

How Does Self-Sacrificial Leadership Affect Knowledge Sharing and Knowledge Hiding?: Organization's Cultural Prospective

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Abstract: Grounded in Social-Exchange Theory, the current study examines the association of self-sacrificial leadership with employees' knowledge sharing and knowledge-hiding behavior. Moreover, the mediatory role of employees' trust and intrinsic motivation was also investigated. The current study focused on self-sacrificial leadership outcomes while exploring underlying mechanisms to achieve those outcomes, specifically in SMEs in Indonesia. Using a longitudinal field survey, data were collected from 457 employees working at different levels in small and medium enterprises in Medan city, Indonesia. The results showed that self-sacrificial leadership was positively and significantly associated with the employees' knowledge-sharing behavior, while self-sacrificial leadership was negatively associated with employees' knowledge-hiding behavior. The results also revealed the interplay of employees' trust and intrinsic motivation between the link of self-sacrificial leadership and employees' knowledge sharing and knowledge hiding behaviors. Thus, it shows an exchange process of converting self-sacrificing leaders' efforts into building trust among employees and intrinsically motivating them to share knowledge among peers and demotivate them from hiding knowledge.

Keywords: self-sacrificial leadership, intrinsic motivation, trust, knowledge sharing, knowledge hiding, social exchange theory.

Small and medium-sized enterprises (SMEs) of varying sizes, numbers of employees, and operations that have a significant role in the economy and contribute to a country's progress (Eggers, 2020). As these enterprises are easy to build due to lower startup costs, they outnumber large companies vastly (Eggers, 2020). SMEs also is a basis of innovation, creativity, and niche marketing, focusing on unique ideas to help gather market share (O'dwyer et al., 2009). SMEs are an important segment of business activity in Indonesia. Ministry of Cooperatives and SMEs of the

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Republic of Indonesia reported 816000 SMEs in 2020, employing more than 7.9 million people and contributing 27% of GDP (Linawati et al., 2020). The continuous rise in the short-term and long-term loans that the Indonesian government provided SMEs from 2011 to 2020 illustrates the trust of lenders in the soundness of the Indonesian SMEs.

This study focuses on the self-sacrificial leadership style regarding knowledge sharing and knowledge-hiding behavior among SME employees in Indonesia, which the literature has not previously explored. Self-sacrificial leadership deals with a new leadership style model, in which managers sacrifice their individual, personal interests to achieve the common welfare of their employees and overall organization benefit (Liu et al., 2021). It involves abandoning or postponing personal interests and privileges to serve the collective welfare and putting everything at stake to gain the best for followers (Yang et al., 2020). There are studies related to the impact of self-sacrificial leadership on employees' unethical pro-organizational behavior (Yang et al., 2020), employees' voices (Zhang et al., 2020), and employees' creativity (Liang & Fan, 2020). Still, to the best available knowledge, no study is available regarding the association of self-sacrificial leadership with employees' knowledge sharing and knowledge hiding behavior in a single consolidated framework. Thus, the current study attempts to advance the literature by investigating the direct and indirect association of self-sacrificial leadership with employees' knowledge sharing and knowledge-hiding behaviors via employees' trust and intrinsic motivation.

Employee knowledge-sharing behavior is an essential factor that has been rarely explored in SME literature. Knowledge sharing is defined as an activity through which the exchange of information, skills, and expertise occurs between people (Arsawan et al., 2020; Mansoor & Wijaksana, 2021). Knowledge sharing occurs in four stages: identification, medium selection, engagement, and feedback (Kim & Shim, 2018). Knowledge-sharing behavior is usually supported through a knowledge management system in organizations (Curado & Vieira, 2019). Therefore, this study focused on exploring (self-sacrificial leadership) as a factor that triggers knowledge-sharing behaviors among employees working in SMEs.

In contrast to knowledge sharing, knowledge-hiding behavior is perceived to negatively affect employee motivation. It is related to intentionally withholding or concealing information deemed of high importance and security to an organization (Grimstad et al., 2020). Although it seems challenging to conceal information in an SME, it exists in some form, either due to policy or employee behavior (Yamamori, 2019). There are two types of knowledge hiding behavior found among employees: evasive hiding and rationalized hiding. Evasive hiding refers to a little deception, where the hider presents incorrect knowledge, whereas rationalized hiding refers to conditional deception, where the hider justifies fails to provide the requested information (Newman et al., 2019). A scarcity of literature exists related to determinants of employee knowledge-hiding behaviors, which is an additional contribution of the current study.

Another critical factor in determining SME's success is employee trust. Trust relates to an employee's confidence that management will safeguard their rights and provide them with benefits and appraisals based on performance without any bias (Hu & Jiang, 2018). Because SMEs are small, they sometimes fail to attract, develop, and retain employees (Noda, 2020). Therefore, they must gain employee trust to formulate a foundation for success and prosperity. When employees have open access to information, decision-making, and resources necessary to perform, they trust their management better (Dalle & Hastuti, 2017). Previous studies have focused on employee trust in management justice in providing fair appraisal and equal opportunities (Noda, 2020). Very few have explored this factor between the association of self-sacrificial leadership with knowledge sharing and knowledge-hiding behavior, which the current study investigated.

Information sharing and information hiding are sources of intrinsic motivation. Intrinsic motivation relates to an employee's willingness to share tacit knowledge in the workplace. It has long been studied concerning achieving long-term goals and gaining a competitive advantage (Chen et al., 2018). Intrinsic motivation allows tacit knowledge transfer when extrinsic motivation, like monetary rewards and the need for entitlement, fails (Nedal & Alcoriza, 2018). However, studies have shown that knowledge hiding to withholding vital information to gain informational power can provide some employees with a competitive edge over other employees (Feusner et al., 2017). Still, no study has investigated the direct association of intrinsic motivation with knowledge sharing and knowledge hiding behavior of the employees. Additionally, very less evidence is available regarding its association with self-sacrificial leadership. Thus, to bridge these gaps in the literature, the current study investigates the role of intrinsic motivation in explaining the association of self-sacrificial leadership with knowledge- hiding and knowledge-sharing behavior.

The current study is based on the social exchange theory, which suggests that social behavior results from an exchange process between individuals to gain mutual benefit and minimize costs (Zhang et al., 2020). The social exchange process concept is especially relevant to the current study as knowledge exchange behaviors and factors related to them are studied regarding SMEs. Accordingly, this theory underlies the evaluation of costs and benefits self-sacrificial leadership can align with the assumption of mutual benefit gained by keeping employees' priorities in building a strong relationship (Sadeghi et al., 2018). Thus, based on social exchange theory current study aims to answer the following questions;

1. Do self-sacrificial leadership influences knowledge sharing and knowledge hiding behavior of the employees?
2. Do self-sacrificial leadership influences employee trust and intrinsic motivation?
3. To what extent employees' trust and intrinsic motivation are linked with their knowledge-sharing and hiding behavior?
4. Do employee trust and intrinsic motivation mediate the association of self-sacrificial leadership with employees' knowledge sharing and knowledge hiding behavior?

Literature Review

Social Exchange Theory

This study follows the theoretical foundation of social exchange theory to explain the knowledge-sharing and hiding behavior in employees under self-sacrificial leadership (Liang et al., 2008). Social exchange theory explains that people's values exchange is based on benefits and costs. The leadership role assumes that the leader provides more benefits or rewards than burdens or costs to his followers to achieve goals (Ali, 2019). Research suggests that it has a cross-level relationship with empowering leadership and knowledge sharing (Xia et al., 2019). It underlies the belief in providing subordinates with resources and benefits to contribute to an organization's overall success. Moreover, social exchange theory has been related to promoting positive behaviors in employees like citizenship (Madhu & Krishnan, 2005).

Thus, drawing on the social exchange theory, this study proposes that when a manager or leader sacrifices to promote an employee's intrinsic motivation and trust, these employees will share knowledge with peers. It also proposed that self-sacrificial leadership will be negatively associated with employees' knowledge-hiding behavior.

Self-Sacrificial Leadership, Employee's Knowledge Sharing, and Knowledge Hiding Behavior

Research indicates that managers or organization following this strategy empower their employees to make crucial decisions and manage resources (Zhang & Ye, 2016). Knowledge sharing is considered an essential attribute for organizational success and knowledge creation. The literature suggests that organizations cannot gain a competitive advantage if employees are unwilling to share their knowledge (Kim & Shim, 2018). Ogunmokun et al. (2020) revealed that knowledge-sharing behavior could be promoted in employees by making them realize that their well-being, success, and benefits are linked with an organization's profit gain. The same arguments are rooted in social exchange theory, which supports knowledge-sharing behavior in employees as leaders, managers, and supervisors who continually share knowledge, information, and views with subordinates can encourage them to act similarly (Chen et al., 2018). Therefore, this study proposes that;

H1a: *Self-sacrificial leadership is positively associated with employees' knowledge-sharing behavior.*

Knowledge is either "explicit," which could be codified, or "tacit," which stays with the individual and is hard to codify (Babič et al., 2019). Employees are not compelled to share their knowledge as they cannot be held accountable for not sharing it, although it affects the overall innovation, problem-solving, and teamwork in an organization (Xia et al., 2019). Recent studies highlight employee knowledge-hindering behavior for sharing knowledge, known as knowledge hiding (Malik et al., 2019). This relates to the intentional concealment of knowledge when requested by others, and it has been linked to perceived psychological safety, reciprocation, and decreasing creativity (Škerlavaj et al., 2018).

In contrast, self-sacrificial leadership is based on the belief in facilitating employees to work cohesively towards achieving organizational objectives (Yang et al., 2020). Studies show that employee-knowledge hiding behavior can affect their relationships with managers by causing communication gaps, loss of focus, and productivity loss (Xia et al., 2019). However, previous research lacks evidence for the association between self-sacrificial leadership and knowledge hiding behavior. Thus, the following hypothesis is posited:

H1b: *Self-sacrificial leadership is negatively associated with employees' knowledge of hiding behavior.*

Self-Sacrificial Leadership, Employee's Trust, and Intrinsic Motivation

Self-sacrificial leadership advocates a strong relationship with employees based on effective communication, mutual understanding, and organizational citizenship behavior (Jungert et al., 2013). It promotes growth, harmony, and a feeling of belongingness in employees. Past research advocates that employee trust is a vital part of the subordinate-supervisor relationship (Curado & Vieira, 2019). It acts as a binding force and a source of employee retention. It has been linked to an employee's perception of fairness to exhibit altruism, conscientiousness, and sportsmanship (Hu & Jiang, 2018). Also, previous research indicates that trust is integral to building employee job satisfaction (Noda, 2020). Through self-sacrificial leadership, employees believe that organization and supervisors have their best interests at heart (Newman et al., 2019);

as a result, they feel secure and have strong faith that management will deal with any unjust behavior or discrimination and harassment against them. Moreover, Rubel et al. (2018) demonstrated that self-sacrificial leadership promotes trust and compassion toward employees by continually prioritizing their needs and earning respect. Thus, based on the literature review and according to social exchange theory, which advocates that sacrificial-leadership help gains employee trust by giving preference to employee rights and well-being, it is hypothesized that;

H2a: *Self-sacrificial leadership is positively associated with employees' trust.*

A strong leader can motivate his followers to achieve his dreams, goals, and objectives (Malinga et al., 2019). Self-sacrificial leaders work using charisma to formulate the image of being the best guardian of their employees and subordinates (De Cremer et al., 2004). Moreover, empowerment has long been associated with self-sacrificial leadership as it strongly believes in putting other interests first and above personal gains (Dong et al., 2015). At the same time, sacrificial leadership has been linked with autonomous motivation (Babič et al., 2019). Studies also show that extrinsic motivation for goal achievement is less effective than intrinsic motivation, depicting employees' need to be intrinsically motivated to achieve long-term organizational goals (de Almeida et al., 2016). The literature also suggests that leaders are influential in promoting subordinates' cognitions, attitudes, and behaviors that guide them towards success (Xia et al., 2019). Thus, based on the above literature and social exchange theory which suggests that leaders' can help motivate their employees to take necessary actions and develop skills to improve their overall performance and gain a competitive edge, the following hypothesis is posited:

H2b: *Self-sacrificial leadership is positively associated with employees' intrinsic motivation.*

Employee Trust, Employee's Knowledge Sharing, and Knowledge Hiding Behavior.

Trust has been linked to the interdependence between individuals (Kelloway et al., 2012) and relationships between families, friends, communities, and organizations (Brown et al., 2015). Employee trust is linked with peers, supervisors, and managers and safeguarding their rights (Newman et al., 2019). In this setting, knowledge sharing is based on an underlying assumption of trust between parties (Oliveira et al., 2020). Employees share tacit and explicit knowledge with a firm belief that it will benefit them and turn to their organization (Škerlavaj et al., 2018). Previous studies indicate that employee trust is dictated by an organization's practices and policies (Rawlins, 2008). An organization's knowledge management system has been a fundamental reason for ensuring that employees' information is organized and appropriately utilized (Ali, 2019). Decentralization and empowerment have also been linked to promoting employee knowledge-sharing behavior by building mutual trust (de Almeida et al., 2016). Based on the above literature and social exchange theory which suggests people exchange values based on mutual trust and understanding, the following hypothesis is posited:

H3a: *Employee trust is positively associated with their knowledge-sharing behavior.*

The literature indicates that certain counterproductive work behaviors (CWB) prohibit employees from sharing important information, helping others, or working for an organization's overall success (Connelly et al., 2019). One such aspect is self-serving behavior like loafing, cheating, stealing, and corruption related to knowledge hiding. These behaviors are exhibited for fulfilling personal gains at the cost of other peers, colleagues, and organizational resources (Babič et al., 2019). Research indicates that an organization's culture, authoritarian leadership, strict rules and regulations, and communication barriers influence knowledge hiding (Rawlins, 2008). Employees are afraid to share knowledge due to fear of mistreatment, nepotism, and disapproval of senior management (Kelloway et al., 2012).

In contrast, trust is essential for developing healthy relationships that promote open and accessible communication channels (Nikandrou et al., 2000). Lack of trust between employees and management can lead to the withholding of important information (Durst & Zieba, 2017). Research also suggests knowledge hiding is also promoted due to the authorities' perception of misuse of information, where the underlying factor is trust (Ahmad & Guzmán, 2020). However, research is limited related to the direct association of trust with knowledge hiding behavior among employees. Thus, it is hypothesized;

H3b: *Employees' trust is negatively associated with their knowledge hiding behavior.*

Intrinsic Motivation, Employee's knowledge Sharing, and Knowledge Hiding Behavior

Intrinsic motivation is related to autonomy, mastery, purpose, shaping, and an individual's inclination towards self-fulfillment (Jungert et al., 2013). Studies have associated intrinsic motivation with satisfaction and feelings of enjoyable experience (Welschen et al., 2012), achievement, competence, and development (Chen et al., 2018; Wasike, 2017). Knowledge sharing is done to express someone's expertise to gain recognition and reward for idea generation (Welschen et al., 2012).

Various organizations create idea-generation boards, an employee of the week, and innovative campaigns to promote employees' knowledge-sharing behaviors (Arsawan et al., 2020; Sawatsuk et al., 2018). Simultaneously, recognition and empowerment can increase intrinsic motivation for teamwork and transfer tacit knowledge among employees (de Almeida et al., 2016). Social exchange theory also supports that knowledge exchange happens based on the assumption that employee evaluates their benefits due to intrinsic motivation (Luczak & Kalbag, 2018). Thus, based on social exchange theory which postulates that an organization's reward and appraisal system promotes creativity and innovation, in turn supporting the knowledge sharing behavior among the employees, it is proposed that;

H4a: *Employee intrinsic motivation is positively associated with their knowledge-sharing behavior.*

Employee intrinsic motivation has been highlighted as highly beneficial for organization and employee personal development (Rani & Desiana, 2019). Moreover, it has been related to improved work performance due to enjoyment and perceived satisfaction (Malinga et al., 2019). There has been rare evidence of its relation to counterproductive behaviors that can harm other

employees, organizational culture, and overall goal achievement. Besides, knowledge hiding can lead to loss of purpose, a hindrance to creativity, and anxiety. Research conducted for underlying factors leading to knowledge hiding revealed poor employee incentives, employee retaliation, insecurity, and psychological ownership (Škerlavaj et al., 2018). However, research is limited about intrinsic motivation and its impact on knowledge hiding. Thus, to bridge this gap in the literature and social exchange theory, it is proposed that intrinsically motivating employees may reduce knowledge hiding to eliminate uncertainty, anxiety, and depression. Thus, the following hypothesis is posited that;

H4b: *Employees' intrinsic motivation is negatively associated with their knowledge hiding behavior.*

Mediation

Employees' Trust as a Mediator between Self-Sacrificial Leadership with Employee's Knowledge Sharing and Knowledge Hiding Behavior

Knowledge sharing is promoted through the perception of value-creation (De Cremer et al., 2004) and has been related to altruistic properties, assuming that individuals share knowledge to help others (Urbonavicius & Sezer, 2019). Employee trust helps break communication barriers, build strong interpersonal relationships, and improve team synergy (Ahmad & Guzmán, 2020). Moreover, Han et al. (2019) said that leaders and managers play an important role in building employee trust by implementing various policies and actions. Simultaneously, self-sacrificial leaders believe in exhibiting ethical roles to gain the trust of their employees (Mostafa & Bottomley, 2020). They promote a fair and just system and equal opportunities for all to participate, process, and develop in the work environment.

Moreover, self-sacrificial leaders exhibit behaviors beyond their job description and self-interest by showing empathy, efficacy, and commitment toward employees (Halverson et al., 2004). Although there is some evidence in the literature related to the role of self-sacrificial leadership in building trust among employees, no study has investigated the interplay of employees' trust in transmitting the role of self-sacrificial leaders in promoting knowledge sharing behavior among employees. Hence to address this gap and based on social exchange theory that postulates that self-sacrificial leadership generates a trusting environment, which, in turn, enhances the knowledge sharing among employees for collective interest and goal achievement, the following hypothesis is posited:

H5a: *Employees' trust mediates the association between self-sacrificial leadership and employees' knowledge-sharing behavior.*

Knowledge hiding refers to the concealment of valuable information from fellows or peers (Malik et al., 2019). Confidentiality can promote knowledge hiding in many organizations due to the job's culture and nature (Brown et al., 2015). Moreover, counterproductive work behaviors are usually termed as unethical and may include less effort towards work, not following rules and guidelines regarding the work environment, and most importantly, deceiving to share crucial information with fellow members that affect their performance (Robinson et al., 2020). In contrast, knowledge hiding has also been associated with mentorship and apprenticeship associated with an

authoritarian style contrary to self-sacrificial leadership (Ngamvichaikit & Beise-Zee, 2014). Moreover, self-sacrificial leaders are generally perceived as trustworthy, honest, and fair (Choi & Mai-Dalton, 1998). Therefore, building a strong trust between followers based on self-sacrificial leadership can help decrease negative perceptions of employee knowledge hiding behavior. Hence, the following hypothesis is posited:

H5b: *Employees' trust mediates the association between self-sacrificial leadership and employees' knowledge hiding behavior.*

Employees' Intrinsic Motivation as a Mediator between Self-Sacrificial Leadership and Employee's Knowledge Sharing and Knowledge Hiding Behavior

The literature suggests that employees can be motivated to share knowledge and information to contribute to the organizational database, within and across teams for problem-solving, innovation, and informal interactions with peers (Olatokun & Nwafor, 2012). It is linked to being a dynamic learning process involving organizational interaction and exchange of resources such as IT, artificial intelligence, and various other software programs that help motivate employees for knowledge sharing participation (De Cremer et al., 2006). SME managers can benefit from developing a strong knit relationship with employees by sharing personal stories of overcoming challenges and obstacles and motivating other employees to do the same. Moreover, information technology plays a vital role by increasing the ease of sharing information rapidly and instantly with others (Chuang, 2020). On the other hand, self-sacrificial leadership promotes knowledge-sharing culture by enhancing communication networks, adaption, and welcoming information exchange, whether productive or not (Halverson et al., 2004). This promotes a culture of understanding and empowerment in employees, motivating them to participate actively. Therefore, based on the social exchange theory, which has been related to promoting positive behaviors in employees based on the sacrificing and caring nature of the leaders while creating motivational factors, it is proposed that:

H6a: *Employees' intrinsic motivation mediates the association between self-sacrificial leadership and employees' knowledge-sharing behavior.*

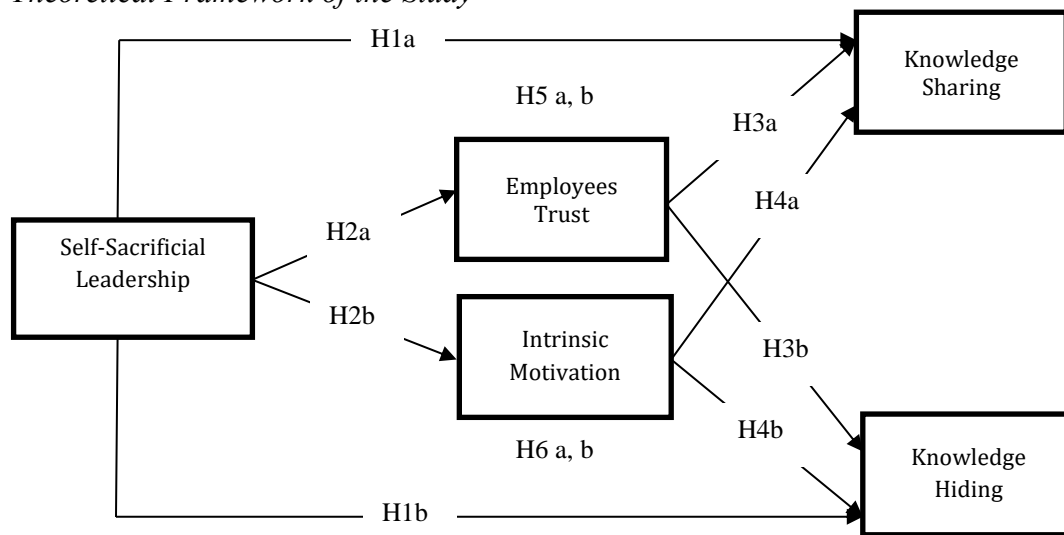
The recent focus on knowledge hiding indicates that it increases competitiveness and mistrust between employees (Malik et al., 2019). It is related to workplace politics based on a mastery climate (Malik et al., 2019). However, sacrificial leadership can help enforce anonymity policies to reduce the negative impacts of knowledge hiding concerning nepotism, harassment, and ethical misconduct (Saad et al., 2018). Likewise, Lin (2007) demonstrated that leaders could motivate employees by providing recognition, appraisal, and resources to reduce knowledge hiding especially tacit knowledge. In contrast, leaders can introduce a culture where competitiveness is based on idea generation, information sharing, and current prevailing problems (Kiani & Laroche, 2019). Research also indicates that knowledge hiding behavior is related to personality traits, as most introverts are shy about expressing and sharing information (Harter, 1981; Jungert et al., 2013). Hence, self-sacrificial leadership can introduce wellness programs to encourage participation based on these personality traits. Hence, based on the above discussion and social exchange theory, it has been assumed that self-sacrificing leaders can ensure employees' intrinsic

motivation to participate positively and effectively and help reduce knowledge hiding among employees by creating a supportive culture. Thus, the following hypothesis is posited:

H6b: *Employees' intrinsic motivation mediates the association between self-sacrificial leadership and employees' knowledge hiding behavior.*

Theoretical Framework of the Study

Figure 1
Theoretical Framework of the Study



Methodology

The study's main objective was to find the association of self-sacrificial leadership with knowledge sharing and knowledge behavior by building trust and intrinsically motivating the employees working in SMEs based in Medan City, North Sumatra Province of Indonesia. Indonesia has many SMEs operating in various sectors and contributing to the country's economic development and growth. The most popular sector for SMEs in Indonesia is agriculture, as Indonesia's vast land is agriculture-based and a source of income for many rural areas and villagers (Triandini et al., 2017). Most other SMEs serve a limited number of localized markets, while others strive for market share by providing sub-contractual systems with various multinational companies (Samsir, 2018). Medan was selected as a survey site as it is the capital and largest city of the Indonesian province of North Sumatra and is one of the most industrious cities in Sumatra, with many small, medium, and large-scale enterprises.

The Supervisory and Management Board that manages data regarding SMEs in Medan City was approached for information. Most of these SMEs were related to food, beverages, grocery stores, and medical-related supplies manufacturing units. The authors started to visit the SMEs to meet management to obtain their consent to approach their employees for the data collection purposes and requested employee details. The authors explained the study's purpose. The SOPs regarding social distancing and other necessary precautions during Covid-19 were observed. During the initial visits, the management of 23 SMEs agreed to provide their employees' details so that a survey could be conducted.

Those who agreed provided the contact information of their employees working at different designations, different departments, and under different supervisors. Only those who were good at reading and understanding English were considered for participation in this research as this study adapted original scales in English with good, reported reliability. Physical contact was avoided due to COVID-19, so an online survey with three parts was sent to the respondents. The first part comprised demographic characteristics of the individuals, including age, gender, marital status, qualification, designation, experience, market orientation, and ownership type. The second and third parts had items related to the study's constructs. The first part was sent to respondents on June 1, 2020. After four weeks of initial sending the questionnaire, the authors send a soft reminder to those who have not responded. After twelve-week and sending two reminders, 412 filled responses were received.

These 412 respondents were sent part two of the survey on September 1, 2020, including 17 intrinsic motivation and employee trust items. Follow-up reminders were given every week. After two months, 390 filled-in responses were received. One more month passed before the third part of the survey was sent. So, in total, after 6 months, the last part of the survey was sent to all 390 participants who filled the previous two sets of the questionnaire. The third and last part of the survey was sent to respondents on December 1, 2020. Again, based on previous experience, quick reminders were given to tap the responses for 9 items related to knowledge sharing and knowledge hiding. The third part, time-three surveys, was completed in two months to close the data collection on January 31, 2021. The authors received 291 questionnaires. After careful screening, 26 responses were excluded from the analysis based on unengaged patterns and missing values; therefore, they were not included in further analysis. Thus, 279 responses were considered with a final response rate of 55.8%, with a total duration for data collection of eight months.

Measures of Study

A five-items scale by De Cremer et al. (2006) was used to measure *Self-sacrificial leadership*. *Employees' trust* was measured with an 11-items scale developed by Bao et al. (2016). *Intrinsic motivation* was measured using the six-item scale Kuvaas (2006) developed and that Kuvaas and Dysvik (2009) further refined. *Knowledge sharing* was measured using Lin's 4-item knowledge sharing scale. Finally, *knowledge hiding* was measured with a five-items scale, adapted from Peng (2013).

Demographic Characteristics of the Respondents

The respondents' demographic statistics showed that 77.8% were males and 22.2% were females. Participants in the age bracket of 20-30 years comprised 26.1% of the sample, 31-40 comprised 49.8%, and 41-50 comprised 18.1%. Only 5% of respondents were above 50 years old. Concerning education, 43.2 % of respondents were graduates, 17.3% were undergraduates, 27.5% were postgraduates, and about 12% had other qualifications. The experience statistics showed that 62.2% of respondents had more than ten years of experience, 12.6 % had 7-10 years, 17% had 4-6 years, and 8.2% had 1-3 years of experience.

Data Analysis and Results

Common Method Bias Analysis

Common method bias (CMB) occurs when the measurement rather than the actual predispositions of the respondents cause differences in responses (Podsakoff et al., 2012). Previous studies like Podsakoff et al. (2003) and Podsakoff et al. (2012) recommended several procedures for addressing the problem of common method bias. In this study, several steps were taken to eliminate common method bias. First, respondents were informed that there was no correct or incorrect response. They were free to answer the questions based on their perceptions. Second, great effort was taken to ensure that the questions were straightforward. Questionnaires were sent to academicians, practitioners, and experts for face and content validity testing, ensuring that the questions were evident and understandable.

Common method bias was tested using two methods; Harman's one-factor method and a correlation matrix (Podsakoff & Organ, 1986). According to Harman's one-factor method, all construct indicators should explain less than 50% of the variance under one factor (Podsakoff et al., 2012). In the present study, factor indicators explained 39.79% of the variance, indicating no common method bias. According to the correlation matrix procedure, common method bias exists when a substantially high correlation is found among the exogenous latent variables ($r > 0.9$) (Bagozzi et al., 1991). CMB is not an issue in this research because the correlation value among the independent variable was less than 0.9.

Assessing the Measurement Model

This study used the SmartPLS to perform structural equation modeling (SEM) analysis. The employees' experience was controlled during analysis based on their significant impact on dependent constructs. Moreover, "Cronbach's α (CA) and Composite Reliability (CR) were assessed (Henseler et al., 2015; Mansoor, 2021). Table 1 depicts that the CR and CA values of all the constructs are above 0.70 (Mansoor, 2021). Simultaneously, all items' factor loadings were in range and significant at $p < 0.001$, and the "Average Variance Extracted (AVE)" of all latent constructs was above 0.50 proving convergent validity (Mansoor & Paul, 2022; Sarstedt et al., 2017).

Discriminant Validity

For assessing the constructs' discriminant validity, "the Heterotrait-Monotrait (HTMT) ratio" was calculated (Henseler et al., 2015; Noor et al., 2021). The values of the HTMT ratio, as shown in Table 2, were under 0.9 for all variables, proving the constructs are distinct from each other. Figure 2 shows the full measurement model.

Table 1
Factor Loadings, Reliability, and Validity

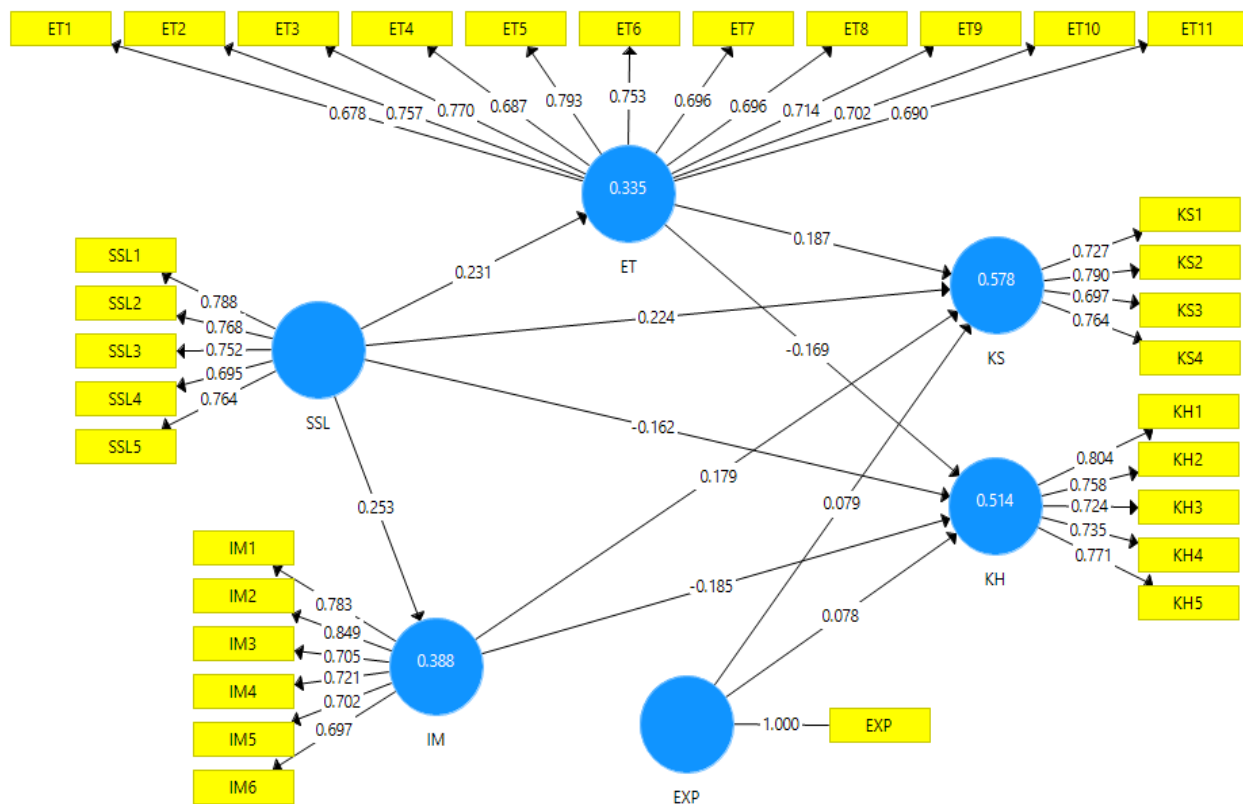
Constructs/Indicators	Factor Loadings					AVE	CR	Cronbach's α
	1	2	3	4	5			
Self-Sacrificial Leadership						0.569	0.868	0.801
SSL1	0.788							
SSL2	0.768							
SSL3	0.752							
SSL4	0.695							
SSL5	0.764							
Employees Trust						0.533	0.901	0.836
ET1		0.678						
ET2		0.757						
ET3		0.770						
ET4		0.687						
ET5		0.793						
ET6		0.753						
ET7		0.696						
ET8		0.696						
ET9		0.714						
ET10		0.702						
ET11		0.690						
Intrinsic Motivation						0.555	0.881	0.790
IM1			0.783					
IM2			0.849					
IM3			0.705					
IM4			0.721					
IM5			0.702					
IM6			0.697					
Knowledge Sharing						0.556	0.833	0.746
KS1				0.727				
KS2				0.790				
KS3				0.697				
KS4				0.764				
Knowledge Hiding						0.576	0.872	0.772
KH1					0.804			
KH2					0.758			
KH3					0.724			
KH4					0.735			
KH5					0.771			

Note. CR, composite reliability; AVE, average variance extracted.

Table 2
Heterotrait-Monotrait Ratio

Constructs	Mean	STD.	1	2	3	4	5
Self-Sacrificial Leadership	3.89	0.79	0.754				
Employees Trust	3.91	0.76	0.349	0.730			
Intrinsic Motivation	3.94	0.71	0.533	0.431	0.744		
Knowledge Sharing	4.06	0.61	0.471	0.624	0.549	0.745	
Knowledge Hiding	4.17	0.57	0.601	0.591	0.454	0.429	0.758

Figure 2
Full Measurement Model



Assessment of the Structural Model

The bootstrapping technique was applied to test the proposed links by applying 500 sub-samples. β -coefficient, p -value, and t -value were recorded to confirm the proposed associations. Simultaneously, “the Coefficient of Determination (R^2)” was calculated to assess the theoretical framework’s overall fitness. The R^2 change of 57.8% change in the *knowledge sharing* and 51.4% in the *knowledge hiding* behaviors of the employees working in SMEs situated in Medan City, Indonesia, revealed by the results due to the impact of all direct and mediating variables reflecting good model fitness.

Direct hypothesis. The results of the direct and mediation hypothesis are shown in Table 3. The results showed a positive and significant association of *self-sacrificial leadership* with *knowledge sharing* ($\beta = 0.224^{***}$, $t = 4.431$), *employees’ trust* ($\beta = 0.231^{***}$, $t = 4.753$) and

intrinsic motivation ($\beta = .253^{***}$, $t = 5.180$). In contrast, a negative and significant association of *self-sacrificial leadership* with *knowledge hiding* ($\beta = -0.162^{**}$, $t = 3.311$) was revealed. Moreover, *employees' trust* ($\beta = 0.187^{**}$, $t = 3.928$) and *intrinsic motivation* ($\beta = 0.179^{**}$, $t = 3.524$) were found positively related *knowledge sharing*. At the same time, the results found a negative association between *employees' trust* ($\beta = -0.169^{**}$, $t = 3.393$) and *intrinsic motivation* ($\beta = -0.185^{***}$, $t = 3.797$) with *knowledge hiding*. Therefore, as shown in Table 3, the results supported hypotheses *H1 a, b, H2 a, b, H3 a, b, and H4 a, b* of the current study.

Mediation Hypothesis. As shown in Table 3, the mediation hypotheses *H5 a, b and H6 a, b* was also supported. An indirect and positive effect of *self-sacrificial leadership* with *knowledge sharing* in the presence of *employees' trust* ($\beta = 0.191^{***}$, $t = 4.027$) and *intrinsic motivation* ($\beta = 0.201^*$, $t = 4.201$) as mediators was demonstrated by the results. On the other hand, an indirect and negative effect of *self-sacrificial leadership* with *knowledge hiding* in the presence of *employees' trust* ($\beta = -0.122^*$, $t = 2.737$) and *intrinsic motivation* ($\beta = -0.151^{**}$, $t = 3.279$) as mediators were found as posited.

Table 3
Hypothesis Testing Results

	Hypotheses	Std. Beta	t-Value	p-values	Findings
H1a	SSL → KS	0.224	4.431	0.000	Supported
H1b	SSL → KH	-0.162	3.311	0.004	Supported
H2a	SSL → ET	0.231	4.753	0.000	Supported
H2b	SSL → IM	0.253	5.180	0.000	Supported
H3a	ET → KS	0.187	3.928	0.000	Supported
H3b	ET → KH	-0.169	3.393	0.002	Supported
H4a	IM → KS	0.179	3.524	0.001	Supported
H4b	IM → KH	-0.185	3.797	0.000	Supported
H5a	SSL → ET → KS	0.191	4.027	0.000	Supported
H5b	SSL → ET → KH	-0.122	2.737	0.013	Supported
H6a	SSL → IM → KS	0.201	4.201	0.000	Supported
H6b	SSL → IM → KH	-0.151	3.279	0.007	Supported

Note. SSL=Self-sacrificial Leadership; ET=Employees' Trust; IM= Intrinsic Motivation; KS= Knowledge Sharing; KH= Knowledge Hiding

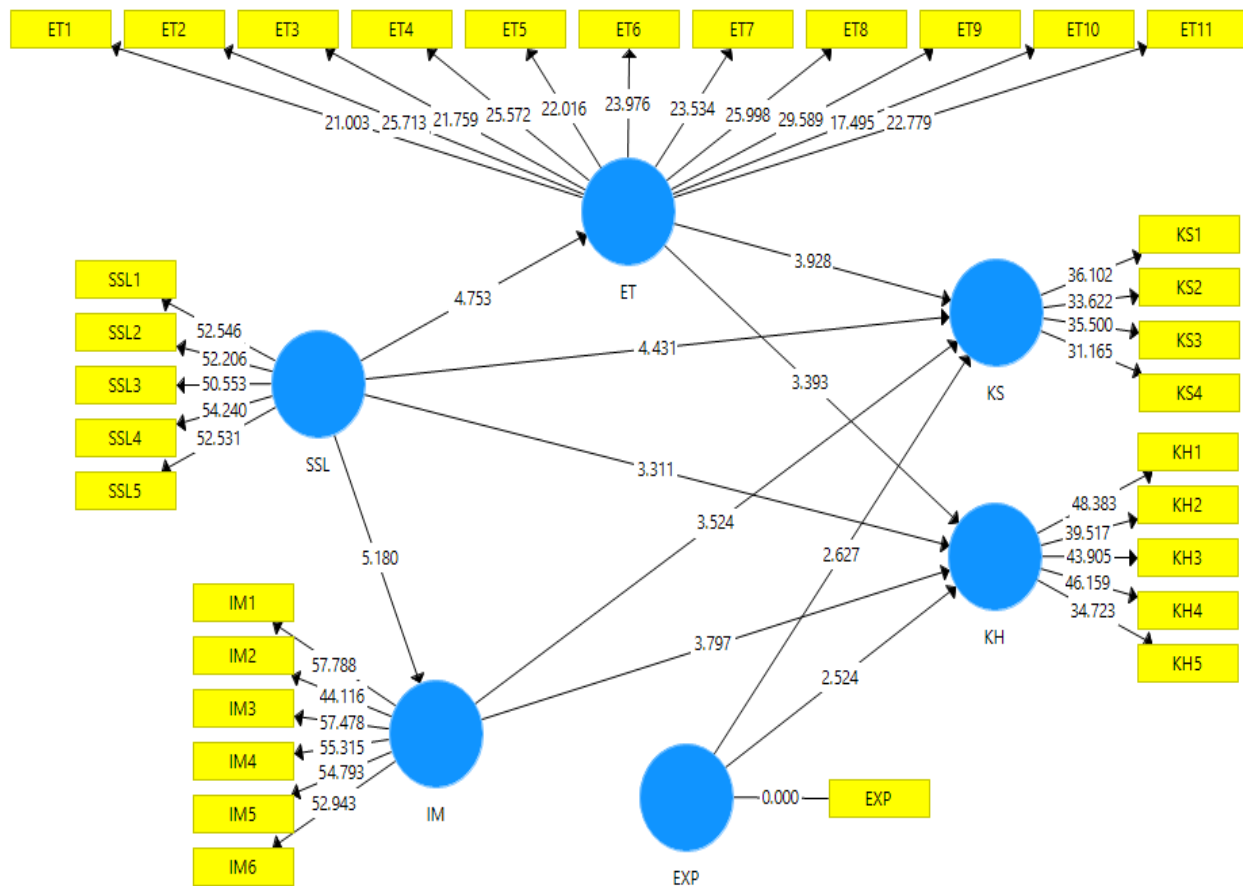
Discussion and Implications

Findings of the Study

This study focused on knowledge-sharing and hiding behavior as exhibited by employees based on their trust and intrinsic motivation in the presence of self-sacrificial leadership in SMEs based in Medan City, North Sumatra Province of Indonesia. It investigated self-sacrificial leadership's role in contributing to employee knowledge sharing activities, trust-building, and intrinsic motivation. The results showed a direct and significant impact of self-sacrificial leadership on employees' trust, intrinsic motivation, and knowledge-sharing behavior. This reflects self-sacrificial leadership as a unique construct in shaping followers towards attaining self-fulfillment

more than extrinsic benefits containing materialistic things. It helps leaders and managers earn long-term commitment and loyalty and work towards achieving common goals (Liang & Fan, 2020). Moreover, the study results align with Zhang et al. (2020), who said that self-sacrificial leadership creates an environment of mutual trust, respect, and harmony in the organization. It creates a sense of belongingness in the employees by instilling the faith that managers always have employees' well-being and prosperity in their minds (Yang et al., 2020).

Figure 3
Full Structural Model



This further reflects that self-sacrificial leaders are always ready to take risks and make many sacrifices to support their subordinates; following this style, supervisors are closer to their employees and can better understand the challenges they face and know how to address them. Also, the self-sacrificial leadership style leads to employee satisfaction and intrinsic motivation for contributing and participating in organizational success (De Cremer et al., 2009) by sharing their tacit knowledge. The negative association of self-sacrificial leadership with employees' knowledge-hiding behavior shows that self-sacrificial leaders motivate them to share their knowledge with peers while interacting with their subordinates. Such leaders try to understand the issues and problems their subordinates face and try to resolve them while sacrificing their own needs (Cheng & Zhu, 2021; Liang & Fan, 2020). This makes employees feel strongly about being

a part of the organization and believe in helping their peers and not hiding any important information or knowledge from them based on the trust provided by their leaders.

Additionally, this study investigated the role of employee trust, which has previously been explored for turnover, harassment, and performance measures. But very few studies have investigated its role in employee knowledge sharing behavior. This study highlights this context by supporting that employee trust plays an important role in knowledge sharing behavior, as an employee is confident that the information he shares will be utilized in the best possible way. He believes that knowledge sharing will benefit a company, help an employee grow personally, and earn regard and respect from his peers and team members (Wen et al., 2019). Besides, knowledge sharing promotes teamwork and introduces new and challenging opportunities for great competitive advantage (Xia et al., 2019). Also, this study points out that employees who do not trust their supervisor or company policies might lead them to engage in knowledge hiding behavior because employees will fear that the company can use the knowledge they share in ways that benefit the company but do not support employee goals. This usually happens when credit is not given for knowledge sharing, and nepotism persists, creating bias and unfair treatment of employees (Ramayah et al., 2020). Therefore, management and supervisors should formulate transparent policies for knowledge sharing and appraise employees on merit.

Finally, this study explored the role of intrinsic motivation for knowledge sharing and knowledge hiding, which has not been explored previously in the literature. Research shows that intrinsic motivation is highly significant in encouraging employees to participate in citizenship behavior; one example is knowledge sharing for helping peers, team members, and the company (Rani & Desiana, 2019). An employee with strong intrinsic motivation will be encouraged to participate well and share his tacit knowledge with supervisors and peers to exhibit altruistic properties (Chen et al., 2018; Sunardi et al., 2020). Likewise, motivated employees believe in working in a helping environment with mutual interests where they consider their peers' success as their own and believe in teamwork; thus, they avoid hiding information and their knowledge from their peers. The same is depicted in the study results.

Finally, advancing the existing literature current study explored the mediatory role of employees' trust and intrinsic motivation in transmitting the positive effects of self-sacrificial leadership to encourage them to share knowledge with peers. Moreover, the current study results depicted that self-sacrificing leaders act to earn employee trust, which helps reduce employees' knowledge-hiding behavior. The study results also showed that intrinsic motivation mediates between sacrificial leadership and knowledge hiding so that it reduces the knowledge hiding behavior by encouraging the employee to participate in knowledge sharing. Simultaneously, based on the results of this study, the assumption is that employees will be encouraged to share their knowledge with the company in the presence of a fair appraisal and reward system. Therefore, SMEs should have sound technological systems that provide knowledge management and award points and recognitions to employees.

Theoretical Implications

This study contributed to the literature on leadership, trust, motivation, and knowledge management.

- The first and foremost contribution to literature is the role of self-sacrificial leadership for SMEs, which has rarely been explored in the literature previously. Self-sacrificial

leadership in SMEs relates to managers and supervisors prioritizing their employees' rights, preferences, and well-being on their own company's goals and achievements. Previously it was studied for leaders making personal sacrifices for their followers to earn their rights (De Cremer et al., 2009); however current study made a major theoretical advance by linking them with knowledge management constructs.

- The second major contribution of this research was to study the role of knowledge hiding in SMEs' employees, which has rarely been studied previously. Knowledge hiding has severe impacts on a company's overall success and can create conflicts between employees and hinder their creativity, but previous literature lacks evidence of why employees exhibit this behavior. Therefore, this study explored its role for SME employees and highlighted underlying factors contributing to it.
- The third contribution was investigating the role of employee trust and intrinsic motivation for knowledge sharing and knowledge hiding; previously, their role has only been explored for performance-related behaviors. In contrast, the current study bridged the literature gap and studied the interplay of these constructs with self-sacrificial leadership to enhance employee-knowledge sharing behavior and decrease their knowledge-hiding behavior.
- The fourth major theoretical advance of this research was linking the unique leadership style with novel constructs knowledge management while motivation and trust play an underlying role in explaining the influence of leadership on knowledge outcomes. Hence this complete framework is considered an advance to the management literature and provides multiple avenues for future research motivations.
- The fifth major theoretical advance was providing empirical evidence for such a unique framework from a multicultural study context of Indonesia. Such design and theoretical approach in the given context are unique contributions to explaining causal relationships in the study framework.
- The final contribution made by this research was the use of social exchange theory for explaining the role of knowledge hiding and sharing behavior of SMEs. Social exchange theory has previously been used to explain social relationships between individuals who weigh the benefits and risks attached to them, where the underlying motivation was to maximize rewards and minimize adverse outcomes like loss of respect and gratitude. At the same time, this study explored it in the context of self-sacrificial leadership to build trust among employees and encourage them to maximize their knowledge sharing for innovation and creativity, and minimize the hiding of tacit knowledge to improve overall productivity.

Practical Implications

There are several practical implications of the current study.

- First, this study focused on SMEs in Indonesia, which formulate a significant part of overall economic activity and contribute to economic and financial growth. SMEs are an essential source of the country's GDP and provide vast employment opportunities. They also serve as a fundamental aspect of innovation by bringing forth unique ideas to sell their products. They are easily manageable, and hence governments provide loans and resources to encourage this sector of the economy. This study, therefore, highlights the importance of how governments and communities can benefit from SMEs by empowering their employees and developing a level of trust among them.

- A significant source of SMEs' competitive edge over other companies is their small number of employees, making them easier to adapt to changes and generate innovative ideas. Therefore, governments and policymakers should support SMEs in taking advantage of their innovativeness and adaptability compared to larger organizations.
- Another essential aspect for policymakers to consider is the role of sacrificial leadership exhibited by senior management and supervisors to ensure a supportive environment for their employees. Human resource managers can also utilize this study to create this leadership style to earn trust and commitment from their employees for knowledge sharing. Management training and development goals can be set accordingly.
- This study is also vital for management to enforce proper knowledge management systems that encourage their employees to contribute to the development and become a source of competitive edge by sharing their tacit knowledge. Moreover, supervisors can use this study to implement ways that increase employees' intrinsic motivation to express themselves and their knowledge. Finally, managers and supervisors can identify knowledge hiding behavior in their employees by giving utmost importance to their issues and listening to them, thus, increasing their trust and intrinsic motivation to reduce the knowledge hiding behavior.

Conclusion

The current study is established on the Social-Exchange Theory and examines the influence of self-sacrificial leadership on employees' knowledge sharing and knowledge-hiding behavior. Moreover, the mediatory role of employees' trust and intrinsic motivation was also examined. Using a longitudinal field survey, data were collected from 457 employees working at different levels in small and medium enterprises in Medan city, Indonesia. The results revealed the positive and significant influence of self-sacrificial leadership on employees' knowledge-sharing behavior, while self-sacrificial leadership was negatively associated with employees' knowledge-hiding behavior. The results also revealed the interplay of employees' trust and intrinsic motivation between the link of self-sacrificial leadership and employees' knowledge sharing and knowledge hiding behaviors. Moreover, although this study covered the factors contributing to knowledge sharing and knowledge hiding behavior, it still exhibits a few limitations. It covers the employees' point of view on knowledge sharing and knowledge-hiding behavior in SMEs, but it does not compare their resources for such knowledge management systems with large organizations with technological resources.

Therefore, future studies can investigate how technology impairs or supports knowledge sharing or hiding behavior in large firms. Second, the role of gender was not examined for knowledge sharing and hiding behavior as they may impact how males and females feel towards knowledge-sharing and hiding behavior based on a company's culture and system. Although one-way ANOVA results revealed no significant differences for gender, a separate study on gender response and motivation differences for knowledge sharing and hiding is recommended. Third, the current study was only conducted among the employees. In the future, data can be collected from both supervisors and subordinates to determine whether employees are exhibiting the same behaviors as they are reporting.

This study did not investigate personality's role in earning employees' trust and intrinsic motivation, which is vital in predicting intentions towards knowledge sharing and hiding behavior. Big five personality traits, other leadership styles, and knowledge sharing and hiding behaviors could be good for future research. Future studies may also explore how leader-member exchange

may affect the employees' knowledge sharing and hiding behaviors. Although for a longitudinal study design, the sample size of 279 is considered good, however, future studies may use a more extensive data set for better generalizability. Finally, Covid-19 has affected the employees' attitudes and behaviors due to the pressure environment, and its impact on the findings cannot be ignored.

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