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Organizational Secrecy and Digital Innovation: Moderating Role of Knowledge Sharing and Knowledge Hiding

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Abstract

This quantitative study explores the moderating influence of organizational secrecy and digital innovation on knowledge sharing and knowledge hiding within IT departments of French SMEs, employing the Social Exchange Theory as a theoretical framework. A sample comprising 300 employees from IT departments in French SMEs was gathered for a longitudinal research design, with data collection facilitated through snowball sampling. Smart PLS was employed to analyze survey data at two distinct time intervals. In Time 1, demographic information and organizational secrecy were assessed, while Time 2 focused on measuring knowledge hiding, knowledge sharing, and digital innovation one month later. The results reveal organizational secrecy's significant impact on knowledge sharing and knowledge hiding. The Social Exchange Theory plays a moderating role in the relationship between organizational secrecy and knowledge hiding, as well as in the relationship between digital innovation and knowledge sharing. This study sheds light on how organizational culture and innovation can influence knowledge sharing and knowledge hiding among employees in IT departments of French SMEs, offering practical insights for managers aiming to cultivate a culture of knowledge sharing and collaboration. Future research can delve into identifying the most effective digital tools and platforms for facilitating knowledge sharing and collaboration within IT departments of French SMEs.

Keywords

Organizational Secrecy, Digital Innovation, Knowledge Sharing, Knowledge Hiding, Social Exchange Theory

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1. Introduction

In the dynamic landscape of French Small and Medium-sized Enterprises (SMEs), IT departments play a pivotal role, encompassing a diverse range of roles and responsibilities contingent upon the size and structure of the organization (Schalck & Yankol-Schalck, 2021). Extensive research underscores the paramount importance of Information Technology (IT) in enhancing overall company performance. This significance becomes even more pronounced in SMEs operating within volatile environments, where the effective management of IT resources is indispensable. SMEs often grapple with resource constraints, making their ability to adapt to technological shifts a critical factor for survival (Torrès et al., 2021). Digital innovation has emerged as a linchpin for businesses across various sectors, especially for SMEs in France, primarily fueled by the escalating role of technology in corporate operations and customer interactions. Consequently, IT departments within French SMEs are now indispensable, tasked with ensuring the currency, security, and efficiency of an organization's technological infrastructure (Bannour & Mtar, 2019). Notably, employees in IT departments have assumed more significant responsibilities, ranging from data maintenance and technological integration to monitoring system performance to ensure business success. As digital innovation continues to accelerate, IT

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personnel's skills become increasingly vital for SMEs in France to maintain their competitive edge and embrace evolving technologies (Schalck & Yankol-Schalck, 2021; Torrès et al., 2021).

In the current economic milieu, organizational secrecy has gained prominence, particularly within IT departments of French SMEs (Schildt et al., 2023). Organizational secrecy, defined as restricting unauthorized access to or disclosure of confidential information and data within a company, is important in ensuring data security, especially for IT departments in French SMEs. The burgeoning use of digital technology and the pervasive utilization of data in corporate operations have intensified the need to safeguard sensitive information across businesses of all sizes (Oltra et al., 2022). IT departments are responsible for managing and protecting data, networks, and software applications, making them central to preserving organizational confidentiality. Simultaneously, IT personnel have access to a plethora of sensitive data, which, if mishandled, could pose substantial security risks (Župerkienė et al., 2019). Knowledge sharing, the process of disseminating information, knowledge, and skills within an organization, has become a critical facet of business operations, particularly within IT departments of French SMEs (Zenk et al., 2022). Staying abreast of the latest technologies and trends has become imperative for organizations as technology evolves quickly (Azeem et al., 2021). IT departments play a pivotal role in facilitating knowledge exchange overseeing the implementation of new technologies, software applications, and network systems. However, effective knowledge sharing necessitates more than just technical expertise; it demands a corporate culture that fosters collaboration and communication (Singh et al., 2021; Wang & Hu, 2020).

While knowledge sharing is essential for personnel in IT departments of French SMEs, the inverse phenomenon, known as knowledge hiding, also warrants attention (Anand et al., 2022). Knowledge hiding refers to deliberately withholding knowledge or expertise from colleagues or fellow employees. This practice can detrimentally impact the efficiency of IT departments in French SMEs, leading to decreased organizational performance, reduced collaboration, and stifled innovation (Yuan et al., 2021). Various motives drive knowledge concealment, including the desire to control one's work or position within the company, the inclination to avoid competition for recognition or advancement, and even apprehensions about job security (Oubrich et al., 2021). This study investigates the interplay between organizational secrecy and digital innovation while also considering the moderating roles of knowledge sharing and knowledge hiding among employees within IT departments of French SMEs. The study builds upon its social exchange theory, which describes social behavior and relationships as exchanges of resources and rewards between individuals (Khalid & Ali, 2017). According to this theory, individuals engage in social interactions because they anticipate some form of benefit. The study's objectives encompass the identification and successful realization of the following research propositions:

RQ1: Organizational secrecy significantly influences digital innovation.

RQ2: Knowledge sharing and hiding moderates the relationship between organizational secrecy and digital innovation.

2. Literature review

2.1 Social Exchange Theory

Social exchange theory posits that interpersonal interactions involve exchanges in which individuals contribute and receive something of value (Oparaocha, 2016). These interactions can manifest in various forms, from direct to indirect, overt to covert, and may encompass social status, material resources, or moral support. A fundamental tenet of social exchange theory revolves around reciprocity, where individuals anticipate reciprocating benefits or rewards received from others. The optimal functioning of social exchange-based relationships occurs when there is a harmonious balance between giving and receiving (Nunkoo, 2016). Social exchange theory has found application in understanding workplace behavior, financial decision-making, and interpersonal relationships. Organizational behavior elucidates workplace interactions, encompassing the exchange of resources between managers and employees or interactions among colleagues (Khalid & Ali, 2017).

The theory posits that individuals engage with others in the anticipation of receiving benefits or rewards in return (Akarsu et al., 2020). In an organizational context, these benefits can assume diverse forms, including resource access, heightened prestige, or enhanced job security. In cases of organizational secrecy, employees might choose to withhold knowledge or expertise if they perceive that doing so will confer advantages, such as bolstered job security or a competitive edge. Nevertheless, this practice may yield unfavorable consequences, including diminished innovation, reduced collaboration, and compromised organizational effectiveness. The social exchange theory underscores that knowledge sharing can mutually benefit individuals and organizations (Meira & Hancer, 2021). When employees share their knowledge and skills, they can harness each other's expertise, collaborate more effectively, and generate novel ideas and solutions. However, it is crucial to recognize that social exchange theory contends that knowledge sharing can be advantageous for both individuals and organizations. As employees share their expertise and experiences, the organization can benefit from increased collaboration, mutual learning, and the development of innovative ideas and solutions. To balance the benefits and drawbacks of knowledge sharing and hiding, SMEs can institute policies and practices that foster information sharing while minimizing knowledge concealment (Akarsu et al., 2020; Meira & Hancer, 2021). Such efforts may involve cultivating a culture that encourages and rewards knowledge sharing, providing resources and training to facilitate it, and establishing clear standards and expectations regarding knowledge exchange (Dodokh, 2019).

2.2 Organizational Secrecy and Digital Innovation

In the context of IT departments, the nexus between organizational secrecy and digital innovation is a complex interplay of factors that can either stimulate or impede innovation (Schildt et al., 2023). Organizational secrecy, characterized by safeguarding confidential information within an organization, particularly within IT departments of French Small and Medium-sized Enterprises (SMEs), is integral to data security (Kraus et al., 2019). This involves safeguarding sensitive information such as financial data, trade secrets, customer records, and proprietary technology, often stored within databases and IT systems. IT departments are responsible for upholding the security and confidentiality of this critical data (Schildt et al., 2023). Breaches in organizational secrecy pose grave risks, including damage to the brand, client attrition, legal consequences, and financial losses. Mitigating these risks requires implementing security measures such as access controls, encryption, and regular security audits. However, organizational secrecy is not solely a matter of technical safeguards; it necessitates cultivating a security-conscious culture within the organization, where employees are trained to identify and address security concerns (Di Vaio et al., 2021). Continuous communication, training initiatives, and awareness campaigns are imperative to ensure that staff members understand their responsibilities and grasp the significance of safeguarding sensitive information (Montag-Smit & Smit, 2021).

The impact of organizational secrecy on digital innovation is multifaceted. While secrecy shields proprietary information and deters competitors, it can also stifle knowledge sharing and collaboration, two critical drivers of innovation (Oltra et al., 2022). Delerue and Lejeune (2010) emphasized that a lack of transparency and communication within companies can impede innovation. Therefore, organizations must strike a delicate balance between the imperative of secrecy and collaboration and communication (Montag-Smit & Smit, 2021; Oltra et al., 2022; Schildt et al., 2023). Researchers have probed the role of organizational culture in mediating the relationship between secrecy and innovation and found that a culture marked by openness and trust can ameliorate the adverse effects of secrecy on innovation outcomes (Schildt et al., 2023).

Additionally, Schildt et al. (2023) explored how organizational secrecy influences the adoption of open-source software, shedding further light on the intricate dynamics at play. In the dynamic landscape of IT departments, the impact of organizational secrecy on digital innovation becomes evident. The capacity of IT teams to work collaboratively and generate novel ideas may be impeded when information is concealed in confidentiality (Schildt et al., 2023). Furthermore, aligning innovation efforts with the broader strategic goals of the organization becomes a formidable challenge when IT teams lack insight into the organization's strategic direction (Montag-Smit & Smit, 2021).

Conversely, maintaining the confidentiality of specific information or technologies can give businesses a competitive edge and spur innovation within their IT departments (Oltra et al., 2022). This assumes particular significance for SMEs, which often need to differentiate themselves from more established competitors to thrive. The relationship between organizational secrecy and digital innovation in IT departments within French SMEs hinges on various factors, including organizational culture, leadership style, and strategic objectives (Singh et al., 2021). Organizations that can deftly navigate the terrain between the imperative of secrecy and the necessity for collaboration and creativity are likely to excel in fostering digital innovation within their IT departments (Schalck & Yankol-Schalck, 2021).

In today's rapidly evolving digital landscape, innovation is a cornerstone of competitiveness and success across industries and company sizes (Oparaocha, 2016). In France, small and medium-sized enterprises (SMEs) are poised to leverage technological advancements to bolster efficiency, expand market reach, and enhance profitability through digital innovation. These innovations can open new revenue streams, improve customer experiences, and streamline processes. Furthermore, digital innovation enables SMEs to adapt to customers' evolving preferences and needs in the digital era (Nambisan et al., 2020). For instance, SMEs can harness digital innovation to establish online channels for customer engagement, enhance their online presence, and tailor their marketing and customer service to align with the rising trends in e-commerce and mobile shopping. Nonetheless, SMEs often grapple with the challenge of executing digital innovation due to constraints in resources, knowledge, and skills (Di Vaio et al., 2021). Addressing these challenges necessitates SMEs to secure access to resources, knowledge, and expertise in digital innovation by collaborating with external entities such as technology providers, research institutes, or governmental organizations (Drechsler et al., 2020).

H1: Organizational secrecy significantly influences digital innovation.

2.3 Moderating Role of Knowledge Sharing

The role of knowledge sharing in moderating the relationship between organizational secrecy and digital innovation is a pivotal aspect of our investigation. Knowledge sharing can serve as a potent mitigating factor, helping offset some potential adverse effects of organizational secrecy on innovation, mainly when it is actively promoted and facilitated (Azeem et al., 2021). Within a company, knowledge sharing fosters more effective interactions and the generation of innovative ideas through the exchange of knowledge and information. This is especially pertinent in IT departments, where innovation often thrives on collaboration and knowledge exchange (Zenk et al., 2022). Moreover, a culture that encourages the open sharing of knowledge makes it more likely for employees to identify potential challenges and propose fresh solutions, thereby stimulating innovation within the organization and bolstering its competitiveness in an ever-evolving digital landscape. It's essential to acknowledge the multifaceted nature of the relationships among knowledge sharing, innovation, and organizational secrecy (Dodokh, 2019). While knowledge sharing can alleviate some of the detrimental consequences of secrecy on creativity, other factors, including leadership, organizational culture, and strategic goals, also come into play.

Knowledge sharing, in essence, entails the practice of disseminating knowledge, skills, and insights within a group or between individuals (Wang & Hu, 2020). In the context of IT departments within French SMEs, this encompasses sharing technical knowledge, best practices, project management strategies, and other information relevant to the organization's technological infrastructure and software applications. Knowledge exchange is imperative for IT departments to operate more effectively and foster innovation (Singh et al., 2021). It facilitates individuals learning from each other's experiences, capitalizing on each other's strengths, and collaborating more efficiently toward shared projects and objectives (Le & Lei, 2019). Additionally, knowledge sharing can help break down organizational silos, advancing an inclusive and cooperative culture. SMEs can promote knowledge sharing among their IT staff through various avenues. They can establish formalized training and development programs, implement knowledge management systems, and cultivate communities of practice where

individuals can exchange information (Swanson et al., 2020). Encouraging IT staff to participate in industry-related activities, attend conferences and training sessions, and engage with external networks is crucial for staying abreast of emerging trends and industry best practices. However, challenges related to corporate culture, a lack of incentives, and time constraints may arise in knowledge sharing (Ganguly et al., 2019). For instance, individuals may be less inclined to share information if they perceive that doing so will not benefit them.

Similarly, if organizations do not offer incentives or recognition for information sharing, it may not take precedence over other activities (Azeem et al., 2021). To address these challenges, SMEs can foster a more open and collaborative culture that encourages information sharing and provides incentives and recognition for active participation. Additionally, SMEs can invest in technological innovations such as knowledge management or collaboration platforms to facilitate information sharing and make it more accessible and convenient for employees.

Several studies have explored the dynamics between organizational secrecy, knowledge sharing, and innovation. Zenk et al. (2022) discovered that the degree of organizational secrecy can modulate the impact of knowledge sharing on creativity, particularly noting that the detrimental effects of secrecy on creativity diminish when knowledge sharing is substantial. Wang and Hu (2020) found that high levels of employee confidence in the organization can enable knowledge sharing to counteract the adverse effects of organizational secrecy on creativity. Various researchers have found that knowledge sharing can help overcome the detrimental impacts of secrecy on creativity in the context of open-source software development. Dodokh (2019) shed light on the role of organizational culture as a moderator in the relationship between knowledge sharing, secrecy, and innovation, particularly highlighting that a culture of openness and collaboration can enable knowledge sharing to drive innovation even in the presence of organizational secrecy.

H2: Knowledge sharing moderates the relationship between organizational secrecy and digital innovation.

2.4 Moderating Role of Knowledge Hiding

Knowledge hiding pertains to the intentional withholding of knowledge or information within an organization by an individual, often driven by concerns regarding competition or job security (Donate et al., 2022). In contrast to knowledge sharing, which propels digital innovation, knowledge hiding can yield the opposite effect, hindering collaboration and impeding innovation within the organizational framework. However, it is conceivable that knowledge hiding might moderate the relationship between organizational secrecy and digital innovation (Oubrich et al., 2021). When employees harbor apprehensions about the repercussions of sharing knowledge within a culture steeped in organizational secrecy, they may be more inclined to engage in knowledge hiding behaviors, further impeding innovation. Numerous studies have explicitly examined the interplay between knowledge hiding, organizational secrecy, and digital innovation. For instance, Anand et al. (2022) revealed that knowledge hiding can impede innovation, with this effect becoming more pronounced under heightened organizational secrecy. Montag-Smit and Smit (2021) observed that the adverse impacts of knowledge concealing on creativity diminish when employees exhibit high trust in their colleagues and the organization. Yuan et al. (2021) proposed that cultivating an environment characterized by trust and openness within the company can ameliorate the detrimental consequences of information concealment and stimulate creativity.

Knowledge hiding, characterized by the deliberate withholding or concealment of knowledge within the IT departments of French SMEs, can manifest in various forms, including the withholding of technical insights, failure to communicate best practices, or reluctance to share information related to project management strategies (Anand et al., 2020). This practice can foment discord and mistrust among teammates, potentially undermining team morale and job satisfaction. Many factors may motivate individuals to resort to knowledge hiding within IT departments. A diverse set of strategies

can be deployed to address the issue of knowledge hiding within French SMEs' IT departments (Donate et al., 2022). One practical approach involves establishing knowledge management systems that facilitate seamless knowledge sharing among employees (Abubakar et al., 2019). Such systems can take various forms, including disseminating best practices, sharing technical knowledge, and the open disclosure of project management-related information. The motivations behind employees' engagement in knowledge hiding can be diverse.

Montag-Smit and Smit (2021) indicate that within organizations fostering a culture of secrecy, knowledge hiding can detrimentally impact creativity and job performance. Dodokh (2019) discovered that knowledge sharing can counteract the detrimental effects of knowledge hiding, fostering creativity and productivity. Hernaus et al. (2019) found that knowledge hiding can damage team effectiveness, with this impact intensifying amidst high levels of conflict and low levels of trust within teams. Their study also highlighted that team cohesiveness and trust can offset the adverse effects of knowledge hiding on team performance. As posited by Anand et al. (2022), knowledge hiding can negatively impact creativity and organizational performance, potentially exacerbating these impacts by an organizational culture that places value on secrecy or lacks trust. To mitigate the negative consequences of information hiding and stimulate innovation and organizational performance, fostering knowledge sharing and cultivating a culture characterized by trust and transparency may prove beneficial (Yuan et al., 2021) Nonetheless, further research is warranted to comprehensively elucidate the relationship between knowledge hiding, organizational secrecy, and digital innovation.

H3: Knowledge hiding moderates the relationship between organizational secrecy and digital innovation.

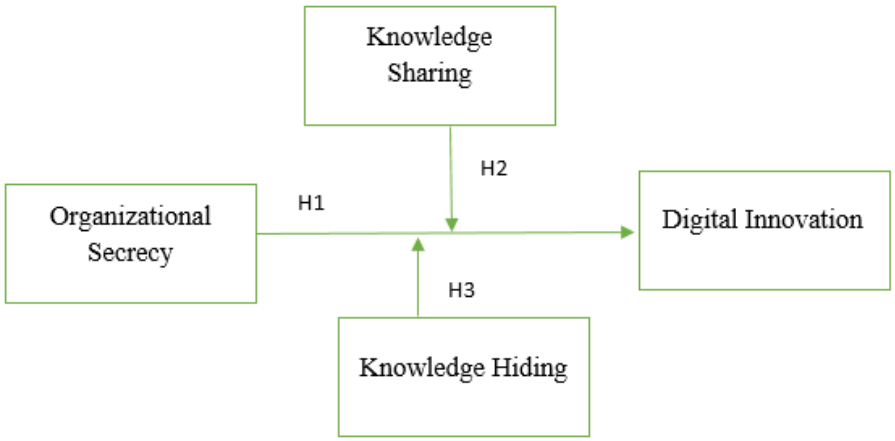

Figure 1: Conceptual Framework

3. Methodology

This research investigates the impact of organizational secrecy on digital innovation, moderated by knowledge sharing and hiding. A quantitative approach, precisely a deductive method, was employed for hypothesis testing. Data were collected through an adapted questionnaire at two different time points to conduct a longitudinal study. Smart PLS was used for data analysis. In Time 1, demographic information and organizational secrecy were measured, while in Time 2, knowledge hiding, knowledge sharing, and digital innovation were assessed. The study focused on employees in IT departments of French SMEs, with 300 respondents selected using a non-probability sampling technique, specifically snowball sampling based on referral contacts. Respondents were assured of the confidentiality of their data and were informed that it would only be used for research purposes.

3.1 Instrument

The instrument used in this study consisted of four variables: organizational secrecy as the predictor, knowledge sharing and knowledge hiding as moderating variables, and digital innovation as the dependent variable. Items for these variables were adapted from various sources and aligned with the study's context. Organizational secrecy was assessed with three three-item adapted from (Schildt et al., 2023). For knowledge sharing, a scale developed by Lu et al. (2006) was used, consisting of five items, and for knowledge hiding, a scale by Duan et al. (2022) with three items was employed. The instrument provided respondents with information about the study's purpose and topic. It included two sections for respondents: the first collected demographic information, including gender, age, education, and experience, while the second contained 5-point Likert scale questions adapted from the mentioned sources to measure the variables. The instrument was subjected to reliability analysis, and all variables exhibited Cronbach alpha values exceeding 0.70 after careful item-by-item testing for scale reliability (Nunnally, 1978).

4. Analysis

Table 1 presents the demographic details and descriptive statistics for the current study's sample (N=300) as part of the initial data examination. SmartPLS3 was utilized to assess both the structural and measurement models. The study explored the relationship between organizational secrecy, digital innovation, and the moderating influence of knowledge hiding and knowledge sharing among employees in the IT departments of French SMEs. The analysis of the model indicated that the employees in the IT departments of French SMEs were diverse in terms of age, gender, experience, and employment position.

Table 1: Demographic profile

	Description	No. of Responses	%
Gender	Male	180	60
	Female	120	40
Age	25-35	110	37
	35-45	120	40
	Above 45	70	23
Education	Diploma	120	40
	BS	130	43
	Master	50	17
Experience	1-2 Years	150	50
	2-4 Years	80	27
	More than 4 Years	70	23

As shown in Table 1, 60% of the employees working in IT departments of French SMEs were male, while 40% were female. 37% were between 25-35, 40% were between 35-45, and 23% were above 45 years old. 40% had completed diploma-level, 43% had a BS, and 17% had completed a master's degree. 50% of employees had 1-2 years, 27% had 2-4 years, and 23% had more than 4 years of experience.

4.1 Measurement model

A measurement model plays a crucial role in understanding the relationship between latent variables (unobserved constructs) and observable variables (measured indicators), employing statistical techniques like structural equation modeling (SEM) (Dash & Paul, 2021). It allows researchers to assess and confirm the psychometric qualities of measurements. Each latent variable is defined by a set of observed variables, presumed to capture the underlying construct but may contain measurement

error. The model estimates the degree of measurement error in each observed variable and the strength of its relationship with the latent variable it intends to measure (Purwanto & Sudargini, 2021). To evaluate the internal consistency and convergent validity of items within the measurement model, several measures are used, including Cronbach's alpha (α) composite reliability (CR), average variance extracted (AVE), and factor loadings (Becker et al., 2023). Composite reliability (CR) assesses how closely items measure the same underlying concept, while AVE compares the variance captured by a construct to that resulting from measurement error. Factor loadings indicate the strength of the relationship between each item and its intended concept. CR and AVE assess internal consistency and convergent validity, respectively (Sarstedt et al., 2019). In Table 2, composite reliability estimates ranged from 0.749 to 0.945, all exceeding 0.70.

Table 2: Composite Reliability, α, and AVE

Construct	Item	Loadings	A	CR	AVE
Organizational Secrecy	OS1	0.896	0.749	0.854	0.663
	OS2	0.801			
	OS3	0.738			
Digital Innovation	DI1	0.907	0.945	0.958	0.820
	DI2	0.901			
	DI3	0.913			
	DI4	0.911			
	DI5	0.896			
Knowledge Hiding	KH1	0.784	0.775	0.781	0.549
	KH2	0.815			
	KH3	0.800			
Knowledge Sharing	KS1	0.853	0.899	0.926	0.714
	KS2	0.833			
	KS3	0.878			
	KS4	0.887			
	KS5	0.769			

Discriminant validity assesses how distinct a concept or measure is from others within the same study (Purwanto & Sudargini, 2021). It examines whether a concept or measure accurately reflects what it is intended to measure and nothing else. Discriminant validity is often assessed by comparing the correlations between a concept or measure and others within the same domain. A concept or measure should have a stronger correlation with itself than with other concepts or measures, indicating distinctiveness. Evaluating discriminant validity typically involves calculating the square root of the AVE for each construct and comparing it to the correlation coefficients with other constructs (Hair et al., 2019). Table 3 demonstrates evidence of discriminant validity.

Table 3: Discriminant Validity

	DI	KH	KS	OS
Digital Innovation	0.906			
Knowledge Hiding	0.691	0.741		
Knowledge Sharing	0.689	0.472	0.845	
Organizational Secrecy	0.381	0.364	0.609	0.814

4.2 Structural Equation Model

In structural equation modeling (SEM), researchers specify a theoretical model comprising latent and observable variables.

Table 5 presents evidence of a significant relationship between organizational secrecy and digital innovation (β = -0.119, t = 2.347, p = 0.019), thereby supporting H1. A moderating effect in statistics

refers to a relationship between two variables whose strength or direction varies depending on the value of a third variable, known as the moderator variable. Such effects are significant as they help identify conditions under which specific relationships hold or change. They are also valuable for identifying subgroups that may respond differently to interventions or treatments (Becker et al., 2023). In Table 4, the R-squared value for Digital Innovation was 0.656.

Table 5: 4 Path Coefficient

	R-Square	B	T Statistics	P Values	Decision
Organizational Secrecy -> Digital Innovation	0.656	-0.119	2.347	0.019	Supported
OS*KS -> DI	--	0.534	9.650	0.000	Supported
OS*KH -> DI	--	-0.482	11.880	0.000	Supported

Note: DI= Digital Innovation, KS= Knowledge Sharing, KH= Knowledge Hiding, OS= Organizational Secrecy.

Table 5 demonstrates that the moderating effect of knowledge sharing between organizational secrecy and digital innovation is positive and significant (β = 0.534, t = 9.650, p = 0.000), supporting H2. Additionally, the results indicate that the moderating effect of knowledge hiding between organizational secrecy and digital innovation is negative yet significant (β = -0.482, t = 11.880, p = 0.000), thereby supporting H3. The final results are presented in Figure 2.

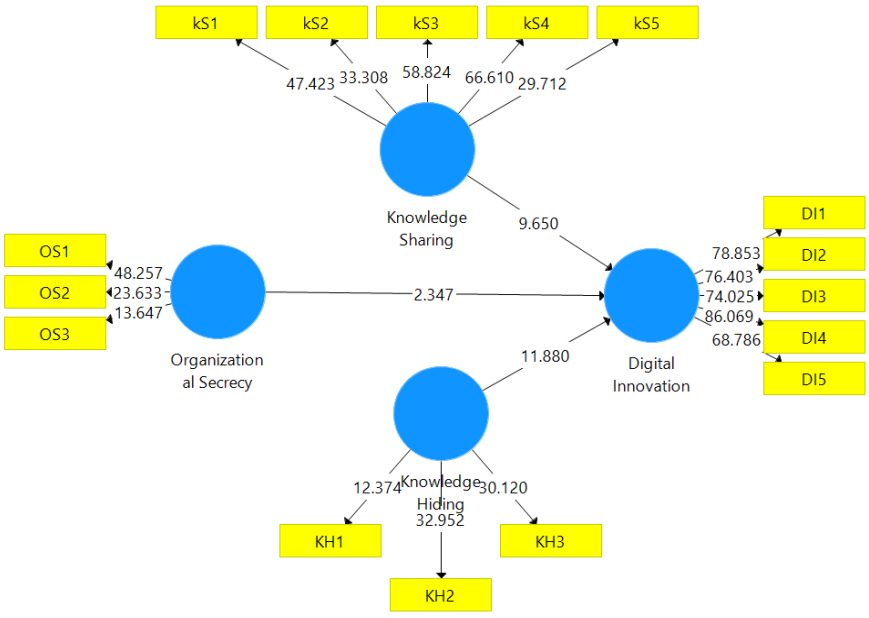

Figure 2: Structural Model

To evaluate model fit, the SRMR (Standardized Root Mean Square Residual) is computed, which involves dividing the square root of the mean of the squared differences between observed and expected covariances by the square root of the average variance of observed variables. The SRMR is compared with other models with the same number of variables and parameters to assess relative fit. A lower SRMR value indicates a better fit between observed and predicted covariance matrices, signifying a model that better explains variable relationships (Hair et al., 2019). While the cutoff may vary based on model complexity and sample size, an SRMR value less than 0.08 typically indicates a satisfactory fit.

Table 6: SRMR

	Saturated Model	Estimated Model
SRMR	0.073	0.073

5. Discussion

The current study underscores the significant roles played by organizational secrecy and digital innovation, in conjunction with the social exchange theory, as they operate in the context of knowledge sharing and knowledge hiding among employees within the IT departments of French SMEs. Our research successfully establishes substantial relationships among organizational secrecy, digital innovation, knowledge sharing, and knowledge hiding within this specific group of employees, with all hypotheses gaining empirical support. Our findings distinctly reveal a substantial and noteworthy relationship between organizational secrecy and digital innovation. Recent research in this domain corroborates this relationship, emphasizing that businesses that prioritize excessive secrecy tend to demonstrate a reduced propensity for innovative practices in digital technology. While safeguarding confidential information from external threats remains a priority for businesses, excessive preoccupation with secrecy can inadvertently stifle innovation and disrupt the free exchange of ideas. In the context of the digital era, innovation is an imperative factor for sustaining competitiveness (Di Vaio et al., 2021; Schildt et al., 2023). Companies that fail to embrace innovation risk trailing behind their industry peers. Organizations must recognize the intrinsic connection between organizational secrecy and digital innovation to stay relevant within the constantly evolving digital landscape. According to our study, organizations that adopt a less secretive stance often exhibit a greater appetite for risk-taking and a willingness to embrace novel ideas. These attributes—open-mindedness and a proclivity for risk—are pivotal components of digital innovation. Organizations that foster an open culture are better poised to devise creative solutions that aptly cater to the ever-shifting needs of their customer base. Conversely, overly secretive organizations are more risk-averse and less adventurous. Such an organizational stance can impede their ability to innovate and adapt swiftly to changing market conditions. In highly secretive organizations, employees may hesitate to share their ideas, and decision-makers may exercise caution when exploring new strategies.

The moderating effect of knowledge sharing in the relationship between organizational secrecy and digital innovation is notably significant. This underscores the crucial role that knowledge sharing can play in mitigating the adverse impact of excessive organizational secrecy on digital innovation. Organizational secrecy often hampers the free exchange of ideas and impedes innovation, particularly within the digital landscape, where innovation is a cornerstone of competitive advantage. On the contrary, knowledge sharing fosters the exchange of knowledge and ideas among employees within an organization. Such open sharing of knowledge enhances employee creativity and innovation, thereby fostering digital innovation. Knowledge sharing works by breaking down barriers that may otherwise inhibit the flow of ideas and information within an organization (Wang & Hu, 2020). When employees can freely share their ideas and information, they are more likely to develop innovative solutions to challenges. Additionally, knowledge sharing promotes an innovative organizational culture where employees feel valued and committed to the company's goals. This heightened motivation and creativity can catalyze digital innovation (Singh et al., 2021). Our findings suggest that knowledge exchange effectively mitigates the detrimental effects of organizational secrecy on digital innovation, underscoring the importance of promoting a culture of knowledge sharing within organizations.

The results further unveil the significant moderating effect of knowledge hiding in the relationship between organizational secrecy and digital innovation. This finding highlights that knowledge hiding can amplify the negative impact of excessive organizational secrecy on digital innovation. Knowledge hiding involves intentionally withholding information and innovative ideas from employees within an organization (Montag-Smit & Smit, 2021). When knowledge is concealed, employees are less likely to generate creative ideas and solutions, ultimately impeding digital innovation. Our study reveals that

knowledge hiding exacerbates the negative consequences arising from organizational secrecy in the context of digital innovation. In essence, when employees are unwilling to share their knowledge, the adverse effects of organizational secrecy on digital innovation become more pronounced. This obstruction in the flow of knowledge can hinder collaboration and limit the exchange of ideas. Knowledge hiding effectively builds barriers between individuals and teams within the organization, rendering employees less inclined to devise innovative solutions to existing challenges (Yuan et al., 2021). Additionally, knowledge hiding can erode trust within the organization, fostering an atmosphere of mistrust and apprehension. Employees who withhold expertise may be perceived as withholding critical information, thereby breeding distrust among colleagues.

5.1 Theoretical and Practical Implications

The current study has significant theoretical and practical implications for organizations nurturing digital innovation. By advocating for knowledge sharing and mitigating organizational secrecy, organizations can cultivate an environment of openness and collaboration, propelling digital innovation and enhancing their competitiveness in the market. These findings underline the pivotal role of information sharing and knowledge hiding in altering organizational secrecy and digital innovation dynamics. This insight offers substantial theoretical contributions. First and foremost, these findings provide empirical validation for the social exchange theory, which posits that individuals engage in interactions to gain benefits and avoid costs. In the context of knowledge sharing and knowledge hiding, employees' decisions on disclosure or concealment are contingent on the perceived benefits and costs. Secondly, these results align with earlier theoretical work emphasizing the value of openness and collaboration in driving innovation. They demonstrate that excessive organizational secrecy can hinder digital innovation. The practical implications of these findings are particularly pertinent for organizations, especially small and medium-sized enterprises (SMEs) operating in the information technology (IT) sector.

Organizations must first recognize the adverse consequences of excessive secrecy on digital innovation. This realization should prompt them to nurture an environment that champions openness and collaboration, facilitating the free flow of ideas and knowledge. Businesses can promote knowledge sharing by providing employees opportunities to contribute their insights and expertise through team-building exercises or cross-functional initiatives. Furthermore, organizations should work towards dismantling any structural or cultural barriers that hinder information sharing, fostering a culture that encourages openness and collaboration. Finally, businesses must remain vigilant regarding the potential dangers posed by knowledge hoarding to digital innovation and should implement initiatives to encourage employees to share their knowledge willingly.

5.2 Limitations and Future Research

Despite its contributions, this study carries several limitations that warrant consideration. Firstly, the sample size was relatively modest and confined to employees within the IT departments of French SMEs. Consequently, the generalizability of the results to diverse industries, organizational sizes, or geographical regions may be limited. Secondly, the quantitative research approach employed in this study, while robust, may not fully capture the complexity of human behavior, particularly in the context of knowledge sharing and hiding. Thirdly, the reliance on self-reported data may be subject to response bias, potentially obscuring the true behaviors of employees. Fourthly, the study employed a cross-sectional design, which limits its ability to establish causal relationships among the variables. Future research could employ a longitudinal design to explore the dynamic interplay between organizational secrecy, digital innovation, knowledge sharing, and knowledge hiding over time.

In future research endeavors, expanding the sample size to include a more diverse spectrum of employees from various industries and locations could address the limitations of this study. A mixed-methods approach, incorporating quantitative and qualitative data, could offer deeper insights into the drivers of information sharing and knowledge concealment within organizations. Additionally, future

research should investigate how other factors, such as organizational culture or leadership philosophies, influence the relationship between organizational secrecy and digital innovation. Lastly, further exploration into the role of technology in facilitating knowledge sharing and mitigating knowledge hiding within organizations would be beneficial.

5.3 Conclusion

This study sheds light on the intricate interplay between organizational secrecy, digital innovation, knowledge sharing, and knowledge hiding among IT department employees in French SMEs. This relationship is moderated by the Social Exchange Theory, which posits that social interactions are founded on a principle of reciprocity. Organizational secrecy can hinder knowledge sharing and promote a culture of knowledge hiding, involving deliberately withholding information from employees. This phenomenon poses unique challenges in IT departments, where success is contingent on innovation and knowledge exchange. Conversely, digital innovation can stimulate knowledge sharing and collaboration among employees by introducing new communication and collaboration tools and platforms. According to the Social Exchange Theory, employees are more inclined to share their knowledge when they perceive that they will gain something valuable in return, such as recognition, rewards, or access to others' expertise. With its inherent secrecy and lack of transparency, organizational secrecy can act as a barrier to information sharing and the development of a culture of knowledge sharing. In contrast, digital innovation can act as a catalyst for knowledge sharing and collaboration among employees. Recognizing the principles of social exchange, organizations should create an environment that values transparency, encourages collaboration, and invests in digital innovation to facilitate knowledge sharing and collaboration among employees.

Managers should also be well-versed in the principles of social exchange to ensure that they adequately acknowledge and reward employees who share knowledge. Conversely, employees are more likely to withhold knowledge when they believe it will not benefit them or may even jeopardize their position. Thus, organizations must promote a culture that values collaboration and transparency, incentivizing information sharing to discourage knowledge hiding. Future research endeavors can explore the generalizability of the Social Exchange Theory across diverse cultural and national contexts, examining how cultural norms and values influence employees' perceptions regarding the benefits and risks associated with knowledge sharing.

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