, and negative outcomes (Elliot et al., 2006; Ferris et al., 2013). Employees with strong psychological ownership and high avoidance motivation will try to avoid losing their business advantages which are part of their identity, so these employees are more likely to behave in guarding valuable assets such as business knowledge to reduce the risk of losing their business advantage (Elliot & Thrash, 2002; Wang et al., 2019). However, suppose employees with high psychological ownership and low avoidance motivation will have a low tendency of knowledge hiding compared to employees with low psychological ownership and low avoidance motivation (Wang et al., 2019). In that case, it shows that employees with high psychological

ownership will tend to conduct knowledge sharing to improve their business performance when the employee does not focus on the risk of losing organizational excellence (Wang et al., 2019). Hadjieilias et al. (2022) also argue that employees with strong psychological ownership in family companies are willing to share knowledge if the employee is not afraid of losing business advantage because of high trust in knowledge recipients. Therefore, in this study, it is predicted that employees with psychological ownership tend to do knowledge hiding when they have high avoidance motivation.

Research related to knowledge hiding in family companies is very limited. Hadjieilias et al. (2022) explain the knowledge hiding in family companies due to strong stewardship in the organization. However, the research was conducted qualitatively in one SME sector (agriculture) and has not been tested empirically. Research Wang et al. (2019) explain that employees' knowledge hiding behavior is influenced by psychological ownership empirically. However, the study was not conducted in family companies and was based on psychological ownership in individual jobs. Therefore, this study aims to examine the effect of knowledge complexity, psychological ownership on knowledge hiding in SME family companies with avoidance motivation as a moderating variable.

## LITERATURE REVIEW

The fundamental relationship between employees may influence their behavior, particularly in workplace knowledge management. However, it is also crucial to evaluate the qualities of the information itself, which may influence employees' intent to hide it (Connelly, 2011). Complexity is one of the properties of knowledge (Connelly, 2015; Scuotto et al., 2022). Therefore, the complexity of the knowledge influences the employees' knowledge transfer. This conduct is rationalized by the fact that employees

invest time and effort to acquire complex knowledge for their career growth and performance to enhance their competencies. Therefore, when peers want highly intricate knowledge, it will be difficult for the requester to acquire it. The "owner" of the knowledge tends to avoid losing it, thereby enhancing a peer's competitive advantage. It is comparable to the psychological ownership hypothesis, which states that employees tend to develop a sense of ownership when they invest time, energy, effort, and money in obtaining specific information (Xiao & Cooke, 2019). In addition, once people form strong ties to their knowledge, they will be less reluctant to share it since they will view it as a threat to their ownership.

Several research has investigated the influence of knowledge complexity (KC) on knowledge hiding (KH) behavior. For example, the study by J. Peng et al. (2019) centered on the complexity of knowledge, which is also recognized as a crucial factor in defining employee hiding practices. Connelly & Zweig (2015) discovered that people commonly hide knowledge, particularly advanced information. Kumar Jha & Varkkey (2018) asserted that when the demand for knowledge is straightforward, individuals are more likely to employ playing dumb or reasoned hiding strategies to hide knowledge, as they believe that feigning ignorance of the answer or providing diplomatic responses is the quickest way to stop others from requesting knowledge. Conversely, employees frequently adopt evasive hiding techniques to hide knowledge when knowledge queries are difficult and complex because they believe that by evading or offering incomplete answers, they have helped others, even if the value is negligible.

H<sub>1</sub>: Knowledge complexity positively effect on knowledge hiding behavior

Knowledge-based view (KBV) is a new concept and different from the Resource-based View (RBV) and market-based view

(MBV), which can affect the performance of a business. KBV explains that knowledge in various forms is an important basis for building human resource capabilities and interactions in solving organizational problems faced (Caputo et al., 2019). In the RBV concept, the value and profitability of a business depend on the internal resources and capabilities (Grant, 1996; Makhija, 2003). Meanwhile, MBV explains that the value and profitability of a business are influenced by the economy of the business sector and the orientation of the business to gain a position in the market (Tallman, 1991; Makhija, 2003). In the KBV concept, the company's internal capabilities and external market orientation are determined by the management of the knowledge possessed. This knowledge is disseminated into innovations that can increase the company's ability to produce better product output and adjust market needs (Mejri et al., 2018). To disseminate knowledge into innovations that can impact business performance, knowledge sharing is needed at every level in the organization so that business processes can be moved to achieve sustainable business quality improvements (Mejri et al., 2018). Therefore, knowledge sharing is a key activity in the organization on the KBV concept.

In a family business, knowledge is a very valuable asset in addition to capital and labor (Sparrow, 2001). Knowledge in family businesses is very important to produce high-quality products and differentiate them from competing products (Cruz, 2020) which creates a competitive advantage for the family company (Lobley et al., 2016). This knowledge can be the key to the success of a family business to survive in business competition with innovation and experience (Šūmane et al., 2018). Knowledge in family businesses is often tacit (attached to the owner), resulting from business experience. This knowledge is fragile to be lost and forgotten if not

passed on to the next generation (Chirico, 2008). In addition, external knowledge is also important for family businesses to fill knowledge gaps and increase business innovation (Ensley & Pearson, 2005). Therefore, knowledge transfer is important to maintain business sustainability from generation to generation (Lobley & Baker, 2016).

In family businesses, knowledge is often kept secret and hidden by business owners, so knowledge is at risk of being lost and forgotten (Hadjielias et al., 2022). This knowledge masking behavior in this study is defined as knowledge hiding. Cerne et al. (2014) define knowledge hiding as a deliberate attempt to cover or store knowledge requested by others. Connelly et al. (2012) also define knowledge hiding as an individual's attempt to withhold and cover up relevant knowledge. The transfer of knowledge in family businesses is often hampered by attempts to hide knowledge (Gimenez-Fernandez et al., 2021). Sparrow (2001) explains that family business SMEs often limit the transfer and diffusion of knowledge by avoiding training and self-development opportunities for other employees, especially new employees and non-family members. Efforts to do knowledge hiding in family businesses are carried out to maintain business excellence which is the identity of the family business, so that it can survive in the family business from generation to generation (Fitz-Koch et al., 2019). The phenomenon of knowledge hiding is very strong in family businesses to maintain the continuity of their business (Gimenez-Fernandez et al., 2020). However, this behavior can hinder innovation and disrupt the function of operational lines due to knowledge gaps (Gagne, 2009).

In the concept of stewardship theory, employees in organizations adhere to a shared mission and a pro-social culture and focus on non-financial goals (Davis et al., 1997; James et al., 2017). In organizations with a strong stewardship climate, emplo-

employees identify with the organization where employees feel the company is part of their identity (Neubaum et al., 2017). Stewards employees tend to have a strong level of psychological ownership in the organization where the individual feels that the organization is part of his identity and feels that the success and sustainability of the organization is a success for him (Le Breton-Miller & Miller, 2009). Hadjielias et al. (2022) explain how the phenomenon of knowledge hiding in a family business is based on strong stewardship with a high level of psychological ownership for owners and senior employees. Wang et al. (2019) explain that psychological ownership is a strong driving factor for individuals to do knowledge hiding. Psychological ownership is an individual's perception of the ownership relationship of an object with their self-concept and makes the object a part of themselves (Pierce et al., 2003).

In the world of work, knowledge related to work and industry results from the accumulation of individual interactions with work. It becomes an important part of the individual's self-identity in their business (H. Peng & Pierce, 2015). When employees share knowledge related to their work and business, they will feel that they lose the exclusivity of ownership of expertise in their business, thus threatening their self-identity and competitive advantage (Pierce et al., 2003; Wang et al., 2019). But on the contrary, if employees maintain job confidentiality related to business knowledge, they can maintain the continuity of their identity with their job skills (Pierce et al., 2003; Wang et al., 2019). Therefore, employees with high psychological ownership will tend to do knowledge hiding to maintain the identity of an expert on the job.

In the context of a family business, psychological ownership reflects high stewardship in the company (Neubaum et al., 2016). Employees with stewardship behavior have a strong sense of ties to the organization and have a high level of

psychological ownership of the company (Le Breton-Miller & Miller, 2009; Vallejo, 2009). Azizi et al. (2022) found that the level of employee stewardship in family businesses is higher when compared to non-family business firms and shows a high level of competitive advantage with employee stewardship behavior. However, stewardship behavior by employees can harm the knowledge transfer process within the organization and lead to knowledge hiding behavior so that organizational innovation can be hampered and function on the production line can be dependent (Hadjielias et al., 2022). Hadjielias et al. (2022) describe the influence of stewardship on knowledge hiding behavior qualitatively, and research that explains the relationship between stewardship and knowledge hiding empirically is still very limited. Therefore, this study aims to empirically explain the relationship between stewardship and knowledge hiding by testing the effect of psychological ownership as a reflection of stewardship on knowledge hiding behavior. Therefore, in this study, the following hypothesis was formulated:

H<sub>2</sub>: Psychological ownership positively effect on knowledge hiding behavior

In the relationship between psychological ownership and knowledge hiding, motivational factors can strengthen and weaken the relationship between the two variables, namely avoidance motivation (Wang et al., 2019). Referring to the approach/avoidance motivation model, individuals have sensitivity to positive and negative stimuli attached to the mindset and mentality of the employee (Elliot & Thrash, 2002). Avoidance motivation is an impulse to behave based on the desire to avoid losses, losses, and adverse outcomes (Eliot, 2006; Ferris et al., 2013). Approach motivation is an impulse to behave based on the desire to get exciting and profitable results (Eliot, 2006; Ferris et al., 2013). In other words, approach/avoidance explains the orientation of individual thinking on

the outcome of behavior or oriented to the risk of loss (Ferris et al., 2013). Pierce et al. (2003) explained that the effect of psychological ownership on negative behavior could be different depending on the individual's orientation to threats that can interfere with the individual's relationship with the object and the desire to avoid the relationship of others with the same object. In this study, the effect of psychological ownership can be different on knowledge hiding behavior depending on the individual's level of orientation to risk avoidance or avoidance motivation.

Employees with solid psychological ownership and high avoidance motivation will try to avoid losing their business advantages which are part of their identity, so these employees are more likely to behave in guarding valuable assets such as business knowledge to reduce the risk of losing their business advantage (Elliot & Thrash, 2002; Wang et al., 2018). However, if employees with high psychological ownership and low avoidance motivation will have a low tendency of knowledge hiding compared to employees with low psychological ownership and low avoidance motivation (Wang et al., 2019), it shows that employees with high psychological ownership will tend to conduct knowledge sharing to improve the company's business performance when the employee does not focus on the risk of losing organizational excellence (Wang et al., 2019). Hadjielias et al. (2022) also argue that employees with solid psychological ownership in family companies are willing to share knowledge if the employee is not afraid of losing business advantage because of high trust in knowledge recipients. Therefore, the research hypothesis is formulated as follows:

H<sub>3</sub>: Employees with psychological ownership tend to do knowledge hiding when they have high avoidance motivation.

[Figure 1](#) describe conceptual framework in this study.

## RESEARCH METHODS

This study employs quantitative data analysis techniques such as structural equation modeling partial least squares (SEM-PLS) analysis with SmartPLS 3.0 software. This study examines moderating variables between exogenous and endogenous variables using interaction analysis techniques. The information comes from international corporations that manufacture plastic packaging. The sampling technique is non-probability sampling with a convenience sampling method using a questionnaire. the measurement scale uses a Likert scale 1-5 with criteria 1 = Extremely disagree; 2 = Disagree; 3 = In doubt; 4 = Agree and 5 = Extremely agree (Joshi et al., 2015). The organization has 186-line managers chosen from a pool of 224 employees from 78 family business SMEs.

The survey questions used to explain the variables were modified from prior studies, and the indicators used to quantify knowledge complexity were adapted from (Pérez-Luño et al. (2019) while knowledge hiding behavior were adapted from Connelly et al.'s research (2011). Brown et al. (2014) study was used to adjust the markers used to quantify psychological ownership. Furthermore, Carver & White (1994) modified the markers utilized to assess avoidance motivation. [Table 1](#) describe operational of variables.

## RESULT AND DISCUSSION

### Result

The sample used in this study consisted of 186 respondents from 78 SMEs in Indonesia. 43.6% of the respondent are male and 56.4% are female. With the most types of SME industry being culinary, reaching 50.6%, both the fashion or apparel sector is 29.5%, and the handicraft industry (Handicraft) is 12.4% and others 7.5%. The education levels of most respondents were SMA (46.2%), Junior High School (39.2%), S1 (11.8%), and Masters (2.8%).

The outer model generates tests for validity and reliability. The validity test was carried out to determine the precision with which the questionnaire question items measured the research variables. The outside loading is measured using this technique. The question item is judged valid if the outer loading generates a value greater than 0.5. Table 2 shows the convergent validity test findings for each research variable.

Table 3 shows that all items in this study have an outer loading above 0.5. So, each of the research questions is valid and can be used to measure the construct. Then the reliability test of each variable showed promising results. The value of Cronbach's alpha was more significant than 0.6, with the value of each knowledge complexity of 0.782 psychological ownership of 0.919; avoidance motivation is 0.920, and knowledge hiding behavior is 0.926. This shows that the question items on all research variables have consistency in measuring each variable at different times and places. In other words, all research variables can be said to be reliable and can be used in the research model.

Figure 2 also shows that each indicator has shown a loading factor value greater than 0.6, which means that this result validates and concludes that all indicators can be used as a measure for the latent variables of knowledge complexity, psychological ownership, avoidance motivation and knowledge hiding behavior.

The next validity test is discriminant validity. The discriminant validity can be tested with Fornell-Larcker Criterion. The square root value of the average variance extracted (RAVE) must be greater than the correlation between the construct variables studied (Fornell & Larcker, 1981). The RAVE results from SmartPLS are presented in Table 4. It can be seen that the Fornell-Larcker Criterion results show that all RAVE values of the construct variables are more significant than any correlation with other constructs. In addition to looking at RAVE, you can also assess

discriminant validity by looking at the value of the cross-loading factor.

In Table 5, it can be seen that the results of the cross-loading factor between variables suggest that the value of the cross-loading factor of each question indicator has a more excellent value in the specified construct compared to the other constructs. As a result, the inquiry indicator can only explain the described construct variable and cannot explain other variables.

The approach of structural equation modeling - partial least squares - was employed by the researchers in this study. The SEM-PLS analysis will generate an inner model describing the relationship between the variables. If the inner or structural model fits certain characteristics, it is deemed to be good and can be employed in research. Table 6 shows the findings of the researcher's goodness study of the model. There must be at least one good criterion among the criteria (Hair et al., 2017). The structural model produced good analytical results in this investigation, with a tremendous SRMR value of 0.063, which is less than 0.08. According to Hu and Bentler (1999), the cut-off value of SRMR is 0.08 and not more than 0.2; the SRMR value in this research model is acceptable because it is less than 0.08. This research model is fit according to SmartPLS's model fit criteria.

Furthermore, if the inner model meets the R-square and Q-Square criteria, it is deemed suitable and can be employed in research. According to Hair et al. (2017), the structural model is possible if the R-square value is close to one. At Figure 2, the R-square structural model produces good results, with the R-square value nearing one, which is 0.732. This demonstrates that the factors of knowledge complexity, psychological ownership, and avoidance motive may explain 73.2 percent of the knowledge hiding behavior variable. As a result, the structural model in this study fits.



This hypothesis is based on a significance value  $<0.05$  on the path coefficient. If the significance value is less than 0.05, then variables are influenced, and the hypothesis is accepted (Hair et al., 2017). The results of hypothesis testing can be seen in [Table 7](#).

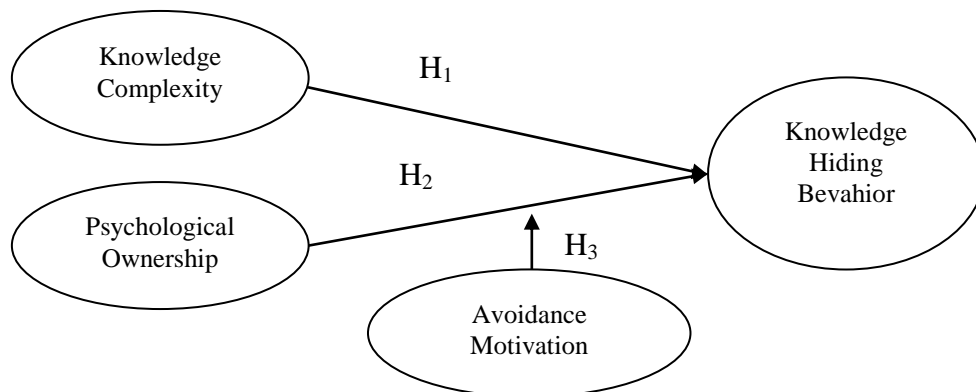
H<sub>1</sub> in this study is knowledge complexity has a significant positive effect on knowledge hiding behavior. The parameter results of the influence of the psychological ownership variable on knowledge hiding behavior showed significant results with a significance value of 0.036 ( $p < 0.05$ ) and a value  $> 1.96$  of 18.362. The path coefficient value is 0.744. Based on this, then hypothesis 1 can be accepted.

H<sub>2</sub> in this study declared psychological Ownership has a significant positive effect on knowledge hiding behavior. The parameter results of the influence of the psychological ownership variable on knowledge hiding behavior showed significant results with a significance value of 0.036 ( $p < 0.05$ ) and a value  $> 1.96$  of 2.091. The path coefficient value is 0.092. Based on this, then hypothesis 1 can be accepted. H<sub>3</sub> in this research stated employees with psychological ownership tend to do knowledge hiding when they have high avoidance motivation.

The parameter results of the interaction of psychological ownership variables with avoidance motivation on knowledge hiding behavior showed significant results with a

significance value of 0.000 ( $p > 0.05$ ) and an at-value of  $< 1.96$ , which was 2.753. The path coefficient value is 0.112. The following explains the effect of moderation in Figure 2.

[Figure 3](#) shows the slope of the regression line for the influence of psychological ownership on knowledge hiding behavior. For employees with high avoidance motivation, the effect of psychological ownership on knowledge hiding behavior is higher when compared to employees with low avoidance motivation. For employees with high avoidance motivation (+1 SD), where the employee is more sensitive to threats, risks, and negative impacts of sharing knowledge, psychological ownership of knowledge hiding behavior is greater. In contrast, high psychological ownership (-1.00) indicates the value of knowledge hiding behavior of 0.35. Meanwhile, for employees with low avoidance motivation (-1 SD), the effect of psychological ownership on knowledge hiding behavior is negative, where low psychological ownership (-1.00) causes the value of knowledge hiding behavior to be -0.12, and high psychological ownership (+1 SD) indicates the lower value of knowledge hiding behavior is -0.17. This shows that the effect of psychological ownership on knowledge hiding behavior is more significant for employees with high avoidance motivation. Thus, it can be concluded that hypothesis 3 can be accepted.



**Figure 1.** Conceptual Framework

**Table 1.** Variable of Research Operations

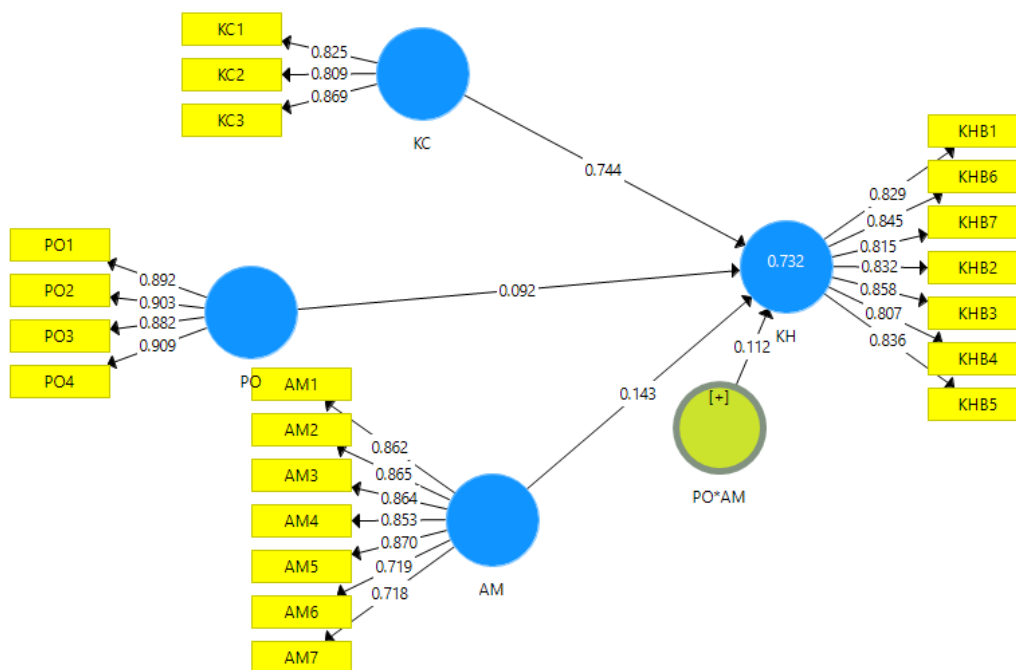
Variable	Item	Source
Knowledge Complexity	3	Perez-Luno et al. (2019)
Psychological Ownership	4	Brown et al. (2014)
Knowledge Hiding	7	Connelly et al. (2011)
Avoidance Motivation	7	Carver & White (1994)

Source: explored by researcher (2022)

**Table 2.** Validity and Reliability Test

Item	Statements	Outer Loading
<b>KC 1</b>	Description of the knowledge used in your organization requires a large amount of information	<b>0.825</b>
<b>KC 2</b>	The knowledge used in your organization is technologically sophisticated and difficult to implement	<b>0.809</b>
<b>KC 3</b>	The knowledge used in your organization is complex (vs simple)	<b>0.869</b>
<b>Knowledge Complexity Cornbach's alpha</b>		<b>0.782</b>
<b>PO1</b>	I feel this company is a part of me where the company's business success is my success.	<b>0.892</b>
<b>PO 2</b>	In my mind, This company is mine	<b>0.903</b>
<b>PO 3</b>	I feel like I own this company	<b>0.882</b>
<b>PO 4</b>	The sense of belonging to the company where I work is very high	<b>0.909</b>
<b>Psychological Ownership Cornbach's alpha</b>		<b>0.919</b>
<b>AM1</b>	If there is a new business competitor in the business sector that I am engaged in, I always react with readiness	<b>0.862</b>
<b>AM 2</b>	I'm worried about making a mistake in my business so that my customers turn to competitors.	<b>0.865</b>
<b>AM 3</b>	Criticism from other people often irritates me.	<b>0.864</b>
<b>AM 4</b>	I get worried when customers or other people are angry with me	<b>0.853</b>
<b>AM 5</b>	When a new competitor grabs my market share, I feel nervous and scared	<b>0.870</b>
<b>AM 6</b>	I often worry when I feel I have given bad service to customers	<b>0.719</b>
<b>AM 7</b>	I'm judged to worry too much compared to other people	<b>0.718</b>
<b>Avoidance Motivation Cornbach's alpha</b>		<b>0.920</b>
<b>KHB1</b>	When other people ask me questions, I often pretend I don't know the related information.	<b>0.829</b>
<b>KHB2</b>	When other people ask me, I say I don't know. Even though I know the answer to that question.	<b>0.832</b>
<b>KHB3</b>	When co-workers ask, I pretend not to understand what they are talking about.	<b>0.858</b>
<b>KHB4</b>	When a coworker asks about my business process, I say I don't understand the topic of the question.	<b>0.807</b>
<b>KHB5</b>	When a coworker needs information, I instead provide information that is different from the required question.	<b>0.836</b>
<b>KHB6</b>	When an employee outside the production line asks about a business process, I tell him that the information is confidential and is only given to production line employees.	<b>0.845</b>
<b>KHB7</b>	When someone asks my business process, I firmly say I will not answer that question.	<b>0.815</b>
<b>Knowledge Hiding Behavior Cornbach's alpha</b>		<b>0.926</b>

Source: processed data (2022)



**Figure 2.** Full Model  
Source: processed data (2022)

**Table 3.** Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Avoidance Motivation	0.920	0.929	0.936	0.679
Knowledge Complexity	0.782	0.786	0.873	0.697
Knowledge Hiding Behavior	0.926	0.926	0.940	0.692
Psychological Ownership	0.919	0.922	0.943	0.804

Source: processed data (2022)

**Table 4.** Discriminant Validity

	Avoidance Motivation	Knowledge Complexity	Knowledge Hiding Behavior	Psychological Ownership	PO*AM
Avoidance Motivation	0.824				
Knowledge Complexity	0.292	0.835			
Knowledge Hiding Behavior	0.402	0.828	0.832		
Psychological Ownership	0.230	0.299	0.346	0.897	
PO*AM	0.192	0.139	0.241	-0.007	1.000

Source: processed data (2022)

**Table 5.** Cross Loading Factor

	<b>Avoidance Motivation</b>	<b>Knowledge Complexity</b>	<b>Knowledge Hiding</b>	<b>Psychological Ownership</b>	<b>PO*AM</b>
<b>AM1</b>	<b>0.862</b>	0.244	0.331	0.219	0.132
<b>AM2</b>	<b>0.865</b>	0.270	0.367	0.133	0.177
<b>AM3</b>	<b>0.864</b>	0.290	0.340	0.263	0.162
<b>AM4</b>	<b>0.853</b>	0.322	0.361	0.136	0.205
<b>AM5</b>	<b>0.870</b>	0.222	0.370	0.192	0.176
<b>AM6</b>	<b>0.719</b>	0.140	0.264	0.180	0.152
<b>AM7</b>	<b>0.718</b>	0.162	0.268	0.228	0.091
<b>KC1</b>	0.276	<b>0.825</b>	0.722	0.208	0.211
<b>KC2</b>	0.222	<b>0.809</b>	0.637	0.306	0.113
<b>KC3</b>	0.231	<b>0.869</b>	0.710	0.241	0.021
<b>KHB1</b>	0.271	0.731	<b>0.829</b>	0.222	0.152
<b>KHB2</b>	0.278	0.685	<b>0.832</b>	0.214	0.133
<b>KHB3</b>	0.308	0.682	<b>0.858</b>	0.258	0.254
<b>KHB4</b>	0.466	0.651	<b>0.807</b>	0.387	0.245
<b>KHB5</b>	0.362	0.743	<b>0.836</b>	0.340	0.122
<b>KHB6</b>	0.310	0.665	<b>0.845</b>	0.264	0.270
<b>KHB7</b>	0.343	0.657	<b>0.815</b>	0.324	0.238
<b>PO * AM</b>	0.192	0.139	0.241	-0.007	1.000
<b>PO1</b>	0.178	0.268	0.312	<b>0.892</b>	-0.007
<b>PO2</b>	0.156	0.281	0.285	<b>0.903</b>	-0.042
<b>PO3</b>	0.236	0.245	0.301	<b>0.882</b>	-0.018
<b>PO4</b>	0.250	0.277	0.338	<b>0.909</b>	0.035

Source: processed data (2022)

**Table 6.** Goodness of Fit

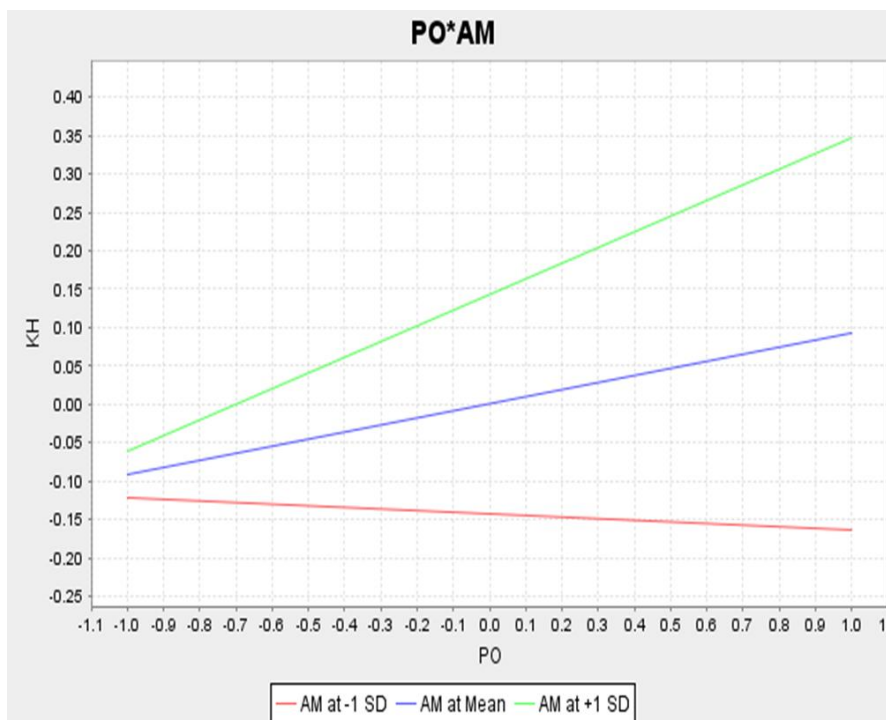
	Saturated Model	Estimated Model
SRMR	0.063	0.063
d_ULS	0.929	0.930
d_G	0.529	0.529
Chi-Square	545.592	545.830
NFI	0.824	0.824

Source: processed data (2022)

**Table 7.** Hypothesis-Testing

	<b>Path Coefficient</b>	<b>T Statistics ( O/STDEV )</b>	<b>P Values</b>
KC -> KH	0.744	18.362	0.000
PO -> KH	0.092	2.091	0.037
PO*AM -> KH	0.112	2.753	0.006

Source: processed data (2022)



**Figure 3.** Simple Slope Analysis  
Source: processed data (2022)

### Discussion

Knowledge complexity is one of the elements that affect why employees hide information. Connelly and Zweig (2015) argued that employees commonly hide complex information, typically because the nature of the knowledge request necessitates more significant time and effort, lowering the employee's time to fulfill their tasks. Employees commit time and effort to acquiring complex knowledge and upgrade their abilities to advance their professions and function competently. When coworkers want knowledge, particularly intricate knowledge, it will be difficult for the requester to obtain it, as the "holder" of the knowledge will attempt to prevent its loss. This study confirms the findings of a prior study indicating that knowledge complexity is significant predictor of employees' KH behavior (Yuan et al., 2020). Complex or sophisticated knowledge is unlikely to be shared, as its hiding is regarded as a defense strategy to prevent the loss of critical resources.

Based on the research results, psychological ownership can have a significant

positive effect on knowledge hiding behavior. The results of this study are in line with the results of research by Wang et al. (2019), who found that employee psychological ownership can cause employees to do knowledge hiding. This is because psychological ownership makes employees feel that SMEs are a part of themselves. Employees feel that knowledge that is an important asset for the company must be properly maintained (Wang et al., 2019; Hadjielias et al., 2022). The research results of Hadjielias et al. (2022) also found that knowledge hiding behavior activities carried out by employees in family business SMEs tend to be higher due to a strong sense of belonging to employees in SMEs so that employees try to maintain good knowledge related to the competitive advantages of the family business. Thus, employees with high psychological ownership tend to perform knowledge hiding behavior as protection for company assets.

In this study, some employees often perform knowledge hiding behavior. This behavior is often done by pretending to be stupid, delaying or reluctant to give

answers, and rationally refusing to share certain information. This is based on the employee's assessment of the importance of the knowledge possessed for the company's competitive advantage and the sustainability of their business. Knowledge hiding behavior of employees in family business SMEs strongly correlates with employees' sense of belonging to the company. Employees who feel they belong to the company view the sustainability of their business and the competitive advantage of their business as a valuable identity attached to them. The knowledge that is an important part of determining the competitive advantage of a business will try to be maintained properly so that the company can have good business sustainability in the future. Employees often keep important information related to their business confidential. This condition causes the transfer and flow of knowledge within the company to be hampered so that the exchange of information and innovation becomes slow in the company (Bock et al., 2005; Pian et al., 2019). This condition causes SMEs in Indonesia, especially family businesses, to have a slow rate of innovation.

In this study, the strong influence of psychological ownership on knowledge hiding behavior is due to the high avoidance motivation of employees. Avoidance motivation can encourage employees to be more careful in maintaining knowledge. Employees who feel they own the company and value knowledge as a valuable asset of the company will be more stringent in maintaining their knowledge when they employee is sensitive to the risks and threats that can occur when he shares knowledge. However, when employees have low sensitivity to threats and risks when sharing knowledge, employees who feel they own the company are less likely to hide information and knowledge and focus more on the benefits of sharing knowledge. This is because individuals with low levels of sensitivity to threats

have high levels of dopamine and calm when facing negative things so that individuals will focus more on rewards and benefits from a condition experienced (Carver & White, 1994). This study indicates that high levels of calm and dopamine can reduce knowledge hiding behavior by employees with strong psychological ownership. Thus, family business SMEs can reduce knowledge behavior by increasing employee calm and dopamine levels through a healthy and balanced lifestyle so that knowledge transfer within the company and the company's knowledge capacity can increase, which leads to higher business competitive advantages.

## **CONCLUSION AND RECOMMENDATION**

Based on the problem formulation, literature review, and research results, it can be concluded that: psychological ownership can have a significant positive effect on knowledge sharing behavior. Employees with high knowledge complexity and high psychological ownership show high knowledge of hiding behavior activities. The effect of psychological ownership on knowledge hiding behavior tends to be lower for employees with low sensitivity to the threat and risk of sharing knowledge. In other words, avoidance motivation can moderate the effect of psychological ownership on knowledge hiding behavior.

The managerial implication of this research is that SME owners, especially family businesses, should pay attention to knowledge hiding behavior by employees because it can reduce knowledge transfer and hinder innovation and business processes. Given the importance of product innovation and work methods to improve business performance and win the competition. Knowledge hiding is the negative side of psychological ownership, although psychological ownership also impacts employee performance and loyalty. The high negative impact of

psychological ownership can be caused by the high sensitivity of employees to threats and risks. Therefore, it is suggested to the family business SME management to explain the benefits of sharing knowledge to calm employees' fears of the risks of sharing knowledge. In addition, employees' sensitivity and fear of threats and risks are also caused by the low levels of dopamine that employees have. Therefore, it is also recommended for management to improve a healthy and balanced lifestyle for employees. In addition, the researcher recommends that further research observe other exogenous variables such as interpersonal distrust variables (Khan & Malik, 2021) and job relatedness (Hassan, 2019) to get a complete picture of why knowledge hiding can occur in family companies.

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