This is an author-created, un-copyedited version of an article:

Knowledge sharing and knowledge hiding in light of the mistakes acceptance component of learning culture-knowledge culture and human capital implications

accepted for publication in The Learning Organization

and, is available at:

https://www.emerald.com/insight/content/doi/10.1108/TLO-03-2022-0032/full/html

Knowledge Sharing and Knowledge Hiding in Light of the Mistakes Acceptance Component of Learning Culture—Knowledge Culture and Human Capital Implications

Abstract

Purpose*:* This study examines the micromechanisms of how knowledge culture fosters human capital development.

Method: An empirical model was developed using the structural equation modeling method (SEM) based on a sample of 321 Polish knowledge workers employed in different industries.

Findings: This study provides direct empirical evidence that tacit knowledge sharing supports human capital, whereas tacit knowledge hiding does not, and this hiding is considered a waste of knowledge. If tacit knowledge does not circulate within an organization, it is a severe waste of an organization. The findings indicate that shame from making mistakes might impede the sharing of knowledge gained from making those mistakes, and in such cases, the knowledge remains hidden.

Practical implications: Leaders aiming to ensure human capital growth should implement an authentic learning culture composed of a learning climate and mistakes acceptance components that enable open discussion about mistakes on each organizational level.

Originality: The knowledge culture is found to be an essential element of building human capital but, at the same time, not sufficient without a learning culture, and its mistakes acceptance component. A permanent organizational learning mode that supports a continuous organizational shared mental model reframing is an antidote to tacit knowledge hiding.

Keywords: knowledge culture, knowledge sharing, knowledge hiding, learning culture, mistakes acceptance, learning climate, human capital

Introduction

Learning processes shape organizational behaviors (Marmgren et al., 2016). Carmeli (2007) noted that in organizational learning, it is vital to understand the causes of mistakes and improve processes that end with failure. The concepts of errors, mistakes, and failures refer to actions with unintended effects (e.g., "something went wrong"). Error is associated with a deviation from a norm as a visible result of a mistake, and therefore this term is often used in error management studies and concerns the production industry (e.g., Love et al., 2018). Failure is understood as an effect of a mistake or a set of mistakes, including avoidable mistakes such as all negligence effects, which are easy to amend by diligence. But failure can also be an effect of unavoidable negative results of a calculated risk, such as occur when experimenting or creating a new venture (Politis & Gabrielsson, 2009). Therefore, errors, mistakes, and failures can be equally caused by negligence and diligence when acting under uncertain conditions.

Therefore, many positive examples of learning from mistakes come from entrepreneurship studies (e.g., Yao et al., 2021; Senz, 2021). Such studies have observed that error tolerance leads to many positive outcomes for employees, for example, psychological safety, self-efficacy, supportive and learning employee behaviors, and increased error rates. Reporting errors, mistakes, and failures is a starting point for organizational learning from mistakes (Elden & Ismail, 2016). But, if the error, mistake, or failure is hidden, then barely the person who made it can learn a lesson, and it is logically seen as an organizational waste (Mubarak et al., 2021). If shared, the knowledge gained from mistakes can be a precious lesson for others. So, the constant learning culture composed of a learning climate and mistakes acceptance components (Kucharska & Bedford, 2020) can support a positive attitude toward knowledge sharing and avoidance of its hiding, mostly if gained from inevitable mistakes. Of course, mistakes are unavoidable in the dynamically developing reality demanding new and risky actions, but this fact is not always accepted. In this context, the question is: how knowledge sharing and hiding

is affected by the learning climate component and the mistakes acceptance component of learning culture, and expose how does it affect intellectual capital? Tacit knowledge sharing influence on intellectual capital has been exposed by Kucharska (2021a, 2022), but the hiding was not studied in this context yet (Garg et al., 2022). According to Siachou et al.'s (2021) literature review on knowledge hiding, the existing literature lacks explicit evidence for the distinct effect of knowledge hiding on intellectual capital. So, this study aims to fill this gap. Intellectual capital is considered a key source of competitiveness, and human capital is considered a critical dimension of intellectual capital, the development of which is a key focus of learning organizations (Islam & Amin, 2021). Therefore, this research provides a critical view of the organizational mechanism of the mistakes' acceptance component of learning culture in relation to the effect of tacit knowledge sharing and hiding on human capital creation in learning organizations today.

Theoretical Framework

This study is framed by Organizational Knowledge Creation Theory, understood as a continuous process of tacit knowledge acquisition and its transformation into explicit form thanks to social interactions (Nonaka & Takeuchi, 1995). This theory is inspired by Polanyi's (1996) discovery that *All knowledge is rooted in tacit knowledge*. In this context, tacit knowledge sharing or hiding is expected to severely affect knowledge-oriented organizations. Knowledge sharing occurs when people communicate with one another and distribute information and their meaning; present good practices, new insights, experiences, opinions, and lessons learned, as well as common and uncommon sense (Liao et al., 2007). Knowledge hiding is defined as an "intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person," and it is classified as evasive hiding, playing dumb, or rationalized hiding (Connelly et al., 2012, p. 65). Knowledge hiding is usually perceived

negatively as a counterproductive knowledge-sharing behavior that involves intentional actions aimed at harming organizations or, specifically, workmates (Afshar-Jalili et al., 2021). However, some authors claim that knowledge hiding sometimes can be beneficial under rare circumstances (Connelly & Zweig, 2015). This study considers hiding newly discovered tacit knowledge gained thanks to own mistakes as rationalized hiding. And it is hypothesized to be an effect of company culture.

So far, studies devoted to identifying the factors that lead to knowledge hiding behavior have focused on individual-related factors such as personality, emotional intelligence, evil intentions, revenge, and expecting something in return (Pan et al., 2018; Yuan et al., 2021). Other studies have examined organizational factors such as leadership style (Mubarak et al., 2021), and abusive supervision (Farooq & Sultana, 2021), unfavorable organizational norms or policies (Koay et al., 2022), poor motivational and relational climate at work (Banagou et al., 2021), e.g., competitive organizational environment (Anand & Hassan, 2019), time pressure (Škerlavaj et al., 2018), knowledge complexity (Connelly et al., 2012), a lack of trust among workmates (Anand & Hassan, 2019), and harmful motives of organizational sabotage (Perotti et al., 2021). However, knowledge hiding can also be motivated by positive factors, such as protecting knowledge being a source of the competitive advantage by the limited access to it or by protecting a person (e.g., work colleague), but these factors are usually not easy to classify. That is, hiding the tacit knowledge gained from making mistakes is not always an intentional action with harmful intentions but can be the simple effect of a lack of sharing. As was stated, we see it rather as a rationalized form of hiding aimed to protect self-image in the organizations where knowledge culture is stronger than learning culture. Precisely, in organizations where knowledge culture is stronger than learning culture knowledgeable persons are valued more than agile learners. So, in organizations where is better to be a person who "is always right" than the one who "sometimes is not" because being mistaken is seen as something that

diminishes professional status. Thus, this study considers knowledge hiding as an effect of cognitive bias connected with a negative perception of mistakes that might hinder mistakes acceptance being a source of learning and, at the same time, might hinder sharing knowledge gained from these mistakes.

In line with this, the study assumes that company culture might facilitate this supposed unconscious bias caused by the fact that, on the one hand, mistakes are claimed to be a natural source of learning (positive attitude), but, at the same time, the professional status of people who make mistakes is often diminished (negative attitude). This attitudinal contradiction might cause some cognitive problems.

Knowledge Culture and Learning Culture

Organizational culture facilitates the creation and distribution of knowledge (Aramburu et al., 2015). Islam et al. (2015) defined a knowledge culture as a set of norms and practices that secures the conditions to support the flow of knowledge across an organization. Kucharska (2021a) stated that the culture of knowledge may lead to excessive concentration on explicit knowledge, manifested in its static exploitation, without taking the risk. Risks always accompany novel knowledge acquisition and even more its application. Therefore, some organizations to avoid new knowledge risks prefer to "keep things as they are" - that might block their development. In contrast, a learning culture leads to constant, dynamic knowledge acquisition provoked by the "intelligence in action" (Erickson & Rothberg, 2012). Therefore, the culture of knowledge seems to be an essential element in building human capital in the knowledge economy context, but it also seems to be without learning culture - insufficient. Thus, the development of a learning culture appears to be vital in supporting a constant circulation of knowledge across an organization. Watkins and Marsick (1996) noted that a "learning organization must capture, share, and use knowledge so its members can work together to change the way the organization responds to challenges. People must question the

old, socially constructed, and maintained ways of thinking. And the process must be continuous because becoming a learning organization is a never-ending journey" (p. 4). In light of this definition of a learning organization, a learning culture appears to be crucial for organizational performance and development (Rebelo & Gomes, 2017), but its effectiveness decreases without the implementation of a knowledge culture that provides the basis for learning. Pérez López et al. (2004) argued that knowledge culture has a positive effect on learning culture, and the significant effect of knowledge culture on knowledge sharing and learning was also found by Eid and Nuhu (2011). Following them, Kucharska and Bedford (2020) proved that an organizational learning culture includes a learning climate and mistakes acceptance components. They define the "learning climate" dimension as reflected in the entire staff's high motivation and disposition of learning, organizational encouragement for the team seeking new solutions, and new ideas implementation. The "mistakes acceptance" component is seen as reflected in the fact that mistakes are treated in an organization as learning opportunities and in the fact that the company's staff understands that mistakes are learning consequence and tolerate it up to a specific limit. Regarding Kucharska and Bedford (2020), both components of the constant learning culture are equally crucial for learning organizations. So, following them, hypotheses are proposed, as below:

H1a: Knowledge culture positively influences learning through supporting the learning climate component of learning culture.

H1b: Knowledge culture positively influences learning through supporting the mistakes acceptance component of learning culture.

Learning Climate Component of Learning Culture and Tacit Knowledge

Bryans (2017) noted that 80% of employee learning occurs informally and is entirely unplanned, incidental, and mainly experiential. Therefore, it can be concluded that most organizational learning is highly personal, and personal discoveries are tacit (Olaisen &

Revang, 2018). An excellent example of such incidental learning is learning from mistakes that are never planned, so learning from them is mostly incidental, therefore - tacit. In addition, Eraut (2000), and Olaisen and Revang (2018) demonstrated that next to "learning by interaction," "learning by doing" is the primary source of tacit knowledge acquisition. Weinzimmer and Esken (2017) who introduced the idea of a "mistake tolerant-organization that does not explicitly encourage errors, but rather creates a culture of intelligent risk-taking that leads to learning and improved knowledge" (p.5), claimed that the perfect example of mistake tolerance in an organization is a "learning by doing" approach, which is a practical approach to learning through exploration, where thanks to the learner's cognitive assessment and critical thinking (Oswald & Mascarenhas, 2019), new knowledge is often gained from mistakes. Thus, learning from mistakes is considered a tacit process. Therefore, this study is motivated by the assumption that organizations and societies could probably achieve better results if they supported tacit knowledge learning, including as a potential source of such learning mistakes if they do not accept them. And this study considers both potential reactions to gaining knowledge through mistakes, that is, sharing the knowledge or its hiding. In organizations where a negative attitude towards mistakes exists, mistakes are not viewed as learning opportunities but rather as a shame (Ferguson, 2017), and there is a risk, they tend to be hidden. Thus, this study examines the informal process of hiding knowledge and assumes that learning from mistakes is a sensitive (may be dominated by a sense of shame) and mostly silent process. Therefore, this study assumes that the tacit knowledge gained from mistakes can be equally shared or hidden.

Tacit knowledge, being novel—as opposed to explicit knowledge —is beneficial for organizations focused on being innovative (Kucharska, 2021a, 2022). Tacit knowledge is specific—produced and stored in people's minds—and is highly personal. At its early stage, it is not conscious. In addition, it is difficult to articulate, and its development requires social interactions (Insch et al., 2008). With this line, Shao et al. (2017) revealed that tacit knowledge

sharing behaviors are motivated by psychological factors and contextual factors such as the overall organizational climate and the organization's learning climate, which is a component of learning culture. In comparison, Garvin (1993) defined an organization with a learning culture as an "organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights" (p. 80). So, it clearly suggests that the key focus of organizational learning is new knowledge creation and application. Furthermore, Yoon et al. (2009) noted that a learning culture supports knowledge creation. Therefore, the following hypothesis is proposed:

H2a: The learning climate component of the learning culture positively influences tacit knowledge sharing.

In contrast to knowledge sharing, knowledge hiding harms drivers of organizational growth such as creativity (Bari et al., 2019) and innovativeness (Černe et al., 2017). When employees hide knowledge, they create a "reciprocal distrust loop" (Černe et al., 2014). Ma et al. (2014) noted that knowledge hiding is often motivated by individuals who keep valuable expertise to themselves to maintain their status. This knowledge hiding harms interpersonal relations by increasing distrust and competitiveness (Malik et al., 2019). Oliveira et al. (2021) stated that workplaces should be designed to motivate people to collaborate rather than to compete and that workplaces should create a positive climate to prevent the destructive consequences of knowledge hiding. Therefore, the following hypothesis is proposed:

H2b: The learning climate component of learning culture negatively influences knowledge hiding.

Mistakes Acceptance Component of Learning Culture and Tacit Knowledge

Zhan and Min (2019) found that knowledge hiding prevents team learning. Gagne et al. (2019) noted that workplace design is critical for preventing knowledge hiding. Cohesion within a work team often determines knowledge sharing or hiding behaviors (Issac & Baral,

2020). Webster and Pearce (2008) emphasized that knowledge sharing should focus on learning culture rather than on the generation of knowledge because the knowledge that is generated without a culture of learning remains passive (i.e., there is a risk the new approach is never applied). That is, the knowledge gained needs to be applied to be beneficial to the organization. For knowledge to be applied, a learning culture is needed that includes the encouragement for new ideas seeking and implementation. Constant learning culture encourages a new (tacit) knowledge creation and dissemination rather than cultivating an environment that favors the passive exploitation of explicit knowledge and repeating proven solutions to new challenges.

Following Nonaka and Takeuchi's (1995, 2019) socialization, externalization, combination, and internalization (SECI), it can be assumed that learning culture supports tacit knowledge creation and its transformation using spiral dynamism (SECI model). Thus, a learning culture is expected to support tacit knowledge sharing and prevent tacit knowledge hiding. Further, because the mistakes acceptance component of learning culture supports tacit knowledge sharing (Kucharska, 2022), it is expected that this component also affects also knowledge hiding behaviors. Given that the knowledge employees might gain from making mistakes is tacit, it will remain hidden unless it is shared. However, sharing the knowledge gained from making those mistakes might be perceived as revealing negligence. This means that employees can be inclined to feel ashamed of making mistakes and consequently hide any lessons they learned from these mistakes, meaning that the knowledge remains hidden and is therefore wasted. A company learning that accepts mistakes as a source of learning can change this negative attitude toward making mistakes. Rebelo and Gomes (2011) stated that organizational learning is one of the organization's core values and includes the following aspects: "a focus on people, concern for all stakeholders, stimulation of experimentation, encouraging an attitude of responsible risk, readiness to recognize errors and learn from them, and promotion of open and intense communication, as well as promotion of cooperation,

interdependence, and sharing of knowledge" (p. 174). Senge (2006) claimed that if a person wants to learn, then the person must be ready to be wrong sometimes. The same applies to organizations. If organizations want to learn, they should be ready to accept mistakes being made so that they can learn from them. Therefore, these hypotheses are proposed to illustrate the significance of the mistakes' acceptance component of the learning culture for knowledge sharing:

H3a: It is expected that the learning culture's mistakes acceptance component positively affects tacit knowledge sharing.

There is a great deal of evidence for the destructive effect of knowledge hiding on organizations (Connelly et al., 2019). This research considers that tacit knowledge hiding is the opposite process of tacit knowledge sharing, leading to the opposite results. Therefore, the following hypothesis is proposed:

H3b: It is expected that the learning culture's mistakes acceptance component negatively affects tacit knowledge hiding.

Tacit Knowledge and Human Capital

The cumulated knowledge stock, understood as intellectual capital, is a key source of organizational development (Dahiyat et al., 2021), and human capital is one of the intellectual capital dimensions. Human capital resides within and belongs to individuals but can be revived, developed, and aggregated at the organizational level (Islam & Amin, 2021). Tacit knowledge is the first source of any innovation (Pérez-Luño et al., 2019). Further, processes that support knowledge directly support the creation of intellectual capital. Allameh (2018) and Mehralian et al. (2018) emphasized that knowledge creation and sharing foster the creation of intellectual capital, which is vital for organizational innovativeness and performance. This argument is in line with Guthrie (2001), who found that intellectual capital reflects the stock of knowledge of organizations and that it is derived from the organizational flow of knowledge processes over

time. Saint-Onge (1996) noted that tacit knowledge has different forms for each component of organizational intellectual capital: for human capital, tacit knowledge is reflected in mindsets, assumptions, beliefs, and biases; for relational capital, tacit knowledge is reflected in the collective mindset of meaning perception; and for structural capital, tacit knowledge is reflected in the collective culture, norms, and patterns of behavior (Saint-Onge, 1996, p. 12). Kucharska (2021a, 2022) found that tacit knowledge sharing strongly supports the human component of intellectual capital. Thus, again bearing in mind that knowledge hiding is considered in this research as the opposite process of tacit knowledge sharing, the study presents the following hypotheses:

H4: Tacit knowledge sharing positively influences human capital.

H5: Tacit knowledge hiding negatively influences human capital.

Figure 1

Empirical Model

Figure 1

Method

Sample

The sample had 321 participants. The sampling process focused on recruiting Polish employees working in knowledge-driven organizations across industries via a research panel conducted by answeo.com. The sample was represented by men (70%) and women (30%); aged 18–24 (16%), 25–34 (45%), 35–44 (20%), 45–54 (10%), and 55–74 (9%); working in small <50 people (20%), medium <250 people (35%), big <500 people (20%), and large >500 people (25%) companies; in the information technology (31%), sales (8%), finance (15%), production (7%), service (12%), education (12%), construction (5%), healthcare (2%), logistics (5%), and other (3%) industries. All respondents were highly educated (bachelor's degree and higher) typical knowledge workers (declared by answering the first qualification question that opened

the questionnaire). The second qualification question verified the positive attitude toward learning at work; this question was vital for the purpose of this study because we needed to survey people who are focused on knowledge acquisition and want to learn.

Data were collected in September 2021. Anonymity, confidentiality, and informed consent were secured from the participants. The survey began with questions about the workers' qualifications and tenure to ensure the selection of respondents had been employed for a minimum of one year in the same company. Respondents were given a brief explanation of the study's purpose and a definition of tacit knowledge. Tacit knowledge was introduced as "personal, informal knowledge that is often confused with intuition in its early stages of existence". To explain it better, tacit knowledge was compared with a situation when people realize something (e.g., a better way of doing things) or have a revelation (e.g., "I have a new idea"). Participants were then asked to respond to focal statements measuring all involved constructs using a seven-point Likert scale to assess their attitudes in relation to the statements. Only fully filled questionnaires where SD>0.4 were accepted. Appendix 1 presents the details of statements, including the scales used and the obtained reliabilities, whereas the exploratory factor analysis is presented in Appendix 2.

The total variance of the sample was extracted at the 78% level, and a Kaiser–Meyer–Olkin test of the sample's adequacy at the 0.83 level confirmed the sample's good quality (Hair et al., 2010). Further, a Harman single-factor test (Harman, 1976) was run, and the 36% result indicated there was no bias (Podsakoff et al., 2012). The normality assessment was successfully performed following Hancock and Liu's (2012) bootstrapping method.

Measures and Procedure

All included constructs represented by latent variables were measured using attitude scales (see Appendix 1). Measured constructs reached standardized loadings above the reference level of >.60 (Hair et al., 2010). The internal consistency of the constructs was

assessed using Cronbach's alpha, and the critical level of >.70 (Hair et al., 2010) was also reached for all measures. Average variance extracted (AVE) was assessed with a test statistic of >.50 and composite reliability of >.70 (Byrne, 2016; Hair et al., 2010), with all tests establishing scale validity. Discriminant validity was assessed by comparing the AVE square root against correlations with other constructs (Hu & Bentler, 1999). All AVEs were appropriately larger than the referenced value. Table 1 presents the correlations and square root of AVE in the diagonal. All correlations are lower than the square root of AVE, which means the structural model analysis can proceed.

Table 1

Correlations and Square Root of AVE in Diagonal

Table 1

After verifying the quality of measures, the empirical structural model was performed using SPSS AMOS 26 software.

Results

The results revealed that all hypotheses are supported, except H5, which relates to the expected direct negative influence of knowledge hiding on human capital. The findings revealed that this effect is not significant, but to better understand this surprising effect, it is worth analyzing the entire examined structure in greater depth. The findings support that a knowledge culture is a basis for a learning culture (H1a/H1b). Further, the results showed that both learning culture components—the learning climate (H2a = .30***) and mistakes acceptance (H3a = .39***)—positively support tacit knowledge sharing and negatively affect knowledge hiding (H2b = −.11*/H3b = −.20***). The stronger negative influence of the mistakes acceptance component on knowledge hiding (H3b = −.20***), in comparison with the negative influence of the learning climate component on knowledge hiding (H2b = −.11**),

should also be highlighted because this result demonstrates the importance of mistakes acceptance for avoiding knowledge hiding behaviors. It was also found that tacit knowledge sharing supports human capital (H4 = .46***), whereas knowledge hiding does not support human capital (H5 = ns). Thus, the findings highlight the positive effect of organizational learning culture on human capital, mostly via the facilitation of tacit knowledge sharing. Details of the hypotheses test are presented in Table 2, and all results are shown in Figure 2.

Table 2

Results

Table 2

Figure 2

Structural Model

Figure 2

Note: ML: maximum likelihood estimation, standardized results; ***$p < .001$, **$p < .01$, *$p < .05$.

$n = 321$; $\chi^2 = 363$, (125); CMIN/df = 2.90; RMSEA = .071; CFI = .933; TLI = .918

Discussion

The reported findings suggest that the learning culture's mistakes acceptance component is vital not only for tacit knowledge sharing (Kucharska, 2022) but also for its hiding prevention. Further, the research demonstrated that the seemingly nonsignificant effect of personal knowledge hiding is organizational waste that is evident in the lost opportunity for human capital development in an organization.

It is worth noting that this study uses sensitive constructs such as mistakes acceptance and knowledge hiding. The obtained in the measured model knowledge hiding $R^2 = .07$ is low and it suggests that this phenomenon is a great deal more complex than the model explains. This sensitivity might be caused by the cognitive bias connected with mistakes as a source of

learning. This is the hypothesis post-hoc, and it requires further verification. Below the essence of this assumption is elaborated.

Hiding Knowledge from Mistakes as an Effect of Cognitive Bias

It is a challenge for organizations to find a good balance between avoiding mistakes and concurrently managing mistakes (Dimitrova & van Hooft, 2021). Mistakes are never welcome; logically, we all want to avoid them. This negative attitude toward mistakes is a strong cultural and mental attitude we all learned from childhood. So, given that mistakes are considered negative, there is a natural unconscious bias against seeing them positively as a potential source of learning. This explains why learning from mistakes is problematic and why learning culture can be a crucial facilitator for breaking this bias. This research purposefully separated knowledge culture from learning culture in exploring the mechanisms reflected in the model to reveal the difference and meaning of both of these functional cultures in organizations that have an important effect on knowledge sharing and hiding.

Knowledge Culture and Learning Culture

Knowledge culture reflects the appreciation for high-level proficiency and expertise as a basis for good decision-making, and this appreciation seems incompatible with mistakes acceptance. However, creating a learning culture oriented toward dynamic capabilities, transformation, organizational reframing, constant development, experimentation, and innovation requires a favorable climate for brave action and must include the component of mistakes acceptance. Innovative activities are always risky, so learning organizations are constantly looking for a balance between exploiting verified knowledge to secure organizational safety (driven by knowledge culture), exploring new methods, and creating new knowledge (driven by learning culture). Finding a good balance between these three factors supports knowledge flow and stock, which are the essence of intellectual capital development (van Wijk et al., 2012). This study has revealed the great importance of a constant learning

culture for gaining knowledge from mistakes. In addition, the study demonstrated that knowledge culture is a vital antecedent for both components of a constant learning culture: learning climate (R^2=.41) and mistakes acceptance (R^2=.44). The explored relationships between knowledge and learning cultures also enable us to anticipate the difference between knowledge-oriented and learning-oriented organizations. Namely, if we assume that knowledge culture dominates in knowledge-driven organizations, and the constant learning culture characterizes learning organizations, then based on the presented model, it can be assumed that a knowledge orientation is a before-stage of learning orientation. And that knowledge-oriented organizations focus more on static knowledge exploitation, whereas learning organizations focus more on dynamic, constantly breaking 'status quo'. Furthermore, knowledge culture is presented here as a base for learning culture, and based on all stated before, it is easy to predict that if any organization is stuck in the knowledge-orientation stage, then it exists in the reality where static exploitation of knowledge dominates. In organizations, old, proven methods of acting cultivating are more appreciated than new solutions seeking and risk, and consequently, mistakes tied with this risk are avoided. Organizations based chiefly on proven knowledge often prefer to "keep things as they are" - and that "safe, well-known routines control-oriented" organizational attitude might block these organizations' development.

In contrast, a learning culture leads to constant, dynamic knowledge acquisition provoked by the mentioned earlier "intelligence in action" (Erickson & Rothberg, 2012). Therefore, the culture of knowledge dominating knowledge-driven organizations is undoubtedly vital in building human capital in the knowledge economy context, but it also seems to be without a constant learning culture dominated in learning organizations – insufficient for development and growth in the current economic reality that requires continuous change and development – impossible without learning. Organizational learning culture has the power to facilitate novel tacit knowledge sharing and to avoid tacit knowledge hiding.

Knowledge culture does not have this power, but it is a basis for fostering the curiosity that will lead to learning. This finding is in line with Webster and Pearce (2008), who highlighted the meaning of learning culture. Precisely, they stressed how important it is to tailor the knowledge to the situational context – it is impossible without active learning. Especially nowadays, situational context is changing exceptionally dynamically compared to anything before. Acting in such a dynamic business environment might naturally cause many mistakes. And the lack of mistakes acceptance component of a learning culture can block learning from them at the organizational level. Learning culture without developed mistakes' acceptance component is a kind of learning culture illusion.

Learning Culture Supports Tacit Knowledge Sharing and Prevents Its Hiding

This study has empirically demonstrated that constant learning culture is vital for promoting tacit knowledge sharing and for avoiding tacit knowledge hiding. Further, this finding reveals that in searching for a good balance between avoiding and managing them (Hofmann & Frese, 2011), it is crucial to ensure there is a learning culture. Anderson et al. (2010) revealed that reporting mistakes alone is not enough for learning. Learning from mistakes must happen first individually, but next, it must be transferred to the organizational level by sharing knowledge gained from mistakes (instead of hiding knowledge) to increase the cumulative intellectual capital. Considering sharing or hiding knowledge gained from mistakes more deeply in the context of multilevel organizational learning reveals that solutions that support all levels of learning must be implemented in the organization (Argyris & Schon,1978; Wiewiora et al., 2020) to make such learning efficient. Therefore, following Oswald and Mascarenhas's (2019) concept about the importance of critical thinking for new knowledge creation, it can be assumed that all experience gained from mistakes must also be facilitated by critical thinking to transform the experience of mistakes into new knowledge. However, the transformation of the personal experience into knowledge is generally a tacit process. Thus,

being able to share tacit knowledge from an experience of making a mistake requires specific personal characteristics and formal and informal solutions that ensure the flow of new knowledge. For example, important personal characteristics are openness to new experiences (Loh et al., 2013), emotional control and metacognition (Keith & Frese, 2005), goal orientation (Heimbeck et al., 2003), and critical thinking ability (Oswald & Mascarenhas, 2019).

Human Capital Development

Human capital as an outcome of the presented model increases the value of all findings. The organization is a people. Consequently, the learning organization is a learning people. The model presented in this research exposed that knowledge and learning cultures facilitate tacit knowledge sharing and avoid its hiding and, altogether foster human capital development. Assuming that human capital development is of central value to learning organizations, then everything that supports this development has value. So, the organizational ability to implement a learning culture with both components: learning climate and mistakes acceptance as a source of learning, is a value.

Practical Implications

Mistakes acceptance at work may sound controversial because of the cognitive bias discussed in this study (i.e., mistakes are generally considered negative). Obviously, the acceptance component of learning culture concerns mistakes that happen even if all due diligence and established procedures are respected. However, a learning culture that includes mistakes acceptance development is not equal to accepting the lack of diligence and does not equate to negligence. Rather, the essence of mistakes acceptance is creating a culture that is open to constant internal reframing as a result of accepting that errors can occur even if rules, processes, and procedures are respected. Mistakes that happen in such conditions on each

management level signal that the organization requires change. Therefore, mistakes can be precious signs that should not be ignored or hidden, and it should be understood that sharing knowledge that comes from making mistakes can provide value to organizations. Fear of making a mistake and revealing it can discourage employees from sharing knowledge gained from mistakes that can arise from experimenting, breaking the rules, and finding new ways of efficient and effective acting.

The key practical implication gained from the discussion of the given model results is that organizational learning culture without implementing an acceptance of mistakes component as a potential learning source is a learning culture illusion.

Organizations should ensure that mistakes acceptance is facilitated by implementing practices that show workers that it is acceptable to make mistakes and that mistakes management is a natural part of organizational acting. Nonetheless, organizations must also foster mistakes avoidance attitudes. This contradiction causes a serious cognitive bias that leads to the unconscious hiding of knowledge gained from making mistakes. Addressing this bias to avoid hiding tacit knowledge arising from making mistakes could be achieved by stimulating workers to engage in personal development and encouraging them to implement new ideas, and seek new solutions, thereby creating a learning climate. Knowledge workers should understand that they can report a mistake and discuss it without shame, blame, or fear (Ferguson, 2017) and that they need to have an open mindset to learn lessons and gain valuable knowledge from mistakes that can transform attitudes and behaviors.

As demonstrated in the study, an organizational learning culture has the power to facilitate novel tacit knowledge sharing and to avoid tacit knowledge hiding and, thus stimulating human capital growth. Knowledge culture does have this power, but it is a basis for fostering the curiosity that will lead to learning. Thus, from a practical perspective, a culture of knowledge is an essential but not a sufficient catalyst for organizational growth. Therefore,

leaders seeking to foster organizational growth should support the implementation of a knowledge culture that drives an authentic learning culture, which encompasses a learning climate and a mistakes acceptance component to support the growth of human capital.

In summary, introducing a set of formal and informal solutions within organizations that support mistakes acceptance attitude and their management (including the avoidance of the mistakes) can assist the entire process of learning from mistakes. Therefore, ensuring a culture that addresses mental bias against mistakes is vital for the success of this process.

Limitations and Further Research Suggestions

The above findings are presented based on only one sample. Therefore, future studies could use more than one population or simply another population and, could be also expanded to sector analysis. Moreover, the sample size is also a limitation in relation to the number of the models' parameters (Hair et al., 2010). Therefore, comparing this study's findings with findings obtained from the largest, more receptive samples would lead to a more profound understanding of the explored mechanisms.

Further, the sensitivity of the measured constructs is also an argument for using a larger sample to examine knowledge hiding and mistakes acceptance in greater depth. In addition, the applied single-factor Harman test is considered among the most basic methods for assessing the risk of common methods bias mentioned (Podsakoff et al., 2012). But the risk of common methods bias is characteristic of using self-reported measures based on the same group of respondents, as was done in this study. The study's cross-sectional design is another limitation because it is an obstacle to the empirical inference of causality. It would be appropriate to continue investigating these relationships using data collected at different times or using an intervention that is focused on developing a learning culture—namely, its mistakes acceptance component.

Moreover, in this study, the mistakes acceptance component of learning culture is considered a proxy for learning from mistakes. However, although learning from mistakes was not directly measured, learning from a particular source is problematic without the acceptance of this source. As Mezirow (1997) stated, "a defining condition of being human is that we have to understand the meaning of our experiences" (p. 5). Mistakes are valuable and shared human experiences. If we do not accept them, we can neither understand their meaning nor learn from them. Nevertheless, it would be beneficial for future studies to explore the act of learning by mistakes directly, rather than through the proxy of mistakes acceptance.

Further, organizational characteristics such as hierarchy and maturity level, leadership style, and the state of formally existing multilevel error management practices that influence organizational ability to learn from mistakes are omitted (Kucharska, 2021b,c). Future research should explore these factors that affect the ability of organizations to learn from mistakes.

In addition, this study did not address the potential of learners' attributes (e.g., age, gender, position, period of working in the same organization, openness to new experiences, level of controlling versus exploring behavior, collaborative versus independent personality type, emotional control, cognitive skills, goal orientation, risk-taking orientation, and critical thinking ability) to affect behavior related to sharing or hiding knowledge gained from making mistakes. Future research should examine these factors and consider the fact that organizational learning requires individual and multilevel learning (Marques-Quinteiro et al., 2022) and that company culture can support a formal system of mistakes management. It should also be considered that combining organizational culture with a well-designed mistakes management strategy can assist in addressing the challenge of finding a good balance between avoiding and managing mistakes in organizations (Dimitrova & van Hooft, 2021). Thus, further research could be conducted to provide an in-depth exploration of the multilevel factors involved in learning from mistakes, including strategy and culture alignment, to find the best solutions for

supporting challenges related to mistakes management. The observed dynamics of the business environment will increase in the future, and the number of mistakes requiring a good management approach will also increase. Thus, knowledge of how to transform experiences of mistakes experiences into lessons that support human capital at all management levels will become increasingly vital. Finally, the model in this study does not include any mediation or moderation analysis. Future research should explore indirect and moderated relationships to provide extra value to this research area.

Conclusions

This study contributes to Organizational Learning Theory (Argyris & Schon,1978) by delivering empirical evidence that the mistakes acceptance component of constant learning culture significantly determines the organizational ability to develop human capital, thanks to its positive input on tacit knowledge sharing and preventing its hiding. Furthermore, in light of the presented evidence, the culture of knowledge is seen as a necessary facilitator of human capital development but not as efficient as the culture of learning is. So, constant learning culture with the developed component of mistakes acceptance is exposed as a vital component for human capital development.

References

Argyris, C., & Schon, D.A. (1978). *Organizational Learning: A Theory of Action Perspective*, Addison-Wesley, Reading, MA.

Allameh, S.M. (2018). Antecedents and consequences of intellectual capital: the role of social capital, knowledge sharing and innovation. *Journal of Intellectual Capital*, *19*(5), 858-874. https://doi.org/10.1108/JIC-05-2017-0068

Anand, P., & Hassan, Y. (2019). Knowledge hiding in organizations: everything that managers need to know. *Development and Learning in Organizations*, *33*(6), 12-15. https://doi.org/10.1108/DLO-12-2018-0158

Anderson, J.G., Ramanujam, R., Hensel, D.J. & Sirio, C.A. (2010). Reporting trends in a regional medication error data-sharing system. *Health Care Management Science*, *13*, 74-83.

Aramburu, N., Sáenz, J., & Blanco, C. (2015). Structural capital, innovation capability, and company performance in technology-based Colombian firms. *Cuadernos de Gestión*, *15*(1), 39-60. https://doi.org/10.5295/cdg.130427na

Afshar-Jalili, Y., Cooper-Thomas, H.D., & Fatholahian, M. (2021). Identifying and modeling the antecedents of counterproductive knowledge behavior: A three-study analysis. *Journal of Knowledge Management*, *25*(5), 1362–1386. https://doi.org/ 10.1108/JKM-05-2020-0343

Banagou, M., Batistič, S., Do, H., & Poell, R.F. (2021). Relational climates moderate the effect of openness to experience on knowledge hiding: a two-country multilevel study. *Journal of Knowledge Management*, *25*(11), 60-87. https://doi.org/10.1108/JKM-11-2 019-0613

Bari, M.W., Abrar, M., Shaheen, S., Bashir, M., & Fanchen, M. (2019). Knowledge hiding behaviors and team creativity: the contingent role of perceived mastery motivational climate. *Sage Open*, *9*(3). https://doi.org/10.1177/2158244019876297

Bryans, P. (2017). When professionals make mistakes: gender implications and the management of learning. Analoui, F. (Ed.), *The Changing Patterns of Human Resource Management*, Routledge, London. https://doi.org/10.4324/9781315189093

Byrne, B.M. (2016), *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*, 3rd ed., Routledge, Abingdon. https://doi.org/10.4324/9781315757421

Carmeli, A. (2007). Social Capital, Psychological Safety and Learning Behaviours from Failure in Organisations. *Long Range Planning*, *40*(1), 30-44.

Connelly, C.E., Černe, M., Dysvik, A., & Škerlavaj, M. (2019). Understanding knowledge hiding in organizations. *Journal of Organizational Behavior*, *40*(7), 779-782. https://doi.org/10.1002/job.2407

Connelly, C.E., Zweig, D., Webster, J., & Trougakos, J.P. (2012). Knowledge hiding in organizations. *Journal of Organizational Behavior*, *33*(1), 64-88. https://doi.org/10.1002/job.737

Connelly, C.E., & Zweig, D. (2015). How perpetrators and targets construe knowledge hiding in organizations. *European Journal of Work and Organizational Psychology*, *24*, 479–489. https://doi.org/10.1080/1359432X.2014.931325

Černe, M., Hernaus, T., Dysvik, A., & Škerlavaj, M. (2017). The role of multilevel synergistic interplay among team mastery climate, knowledge hiding, and job characteristics in stimulating innovative work behavior. *Human Resource Management Journal*, *27*, 281-299. https://doi.org/10.1111/1748-8583.12132

Černe, M., Nerstad, C.G., Dysvik, A., & Škerlavaj, M. (2014). What goes around comes around: knowledge hiding, perceived motivational climate, and creativity. *Academy of Management Journal*, *57*(1), 172-192. https://doi.org/10.5465/amj.2012.0122

Dahiyat, S.E., Khasawneh, S.M., Bontis, N., & Al-Dahiyat, M. (2021). Intellectual capital stocks and flows: examining the mediating roles of social capital and knowledge

transfer. *VINE Journal of Information and Knowledge Management Systems*. https://doi.org/10.1108/VJIKMS-06-2020-0110

Dimitrova, N., & van Hooft, E.A.J. (2021). In the Eye of the Beholder: Leader Error Orientation, Employee Perception of Leader, and Employee Work-Related Outcomes. *Academy of Management Discoveries, 7*(4). https://doi.org/10.5465/amd.2019.0184

Eid, M., & Nuhu, N. (2011). Impact of learning culture and information technology use on knowledge sharing of Saudi students. *Knowledge Management Research & Practice*, *9*(1), 48-57.

Elden, N.M.K., & Ismail, A. (2016). The Importance of Medication Errors Reporting in Improving the Quality of Clinical Care Services. *Global Journal of Health Science*, *8*(8), 243-251. https://doi.org/ 10.5539/gjhs.v8n8p243

Eraut, M. (2000). Non-formal learning and tacit knowledge in professional work. *British Journal of Educational Psychology*, *70*, 113–136. https://doi.org/10.1348/000709900158001.

Erickson, S., & Rothberg, H. (2012). *Intelligence in* action. Palgrave Macmillan, NY.

Farooq, R., & Sultana, A. (2021). Abusive supervision and its relationship with knowledge hiding: the mediating role of distrust. *International Journal of Innovation Science*, *13*(5), 709-731. https://doi.org/10.1108/IJIS-08-2020-0121

Ferguson, C.C. (2017). The emotional fallout from the culture of blame and shame. *JAMA Pediatrics*, *171*(12), 1141. https://doi.org/10.1001/jamapediatrics.2017.2691

Garg, N., Kumar, C., & Ganguly, A. (2022). Knowledge hiding in organization: A comprehensive literature review and future research agenda. *Knowledge and Process Management*, *29*(1), 31-52. https://doi.org/10.1002/kpm.1695

Garvin, D.A. (1993). Building a learning organization. *Harvard Business Review*, *71*(4), 78-91.

Guthrie, J. (2001). The management, measurement and the reporting of intellectual capital. *Journal of Intellectual Capital*, *2*(1), 27-41. https://doi.org/10.1108/14691930110380473

Hair, J.F., Anderson, R.E., Babin, B.J., & Black, W.C. (2010). *Multivariate Data Analysis: A Global Perspective*. Pearson Education, Upper Saddle River, NJ.

Hancock, G.R., & Liu, M. (2012). Bootstrapping standard errors and data-model fit statistics in structural equation modeling. In R. H. Hoyle (Ed.), *Handbook of structural equation modeling* (p. 296–306). The Guilford Press.

Harman, H.H. (1976). *Modern Factor Analysis*, 3rd ed., University of Chicago Press, Chicago, IL.

Heimbeck, D., Frese, M., Sonnentag, S., & Keith, N. (2003). Integrating errors into the training process: The function of error management instructions and the role of goal orientation. *Personnel Psychology*, *56*, 333-361.

Hofmann, D.A., & Frese, M. (2011). Errors, error taxonomies, error prevention, and error management: Laying the groundwork for discussing errors in organizations. In D. A. Hofmann and M. Frese (eds.), *Errors in organizations*, 1-44, New York: Routledge.

Hu, L.T., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55. https://doi.org/10.1080/10705519909540118

Insch, G.S., McIntyre, N., & Dawley, D. (2008). Tacit knowledge: a refinement and empirical test of the academic tacit knowledge scale. *The Journal of Psychology*, *142*(6), 561-580. https://doi.org/10.3200/JRLP.142.6.561-580

Islam, M.S., & Amin, M. (2021). A systematic review of human capital and employee well-being: putting human capital back on the track. *European Journal of Training and Development*. https://doi.org/10.1108/EJTD-12-2020-0177

Islam, M.Z., Jasimuddin, S.M., & Hasan, I. (2015). Organizational culture, structure, technology infrastructure and knowledge sharing. *VINE Journal of Information and Knowledge Management Systems*, *45*(1), 67-88. https://doi.org/10.1108/VINE-05-2014-0037

Issac, A.C., & Baral, R. (2020). Knowledge hiding in two contrasting cultural contexts: a relational analysis of the antecedents using TISM and MICMAC. *Journal of Information and Knowledge Management Systems*, *50*(3), 455-475. https://doi.org/10.1108/VJIKMS-09-2019-0148

Keith, N., & Frese, M. (2005). Self-Regulation in Error Management Training: Emotion Control and Metacognition as Mediators of Performance Effects. *Journal of Applied Psychology*, *90*(4), 677–691. https://doi.org/10.1037/0021-9010.90.4.677

Kianto, A., Saenz, J., & Aramburu, N. (2017). Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research*, *81*, 11-20. https://doi.org/10.1016/j.jbusres.2017.07.018

Koay, K.Y., Sandhu, M.S., Tjiptono, F., & Watabe, M. (2022). Understanding employees' knowledge hiding behaviour: the moderating role of market culture. *Behaviour & Information Technology*, *41*(4), 694-711. https://doi.org/10.1080/0144929X.2020.1831073

Kucharska, W. (2021a). Leadership, culture, intellectual capital, and knowledge processes for organizational innovativeness across industries: the case of Poland. *Journal of Intellectual Capital*, *22*(7), 121-141. https://doi.org/10.1108/JIC-02-2021-0047

Kucharska, W. (2021b). Wisdom from experience paradox: organizational learning, mistakes, hierarchy and maturity issues. *Electronic Journal of Knowledge Management*, *19*(2), 105-117. https://doi.org/10.34190/ejkm.19.2.2370

Kucharska, W. (2021c). Do mistakes acceptance foster innovation? Polish and US cross-country study of tacit knowledge sharing in IT. *Journal of Knowledge Management*, *25*(11), 105-128. https://doi.org/10.1108/JKM-12-2020-0922

Kucharska, W., & Bedford, D.A.D. (2020). Love your mistakes!—They help you adapt to change. How do knowledge, collaboration and learning cultures foster organizational

intelligence? *Journal of Organizational Change Management*, *33*(7), 1329-1354. https://doi.org/10.1108/JOCM-02-2020-0052

Kucharska, W., & Erickson, G.S. (2021). Tacit knowledge awareness, sharing, and influence on innovation: a Polish/US cross-country study. *International Journal of Information Management*, available at: https://ideas.repec.org/p/gdk/wpaper/63.html (accessed 26 October 2021).

Kucharska, W. (2022). Tacit knowledge influence on intellectual capital and innovativeness in the healthcare sector: A cross-country study of Poland and the US. *Journal of Business Research*, *149*, 869-883. https://doi.org/10.1016/j.jbusres.2022.05.059

Liao, S., Fei, W-C, & Chen, C-C. (2007). Knowledge sharing, absorptive capacity, and innovation capability: an empirical study of Taiwan's knowledge-intensive industries. *Journal of Information Science*, *33*(3), 340-359. https://doi.org/10.1177/0165551506070739

Loh, V., Andrews, S., Hesketh, B., & Griffin, B. (2013). The moderating effect of individual differences in error management training: Who learns from mistakes? *Human Factors: The Journal of the Human Factors and Ergonomics Society*, *55*, 435-448.

Love, P.E.D., Smith, J., & Teo, P. (2018). Putting into practice error management theory: Unlearning and learning to manage action errors in construction. *Applied Ergonomics*, *69*, 104-111.

Ma, Z., Huang, Y., Wu, J., Dong, W., & Qi, L. (2014). What matters for knowledge sharing in collectivistic cultures? Empirical evidence from China. *Journal of Knowledge Management*, *18*(5), 1004-1019. https://doi.org/10.1108/JKM-06-2014-0252

Malik, O.F., Shahzad, A., Raziq, M.M., Khan, M.M., Yusaf, S., & Khan, A. (2019). Perceptions of organizational politics, knowledge hiding, and employee creativity: the moderating role of professional commitment. *Personality and Individual Differences*, *142*, 232-237. https://doi.org/10.1016/j.paid.2018.05.005

Marmgren, M., Akange, S., & Book, S. (2016). Interactions between Ideas and Behaviour in Organizations. *Quality Innovation Prosperity*, *20*(2), 185-207.

Marques-Quinteiro, P., Uitdewilligen, S., Costa, P., & Passos, A.M. (2022). Learning through time: the role of team reflexivity and virtuality in decision-making teams. *The Learning Organization*, *29*(1), 69-82. https://doi.org/10.1108/TLO-09-2020-0157

Mehralian, G., Nazari, J.A., & Ghasemzadeh, P. (2018). The effects of knowledge creation process on organizational performance using the BSC approach: the mediating role of intellectual capital. *Journal of Knowledge Management*, *22*(4), 802-823. https://doi.org/10.1108/JKM-10-2016-0457

Mezirow, J. (1997). Transformative learning theory to practice. *New Directions for Adults and Continuing Education*, *74*, 5-12. https://doi.org/10.1002/ace.7401

Mubarak, N., Osmadi, A., Khan, J., Mahdiyar, A., & Riaz, A. (2021). What Makes People Hide Knowledge? Influence of Passive Leadership and Creative Self-Efficacy. *Frontiers in Psychology*, *12*, 740880. https://doi.org/10.3389/fpsyg.2021.740880

Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press.

Nonaka, I., & Takeuchi, H. (2019). *The Wise Company: How Companies Create Continuous Innovation*, Oxford University Press.

Olaisen, J., & Revang, O. (2018). Exploring the performance of tacit knowledge: How to make ordinary people deliver extraordinary results in teams. *International Journal of Information Management*, *43*, 295-304. https://doi.org/10.1016/j.ijinfomgt.2018.08.016

Oliveira, M., Curado, C., & de Garcia, P.S. (2021). Knowledge hiding and knowledge hoarding: a systematic literature review. *Knowledge and Process Management*, *28*(3), 277-294. https://doi.org/10.1002/kpm.1671

Oswald, A.J., & Mascarenhas, S.J. (2019). The ethics of corporate critical thinking. In: Oswald, A.J. and Mascarenhas, S.J. (Eds), *Executive Response to Market Challenges*, Emerald Publishing Limited.

Pan, W., Zhang, Q., Teo, T.S.H., & Lim, V.K.G. (2018). The dark triad and knowledge hiding. *International Journal of Information Management*, *42*, 36-48. https://doi.org/10.1016/j.ijinfomgt.2018.05.008

Pérez López, S., Montes Peón, J.M., & Vázquez Ordás, C.J. (2004). Managing knowledge: the link between culture and organizational learning. *Journal of Knowledge Management*, *8*(6), 93-104. https://doi.org/10.1108/13673270410567657

Pérez-Luño, A., Alegre, J., & Valle-Cabrera, R. (2019). The role of tacit knowledge in connecting knowledge exchange and combination with innovation. *Technology Analysis & Strategic Management*, *31*(2), 186-198. https://doi.org/10.1080/09537325.2018.1492712

Perotti, F.A., Ferraris, A., Candelo, E., & Busso, D. (2021). The dark side of knowledge sharing: Exploring "knowledge sabotage" and its antecedents. *Journal of Business Research*, *141*, 422-432. https://doi.org/10.1016/j.jbusres.2021.11.033.

Podsakoff, P.M., MacKenzie, S.B., & Podsakoff, N.P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *63*(1), 539-569. https://doi.org/10.1146/annurev-psych-120710-100452

Polanyi, M. (1966). *The Tacit Dimension*, University of Chicago Press, Chicago, IL.

Politis, D., & Gabrielsson, J. (2009). Entrepreneurs' attitudes towards failure: An experiential learning approach. *International Journal of Entrepreneurial Behavior & Research*, *15*(4), 364-383.

Rebelo, T., & Gomes, A.D. (2017). Is organizational learning culture a good bet? An analysis of its impact on organizational profitability and customer satisfaction. *ARLA — Academia Revista Latinoamericana de Administracion*, *30*(3), 328-343. https://doi.org/10.1108/ARLA-10-2015-0275

Rebelo, T., & Gomes, A. D. (2011). Conditioning factors of an organizational learning culture. *Journal of Workplace Learning*, *23*(3), 173–194. https://doi.org/10.1108/13665621111117215

Saint-Onge, H. (1996). Tacit knowledge the key to the strategic alignment of intellectual capital. Planning Review, *24*(2), 10-16. https://doi.org/10.1108/eb054547

Senge, P.M. (2006). *The fifth discipline. The art and practice of the learning organization*. New York, NY: Crown Business.

Senz, K. (2021). How to Learn from the Big Mistake You Almost Make. Harvard Business Review. Available at: https://hbswk.hbs.edu/item/how-to-learn-from-the-big-mistake-you-almost-make?cid=spmailing-33182773-WK%20Newsletter%203-24-2021%20(1)-March%2024,%202021 (accessed 22 March 2021).

Shao, Z., Feng, Y., & Wang, T. (2017). Charismatic leadership and tacit knowledge sharing in the context of enterprise systems learning: the mediating effect of psychological safety climate and intrinsic motivation. *Behaviour & Information Technology*, *36*(2), 194-208. https://doi.org/10.1080/0144929X.2016.1221461

Siachou, E., Trichina, E., Papasolomou, I., & Sakka, G., (2021). Why do employees hide their knowledge and what are the consequences? A systematic literature review. *Journal of Business Research*, *135*, 195-213. https://doi.org/10.1016/j.jbusres.2021.06.031

Škerlavaj, M., Connelly, C.E., Cerne, M., & Dysvik, A. (2018). Tell me if you can: Time pressure, prosocial motivation, perspective taking, and knowledge hiding. *Journal of Knowledge Management*, *22*(7), 1489–1509. https://doi.org/10.1108/JKM-05-2017-0179

van Wijk, R., Jansen, J.J.P., Van Den Bosch, F.A.J., & Volberda, H.W. (2012). How firms shape knowledge to explore and exploit: a study of knowledge flows, knowledge stocks and innovative performance across units. *Technology Analysis & Strategic Management*, *24*(9), 929-950. https://doi.org/10.1080/09537325.2012.718666

Watkins, K.E., & Marsick, V.J. (1996). *In Action: Creating the Learning Organization*. American Society for Training and Development, Alexandria, VA.

Webster, J., & Pearce, G. (2008). Crossfire: knowledge sharing should focus on learning culture, rather than the generation of knowledge. *Waterlines*, *27*(2), 97-103. https://doi.org/10.3362/1756-3488.2008.012

Weinzimmer, L.G., & Esken, C.A., (2017). Learning from mistakes: How mistake tolerance positively affects organizational learning and performance. *The Journal of Applied Behavioral Science*, *53*(3), 322-348. https://doi.org/10.1177/0021886316688658

Wiewiora, A., Chang, A., & Smidt, M. (2020). Individual, Project and organizational learning flows within a global project-based organization: exploring what, how and who. *International Journal of Project Management*, *38*(4), 201-214. https://doi.org/10.1016/j.ijproman.2020.03.005

Yao, K., Li, X., & Liang, B. (2021). Failure learning and entrepreneurial resilience: the moderating role of firms' knowledge breadth and knowledge depth. *Journal of Knowledge Management*. https://doi.org/10.1108/JKM-10-2020-0772

Yoon, S.W., Song, J.H., & Lim, D.H. (2009). Beyond the learning process and toward the knowledge creation process: linking learning and knowledge in the supportive learning culture. *Performance Improvement Quarterly*, *22*(3), 49-69. https://doi.org/10.1002/piq.20060

Yuan, Y., Yang, L., Cheng, X., & Wei, J. (2021). What is bullying hiding? Exploring antecedents and potential dimension of knowledge hiding. *Journal of Knowledge Management*, *25*(5), 1146-1169. https://doi.org/10.1108/JKM-04-2020-0256

Zhang, Z., & Min, M. (2021). Project manager knowledge hiding, subordinates' work-related stress and turnover intentions: empirical evidence from Chinese NPD projects. *Journal of Knowledge Management*, ahead-of-print. https://doi.org/10.1108/JKM-02-2021-0155

Appendix 1: Scales and reliabilities

Scale	loadings	reliability
Knowledge culture **KC** Kucharska and Bedford (2020) • **All employees perceive knowledge as valuable.** • **We have a common language to support knowledge exchange.** • **We are encouraged to share knowledge, ideas, and thoughts.** • We care about the quality of knowledge that we share.	.706 .783 .771	AVE = .57 CR = .80 Cronbach's alpha = .88
Learning culture (Kucharska and Bedford, 2020) **LC:** "Learning climate" component of learning culture • All staff demonstrate a high learning disposition. • We are encouraged to engage in personal development. • We are encouraged to implement new ideas every day. • We are encouraged to engage in new solutions seeking.	.891 .858 .862	AVE = .76 CR = .90 Cronbach's alpha = .80
MA: "Mistakes acceptance" component of learning culture • **People know that mistakes are a learning consequence and tolerate it up to a certain limit.** • Most people freely declare mistakes. • **We discuss problems openly without blaming.** • **Mistakes are tolerated and treated as learning opportunities.**	.794 .719 .746	AVE = .57 CR = .80 Cronbach's alpha = .83
Tacit knowledge sharing **TKS** Kucharska and Erickson (2021) • I share knowledge learned from my own experience.		AVE = .57 CR = .80 Cronbach's alpha = .81

• **I have the opportunity to learn from the experiences of others.** • **Colleagues share new ideas with me.** • **Colleagues include me in discussions about the best practices.**	.583 .836 .826	
Knowledge hiding **KH** Connelly *et al.* (2012) • **I agree to help him or her but never really intend to (Evasive Hiding).** • **I pretend that I do not know the information (Playing Dumb).** • **I tell him or her that my boss would not let anyone share this knowledge (Rationalized Hiding).**	 .53 .795 .804	AVE = .52 CR = .76 Cronbach's alpha = .84
Human capital **HC** Kianto *et al.* (2017) • **Our employees are highly skilled at their jobs.** • **Our employees are highly motivated in their jobs.** • **Our employees have a high level of expertise.**	 .868 .871 .805	AVE = .72 CR = .89 Cronbach's alpha = .82

Note: Bolded statement measures were applied to the model (loadings); reflective measurement models of constructs were applied

Appendix 2: Factor analysis

Model matrix[a]

	Factor					
	1	2	3	4	5	6
LC1c.3	**.903**					
LC1c.2	**.889**					
LC1c.4	**.824**					
HC1		**.915**				
HC2		**.806**				
HC4		**.767**				
LC1m.3			**.987**			
LC1m.4			**.841**			
LC1m.1	.124		**.534**	.134		
KC1.4				**.847**		
KC1.2	-.115			**.775**		
KC1.3	.275			**.583**		

Ha4					.813	
Ha3					.806	
Ha2					.580	
TKS2.3						.870
TKS2.4						.821
TKS2.2						.510

Metoda wyodrębniania czynników - Największej wiarygodności.

 Rotation method – Promax, Kaiser normalization.

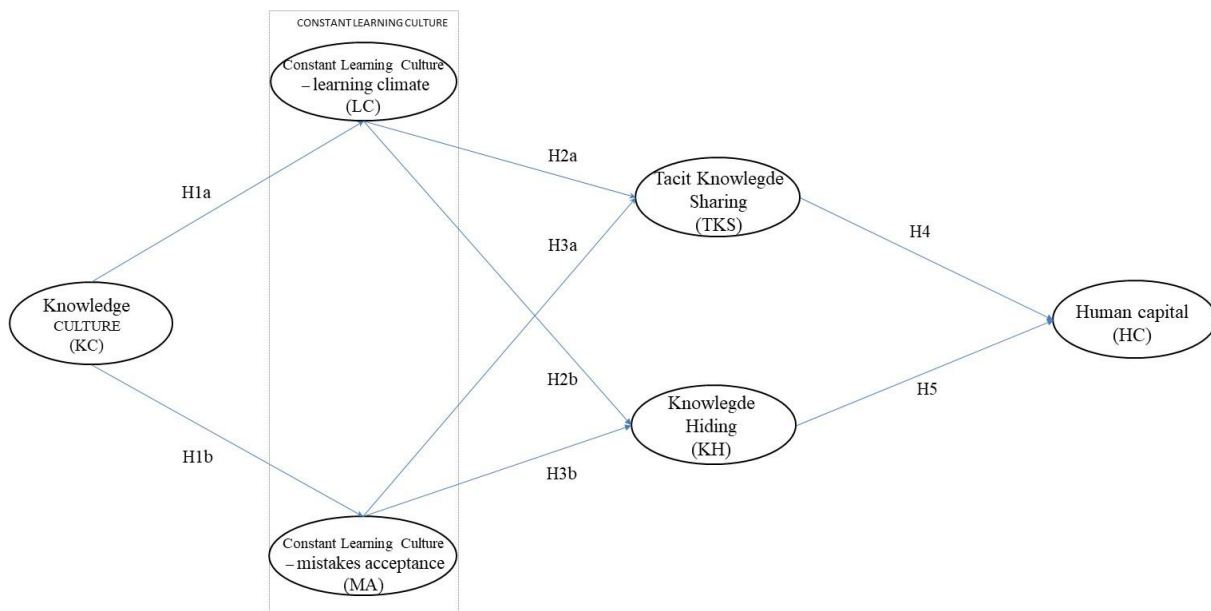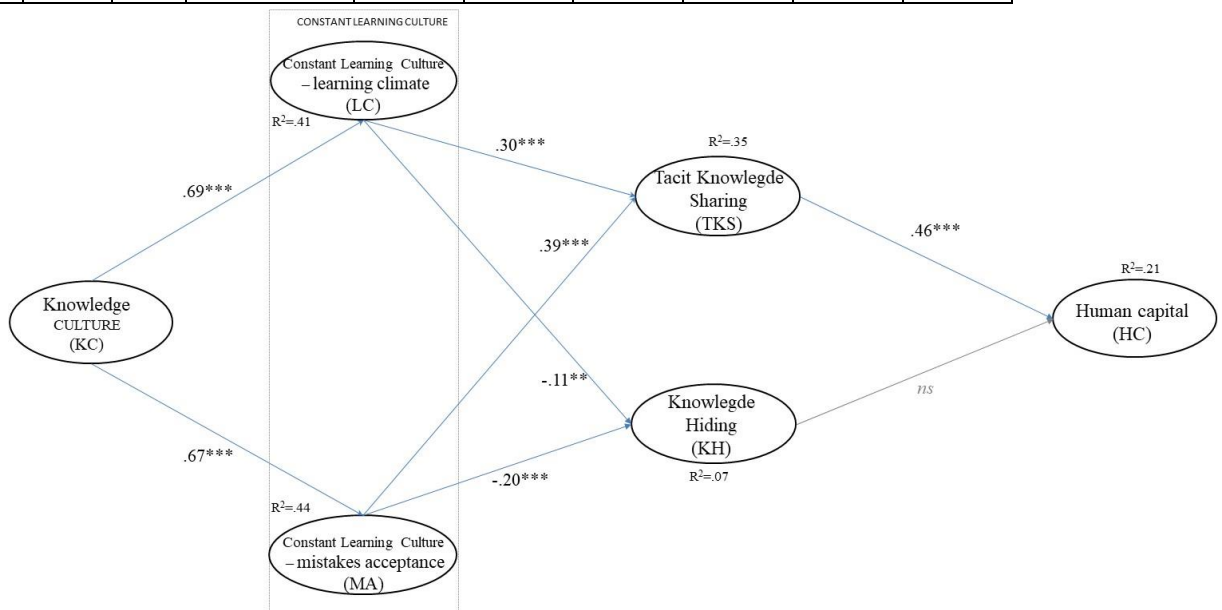a. Rotation reached convergence in 6 iterations.

Figures

Figure 1

Figure 2

	AVE	CR	Cronbach alpha	KC	LC	MA	KH	TKS	HC
KC	.57	.80	.88	**.754**					
LC	.76	.90	.80	.693	**.870**				
MA	.57	.80	.90	.667	.462	**.754**			
KH	.52	.76	.84	-.204	- .201	-.240	**.721**		
TKS	.57	.80	.83	.471	.483	.532	-.155	**.757**	
HC	.72	.89	.82	.210	.215	.236	-.044	.453	**.849**

Tables

Table 1: Correlations and AVE's root square in diagonal

Note: KC – knowledge culture; LC – learning climate; LM –mistakes acceptance; KH – knowledge hiding; TKS – tacit knowledge sharing; HC – human capital.

Table 2: Hypotheses test details

Results

n	321	
R^2	41%	
$\chi 2$	363(125)	
CMIN/df	2.90	
RMSEA	.071(.067 - .075)	
CFI	.933	
TLI	.918	
Hypotheses test		
H1a	.69***	sustained
H1b	.67***	sustained
H2a	.30***	sustained
H2b	-.11**	sustained
H3a	.39***	sustained
H3b	-.20***	sustained
H4	.46***	sustained
H5	ns	rejected