The KLC Cultures Synergy for Organizational Agility. Trust, Risk-Taking Attitude, and Critical Thinking as Moderators

Wioleta Kucharska[1], Maciej Kucharski[1] and Tomasz Balcerowski[1,2]
[1]Gdansk University of Technology – Gdansk TECH, Fahrenheit Universities Association, Gdansk, Poland;
[2] Ekoinbud Sp. z o.o. Gdańsk, Poland

wioleta.kucharska@pg.edu.pl

Abstract: Organizational agility is visible in organizational change adaptability, and it is based on the development of dynamic capabilities, strategic sensitivity of leaders, accuracy and timing of decision-making, learning aptitude, flexibility in thinking and acting, and smooth resource flow across organizations, including the knowledge resource. In such a context, this study aimed to expose how the knowledge, learning, and collaboration cultures approach (KLC) supports organizational agility when this relation is moderated by mutual trust among employees, risk-taking attitude, and critical thinking abilities. Based on the sample composed of 640 Polish knowledge workers and data analyzed with the structural equation modeling method (SEM), this study's results proved that the KLC culture synergy supports organizational agility building and that the mistakes acceptance component of learning culture is critical. Moreover, trust among workmates, risk-taking readiness, and critical thinking skills are significant mediators. The key novelty was exposed through the negative influence of a risk-taking attitude (uncertainty acceptance) on agility. Precisely, the lack of risk acceptance or, reversely, the risk-avoidance attitude supports agility. This is because agility, understood as smooth adaptability, is the effect of efficient risk management. Thanks to risk management and critical thinking, the negative impact of inaction risks can often be seen as higher than the risks of very innovative actions. The KLC approach, critical thinking, and trust among workmates support the smooth selection of risks that must be taken in today's dynamic business. Risk is inevitable. So, from this point, the essence of agility is the ability to smoothly and wisely select among risks that should be taken or avoided. In summary, agility can be considered to be the smooth selection of acceptable risks.

Keywords: Knowledge Culture, Learning Culture, Collaborative Culture, Knowledge-Driven Organization, Agility, Risk Management, Critical Thinking, Trust, The KLC Approach

1. Introduction

Business turbulences recently pushed organizations to increase attention to agility as a skill that supports organizational competitiveness and survival (Cegarra-Navarro et al., 2016; Cyfert et al., 2023; Franco et al., 2023; Zastempowski and Cyfert, 2022). Liu (2021) claims that organizational agility is an organizational capacity to achieve high responsiveness and deal effectively and efficiently with market changes to reduce operational uncertainty. Company culture is vital for any organizational capacity building. So, the question arises: how can we describe the culture that supports organizational agility?

Recently, Kucharska and Bedford (2023a-b) introduced the KLC approach and proved that regarding knowledge-driven organizations, knowledge, learning, and collaboration cultures synergy (the KLC approach) supports organizations in their adaptability to changing business conditions. So, the KLC approach seems to be a theoretically very promising supporter for organizations interested in agility building. Since the KLC approach has not yet been studied as an agility predictor – this study aims to do this and additionally expand the body of knowledge by examining if trust, critical thinking, and risk-taking attitudes matter for the organizational level of agility if supported by the KLC cultures approach.

2. Conceptual Framework

2.1 KLC Cultures

The focal point to clarify the KLC culture approach to knowledge-driven organizational culture introduced by (Kucharska and Bedford, 2023a) is the clarification of the key characteristics of each of them and the exposition of their relations. A culture of knowledge dominates in knowledge-oriented organizations that focus more on static knowledge exploitation (Kucharska and Bedford, 2023a; Van Wijk et al., 2012), whereas learning culture dominates in organizations that focus more on dynamic, constantly breaking 'the status quo.' Furthermore, knowledge culture is a base for learning culture. The easiest way to expose the differences between these cultures is to compare the effects of such a different organizational focus. It is easy to predict that if any organization is stuck in the knowledge-orientation stage, then it exists in a reality where static exploitation of knowledge and control dominates, and the new knowledge is rejected. In such organizations, old, proven

methods of cultivating acting are more appreciated than new solutions seeking, and any risk is rejected; consequently, mistakes tied to 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 "intelligence in action" (Erickson and Rothberg, 2012). A pervasive and persistent learning culture is essential to the development and growth of learning organizations in the current economic climate of continuous change (Maes and Van Hootegem, 2019; Rass et al., 2023). An organizational learning culture can facilitate the creation and sharing of knowledge (Kucharska and Bedford, 2023a-b). By itself, a knowledge culture does not have this effect, though it is a basis for fostering curiosity and exposing knowledge gaps that lead to learning. This finding is consistent with the research of Webster and Pearce (2008), who highlighted the importance of situational learning, which is essential to active learning. Situational learning is aligned with the current context. It is especially relevant today in a dynamic and rapidly changing business environment. Acting in such a dynamic business environment might naturally cause many mistakes. Moreover, the lack of mistakes acceptance component of a learning culture can block learning from them at the organizational level. Therefore, a learning culture without developed mistakes' acceptance component is an illusion of learning culture (Kucharska and Bedford, 2020). Based on the above, the hypotheses are given below:

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

H1b: Knowledge culture negatively influences the mistakes acceptance component of a learning culture.

A culture of learning is an organization's ability to create, acquire, and exchange knowledge, modify organizational behaviors and choices, and integrate that new knowledge and insights into its organizational level (Garvin, 1993). Moreover, Kucharska and Bedford (2020; 2023a-b) empirically proved that organizational ability to learn collectively depends on two dimensions: learning climate and mistakes acceptance, and that the climate component (motivational) influences the mistakes acceptance component as a potential source of learning (readiness to be mistaken and to correct actions). Therefore, the hypothesis is added as below:

H1c: The learning climate component of learning culture positively influences the mistakes acceptance component

Moreover, suppose an organization is seen as a group of people coordinated to achieve the aim none of them can achieve alone. In that case, collaborative culture is the essence of any organization's existence (Kucharska and Bedford, 2023a-b). Without collaboration among workmates, there is no reason to name the group of people organization. Organizational learning requires collaboration. Without collaboration, learning in an organization is not collective. Individual learning or even the sum of individual learning does not increase collective knowledge. Organizational learning is based on continuing lessons taken by the entire community together. Otherwise, there is no impact on collective intelligence (Kucharska and Bedford, 2020, 2023a-b). Collaboration supports learning as a source of new knowledge (Nugroho, 2018). Collaboration is the core competency that enables organizations to acquire knowledge collectively. So, collaboration supports the culture of learning that is seen as a favorable learning climate (collective motivation) and the acceptance of being ready to be wrong (Senge, 2006). Based on this, the hypotheses are formulated:

H1d: Collaborative culture influences the learning climate component of learning culture positively

H1e: Collaborative culture positively influences the mistakes acceptance component of learning culture

Collaboration culture supports knowledge culture in knowledge-driven organizations because, for such entities, knowledge is a key resource. Simultaneously, knowledge culture in knowledge-driven organizations simplifies a shared mindset of knowledge appreciation, and knowledge culture supports this way collaboration (Alshwayat et al., 2021). The Kucharska and Bedford (2023b) study empirically proved that knowledge and collaborative cultures correlate. This is characteristic of knowledge-driven organizations where knowledge is perceived as a critical value carrier, object of exchange, and base for strong personal brand creation (Kucharska, 2024). Therefore, following them, the hypothesis is added:

H1f: Knowledge culture and collaborative culture are correlated

2.2 Organizational Agility

In the business context, organizational agility was termed in 1982 as the ability to respond promptly to rapidly changing events (Brown and Agnew, 1982, p. 29). Organizational adaptability reflects how an organization responds to change by managing stress and uncertainty, exposing flexibility or resilience, and supporting those who tackle problems to face the change (Reupert, 2020). Kucharska and Kucharski (2023) proved that the mistakes acceptance component of learning culture supports change adaptability. Martin et al. (2013, p. 1) defined adaptability as 'appropriate cognitive, behavioral and/or emotional adjustment in the face of uncertainty and novelty.' This suggests the dependency of agility on a company culture (Goncalves et al., 2019). Enterprises usually achieve varying levels of agility (Orłowski et al., 2017). These levels depend primarily on human resources' abilities to be agile (Conboy et al., 2011; Harsch and Festing, 2020). This is because agility enables the smooth seize advantage of available opportunities and is connected with social capital and collaborative knowledge creation (Al-Omoush et al., 2020). This is why the implemented KLC approach can be assumed to be a potentially strong predictor of organizational agility. Based on this assumption, hypotheses are formulated as below:

H2: Knowledge culture supports organizational agility.

H3: The learning climate component of learning culture supports organizational agility.

H4: The mistakes acceptance component of learning culture supports organizational agility.

H5: Collaborative culture supports organizational agility.

2.3 Control Variables

A control variable (CV) represents an additional factor (third variable) that may influence the relationship between an independent and dependent variable in the model tested. A CV may act as a confound, a moderator, or a suppressor (Spector and Brannick, 2011). The CV's imputation methodology enables extraneous variables to be included in a model–control variables are not the focal point of the study yet remain theoretically important (Becker et al., 2016). For this study, such theoretically important variables are trust, critical thinking, and risk-taking attitude. Trust is seen as a focal factor affecting the activation of organizational intelligence thanks to its support for tacit knowledge sharing focal for collective learning and adaptability (Kucharska and Bedford, 2023b; Kucharska et al., 2017). "Critical thinking (CT) is constructive thinking about the world of ours that questions and evaluates its operations, history, and management" (Oswald and Mascarenhas, 2019, p.151). Critical thinking is then a base for any learning leading to change. Risk-taking implies uncertainty acceptance (Zinn, 2020). A risk-taking attitude is needed to cross boundaries and comfort zones, which matters for new learning. "(...) learning as one of the organization's core values, 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 the promotion of cooperation, interdependence, and share of knowledge" (Rebelo and Gomes, 2011, p.174). Moreover works by Funston and Wagner (2010), Galli and Lopez (2018); Moran and Moran (2014) or Rael (2017) enable us to expect that risk management is significantly tied with the organizational agility competency building. Based on all the above, we see trust, critical thinking, and risk-taking attitude as factors that can affect the relation between the KLC cultures and organizational agility. Therefore, the hypotheses were formulated as below:

$H_{cv}1$: Trust affects the organizational agility driven by the KLC-approach.

$H_{cv}2$: Critical thinking affects the organizational agility driven by the KLC-approach.

$H_{cv}3$: Risk-taking attitude affects organizational agility driven by the KLC-approach.

Figure 1 below visualizes the theoretical framework elaborated above.

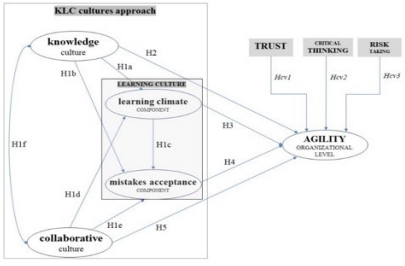

Figure 1: Theoretical model

3. Methodology

Sampling procedure: this study targeted Polish knowledge workers; therefore, qualified respondents declared that their work's first input and output is knowledge. Moreover, to secure the respondents' familiarity with their organizations' issues, we qualified only those who worked a minimum of one year for their current employer. Data were collected in March 2023 by applying the CAWI method.

Sample characteristics: The sample is composed of 640 Polish knowledge workers: 306 specialists and 334 managers; 329 women and 311 men - mainly representing private (77%) companies from different sectors to illustrate the general view on Poland (dominating sectors: production and knowledge services 19% each). Measures: respondents referred to most questions using a 7-point Likert scale. Control variables were inputted as composites. Appendix 1 presents measured constructs scales and their sources. Obtained reliabilities are given in Table 1. Method of analysis: structural equation modeling (SEM) using SPSS Amos 26 software (Byrne, 2016).

Sample quality: Kaiser–Meyer–Olkin (KMO) test: .944, the total variance extracted: 78%, and Common method bias: 37% justify the good quality of the sample.

Table 1: Basic statistics obtained AVE root square and correlations between constructs

	Mean	SD	AVE	CR	Cronbach alpha	$_{cv}$R	$_{cv}$CT	$_{cv}$T	CC	KC	LCc	LCm	A
$_{cv}$R	-	-	-	-	-								
$_{cv}$CT	-	-	-	-	-	-0.09							
$_{cv}$T	-	-	-	-	-	-0.04	0.504						
CC	3.68	1.94	0.57	0.72	.83	-0.04	0.636	0.671	**0.754**				
KC	4.23	1.07	0.71	0.88	.88	0.083	0.425	0.499	0.593	**0.845**			
LCc	3.73	1.04	0.60	0.82	.82	-0.005	0.529	0.571	0.809	0.689	**0.777**		
LCm	3.16	1.80	0.61	0.93	.93	-0.031	0.410	0.430	0.641	0.397	0.593	**0.964**	
A	3.64	1.15	0.59	0.82	.85	-0.129	0.621	0.617	0.750	0.533	0.693	0.592	**0.905**

Note: n=640 KC-knowledge culture, LCc-learning culture climate component, LCm-Learning culture mistakes acceptance component, CC-collaborative culture, A-organizational agility; control variables: $_{cv}$T-Trust, $_{cv}$CT-Critical thinking, $_{cv}$R– Risk-taking attitude; squared root of AVE is bolded

Table 1 shows a high correlation between CC and LCc, which exceeds the squared root of AVE. Since Common method bias exposes an acceptable level, it suggests that CC supercharge LCc.

4. Results

Control variables imputation requires first running and comparing empirical models with and without control variables (CV), and if the model with CVs is better fitted to the data, then the CVs imputation is justified, and the model results can be analyzed (Becker et al., 2016; Carlson and Wu, 2012). The results (Table 2) showed that the model with CVs indeed fits the data better than the model without them. So, the model with CVs is further discussed and analyzed in this paper. Most of the hypotheses formulated were confirmed; the exceptions are H2, H3, and **$H_{cv}3$**. These exceptions are discussed more in-depth in the next section. The general results show that the KLC culture synergy supports organizational agility. The mistakes acceptance component of learning culture and collaborative culture support it directly, whereas knowledge culture and learning climate component of learning culture indirectly. Moreover, all inputted control variables are significant for organizational agility: trust among employees and critical thinking attitude support organizational agility positively, whereas risk-taking attitude – negatively. Figure 2 and Table 2 expose hypotheses verification details.

Table 2: Hypotheses verification

Model A with CVs; RMSEA=.055(.049-.061) χ2=264.42(116) Cmin/df=2.93 CFI=.962 TLI=.952			Model B without CVs; RMSEA=.059(.052-.066) χ2=353.31(109) Cmin/df=3.21 CFI=.965 TLI=.956		
Hypothesis	**significance**	**verification**	**Hypothesis**	**significance**	**verification**
H1a	.26***	*sustained*	**H1a**	.28***	*sustained*

Model A with CVs; RMSEA=.055(.049-.061) χ2=264.42(116) Cmin/df=2.93 CFI=.962 TLI=.952			Model B without CVs; RMSEA=.059(.052-.066) χ2=353.31(109) Cmin/df=3.21 CFI=.965 TLI=.956		
H1b	-.11*	*sustained*	**H1b**	-.11*	*sustained*
H1c	.24*	*sustained*	**H1c**	.28**	*sustained*
H1d	.66***	*sustained*	**H1d**	.63***	*sustained*
H1e	.52***	*sustained*	**H1e**	.48***	*sustained*
H1f	.66***	*sustained*	**H1f**	.66***	*sustained*
H2	ns	*rejected*	**H2**	ns	*rejected*
H3	ns	*rejected*	**H3**	.17*	*sustained*
H4	.15***	*sustained*	**H4**	.15***	*sustained*
H5	.35**	*sustained*	**H5**	.54***	*sustained*
$H_{cv}1$	.13**	*sustained*			
$H_{cv}2$	.17***	*sustained*			
$H_{cv}3$	-.09**	*rejected*			

Note: n=640, ML- maximum likelihood

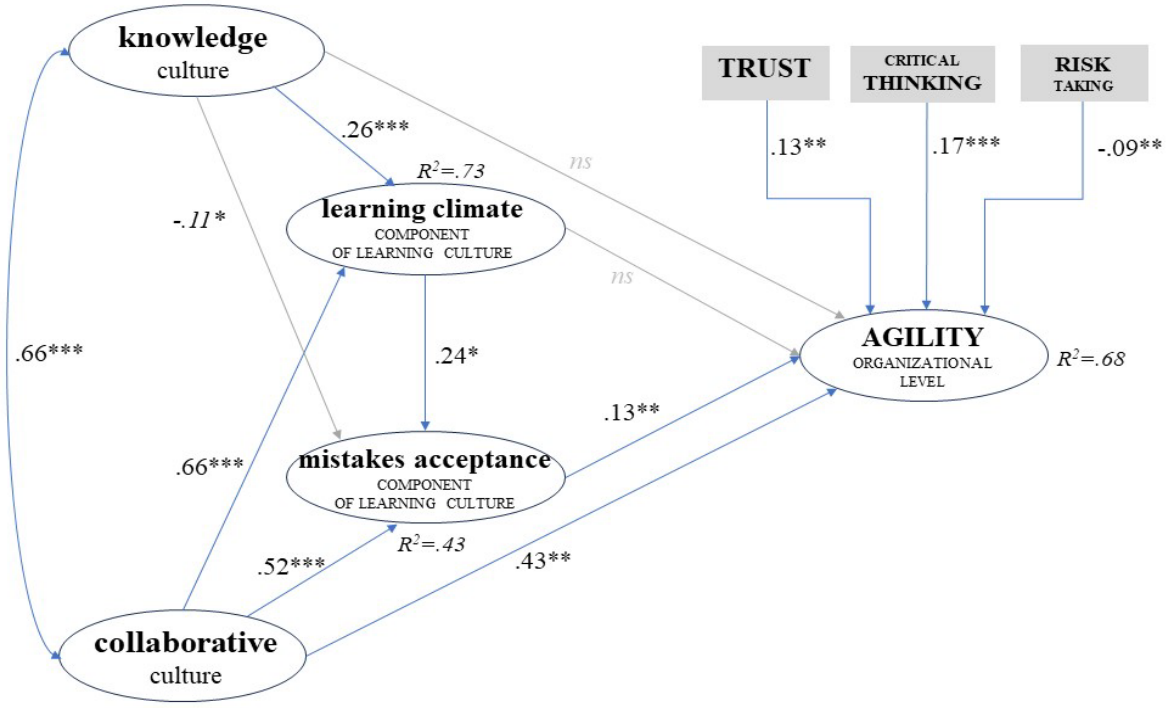

Figure 2: Empirical results

Note: n=640, ML- maximum likelihood; χ2=443.01(151) Cmin/df=2.93; CFI=.962 TLI=.952 RMSEA=.055; p<.05 **p<.01 ***p<.001 ns-not significant result

5. Discussion

Results requiring discussion concern those hypotheses that were not confirmed: H2, H3, and $H_{cv}2$. Regarding the lack of sustention of H2, which assumed the positive influence of knowledge culture on organizational agility, it can be clarified by the definitions of knowledge culture and learning culture as well as by previous findings of Kucharska and Bedford's (2023a-b) studies. Knowledge culture itself creates a passive consumption of existing knowledge, but it creates the motivation to learn. Learning culture creates new knowledge absorption and production that leads to dynamic development. It is why H2 is not sustained, whereas H1a, about the positive influence of knowledge culture on the learning culture component – climate (LCc), is significant.

Following knowledge culture - learning culture relations, the H1b about the negative influence of knowledge culture on the mistakes acceptance component of learning culture (LCm) is confirmed. As was expected, knowledge culture itself creates a passive consumption of existing knowledge and, by nature, does not accept mistakes in any form, so it is also a potential source of learning. However, the fact that H3 about the positive influence of LCc on agility was not sustained, whereas H4 about the positive influence of LCm on agility was found to be significant, suggesting that active trial-error learning is fundamental for agility. This conclusion is confirmed critical for active trial-error learning. Without them, LCc is significantly important for agility, but if CVs imputation transforms learning climate into favorable conditions to dynamic trial-error learning through acceptance of mistakes as a potential source of learning that directly supports organizational agility.

Regarding control variables, the hypothesis about the positive influence of the risk-taking attitude of organization members on organizational agility ($H_{cv}3$=-.09**) was not confirmed. Precisely, the opposite - negative influence was observed; the risk-avoidance attitude supports agility. So, it aligns with the findings of Zanjirchi et al. (2017), who claimed that supply chain risk factors could be considered drivers of organizational agility. This is because agility, understood as smooth adaptability, is often the effect of efficient risk management. Thanks to this efficient risk management and critical thinking, the negative impact of inaction risks can often be seen as higher than the risks of very innovative actions, or in other words, very innovative actions are worth risk-taking to avoid risks caused if these innovative actions remain untaken. This is why the impact of critical thinking ($H_{cv}2$=.17***) on organizational agility is so evident. Trust ($H_{cv}1$=.14**), as claimed before by Kucharska and Bedford (2023, a-b) as vital for strengthening the KLC cultural approach benefits. One of the most desired benefits of the KLC approach is organizational agility. So, all the imputed into the model CVs are critical and support agility building.

6. Practical Implications

The key contribution of the presented findings to the practice was exposed through the negative influence of a risk-taking attitude (uncertainty acceptance) on agility. Precisely, the lack of risk acceptance or, reversely, the risk-avoidance attitude supports agility. This is because agility, understood as smooth adaptability, is the effect of efficient risk management. Thanks to risk management and critical thinking, the negative impact of inaction risks can often be seen as higher than the risks of very innovative actions. From a practical perspective, we conclude that sometimes very innovative actions are worth taking to avoid the negative consequences if these innovative and risky actions remain untaken. Risk is inevitable in business. So, from this perspective, the essence of agility is smooth risk management that creates the organizational ability to select risks taken or avoided wisely.

Regarding the KLC approach, as Kucharska and Bedford (2023b) suggested, those leaders who do not expose the KLC approach should not be leaders at any level. This study's findings enable us to add that this rule is particularly significant for those organizations that aim to be agile.

7. Limitations and Scientific Implications

The key limitation of this research is that it is based on data collected in only one country. The second important limitation is the identified strong interdependency between collaborative culture and the learning climate component of learning culture in Poland. This interdependency may cause slight bias, but at the same time, it might expose how focal collaborative culture is for motivation to learn in organizations. Moreover, the results presented reveal direct relations. No mediated or moderated effects are included. So, further studies can explore these relations more in-depth. Furthermore, the analyzed model (Figure 2) explains the studied phenomenon in 68%. It means, that other factors important for understanding the KLC approach's impact on organizational agility that are not included in the analyzed model should be identified and studied more in-depth. The critical limitation of this research is that the organizational adaptability scale was adapted here as a proxy for organizational agility. Precisely, the adapted scale omits the factor of organizational ability to respond timely, accurately, and creatively to changes. So, further studies with developed scales for organizational agility are needed to confirm the given findings and conclusions.

8. Conclusions

Trust, risk-taking attitude, and critical thinking are tremendous for organizational agility building. Moreover, the findings exposed that the KLC culture synergy supports organizational agility mainly through collaboration culture and the mediating power of mistakes acceptance component of a learning culture. Moreover, all the inputted to the model control variables significantly support this relation. The given results proved that the risk-avoidance attitude positively supports agility. This is because agility, understood as smooth adaptability, is the effect of

efficient risk management. Thanks to risk management and critical thinking, the negative impact of inaction risks can often be seen as higher than the risks of very innovative actions, or in other words, very innovative actions are worth risk-taking to avoid risks occurring if these innovative actions remain untaken. So, from this perspective, the essence of agility is smooth risk management that creates the organizational ability to select risks taken or avoided wisely. The KLC approach, critical thinking, and trust among workmates support the smooth selection of risks that must be taken.

Acknowledgement

The presented research is a result of the project Agile learning culture influence on dynamic capabilities of knowledge-based organizations: Polish-Finnish cross-country analysis No. UMO-2022/47/B/HS4/00597 financed by the funds of the National Science Center (NCN) Poland.

References

Alshwayat, D., MacVaugh, J.A. and Akbar, H. (2021), "A multi-level perspective on trust, collaboration and knowledge sharing cultures in a highly formalized organization", *Journal of Knowledge Management*, Vol.25 No.9, pp. 2220-2244. https://doi.org/10.1108/JKM-05-2020-0354

Al-Omoush, K.S., Simon-Moya, V. and Sendra-Garcia, J. (2020), "The impact of social capital and collaborative knowledge creation on e-business proactiveness and organisational agility in responding to the COVID-19 crisis", *Journal of Innovation and Knowledge*, Vol.5 No.4, pp. 279-288.

Becker, T.E., G. Atnic, G., Breaugh, J.A., Carlson, K.D., Edwards, J.R. and Spector, P.E. (2016), „Statistical control in correlational studies: 10 essential recommendations for organizational researchers," *Journal of Organizational Behavior*, Vol.37, pp. 157–167.

Brown, J.L. and Agnew, N.M. (1982), "Corporate agility", *Business Horizons*, Vol.25 No.2, pp. 29-33.

Byrne, B.M. (2016), *Structural Equation Modeling with Amos*. Routledge, Abingdon.

Carlson, K.D. and Wu, J. (2012), „The illusion of statistical control: control variable practice in management research," *Organizational Research Methods*, Vol.15 No.3, pp. 413-435.

Cegarra-Navarro, J.-G., Soto-Acosta, P. and Wensley, A.K.P. (2016), "Structured knowledge processes and firm performance: The role of organizational agility", *Journal of Business Research*, Vol.69, pp. 1544–1549. https://doi.org/10.1016/j.jbusres.2015.10.014

Conboy, K., Coyle, S., Xiaofeng, W. and Pikkarainen, M. (2011), "People over process: key challenges in agile development", *IEEE Software*, Vol.28 No.4, pp. 48-57.

Cyfert, S., Szumowski, W., Dyduch, W., Zastempowski, M. and Chudzinski, P. (2022), „The power of moving fast: responsible leadership, psychological empowerment, and workforce agility in energy sector firms", *Heylon*, Vol.8 No.10, e11188. https://doi.org/10.1016/j.heliyon.2022.e11188

Erickson, G.S. and Rothberg, H. (2012), *Intelligence in action: Strategically managing knowledge assets*, Springer.

Franco, M., Guimarães, J. and Rodrigues, M. (2023), "Organisational agility: systematic literature review and future research agenda", *Knowledge Management Research & Practice*, Vol.21, No.6, pp. 1021–1038 https://doi.org/10.1080/14778238.2022.2103048

Funston, F. and Wagner, S. (2010), *Surviving and thriving in uncertainty: Creating the risk intelligent enterprise*. John Wiley & Sons.

Galli, B.J. and Lopez, P.A.H. (2018), Risks management in agile new product development project environments: A review of literature. *International Journal of Risk and Contingency Management*, Vol.7 No.4, pp. 37-67.

Garvin, D.A. (1993), „Building a Learning Organization", *Harvard Business Review*, Vol.71, pp. 78-91.

Goncalves, D., Bergquist, M., Bunk, R. and Alänge, S. (2019), "The influence of cultural values on organizational agility", AMCIS 2019 Proceedings, pp. 1-10.

Harsch, K. and Festing, M. (2020), "Dynamic talent management capabilities and organizational agility—a qualitative exploration", *Human Resource Management*, Vol.59 No.1, pp. 43-61.

Kucharska, W. (2024), "Self-Perceived Personal Brand Equity of Knowledge Workers by Gender in Light of Knowledge-Driven Organizational Culture: Evidence From Poland and the United States", *SAGE Open*, Vol.14 No.1. https://doi.org/10.1177/21582440241227280

Kucharska, W. (2021), "Do mistakes acceptance foster innovation? Polish and US cross-country study of tacit knowledge sharing in IT", *Journal of Knowledge Managemen*t, Vol.25 No.11, pp. 105-128. https://doi.org/10.1108/JKM-12-2020-0922

Kucharska, W. and Bedford, D.A.D. (2023a), *The Cultures of Knowledge Organizations: Knowledge, Learning, Collaboration (KLC)*, Emerald.

Kucharska, W. and Bedford, D.A.D. (2023b), „The KLC Cultures, Tacit Knowledge, and Trust Contribution to Organizational Intelligence Activation", In Proceedings of the 24th European Conference on Knowledge Management, September, Lisbon, ECKM23. https://doi.org/10.34190/eckm.24.1.1248

Kucharska, W. and Erickson, G.S. (2023), "Tacit knowledge acquisition & sharing, and its influence on innovations: A Polish/US cross-country study", *International Journal of Information Management*, Vol.71, 102647. https://doi.org/10.1016/j.ijinfomgt.2023.102647

Kucharska, W., and 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*, Vol.33 No.7, pp. 1329–1354. https://doi.org/ 10.1108/JOCM-02-2020-0052.

Kucharska, W., Kowalczyk, R. and Kucharski, M. (2017), Trust, tacit knowledge sharing, project performance, and their managerial implications. Proceedings of the 18th European Conference on Knowledge Management, Vol.1, pp. 532-539.

Kucharska, W. and Kucharski, M. (2023), Technological vs. Non-Technological Mindsets: Learning From Mistakes, and Organizational Change Adaptability to Remote Work. Proceedings of the 19th European Conference on Management Leadership and Governance, ECMLG 2023, pp. 205-214. https://doi.org/10.34190/ecmlg.19.1.1902

Liu, H.M. (2021), "Effect of partnership quality on SMEs success: mediating role of coordination capability and organisational agility", *Total Quality Management and Business Excellence*, Vol.32 No.15-16, pp. 1786-1802.

Maes, G. and Van Hootegem, G. (2019), „A systems model of organizational change," *Journal of Organizational Change Management*, Vol.32 No.7, pp. 725-738. https://doi.org/10.1108/JOCM-07-2017-0268

Martin, A.J., Nejad, H., Colmar, S. and Liem, G.A.D. (2013), „Adaptability: How students' responses to uncertainty and novelty predict their academic and non-academic outcomes," *Journal of Educational Psychology*, Vol.105 No.3, pp. 728–746. https://doi.org/10.1037/a0032794

Moran, A. and Moran, A. (2014), *Agile risk management,* Springer International Publishing, (pp. 33-60).

Nugroho, M.A. (2018), „The effects of collaborative cultures and knowledge sharing on organizational learning," *Journal of Organizational Change Management*, Vol.31 No.5, pp. 1138-1152. https://doi.org/10.1108/JOCM-10-2017-0385

Orłowski, C., Deręgowski, T., Kurzawski, M. and Ziółkowski, A. (2017), "Evaluation of readiness of IT organizations to agile transformation based on case-based reasoning", ACIIDS 2017: Intelligent Information and Database Systems, Vol. 10192, pp. 787-797.

Oswald, A.J. and 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.

Rael, R. (2017), *Smart Risk Management: A guide to identifying and calibrating business risks*. John Wiley & Sons.

Rass, L., Treur, J., Kucharska, W. and Wiewiora, A. (2023), „Adaptive dynamical systems modelling of transformational organizational change with a focus on organizational culture and organizational learning," *Cognitive Systems Research*, Vol.79, pp. 85-108. https://doi.org/10.1016/j.cogsys.2023.01.004

Rebelo, T. and Gomes, A.D. (2011), "Conditioning factors of an organizational learning culture", *Journal of Workplace Learning*, Vol.23 No.3, pp. 173-194. https://doi.org/10.1108/13665621111117215.

Reupert, A. (2020), „Change and (the need for) adaptability: The new normal," *Advances in Mental Health*, Vol.18 No.2, pp. 91–93. https://doi.org/10.1080/18387357.2020.1792633

Senge, P.M. (2006), *The Fifth Discipline: The Art & Practice of the Learning Organization*, Crown Business, New York, NY.

Spector, P.E. and Brannick, M.T. (2011), "Methodological urban legends: the misuse of statistical control variables", *Organizational Research Methods*, Vol.14 No.2, pp. 287-305. https://doi.org/ 1094428110369842.

van Wijk, R., Jansen, J.J.P., Van Den Bosch, F.A.J. and 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*, Vol.24 No.9, pp. 929-950. https://doi.org/10.1080/09537325.2012.718666

Webster, J. and Pearce, G. (2008), „Crossfire: knowledge sharing should focus on learning culture, rather than the generation of knowledge," *Waterlines*, Vol.27 No.2, pp. 97-103. https://doi.org/10.3362/1756-3488.2008.012

Zanjirchi, S.M., Jalilian, N. and Mirhoseini, A. (2017), "Risk-agility interactive model: a new look at agility drivers", *Journal of Modelling in Management*, Vol.12 No.4, pp. 690-711.

Zastempowski, M. and Cyfert, S. (2023), "A new angle on SMEs' competitiveness. How do agility capabilities affect a firm's competitive position?", *Journal of Organizational Change Management*, Vol.36 No.4, pp. 635-662. https://doi.org/10.1108/JOCM-09-2022-0255

Zinn, J.O. (2020), *Understanding Risk-Taking: Critical Studies in Risk and Uncertainty*, Palgrave Macmillan, Cham.

Appendix 1: Scales and their sources

Knowledge culture (Kucharska and Bedford, 2020)	• All employees perceive knowledge as a valuable resource. • 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.
Learning culture (Kucharska and Bedford, 2020)	Learning climate component • 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 seeking new solutions. Mistakes acceptance component • 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 others.

	• Mistakes are tolerated and treated as learning opportunities.
Collaborative culture (Kucharska and Bedford, 2020)	• My company supports cooperation between workers. • Cooperation among the different duties, teams, and departments was encouraged. • Co-workers volunteer their support even without being asked • People support each other.
Organizational agility proxy bases on Change adaptability scale (Kucharska and Bedford, 2020)	•We are flexible to changes. • We can adjust ourselves to changes. • We adapt to changes easily. • We used changes.
TRUST (Kucharska and Bedford, 2023b)	• I trust people at work. • People in my team trust one another. • People in my division trust one another. • People in my entire organization trust one another.
CRITICAL THINKING (Kucharska and Erickson, 2023)	• Making sense of things is important to me. • I learn from constructive questioning. • I like to evaluate my work and find out better solutions on my own.
RISK-TAKING ATTITUDE (Kucharska, 2021 based on Zinn, 2020)	•I have a risk-taking attitude. •My boss exposes a risk-taking attitude. •My workmates have a risk-taking attitude.