The KLC Cultures, Tacit Knowledge, and Trust Contribution to Organizational Intelligence Activation

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Abstract: In this paper, the authors address a new approach to three organizational, functional cultures: knowledge culture, learning culture, and collaboration culture, named together the KLC cultures. Authors claim that the KLC approach in knowledge-driven organizations must be designed and nourished to leverage knowledge and intellectual capital. It is suggested that they are necessary for simultaneous implementation because no one of these functional cultures alone is as beneficial for a company as all of them are together. Moreover, there is a risk that organizations with a learning culture developed without collaboration are stuck at the individual level of learning only; and that a knowledge culture developed without a learning culture jeopardizes the organization to be stuck in a passive way where only old, multiply verified knowledge is accepted. As a result, such companies cannot grow. That extreme situation leads to the rejection of new knowledge that is usually rationalized by the need for business safety security - that is nothing more than a ruse for intellectual laziness or personal barriers of fixed-minded managers. Summing up, based on the empirical evidence (640-cases sample, composed of Polish knowledge workers; SEM method of analysis), this paper delivers empirical evidence that knowledge culture rejects mistakes acceptance component of learning culture and that the learning climate component itself is not sufficient for explicit knowledge sharing. Knowledge sharing, organizational intelligence, and innovativeness are key benefits of the synergy that offers the KLC cultures simultaneous implementation and cultivation. The results expand the former studies by Kucharska and Bedford (2020; 2023) and Kucharska (2021a-b) and expose that KLC cultures and TRUST are needed to develop tacit knowledge sharing clearly is an essential ingredient for organizational intelligence development.

Keywords: Knowledge culture, Learning culture, Collaborative culture, KLC cultures, Knowledge sharing, Tacit knowledge, Explicit knowledge, Collective intelligence, Trust

1. Introduction

Recently Kucharska and Bedford (2023) introduced the KLC cultures synergy idea that the essence is the simultaneous implementation of functional cultures of knowledge, learning, and collaboration for knowledge-driven organizations' growth. Authors claim that these cultures support and strengthen one another to develop favorable conditions for new knowledge creation and utilization that impact the organizational ability to create change (innovativeness) and to adapt collectively to externally induced changes (organizational intelligence), „ The KLC cultures are so powerful together, thanks to their tremendous contribution to tacit knowledge-sharing behaviors that are focal for human and relational capital development.

Understanding company culture's contribution to its performance is particularly critical in today's hyperdynamic knowledge economy. Culture will always dominate strategy (Bedford and Kucharska, 2020), „ However, it can play an even more significant role in the knowledge economy, where knowledge is the primary form of capital and the most critical intellectual production factor. To thrive and survive in the knowledge economy, managers must "see" their company culture's power to shape the company's course and learn to gain and sustain knowledge, learning, and collaboration cultures synergy. Nowadays, hyperdynamic business reality requires intelligent actions. When managers "see" their cultures as assets, they can shape and use them for the company's best (Kucharska and Bedford, 2023), „

This study aims to deliver a piece of empirical evidence supporting the KLC culture's powerful impact on knowledge-driven organization ability to create knowledge (explicit and tacit) that matters for organizational intelligence and innovativeness development.

2. Conceptual Framework

KLC cultures

The focal point to clarify the KLC culture approach to knowledge-driven organizational culture introduced by (Kucharska and Bedford, 2023) is the clarification of the key characteristics of each of them as well as the exposition of their relations.

A culture of knowledge dominates in knowledge-oriented organizations that focus more on static knowledge exploitation (Kucharska and Bedford, 2023; Van Wijk et al., 2012), whereas learning culture dominates in organizations that focus more on dynamic, constantly breaking 'the status qu.' Furthermore, knowledge culture is a base for learning culture. To expose the difference between these cultures the easiest way 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 and discourage the hoarding or hiding of tacit knowledge (Kucharska and Rebelo, 2022a-b; Weinzimmer and Esken, 2017), „ 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 all above, the hypotheses are given below:

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

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

A culture of learning is an organization's ability to create, acquire, and exchange knowledge, modify its behaviors and choices, and integrate that new knowledge and insights into its organizational knowledge (Garvin, 1993), „ Moreover, Kucharska and Bedford (2020) empirically proved that this organizational ability depends on two dimensions: learning climate and mistakes acceptance and that the climate component influences the mistakes acceptance component. Therefore, the hypothesis is added as below:

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

Moreover, if an organization is seen as a group of people coordinated to achieve the aim non of them can achieve alone – then collaborative culture is an essence of any organization's existence (Kucharska and Bedford, 2023), „ Learning requires collaboration.   Collaboration supports learning that is a source of new knowledge (Kucharska and Bedford, 2020; Nugroho, 2018), „ Collaboration is then the core competency that enables knowledge organizations to create relational knowledge capital. Based on this, the hypothesis is given below:

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

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

Based on the Kucharska (2017) study, it is empirically proved that knowledge culture and collaborative culture are correlated and that both foster knowledge sharing, especially tacit. Therefore the hypothesis is added:

H1f: Knowledge culture and collaborative culture are correlated

Moreover, Alavi et al. (2005) and Yang (2007) studies indicated that knowledge sharing is motivated by collaborative culture; therefore, the additional hypothesis is formulated as below:

H2: Collaborative culture influence positively the explicit knowledge sharing

Knowledge sharing

Knowledge is recognized today as the most critical company resource that can provide organizations with a sustainable competitive advantage (Barney, 1991), „ Therefore, it's sharing among workmates is equally critical for this competitive advantage creation and implementation. The culture of learning supports knowledge dissemination (tacit and explicit) across the company (Lucas, 2006; Schmitz et al. 2014; Kucharska and Bedford, 2023), „ Therefore, the hypotheses are formulated below:

H3a Mistakes acceptance component of learning culture influences positively explicit knowledge sharing

H3b: Mistakes acceptance component of learning culture positively influences tacit knowledge sharing.

H3c: Learning climate component of learning culture positively influences tacit knowledge sharing.

H3d: Learning climate component of learning culture positively influences explicit knowledge sharing.

Moreover, following Islam et al.'s (2015) statement that knowledge culture supports the flow of knowledge throughout the organization and relying on Kucharska's (2021a) empirical evidence, it is assumed that knowledge culture might motivate knowledge workers to share their newly discovered thoughts and ideas. Thus, the following hypothesis is formulated:

H4: Knowledge culture influences tacit knowledge sharing positively.

All knowledge is rooted in tacit knowledge, as Polanyi (1966) stated. Following him, the hypothesis is given below:

H5: Tacit knowledge sharing fosters explicit knowledge sharing.

Organizational development

Change is a characteristic of the current economy. In the knowledge economy, creating and adapting to change are what organizations and individuals do to exist and create value (Rass et al., 2023), „ Existing in a fast-changing environment requires making change a part of daily organizational routines. How organizations deal with the adaptability need and respond to surrounding change determines their survival and development. For improving innovation and business performance, developing a robust knowledge management (KM) strategy is a pivotal step for many firms today (Lai et al., 2022), „ In line with this, the hypothesis is developed below:

H6 Explicit knowledge sharing fosters market innovations

Knowledge is a vital asset of the current economy because it is essential to company intelligence development (Rothberg and Erickson, 2007), „ Feuerstein et al. (1979) defined intelligence as the ability to adapt to change. Following him, the organizational capacity to adapt to change is seen as its intelligence. Tacit knowledge sharing among workmates fosters adaptability to change (Kucharska and Rebelo, 2022); therefore, hypotheses have been given below:

H7: Explicit knowledge sharing fosters organizational intelligence (change adaptability), „

H8: Tacit knowledge sharing fosters organizational intelligence (change adaptability), „

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), „ Martin et al. (2013, p. 1) defined adaptability as 'appropriate cognitive, behavioral and/or emotional adjustment in the face of uncertainty and novelty.' Change is a characteristic of today's economy that places companies in a permanent learning and development mode related to adjusting and gaining market advantage and creating value through constant innovativeness (Kucharska and Rebelo, 2022), „ Bearing in mind all above, the hypothesis is formulated as follows:

H9: Organizational intelligence (change adaptability) fosters market innovations.

Trust

TRUST impacts knowledge sharing (Kmieciak, 2021; Rutten et al., 2016), „ Trust among co-workers ensures successful collaboration and vice versa; both increase knowledge sharing, team creativity, and performance (Kucharska, 2017), „ At the same time, knowledge sharing supports trust-building among knowledge workers

(Thomas et al., 2009), „ Therefore TRUST, it is included in this study as a control variable (CV), „ CVs imputation enables including extraneous variables that are not the focal point of the thorough research but remain theoretically important (Carlson and Wu, 2012; Nielsen and Raswant, 2018), „ Based on the former studies of Kucharska (2017), Kucharska et al. (2017), and Kucharska and Kowalczyk (2016), TRUST is a critical facilitator needed for tacit knowledge sharing. It is why the hypothesis is added below:

H_{cv} : *Trust positively impacts tacit knowledge sharing.*

Figure 1 below, based on the all above, summarizes the conceptual framework of the planned empirical research visually.
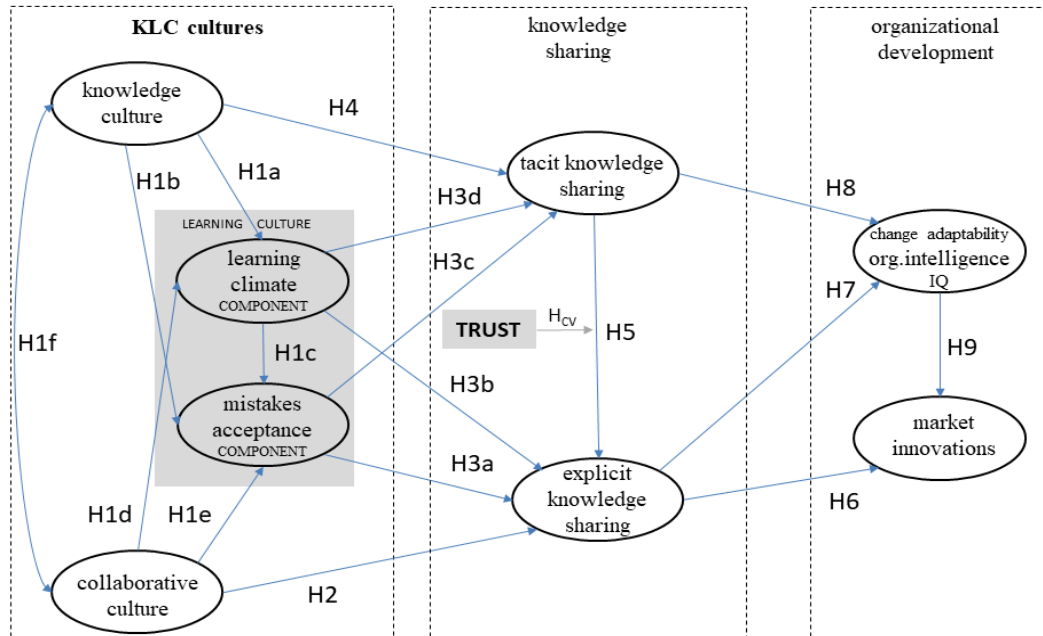

Figure 1: Conceptual Framework

3. Methodology

Sampling procedure: this study was targeted at 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 by Biostat® Poland. Sample characteristics: sample is composed of 640 Polish knowledge workers: 306 specialists and 334 managers; 329 women and 311 men representing mostly 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 the majority of questions using a 7-point Likert scale. Appendix 1 presents measured constructs scales and their sources. Obtained reliabilities are given in Table 1. Additionally, Appendix 2 presents the Cross-Loadings Matrix. It is because two of the nine used scales (the organizational Trust and the organizational IQ) were invented and validated by authors. The Cross-Loadings Matrix exposes that the used scales do not overlap. Control variable (CV): Trust was input into the model as CV; to do so, the composite variable was created based on the scale measures.

Method of analysis: structural equation modeling (SEM) with the use of SPSS Amos 26 software (Byrne, 2016), „

Sample quality: Kaiser–Meyer–Olkin (KMO) test: .957, the total variance extracted: 75% and Harman one factor test: 44% 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	T	CC	KC	LCc	LcM	TKS	EKS	IQ	InnE
T	3.59	2.01	.57	.79	.80	**.753**								
CC	3.68	2.09	.56	.86	.83	.677	**.752**							
KC	4.23	2.52	.71	.88	.88	.499	.657	**.845**						
LCc	3.74	2.15	.57	.79	.83	.586	.846	.693	**.753**					
LcM	3.12	1.7	.80	.94	.94	.437	.651	.398	.608	**.894**				
TKS	3.61	.07	.66	.85	.87	.637	.69	.606	.718	.543	**.813**			
EKS	3.56	1.98	.55	.79	.78	.668	.902	.642	.719	.692	.719	**.742**		
IQ	3.64	1.98	.59	.85	.85	.592	.75	.567	.708	.58	.786	.742	**.765**	
InnE	3.59	1.96	.54	.78	.77	.557	.738	.535	.678	.567	.697	.722	.758	**.732**

Note: n=640 KC-knowledge culture, LCc-learning culture climate component, LCm-Learning culture mistakes acceptance component, CC-collaborative culture, TKS-tacit knowledge sharing, EKS-explicit knowledge sharing, T-trust, IQ- organizational change adaptability, InnE – market (external) innovations

After the positive assessment of the sample and scales reliability, the structural confirmatory factor analysis (CFA) model was developed to ensure that the scales performed appropriately. The evaluation of the model quality was initially conducted based on constructs measurements consistency tests such as the average of variance extracted (AVE), composite reliability (CR), and Cronbach's alpha. AVE exceeded 0.54 for all constructs, which was acceptable (Hair et al., 2017), „ Cronbach's alpha test was used to confirm the consistency of the construct measurement model. The alpha coefficient was greater than 0.77 for all constructs, which was adequate (Hair et al. 2017, pp. 112), „ The CR was greater than 0.78 for all loadings, which was more than the required minimum of 0.7 (Hair et al., 2017), „ The square root of each construct's AVE exceeded the correlations between any pair of distinct constructs except CC-LCc and CC-EKS (bolded in Table 1), „ It means that there is a strong interdependency between collaborative culture, learning climate, and knowledge sharing in Poland. On the one hand, this interdependency may cause little bias; on the other hand, it exposes how focal is collaborative culture for knowledge spreading in Poland.

4.   Results Presentation and Discussion

Obtained results exposed (Table 2; Model A and B comparison) that TRUST is next to KLC cultures synergy, a focal company facilitator of knowledge-sharing processes in the knowledge-driven organization. The entire model quality was strengthened thanks to the trust (CV) imputation.

Moreover, results show that knowledge culture supports the learning climate component of a learning culture (H1a), but it is negatively related to the mistakes acceptance component (H1b), and the climate component supports the mistakes acceptance component (H1c) – as was indeed assumed by the KLC cultures approach by (Kucharska and Bedford, 2023), „ On the contrary, collaborative cultures support both components of learning cultures (H1e, H1f), „ That next supports knowledge sharing except for the fact that the hat learning climate itself (H3b) is not sufficient for explicit knowledge sharing. It might be that it is mediated by tacit knowledge sharing or by mistakes acceptance component of the learning culture. These assumptions require further profound verification. Nevertheless, it altogether exposes why knowledge culture itself is not enough for knowledge-driven company development.   Knowledge, learning, and collaborative culture (KLC cultures) support one another and together deliver to the organization the expected benefit of smooth knowledge sharing (H2; H3a,c,d; H4; H5), „ Finally, knowledge sharing fosters organizational intelligence (H7; H8) that matters of innovations (H6) creation that is a potent source of the expected competitive advantage.

Table 2 below presents hypotheses verification details supporting this view.

Table 2: Hypotheses Verification

Model A with TRUST CV			Model B without CV		
Hypothesis	**significance**	**verification**	**Hypothesis**	**significance**	**verification**
H1a	.24***	sustained	**H1a**	.27***	sustained

Model A with TRUST CV			Model B without CV		
Hypothesis	**significance**	**verification**	**Hypothesis**	**significance**	**verification**
H1b	-.12*	sustained	**H1b**	-.17***	sustained
H1c	.26***	sustained	**H1c**	.30***	sustained
H1d	.69***	sustained	**H1d**	.68***	sustained
H1e	.51***	sustained	**H1e**	.44***	sustained
H1f	.66***	sustained	**H1f**	.67 ***	sustained
H2	.58***	sustained	**H2**	.50***	sustained
H3a	.13**	sustained	**H3a**	.13***	sustained
H3b	.01(.899)	**rejected**	**H3b**	.12(.15)	**rejected**
H3c	.14***	sustained	**H3c**	.11*	sustained
H3d	.35***	sustained	**H3d**	.61***	sustained
H4	.15***	sustained	**H4**	.11(.68)	**rejected**
H5	.34***	sustained	**H5**	.30***	sustained
H6	.58***	sustained	**H6**	.56***	sustained
H7	.61***	sustained	**H7**	.61***	sustained
H8	.29***	sustained	**H8**	.28***	sustained
H9	.29***	sustained	**H9**	.30***	sustained
Hcv	.29***	sustained			

Note: <u>MODEL A</u> n=640, ML; χ2=1043.45(331) CFI=.941 TLI=.933 RMSEA=.059 Cmin/df=3,15; *p<.05 **p<.01 ***p<.001

<u>MODEL B</u> n=640, ML; χ2=1016,34(307) CFI=.939 TLI=.931 RMSEA=.060 Cmin/df=3,31; *p<.05 **p<.01 ***p<.001

ns-not significant result

Table 2 compares the obtained results for two models: Model A, run with TRUST as CV, and Model B, run without it (Aguinis and Vandenberg, 2014; Becker et al., 2016), „ The model with TRUST fits better with the data. So, it supports the theoretical justification given to input TRUST as a CV to the study. Therefore, all the subsequent analyses and visualizations (Figure 2) are presented for the model with TRUST.
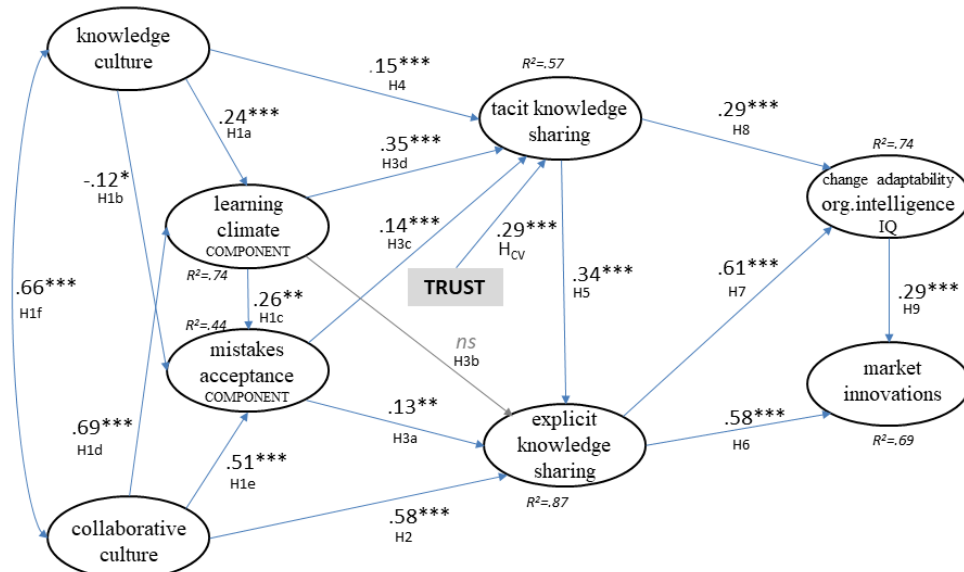
Note: n=640, ML; χ2=1043.45(331) CFI=.941 TLI=.933 RMSEA=.059 Cmin/df=3,15; p<.05 **p<.01 ***p<.001

ns-not significant result

Figure 2: Results

The presented results expand the former studies by Kucharska and Bedford (2020; 2023) and Kucharska (2021a-b) and expose that KLC cultures and TRUST are needed to develop tacit knowledge sharing, which clearly is an essential ingredient for organizational intelligence development.

5. Limitations and Implications

The key limitation of this research is that it bases on data collected in only one country. The second important limitation is the identified strong interdependency between collaborative culture, learning climate, and knowledge sharing in Poland. This interdependency may cause little bias, but at the same time might be it exposes how focal collaborative culture is for knowledge spreading in Poland – to be sure how to interpret it, further studies are needed. Moreover, the presented results expose only direct relations. No mediated or moderated effects are included. So, further studies can explore these relations more in-depth.

6. Practical Implications

Practical implications are direct, KLC cultures facilitated by TRUST drive organizational intelligence. Therefore, KLC cultures are worth to be implemented simultaneously. Moreover, there is a risk that organizations with a learning culture developed without collaboration are stuck at the individual level of learning only; and that a knowledge culture developed without a learning culture jeopardizes the organization to be stuck in a passive way where only old, multiply verified knowledge is accepted. As a result, such companies cannot develop. That extreme situation leads to the rejection of new knowledge that is usually rationalized by the need for business safety security - that is nothing more than a ruse for intellectual laziness or personal barriers of fixed-minded managers. Similarly, knowledge culture itself rejects the mistakes acceptance component of learning culture that makes entire learning problematic. Can we learn without mistakes? Obviously, we cannot. So, knowledge culture itself – without learning and collaboration also jeopardizes organizational development. There is no development without learning. Moreover, the learning climate component of learning culture is not sufficient for explicit knowledge sharing, and collaboration is needed to make learning and sharing happen. So, knowledge sharing, organizational intelligence, and innovativeness are key benefits of the synergy that offers the KLC culture simultaneous implementation and cultivation. TRUST strengthens this effect.

Summing up the practical perspective of the obtained results: those managers who care about developing knowledge-driven organizations in the hyperdynamic conditions as observed today need to build a collective intelligence to do so, they must implement KLC cultures and build TRUST.

7. Conclusion

Knowledge sharing, organizational intelligence, and innovativeness are key benefits of the synergy that offers the KLC cultures simultaneous implementation and management. TRUST strengthens this effect. So, those managers who care about developing knowledge-driven organizations in the hyperdynamic conditions observed today need to build collective intelligence; to do this efficiently, they should implement KLC cultures and build TRUST. The presented results expose that KLC cultures and TRUST are needed to develop tacit knowledge sharing, which clearly is an essential ingredient for organizational intelligence development. Collective intelligence, understood as a network of knowledge workers brilliant minds' that collaborate smoothly, is a severe organizational potency that needs to be activated. KLC cultures' synergy facilitates it significantly.

Acknowledgements

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Appendix 1: Scales and Their Sources

Knowledge culture (Kucharska and Bedford, 2020)	All employees perceive knowledge as 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)	<u>Learning climate component</u> All staff demonstrates 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. <u>Mistakes acceptance component</u> 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.
Tacit knowledge sharing (Kucharska and Erickson, 2023)	I share knowledge learned from my own experience. 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.
Explicit knowledge sharing (authors' own scale)	There is a formal policy encouraging knowledge sharing at my place of work.

	Knowledge is shared among people in my team and division.
	Other teams and divisions share knowledge with us.
	We share our knowledge with other teams and divisions.
TRUST (authors' own scale)	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.
Change adaptability (org. intelligence - IQ) (Kucharska and Bedford, 2020)	We are flexible to changes.
	We can adjust ourselves to changes.
	We adapt to changes easily.
	We used changes.
External, market innovations (Kucharska and Erickson, 2023)	We provide competitively superior innovations to our clients.
	Our innovations are perceived positively by our clients.
	We are better than our competitors at introducing innovations.
	I am proud of our innovations.

Appendix 2: Cross-Loadings Matrix

	1	2	3	4	5	6	7	8	9
KC1			*.917*						
KC2			*.925*						.103
KC3			*.705*			.152			
LCc4		.135		.245			*.403*		-.143
LCc3				-.150	.277		*.548*		.119
LCc2							*.820*		
LCc1				.174			*.694*		
LCm3	.831								
LCm4	.895								
LCm2	.947								
LCm1	.903								
C2				.128	.292	*.537*	-.127	-.113	-.140
C3				-.244	*.897*				.124
C1					*.686*				
C4					*.487*			.115	
EKS1				.172	.143	.121	*.451*		-.152
EKS2						.180	*.435*		
EKS3							*.898*		
TKS3			*.667*	.315					
TKS2			*.864*						.111
TKS1			*.931*	-.124					
TKS3		-.111	*.639*			-.122		.135	
IQ1					*.899*	-.241		-.132	.213

IQ2					*.597*	.115			.495
IQ3				.106	*.632*				.303
IQ4					*.673*				.235
InnE1	.118			-.156	.172	*.566*			
InnE2					.213	*.418*	.104		.184
InnE3					.173	*.444*	.121	.122	
T1		*.899*							
T2		*.556*	.123		.155				-.102
T3		*.878*			-.148				
T4		*.785*				.116			

Loadings extraction method - Maximum Reliability. Rotation method - Promax with Kaiser normalization.