

## UNLOCKING COMPETITIVE ADVANTAGE: EXPLORING THE INFLUENCE OF ORGANIZATIONAL UNLEARNING

Tomasz INGRAM<sup>1</sup>, Katarzyna BRATNICKA-MYŚLIWIEC\*<sup>2</sup>

<sup>1</sup> University of Economics in Katowice; tomasz.ingram@uekat.pl, ORCID: 0000-0002-4161-6261

<sup>2</sup> University of Economics in Katowice; katarzyna.bratnicka@uekat.pl, ORCID: 0000-0002-3761-0641

\* Correspondence author

**Purpose:** The purpose of this paper is to examine the role of organizational unlearning in shaping competitive advantage, with particular attention to its potential mediating mechanisms. The authors aim to expand the traditional perspective, which predominantly emphasizes organizational learning, by exploring how unlearning enables organizations to adapt their knowledge and practices in pursuit of competitive advantage.

**Design/methodology/approach:** The study is based on a quantitative analysis of data collected from 363 randomly selected Polish enterprises. Structural equation modeling (SEM) was used to test the relationships between unlearning, creativity, innovation, and competitive advantage. Validated measurement scales were employed, and firm age and size were included as control variables.

**Findings:** Our findings highlight that while organizational unlearning does not directly impact competitive advantage, its effect becomes significant when mediated by organizational creativity. Moreover, our study underscores that although organizational creativity fosters innovation, innovation alone does not directly translate into competitive advantage. These findings challenge conventional assumptions about the linear relationship between unlearning, innovation, and firm performance, suggesting that creativity, rather than innovation, serves as a mediator between unlearning and competitiveness.

**Research limitations/implications:** A key limitation of the study lies in the potential bias resulting from the use of a single data source, as well as the focus on competitive advantage rather than financial metrics. Future research should consider longitudinal and comparative approaches that integrate both qualitative and quantitative perspectives on unlearning across diverse organizational contexts.

**Practical implications:** The study suggests that cultivating a culture of strategic unlearning – through the removal of outdated practices and support for organizational creativity – may enhance organizational agility and long-term performance. Encouraging collaboration, communication, and experimentation could help strengthen organizations' ability to build and sustain competitive advantage.

**Originality/value:** Our paper contributes to knowledge management and organizational change literature by highlighting the strategic importance of creativity in unlearning-driven competitive advantage. It offers a novel empirical perspective that refines existing assumptions about the role of innovation and creativity in linking unlearning to organizational outcomes.

**Keywords:** organizational unlearning, organizational creativity, innovation, competitive advantage.

**Category of the paper:** research paper.

## 1. Introduction

Organizations today contend with the challenge of adapting to a volatile environment, seeking to foster innovation by changing their operational approaches. To ensure their continued success, it's crucial for these organizations to reconsider their traditional methods. This necessitates a deeper understanding of inherent dynamics and complex relationships, particularly when viewed through the lens of organizational unlearning—a critical factor in adapting to environmental changes and promoting creativity and innovation to enhance competitive advantage. Scholars have long signaled the concept of a learning organization as a key avenue for gaining and maintaining a competitive edge in dynamic and turbulent environments, fostering adaptability (Ferreira, Coelho, Moutinho, 2020; Hamel, Prahalad, 1993). However, simply having the characteristics of a learning organization does not guarantee survival or competitiveness (Ghasemaghaei, Calic, 2020).

Organizations should consciously break away from established patterns and modes of thinking, engaging in a process termed "organizational unlearning" in the literature. Essentially, this involves organizations 'learning to forget' (Hamel, Prahalad, 1994; Lyu et al., 2020), enabling them to swiftly adapt to the ever-changing environment. However, unlearning should not be perceived as a passive erasure of knowledge but rather as a proactive and strategic process that enables the organization to question outdated assumptions and create space for new approaches (Cegarra-Navarro, Moya, 2005; Cohen, Levinthal, 1990; Grisold, Kaiser, Hafner, 2017).

The literature establishes that the ability to unlearn contributes to the competitive advantage of a firm (Martignoni, Keil, 2021). However, the specifics of how and when this relationship occurs remain relatively unexplored. Moreover, unlearning seems to be crucial for adapting to the changing environment and supporting innovation (Bettis, Prahalad, 1995; Nystrom, Starbuck, 2012; Tsang, Zahra, 2008).

Organizational unlearning plays a vital role in promoting organizational learning, enhancing performance, and overcoming cognitive and structural barriers (Tsang, Zahra, 2008). Moreover, by encouraging the exploration of new perspectives, unlearning contributes to the dynamic nature of organizational systems, allowing them to remain agile and responsive to emerging challenges (Bettis, Prahalad, 1995; Nystrom, Starbuck, 2012). Unlearning is particularly crucial for large corporations aiming to develop disruptive innovations, involving the overcoming of inhibiting factors such as the inability to unlearn obsolete mental models (Assink, 2006). In the context of absorptive capacity and innovativeness, organizational unlearning is

highlighted as a crucial determinant, emphasizing the need for companies to unlearn established beliefs and methods to be receptive to new information (Cepeda-Carrion et al., 2012).

Leal-Rodríguez et al. (2014) extend the discussion by exploring the relationship between organizational unlearning, innovation outcomes, and business performance. This relationship, however, does not occur in a vacuum. Organizational creativity seems to play an important role in explaining both innovation (Klammer, Gueldenberg, 2020) and firm performance (Ferreira, Coelho, Moutinho, 2020). In essence, fostering unlearning can lead to enhanced innovation, which, in turn, positively affects overall firm performance.

Hence, excessive adherence to established rules and procedures can impede an organization's adaptability. The accumulation of knowledge at the organizational level, while valuable, can paradoxically hinder creative processes and innovation—essential elements for gaining a competitive edge (Clark, 2014; Easterby-Smith, 1997; Hedberg, 1981). Therefore, the primary goal of this article is to explore the relationship between organizational unlearning and competitive advantage, with a specific focus on the role of creativity and innovation within organizations. Understanding this relationship is pivotal, as the ability to unlearn, shed outdated practices, and embrace new ideas often sets successful organizations apart (Martignoni & Keil, 2021). The capacity to adjust and revamp strategies in response to changing dynamics can pave the way for sustained success and a lasting competitive advantage. This article seeks to delve into these aspects to shed light on the transformative potential of organizational unlearning and the role of creativity and innovation in today's organizational landscape.

## **2. Theoretical foundations of organizational unlearning and its role in building competitive advantage**

### **2.1. Uncovering the links between organizational unlearning and competitive advantage**

In the ever-evolving landscape of organizational dynamics, organizational unlearning emerges as crucial competency (Zhao & Wang, 2020). It is not only vital for organizations to possess the capability to adapt and alter established methodologies and procedures (Lorenzen, 2001) but also important to conduct a thorough reassessment of ingrained habits and routines that have become obsolete (Grant, 1991). This dynamic process encompasses shedding outdated knowledge, challenging conventional wisdom, and fostering a culture of perpetual innovation. It transcends mere adaptation, demanding a fundamental reevaluation of ingrained practices and the willingness to 'unlearn' in order to pave new pathways forward.

Extensive studies highlight the profound impact of organizational unlearning on a firm's competitive advantage. Multiple perspectives presented in the literature support this hypothesis. For instance, Griffith and Hoppner (2013) propose a model emphasizing soft skills, such as

tacit knowledge, learning, unlearning, and flexibility, as drivers for global marketing managers to make tactical adaptations, thereby enhancing a firm's global marketing strategy. This underscores the integral role of an organization's ability to unlearn and adapt in maintaining its competitive position.

Study conducted by Tsang and Zahra (2008) emphasizes the importance of organizational unlearning in successfully adapting to environmental changes and positively impacting company performance. This aligns with the notion that firms need to unlearn obsolete mental models to foster disruptive innovation capability, as discussed in Assink's conceptual model (2006). Azmi's work (2008) highlights the significance of the learn-unlearn-relearn model in navigating the dynamic business environment, stressing the necessity for organizations to continuously rejuvenate and suggesting that strategic advantage hinges on the unlearning of outdated practices.

Similarly, Wensley and Navarro (2015) propose the implementation of an unlearning context to counteract knowledge degradation in the hospitality sector, implying that unlearning is not only about eliminating obsolete routines but also about creating an environment conducive to acquiring new knowledge. Furthermore, research by Zhang and Zhu (2021) explores the relationship between social media strategic capability and disruptive innovation, highlighting the mediating role of organizational unlearning, indicating that organizations harnessing social media for innovation need to cultivate an environment conducive to unlearning old practices.

In the socio-cognitive framework proposed by Akgün, Lynn, and Byrne (2003), organizational learning is explored from a social cognition perspective, emphasizing the reciprocal interactions of various processes, including unlearning. This integration of unlearning into the organizational learning process suggests its significance in gaining a competitive advantage through continuous adaptation and improvement (Akgün, Lynn, & Byrne, 2003). Lei, Slocum, and Pitts (1999) further support this notion by emphasizing the power of unlearning in designing organizations for competitive advantage. Akgün, Lynn, and Byrne's (2006) empirical investigation into new product development teams underscores the importance of unlearning in work groups, particularly in the context of coping with environmental turbulence, suggesting that effective unlearning is crucial for organizations to adapt successfully to changing market conditions and gain a competitive edge.

Baker and Sinkula (2014) challenge the idea that strong market orientation alone ensures competitive advantage, emphasizing the role of organizational unlearning in navigating market dynamics. Similarly, Navarro and Moya (2005) highlight unlearning as essential for dismantling obsolete knowledge structures, making space for new insights. However, they note that success can impede this transition, as preserving existing structures may hinder adaptation and long-term competitiveness. Research underscores that unlearning enhances adaptability and performance by replacing outdated knowledge with fresh perspectives, ensuring competitiveness in dynamic markets (Nystrom, 2015). This process goes beyond simple

adaptation; it represents a deliberate break from the past, fostering innovation and a culture of continuous improvement.

Starbuck's research (2017) delves into the dynamics of organizational adaptation, learning, and unlearning, particularly in the context of crises. While not explicitly addressing competitive advantage, the paper emphasizes that organizations responding slowly or inadequately to crises may enter a stage of unlearning that is demoralizing and harmful. This suggests that the ability to effectively respond to external challenges and engage in unlearning processes is crucial for organizational survival and, by extension, competitive longevity.

Organizational unlearning plays an essential role in addressing challenges, fostering innovation, and facilitating adaptation to change, all of which contribute to a firm's competitive position. Becker's (2008) case study research provides insights into the concept of unlearning, highlighting inhibitors and enablers of the unlearning process. The model that emerges from the data emphasizes the importance of unlearning for sustainable change and innovation. This suggests that organizations that actively engage in unlearning may gain a competitive advantage through their ability to adapt and innovate. Organizational unlearning can also become a means for inducing multifaceted learning, enabling companies to develop and exploit entrepreneurial capabilities. The emphasis on unlearning suggests a positive relationship between unlearning and the development of competitive advantage (Zahra et al., 2011). In summary, the exploration above leads us to propose the following hypothesis:

*H1: Organizational unlearning is positively related to firm's competitive advantage.*

## **2.2. Organizational creativity as a mediator in the relationship between OU and competitive advantage**

In the highly competitive contemporary business environment, innovation and creativity are fundamental to addressing competitive challenges with agility and responsiveness. However, fostering these capabilities often requires a preceding process of organizational unlearning, wherein outdated behaviors, practices, or routines that no longer align with present realities are abandoned (Leal-Rodríguez, Eldridge, Roldán, Leal-Millán & Ortega-Gutiérrez, 2015). As underscored by Cepeda- Carrión, Cegarra- Navarro & Leal- Millán (2012), the creation of an environment conducive to creativity necessitates a deliberate revision or replacement of existing organizational knowledge. This action becomes imperative to enable the generation of new and useful ideas. This transformative process parallels the act of “clearing a canvas”, providing a blank space on which new, innovative strokes can be painted, thereby propelling organizational success and adaptability within the dynamic and competitive business environment.

A creative organization is not only capable of innovation but also open to experimentation, as emphasized by Amabile (1998). Lorenzen (2001) further highlights that this willingness to experiment strengthens organizational unlearning. The link between creativity and unlearning

underscores the need for organizations to adopt new ideas while actively discarding outdated concepts, routines, and methods that hinder innovation. In this way, unlearning becomes essential to an organization's creative process, enabling the continuous renewal of perspectives and strategies.

Scholars posit that organizational unlearning is essential for fostering creativity and generating new ideas (Martins, Martins & Pereira, 2017). It also plays a key role in developing and implementing innovations (Lorenzen, 2001), or giving organizations a competitive edge (Mezias, Grinyer, Guth, 2001). In times of uncertainty and instability, it becomes a crucial defense mechanism, providing firms with the resilience and adaptability needed not only to survive but to thrive in a constantly changing business environment. By fostering creativity, organizations enhance their ability to identify and seize new opportunities while optimizing existing ones. This dual approach strengthens their competitive advantage in dynamic markets (Matzler et al., 2013). What is also worth to notice, highly creative organizations often exhibit greater structural flexibility, rendering them more adept at adapting to the environment. This enhanced adaptability furnishes them with a strategic advantage, enabling the adept exploitation of opportunities and, in turn, surpassing their competitors (Damanpour & Gopalakrishnan, 2001).

Organizations characterized by creativity demonstrate an increased likelihood of not only enduring but thriving within environments marked by volatility and uncertainty. Intentionally letting go of entrenched beliefs and obsolete practices, organizations create space for new ideas and approaches to emerge. Furthermore, unlearning facilitates the dismantling of rigid cognitive frameworks, thereby promoting a culture that supports continuous learning and creative problem-solving (Grisold, Klammer & Kragulj, 2020). Therefore, rather than viewing unlearning as a regression, it should be recognized as a proactive strategy that paves the way for organizational renewal and creative advancement. Consequently, it becomes a compelling pursuit to scrutinize whether constructs such as organizational creativity serves as a mediating mechanism in the nexus between organizational unlearning and competitive advantage.

To sum up all the above-mentioned, it can be argued that organizational creativity serves as a catalyst for the competitive advantage of the company (Anderson, Potočnik & Zhou, 2014). Additionally, organizational creativity, as a process of deliberately criticizing and updating beliefs to propose novel and useful organizational solutions (Choi, Ingram & Han, 2023), relies on the organizational ability to shed outdated concepts, solutions, routines, or actions (Klammer & Gueldenberg, 2020). Thus, it might be argued that organizational creativity plays a vital role in explaining the complicated relationship between organizational unlearning and competitive advantage.

On the basis of all the above-mentioned considerations, we propose the following hypotheses:

*H2: Organizational creativity is positively related to firms' competitive advantage;*

*H3: Organizational unlearning is positively related to organizational creativity;*

*H4: Organizational creativity mediates the relationship between organizational unlearning and competitive advantage.*

Organizational creativity emerges as a pivotal mechanism linking unlearning to competitive advantage. By fostering creativity, organizations gain the ability to reframe obsolete routines, enabling adaptive and innovative strategies. This underlines creativity's essential mediating role in translating unlearning into tangible competitive outcomes.

### **2.3. Contextualizing the relationships between organizational unlearning, organizational creativity on competitive advantage: The role of innovation**

Organizational creativity, perceived as processes leading to new and useful organizational ideas, although related to competitive advantage, does not directly lead to performance and, thus, does not create a competitive advantage in a direct way. These ideas must be transformed into valuable and novel products and services, and that is where innovation comes into play. These new products, services, and methods help to create value for customers, which is necessary for organizations to grow and compete effectively. Thus, enriching our argument, innovation, and innovation output, in particular, defined as created and introduced new and valuable solutions, products, and processes, serve as a catalyst for creating sustainable competitive advantage for the company.

Innovation in organizations is a multifaceted process influenced by various factors, and a key contributor to this dynamic is organizational creativity (Amabile, 1988; Csikszentmihalyi, 1997). Research conducted by various scholars in the fields of management and innovation suggests a strong correlation between creativity and innovation in organizations (Kim, Oja, & Anagnostopoulos, 2023; Fetrati, Hansen, & Akhavan, 2022). Researchers such as Amabile (1996) and Csikszentmihalyi & Csikszentmihalyi (2014) emphasize the relationship between creativity and innovation, providing a comprehensive framework for understanding how creative processes contribute to organizational innovation.

Ahlstrom (2010) argues that the primary goal of business is to introduce new and innovative products that drive growth and provide benefits to an increasingly broader audience. Innovativeness requires new ideas, meaning it must be preceded by creativity. In this sense, creativity differs from innovative activity, which focuses not so much on generating creative ideas but on implementing them in practice (Klijn & Tomic, 2010; Rampa, & Agogu , 2021). Creativity is predominantly described as the process of generating novel and valuable ideas (Amabile, 1996), while innovation is recognized as the effective implementation of these ideas (Amabile, 1988; Fetrati, & Nielsen, 2018). From the standpoint of economic activity, creativity itself has limited value unless it results in the implementation of new products, services, or processes.

In light of this evidence, we could posit that enhanced creativity can significantly impact the organization's ability to innovate. Creativity serves as the primary driver that leads to the generation of new ideas, which, under the right conditions, can evolve into fully-fledged

innovations. Effectively managing creativity within an organization may, therefore, be a key factor influencing its ability to adapt, compete, and sustain long-term development.

Summing up all the previously raised arguments, it can be reasoned that innovations play a pivotal role in fostering a competitive advantage, enabling organizations to compete effectively in highly dynamic environment (Cao et al., 2022). Also, without a doubt, organizational innovation strongly relies on organizational creativity (Damadzic et al., 2022), as creativity entails necessary processes related to proposing novel and valuable ideas. As such, for the introduction of new organizational solutions, frequently abandoning old practices, processes, or products is necessary (Duan et al., 2023), thus mindful unlearning facilitates innovativeness in organizations. Recent studies have highlighted the positive relationship between organizational unlearning and product innovation performance, emphasizing that unlearning outdated knowledge structures can lead to improved innovation outcomes (Wang et al., 2022). We imply that innovations transpose new and useful ideas into new products and services which actively improve the market position of the organization, thus serving as a catalyst for growing the competitive advantage of a company (Tuan, 2023). Finally, the ability to mindful organizational unlearning comprises a starting point for questioning the old and fostering the new. This leads us to proposing the following research hypotheses:

*H5: Innovation is positively related to competitive advantage.*

*H6: Organizational unlearning is positively related to innovation.*

*H7: Organizational creativity is positively related to innovation.*

*H8: Innovation mediates the relationship between organizational unlearning and competitive advantage.*

*H9: Organizational creativity and innovation mediate the relationship between organizational unlearning and competitive advantage.*

Innovation alone does not ensure competitive advantage unless driven by creativity and supported by unlearning processes. Although innovation operationalizes new ideas, its competitive value is contingent upon the strategic interplay of organizational creativity and the willingness to abandon outdated knowledge.

#### **2.4. Moderating role of environmental dynamism in the relationship between organizational unlearning and competitive advantage**

Environmental dynamism, characterized by rapid changes in market conditions, requires organizations to constantly adapt their strategies to stay ahead (Jansen, Van Den Bosch, Volberda, 2006). It refers to the degree of change and uncertainty in the external environment of a business, including factors such as market conditions, technological advancements, regulatory changes, and competitive forces (Sirmon, Hitt, Ireland, 2007).



The direct relationship between environmental dynamism and competitive advantage can be challenging to capture definitively because it is typically a complex process, and the impact of one factor on the other may be mediated by various mechanisms (Li, Dai, Cui, 2020). Moreover, usually, environmental dynamism is perceived as a factor moderating relationships in organizational settings, as it captures the conditions in which certain links between organizational phenomena occur (Mikalef et al., 2019).

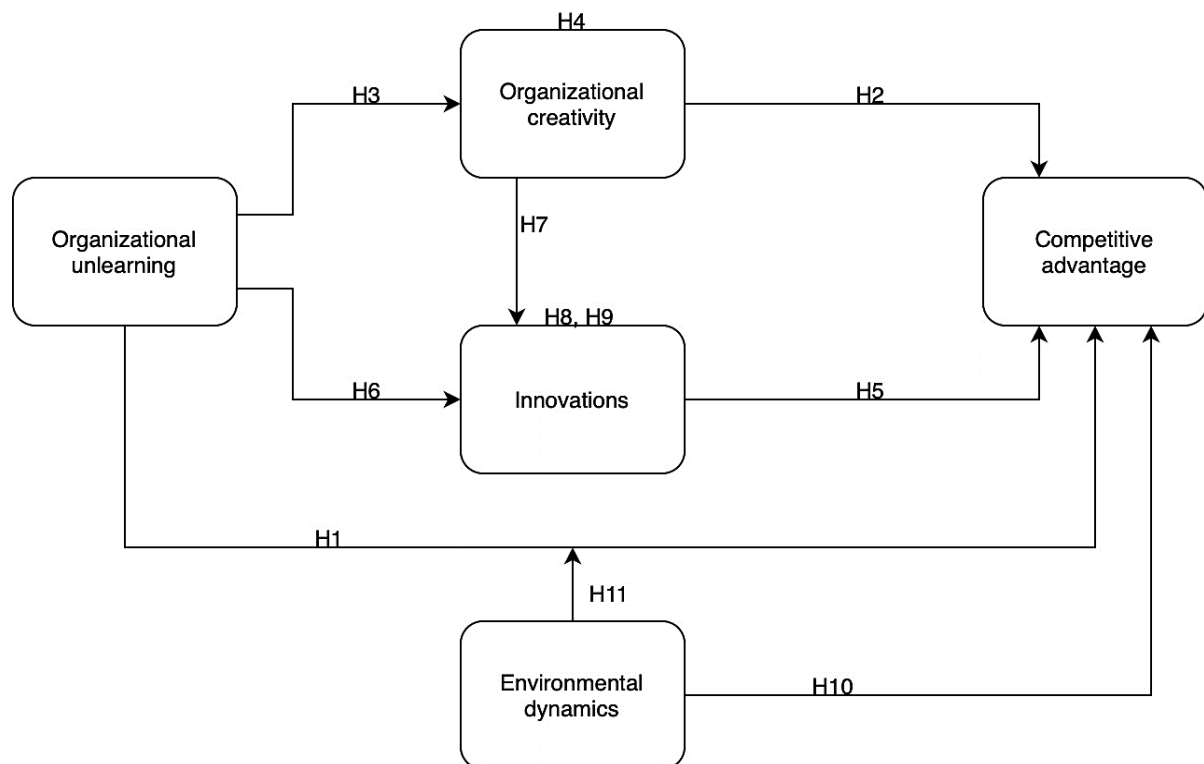
In this vein, understanding how environmental dynamism moderates the relationship between organizational unlearning and competitive advantage is crucial for organizations seeking to navigate and succeed in rapidly changing environment. As Zhang and Zhu (2021) point out, environmental dynamism serves as a moderator of the relationship between organizational unlearning and disruptive innovation, which may lead to competitive advantage. Similarly, Wang et al. (2022) emphasize the effect of environmental dynamism on the relationship between organizational unlearning and organizational performance measures – namely, product innovation performance. Also, Chen, Coviello, and Ranweera (2021) signal the influence of external and internal organizational dynamism on the relationship between network capabilities, generative NPD learning, perceived as the ability to unlearn and engage in exploratory new learning, and firms' capacity for innovation. On the basis of the above-stated considerations, we posit two research hypotheses:

*H10: Environmental dynamism is related to firms' competitive advantage.*

*H11: Environmental dynamism moderates the relationship between organizational unlearning and firms' competitive advantage.*

While environmental dynamism was hypothesized to influence the link between unlearning and competitive advantage, findings suggest this relationship remains largely unaffected. This reinforces the view that unlearning is an internally driven capability, not necessarily dependent on external turbulence.

Summing up the above considerations, a number of questions were asked about the interrelationships between organizational unlearning, organizational creativity, innovation, and the competitiveness of enterprises in the conditions of a dynamically changing environment. The proposed theoretical model (see Figure 1) provides a foundation for empirical research, illustrating how these elements interact to shape an organization's ability to gain a competitive advantage amid uncertainty and change.



**Figure 1.** Hypothesized relationships between organizational unlearning and competitive advantage in the context of organizational creativity, innovation, and environmental dynamism.

Source: own elaboration.

### 3. Methodology

#### 3.1. Sample

To test the proposed hypotheses, we conducted quantitative empirical research employing data collected from a sample of 363 randomly selected Polish enterprises. Data collection took place in the autumn of 2022. Upon examination of the research sample, it is noteworthy that a majority of the surveyed enterprises exhibited operations primarily within a local or national scope. The surveyed entities were primarily engaged in service provision, with a considerable presence of entities demonstrating a mixed and commercial profile. The average organizational lifespan among the surveyed firms stood at 18.6 years, with a median company size of 17 employees. A comprehensive summary of the sample's characteristics is provided in Table 1.

**Table 1.***Profile and size of companies included in the final sample*

The scope of the company's operation	The profile of the company's activity		
Local	107	Commercial	66
Regional	84	Service	157
National	122	Production	52
International	39	Mixed	81
Global	11	No answer	7
total	363	total	363
Characteristics by size and period of existence (age) of the enterprise	Size of surveyed enterprises (number of employees)	Period of existence of the surveyed enterprises	
Mean	342*	18,6 years	
Standard deviation	3999,91	12,6 years	
Median	13	17	
Minimum	5	3	
Maximum	74000	100	

\*value overestimated by the number of employees in the largest surveyed company - 74,000.

Source: own elaboration.

The surveyed sample, consisting primarily of small and medium-sized Polish enterprises from diverse sectors, provides a robust empirical basis for analyzing the proposed relationships. This diverse composition ensures that the findings reflect real-world dynamics across various organizational contexts.

### 3.2. Measures

The questionnaire was composed of five main parts, related to organizational unlearning, organizational creativity, innovations, competitive advantage and environmental dynamism. **Competitive advantage** was measured using the tool proposed by Schilke (2014), consisting of 6 statements assessed on a 7-point Likert scale. Cronbach alpha equaled 0.896, which signifies high internal consistency.

The decision to prioritize competitive advantage over financial metrics is grounded in the acknowledgment that sustainable success in today's business landscape extends beyond mere financial indicators. While financial metrics offer valuable insights into short-term performance, they often fall short in capturing the multifaceted and dynamic nature of competitiveness. Focusing on competitive advantage allows for a more comprehensive evaluation of an organization's capacity to innovate, adapt, and thrive in diverse environments. Unlike financial metrics, which may not fully reflect an organization's innovative prowess or its ability to navigate unforeseen challenges, competitive advantage encompasses a broader spectrum of strategic capabilities (Porter, 1985). This approach aligns with the central theme of the study, which explores the interplay between organizational creativity, innovation, and the achievement of a competitive edge. By prioritizing competitive advantage, the analysis aims to unravel the strategic underpinnings that contribute to sustained organizational success, transcending the confines of traditional financial metrics. Additionally, Anderson and Eshima (2011) identify two additional benefits of using subjective measures of organizational

effectiveness. Firstly, in small and medium-sized enterprises, the perception of success or failure strongly influences staff choices. Secondly, the use of subjective measures facilitates comparisons between businesses operating in different contexts (such as different industries, markets, or economic conditions). Therefore, vital sources of information about a company's effectiveness include comparisons with competitors (Birley and Westhead, 1990).

**Organizational unlearning** was measured using six-item scale suggested by Lyu, Yang, Zhang, Teo & Guo (2020). Each item was measured on a seven-point Likert scale, and the reliability coefficient for the scale used was 0.845. **Organizational creativity** was measured using a tool developed by Bratnicka-Myśliwiec (2017), with Cronbach's alpha for 12 items assessed on a seven-point Likert scale amounting to 0.893. The measurement of the **environmental dynamism** was carried out using a tool developed by Sutcliffe (1994). Cronbach's alpha for the whole scale equalled 0.653. Finally, the **innovation output** (a mediator in our study) was measured following the Oslo Manual (2018) recommendations (we asked for the number of innovations – new products, services, and organizational solutions).

In our study, two control variables, namely the age and size of the company, were incorporated. These control variables were introduced with the primary aim of mitigating the potential influence of exogenous factors on the results of our conducted tests. Company age was operationalized as the number of years since its establishment. This addition of company age as a control variable is particularly pertinent as it is frequently considered a critical factor in explaining firm performance. Furthermore, the age of a firm may act as a moderating factor in the relationship between innovation capabilities, effectiveness, and entrepreneurial orientation, thereby impacting organizational effectiveness (Runyan, Droge, Swinney, 2008). On the other hand, firm size, measured in terms of the number of full-time equivalent employees, was also included as a control variable. This selection is substantiated by the commonly held perception that firm size plays a crucial role in elucidating a company's operational efficiency (e.g., Covin, Green, Slevin, 2006) and innovative capabilities (e.g., Herrera, Sánchez-González, 2013).

#### 4. Research results

In order to enhance our comprehension of the relationships between the studied constructs, we conducted a correlation analysis (see Table 2).

**Table 2.***Descriptives and correlations (n = 363)*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Competitive advantage	1						
(2) Organizational unlearning	.306**	1					
(3) Organizational creativity	.434**	.508**	1				
(4) Innovations (log10)	.224**	.196**	.325**	1			
(5) Environmental dynamism	.150**	.102	.325**	.175**	1		
(6) Size (log10)	.289**	.066	.058	.279**	.032	1	
(7) Age (log10)	.085	-.031	-.112*	.055	-.001	.419**	1
Mean	4.365	5.034	4.784	0.725	4.304	1.332	1.167
Std. deviation	0.945	0.946	0.802	0.531	1.054	0.619	0.314

\*\*. Correlation is significant at  $p < 0.01$  (two-tailed).\*. Correlation is significant at  $p < 0.05$  (two-tailed).

Source: own elaboration.

The correlation table underscores significant and moderately strong relationships among the studied constructs. Competitive advantage demonstrates positive associations with various factors: organizational unlearning ( $r = 0.306$ ,  $p < 0.01$ ), organizational creativity ( $r = 0.434$ ,  $p < 0.01$ ), innovations ( $r = 0.224$ ,  $p < 0.01$ ), environmental dynamism ( $r = 0.150$ ,  $p < 0.01$ ), and organization size ( $r = 0.289$ ,  $p < 0.01$ ). The positive correlations imply that higher levels of organizational unlearning, creativity, innovation, environmental dynamism, and larger organizational size contribute to an augmented perceived competitive advantage. Notably, organizational unlearning exhibits significant relationships with organizational creativity ( $r = 0.508$ ,  $p < 0.01$ ) and the number of innovations ( $r = 0.196$ ,  $p < 0.01$ ).

Organizational creativity, in turn, correlates positively with the number of innovations ( $r = 0.325$ ,  $p < 0.01$ ) and environmental dynamism ( $r = 0.325$ ,  $p < 0.01$ ). However, it weakly and negatively correlates with the age of the organization ( $r = -0.112$ ,  $p < 0.05$ ). The number of innovations is positively associated with environmental dynamism ( $r = 0.175$ ,  $p < 0.01$ ) and organizational size ( $r = 0.279$ ,  $p < 0.01$ ). Additionally, age and organizational size exhibit a positive interrelation ( $r = 0.419$ ,  $p < 0.01$ ), indicating that older organizations tend to be larger.

While the correlations are not exceptionally high, a precautionary note is given to assess multicollinearity. To address this concern, we conducted a variance inflation factors analysis in SPSS. Specifically, a simple regression model with competitive advantage as the dependent variable and others as independent variables was executed, and the results are detailed in Table 3.

**Table 3.***Collinearity assessment: regression model*

Model summary <sup>a</sup>								
Model summary	R	R-square	Corrected r-squared	Standard error				
1	0.517	0.267	0.255	0.817				
Anova statistics								
Model		Sum of squares	df	Mean square	F	p-value		
1	Regression	86.433	6	14.406	21.601	<.001 <sup>b</sup>		
	Remainder	237.414	356	0.667				
	Total	323.847	362					
Model		Beta Coefficients		Standardized coefficients	t	p-value	Multicollinearity statistics	
		B	Standard error				Beta	Tolerance
(Constant)		1.154	.358		3.228	.001		
Organizational unlearning		.102	.053	.102	1.920	.056	.735	1.361
Organizational creativity		.428	.068	.363	6.291	<.001	.618	1.617
Innovations (log10)		.025	.089	.014	.281	.779	.820	1.220
Environmental dynamism		.011	.043	.012	.242	.809	.882	1.134
Size (log10)		.376	.080	.246	4.720	<.001	.757	1.321
Age (log10)		.076	.152	.025	.498	.619	.804	1.244

a: DV: competitive advantage.

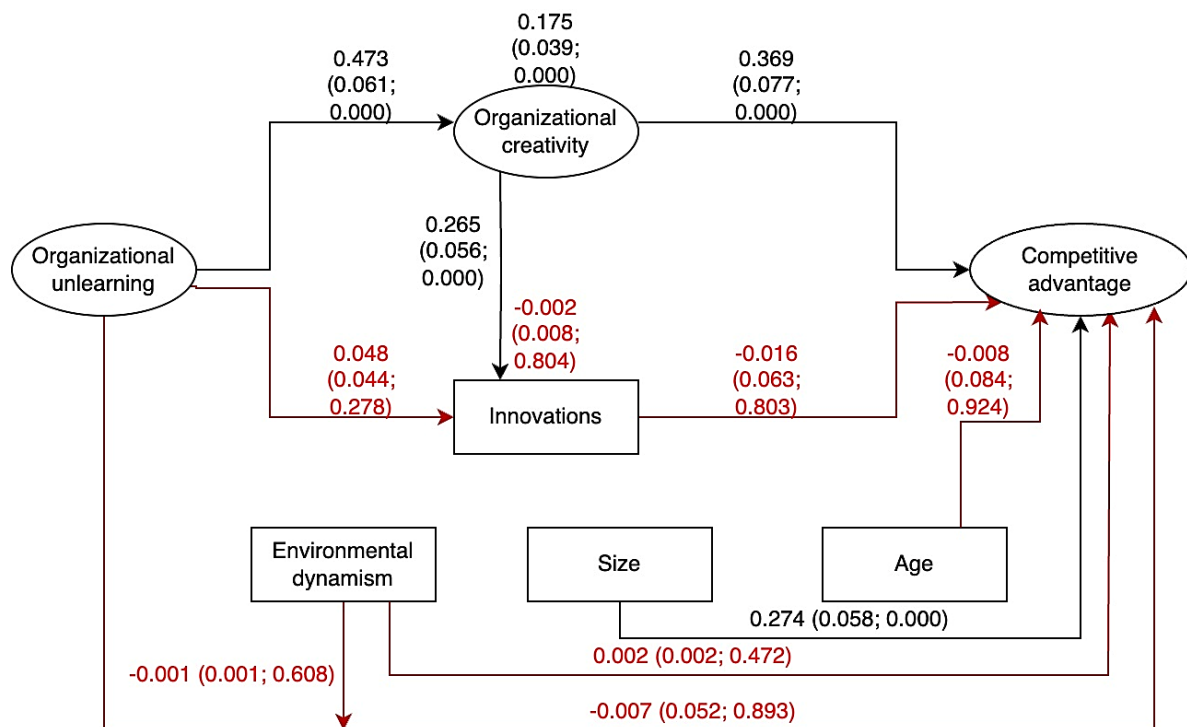
b: IV: organizational unlearning, organizational creativity, innovations (log10), environmental dynamism, size (log10), age (log10).

Source: own elaboration.

As the variance inflation factor (VIF) values remain below 5, a commonly accepted threshold for identifying multicollinearity among independent variables (IVs), we assert that the variables are not strongly correlated (Thompson et al., 2017). This suggests that the robustness and reliability of our analyses remain unaffected, as the correlation strength does not pose a significant risk of multicollinearity-induced distortions.

In the following phase of our study, we delved into the relationships among the variables under investigation through the application of structural equation modeling (SEM). In this analytical framework, we conceptualized competitive advantage, organizational unlearning, and organizational creativity as latent variables, allowing us to capture the underlying constructs that contribute to these phenomena. To operationalize our measures, we employed logarithms for the number of innovations, organizational size, and age. This logarithmic transformation enhances the interpretability and statistical properties of these variables. Additionally, to account for moderating effects, we introduced a metavariate for environmental dynamism. This decision was made to navigate the inherent complexities associated with modeling moderation using latent variables, a task that can pose substantial analytical challenges.

The SEM analysis was performed using the Mplus statistical software. Given the nuanced nature of our research model, incorporating latent variables and a moderated-mediation framework, we opted for a random type of analysis with an integration algorithm. The estimator was set as maximum likelihood, and we conducted 10,000 iterations with a convergence criterion set at 0.00005 to ensure robust results. To fortify the reliability of our findings and mitigate the impact of sample size on statistical outcomes, we employed bootstrapping during the analysis (5000 draws). This resampling technique aids in generating a distribution of estimates, offering a more stable understanding of the relationships within our model. Furthermore, our mediation analysis was facilitated through the 'model constraint' option, allowing us to assess and quantify the indirect effects within our specified model. This approach adds depth to our exploration of the interplay between variables, providing a more comprehensive understanding of the mechanisms at play in our research framework. Figure 2 portrays, in simplified form, relationships between variables, and detailed information is enclosed in table 4.



Legend: over lines model estimates are provided, with se and p-values in brackets.  
Black lines: statistically significant relationships; red lines: insignificant relationships.

**Figure 2.** Graphical representation of relationships between studied variables

Source: own elaboration using drawio.net free online drawing tool.

**Table 4.***Model estimation results*

Model fit information				
Number of free parameters		95		
Information criteria	Akaike (AIC)	24084.91		
	Bayesian (BIC)	24453.03		
	Sample-size adjusted BIC (n*=(n+2)/24)	24151.65		
Regression coefficients				
		Estimate	Standard error	Two-tailed p-value
DV: Competitive advantage				
Organizational Unlearning → Competitive advantage (H1)		-0.007	0.092	0.939
Organizational Creativity → Competitive advantage (H2)		0.369	0.102	0.000
Innovation → Competitive advantage (H5)		-0.016	0.070	0.821
Environmental dynamism → Competitive advantage (H10)		0.002	0.013	0.904
Size → Competitive advantage		0.274	0.064	0.000
Age → Competitive advantage		-0.008	0.094	0.932
Organizational Unlearning → Organizational Creativity → Competitive advantage (mediation) (H4)		0.175	0.051	0.001
Organizational Unlearning → Innovation → Competitive advantage (mediation) (H8)		-0.001	0.004	0.867
Organizational Unlearning → Organizational Creativity → Innovation → Competitive advantage (mediation) (H9)		-0.002	0.009	0.829
Total effect (direct and indirect) of organizational unlearning, organizational creativity, and innovation on competitive advantage		0.165	0.087	0.057*
Organizational Unlearning*Environmental Dynamism → Competitive advantage (moderation) (H11)		-0.001	0.013	0.957
DV: Organizational creativity				
Organizational Unlearning → Organizational Creativity (H3)		0.473	0.057	0.000
Size → Organizational Creativity		0.043	0.075	0.271
Age → Organizational Creativity		-0.078	0.138	0.575
DV: Innovation				
Organizational Creativity → Innovation (H7)		0.265	0.070	0.000
Organizational Unlearning → Innovation (H6)		0.048	0.048	0.323
Size → Innovation		0.082	0.075	0.271
Age → Innovation		0.591	0.186	0.001

Significant parameters are highlighted.

\*the effect is significant at  $p < 0.1$ .

Source: own elaboration.

Our analysis yielded findings regarding the relationships between the studied variables. Contrary to our initial hypothesis (H1), we did not observe a direct association between organizational unlearning and competitive advantage. However, our second hypothesis (H2), suggesting a positive influence of organizational creativity on competitive advantage, found substantial support in the data.

Additionally, organizational unlearning emerged as an important determinant of organizational creativity, aligning with our third hypothesis (H3). The mediation analysis further unveiled a significant indirect effect, indicating that the influence of organizational unlearning on competitive advantage operates through the pathway of organizational creativity, providing robust support for our fourth hypothesis (H4).



Turning to innovations, our findings affirm the importance of organizational creativity (H7), as it significantly contributes to the generation of new organizational solutions. However, contrary to our expectations, organizational unlearning did not exhibit a direct influence on the number of innovations, leading to the rejection of H6. Interestingly, the anticipated impact of innovations on competitive advantage (H5) did not materialize in our results, suggesting a non-significant relationship. Exploring further, the indirect effects from organizational unlearning to competitive advantage, mediated through both innovation and organizational creativity, were found to be insignificant. Consequently, hypotheses H8 and H9 were not supported, challenging the notion of an indirect influence.

Turning to the relationships involving environmental dynamism, neither the direct effect (H10) nor the interaction with organizational unlearning (H11) yielded significance. Both hypotheses were therefore rejected, indicating that these factors do not play a substantial role in predicting competitive advantage in our model.

In an interesting twist, beyond our hypothesized relationships, organizational size emerged as a significant predictor of competitive advantage. Additionally, organizational age exhibited a positive impact on the number of innovations, shedding light on unforeseen but valuable associations within our study context. These findings contribute to a more comprehensive understanding of the dynamics at play in the examined organizational settings.

## 5. Discussion

The paper focuses on investigating relationships between organizational unlearning, organizational creativity, innovation, competitive advantage, and environmental dynamism. Our study does not confirm the direct influence of organizational unlearning on competitive advantage (H1), contrary to other research results (Leal-Rodriguez et al., 2014; Wang, Qi, Zhao, 2019). This is partially explained considering the mediating effect organizational creativity plays in this relationship (H4). Thus, organizational ability to create new and valuable ideas help serve as a mechanism unveiling the otherwise unobservable relationship between organizational unlearning and competitive advantage. Both, relationships between organizational unlearning and organizational creativity (H3) and organizational creativity and competitive advantage (H2) are significant, which reaffirms previous results, as suggested by Klammer and Gueldenberg (2020), and Zameer, Wang and Yasmeen (2020).

Surprisingly, innovation output, perceived as the number of new organizational solutions, products and processes does not play a significant role in our model. Neither the relationships between organizational unlearning and innovation (H6), nor the relationship between innovation and competitive advantage (H5) are significant, which further contributes to our knowledge on the role of innovation in organizational processes, countering research results of

Leal-Rodriguez et al. (2014) and shedding a different light on the results of Polater (2023). Consequently, also mediation effects of innovation are insignificant (H8 & H9). Our study results imply that competitive advantage and innovation may be perceived as distant phenomena. One plausible explanation for this observed phenomenon could be rooted in the complexity of organizational dynamics. It is conceivable that decision-makers, when prioritizing strategies for achieving competitive advantage, may place emphasis on existing strengths, operational efficiencies, or market positioning, while innovation, often characterized by risk and uncertainty, may be viewed as a separate and independent pursuit (Ireland, Hitt, 2005). Another consideration is that the time horizon for perceiving the outcomes of competitive advantage and innovation could differ. Achieving a competitive advantage may yield more immediate and tangible results, while the full impact of innovation may require a longer gestation period (Hana, 2013). Further research and exploration into the underlying perceptions and decision-making criteria of organizational leaders could shed additional light on this intriguing dynamic.

Innovations and competitive advantage may be also perceived as distinct paths to success. This implies that organizations can achieve success through different mechanisms, and at the same time, the lack of a significant correlation between innovations and competitive advantage suggests that one does not necessarily lead to the other.

As McGrath, Tsai, Venkataraman, and MacMillan (1996) point out, a company should first establish a clear competitive advantage before expecting benefits from innovation. Competitive advantage can thus serve as a foundational element, enabling the company to compete effectively in the market, and innovations can then be utilized as a means to strengthen this position and achieve long-term success.

On the other hand, our study supports the notion of organizational creativity for boosting innovations in organization (H7), which confirms previous studies' results (Acar, Tarakci, Van Knippenberg, 2019). Organizational creativity, as evidenced by the ability to think beyond conventional boundaries, encourages a culture of exploration, experimentation, and idea generation within the organizational framework. This creative ethos, when nurtured and embedded within the organizational culture, stimulates the development of novel solutions, products, and processes (De Vasconcellos, Garrido, Parente, 2019).

Environmental dynamism does not appear to alter the main relationship between organizational unlearning and competitive advantage (H11), indicating that unlearning remains unrelated to competitive advantage regardless of the perceived level of environmental dynamism. This finding contradicts the research results of Wang et al. (2022). In summary, organizational unlearning assists organizations in challenging their previous assumptions and past practices, which may have been hindering their progress. This ability could be facilitated by mediating mechanisms that allow organizations to generate new ideas and solutions to complex problems, introduce innovative strategies, and adopt approaches that enable them to

develop and survive even in challenging market conditions. The key role in this process is played by organizational creativity.

The research results achieved have significant implications for managerial practice. When suggesting directions to management to enhance their competitive advantage, it is possible to emphasize the promotion of managerial activities aimed at fostering an organizational culture conducive to rejecting inadequate practices, eliminating obsolete knowledge, and creating conditions that support the process of discarding undesirable patterns of behavior or habits within the organization. In line with Ruíz, Gutiérrez, Martínez-Caro, and Cegarra-Navarro (2017), we propose that, in facilitating unlearning processes, management should prioritize activities involving the entire organizational workforce and foster effective communication and idea exchange.

Furthermore, it is beneficial for organizational decision-makers to facilitate organizational creativity, as it enables the ability to unlearn ineffective processes and practices, influencing competitive advantage (Martins, Martins, Pereira, 2017). To elaborate, this could involve promoting active participation in meetings, facilitating collaborative teamwork, and encouraging involvement in projects characterized by diverse tasks and a varied composition of participating employees.

The implications of our study suggest that organizations seeking to enhance their innovative capabilities should prioritize fostering a culture that nurtures and encourages creativity. This may involve incentivizing creative thinking, providing platforms for idea exchange, and creating an environment that values and supports experimentation (Lasrado, 2019). Also, the role of unlearning remains unaltered no matter the dynamism of the environment. It may signify that unlearning is not just a response to external changes, but a proactive and continuous process embedded in the organizational culture, ensuring long-term competitiveness and success (Sinkula, 2002).

Our study also indicates that the impact of introducing new products, services, and management methods does not always immediately secure a competitive advantage. This phenomenon may be attributed to a time lag, where the effects of newly implemented organizational solutions might require some time to manifest and influence the firm's competitive advantage (Warner, Wäger, 2019). This temporal gap underscores the dynamic nature of organizational adaptation, suggesting that the full realization of benefits from innovations may unfold gradually over time rather than yielding immediate results. The delay in observing enhanced competitive advantage emphasizes the importance of considering a more longitudinal perspective when assessing the true impact of organizational innovations on a firm's overall competitiveness.

Organizational unlearning is a concept that inherently embodies intricate and multidimensional facets. It encompasses not only the shedding of outdated knowledge and routines but also the reconfiguration of mental models that guide an organization's actions and decisions (Fiol, O'Connor, 2017; Klammer, Gueldenberg, 2019). Such complexity can pose

a significant challenge when attempting to comprehensively capture it through quantitative means alone. In a quantitative study, researchers often rely on simplifying the multifaceted nature of organizational unlearning by operationalizing it into measurable variables. While this approach offers statistical rigor, it may inadvertently overlook the nuanced and context-specific aspects that define the process of unlearning within a particular organization. Quantitative analyses can provide valuable insights into overarching trends and associations, but they might miss the richness of individual experiences, the unique barriers to unlearning, and the subtle shifts in organizational culture. To address these inherent limitations, researchers should consider a mixed-methods approach that combines quantitative data with qualitative insights (Kluge et al., 2019).

Qualitative methods, such as in-depth interviews, focus groups, or case studies, offer a valuable avenue for delving deeper into the complexities of organizational unlearning as well (Matsuo, 2019). These methods allow researchers to explore the 'how' and 'why' questions, providing a more comprehensive understanding of the phenomena that quantitative measures alone cannot fully capture. Through interviews, researchers can gain access to the narratives and personal experiences of individuals involved in the unlearning process. These narratives often reveal the challenges, cognitive shifts, and contextual factors that influence unlearning in an organization (Sharma, Lenka, 2022).

Case studies, on the other hand, enable a detailed exploration of specific instances of unlearning, offering a context-rich perspective on the interplay between organizational culture, leadership, and the unlearning journey (Snihur, 2018). By integrating qualitative methods into their research, scholars can navigate the intricacies of organizational unlearning with greater sensitivity. This approach not only enriches the depth of understanding but also helps in contextualizing quantitative findings. It is, therefore, a well-rounded strategy to ensure that the multifaceted nature of organizational unlearning is adequately explored, preserving the richness and nuances of this vital organizational process.

Investigating how organizational unlearning develops over time is crucial. Longitudinal studies could offer a powerful lens through which to examine the dynamic nature of unlearning processes within organizations. Such studies may be helpful in providing a comprehensive understanding of how unlearning unfolds, evolves, and influences organizational development over time (Kluge, 2023). Exploring the antecedents and triggers that prompt organizations to initiate unlearning processes also seems to be a fruitful path for future research. Investigating the role of external shocks, such as technological disruptions and economic crises, along with internal factors like leadership changes and strategic shifts, can provide a comprehensive view of what drives unlearning efforts (Lyu et al., 2020). Additionally, the examination of the influence of organizational context on unlearning can be an interesting area of study. Different industries, organizational sizes, and cultures may impact how unlearning is received and enacted (Becker, 2010). Comparative studies across various contexts can yield valuable insights into the contextual variations of unlearning.

Analyzing leadership behaviors, styles, and strategies that facilitate effective unlearning can provide practical insights into how leaders can navigate and encourage a culture of adaptability within their organizations. These insights may include understanding the role of leadership in fostering a climate that values continuous unlearning, recognizing the importance of open communication, and identifying specific leadership practices that contribute to successful organizational unlearning initiatives. By delving into these aspects, organizations can gain actionable knowledge on how to cultivate an environment that embraces change and innovation, ultimately contributing to their long-term success and competitiveness in a rapidly evolving business landscape (Kim, Park, 2022).

Conducting cross-cultural studies to understand and explore how unlearning is comprehended and implemented in various cultural contexts is valuable (Adler, Ayca, 2018). Such research can offer valuable insights into the diverse ways cultural factors influence the dynamics of unlearning processes. This, in turn, enriches our understanding of cross-cultural management, facilitating the development of more effective strategies and approaches in diverse organizational settings.

One limitation of our study is the potential for single source bias, wherein reliance on a singular information channel may introduce a skewed perspective. This limitation could restrict the comprehensiveness of our findings as different sources might present varying viewpoints or interpretations (Garger, 2008). To address this, future research endeavors should prioritize diversifying information sources, consulting multiple reputable outlets, and critically evaluating data. This approach aims to mitigate the risk of bias and ensures a more balanced and nuanced understanding of the relationships explored.

In exploring the dynamics of organizational success, our study deliberately centers on competitive advantage, recognizing its significance beyond conventional financial metrics. While the choice aligns with the recognition that sustainable success transcends mere financial indicators, it introduces a potential bias toward a qualitative perspective. The reliance on subjective measures, as indicated by Anderson and Eshima (2011), may lead to a limited understanding of organizational effectiveness, particularly in terms of quantifiable outcomes. This limitation might hinder a more nuanced assessment of short-term financial performance, potentially overlooking crucial insights offered by traditional financial metrics. Additionally, the complexity of competitive advantage as a focal point may introduce challenges in its operationalization, potentially impacting the precision of measurement. Future research endeavors should consider addressing this limitation by exploring a balanced approach that integrates both qualitative and quantitative perspectives, ensuring a more comprehensive evaluation of organizational effectiveness.

## 6. Summary

The dynamic relationship between organizational creativity and innovation emerges as a vital catalyst for fostering a competitive advantage in the contemporary business landscape. The paper underscores the significance of embracing novel ideas while actively shedding outdated concepts, routines, and methodologies through the process of organizational unlearning. Organizational creativity, characterized by the generation of new and valuable ideas, not only enhances innovation but also serves as a driving force for adapting, competing, and achieving long-term development. The synergy of innovation, flexibility, and strategic acumen equips organizations with a potent mechanism for thriving amidst the complexities and uncertainties of the modern business environment.

Moreover, the paper explores the mediating role of organizational creativity in the nexus between organizational unlearning and competitive advantage. It argues that organizational creativity serves as a crucial mediator, facilitating the translation of unlearned insights into innovative solutions. Supported by relevant literature, the study proposes hypotheses that highlight the interplay between organizational creativity, unlearning, and competitive advantage. By establishing these connections, the paper provides insights for organizations seeking to enhance their adaptability, resilience, and competitive positioning in the face of evolving business environments.

The role of innovation in shaping organizational competitive advantage is a multifaceted and strategic imperative. The paper posits that innovation, particularly in the form of new and valuable solutions, products, and processes, serves as a potent catalyst for creating sustainable competitive advantage. Highly innovative organizations demonstrate increased structural flexibility, enabling them to navigate and thrive in dynamic market conditions. The interplay between innovation, flexibility, and strategic acumen positions these firms to effectively exploit opportunities, outperform competitors, and flourish amidst business complexities.

The study delves into the relationships between organizational unlearning, creativity, and innovation. Scholars argue that organizational unlearning acts as a prerequisite for nurturing creativity, further contributing to the conceptualization and implementation of innovations. By shedding light on these relationships, the paper emphasizes the proactive role of unlearning in fostering innovation and, subsequently, competitive advantage. The proposed hypotheses provide a theoretical framework for understanding how organizational creativity and innovation mediate the link between unlearning and competitive advantage. Contrary to some existing research, the findings suggest that the role of organizational unlearning remains unaltered regardless of the perceived level of environmental dynamism. This implies that unlearning is not merely a reactive response to external changes, but a proactive and continuous process ingrained in organizational culture, contributing to long-term competitiveness and success, what is a valuable insight for organizations seeking to thrive in uncertain and turbulent business environments.

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