

Pardim, Vanessa Itacaramby; Pinochet, Luis Hernan Contreras; Viana, Adriana Backx Noronha; Souza, Cesar Alexandre

Article

Determining factors of individual and organizational unlearning in the generation and realization of ideas: a multigroup analysis from organizational structure

Innovation & Management Review

Provided in Cooperation with:

University of São Paulo, School of Economics, Management, Accounting and Actuarial Sciences (FEA-USP)

Suggested Citation: Pardim, Vanessa Itacaramby; Pinochet, Luis Hernan Contreras; Viana, Adriana Backx Noronha; Souza, Cesar Alexandre (2024) : Determining factors of individual and organizational unlearning in the generation and realization of ideas: a multigroup analysis from organizational structure, Innovation & Management Review, ISSN 2515-8961, Emerald, Leeds, Vol. 21, Iss. 3, pp. 154-167,
<https://doi.org/10.1108/INMR-03-2022-0032>

This Version is available at:

<https://hdl.handle.net/10419/337570>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

Determining factors of individual and organizational unlearning in the generation and realization of ideas: a multigroup analysis from organizational structure

Vanessa Itacaramby Pardim

*Department of Business Administration,
Faculdade de Economia, Administração, Contabilidade e Atuária,
Universidade de São Paulo, Sao Paulo, Brazil and
Management Science Department, Universidade Nove de Julho, Sao Paulo, Brazil*

Luis Hernan Contreras Pinochet

*Department of Business Administration, Universidade Federal de São Paulo,
Sao Paulo, Brazil, and*

Adriana Backx Noronha Viana and Cesar Alexandre de Souza

*Department of Business Administration,
Faculdade de Economia, Administração, Contabilidade e Atuária,
Universidade de São Paulo, Sao Paulo, Brazil*

Abstract

Purpose – This research sought to propose a theoretical model that analyzes the factors associated with unlearning (individual and organizational) and contributes to generating and realizing ideas among young people at the beginning of their careers based on the predominant type of structure.

Design/methodology/approach – The study had a sample ($n = 971$) and used the multivariate data analysis partial least squares - Structural Equation Modeling (PLS-SEM regular) and multigroup analysis (PLS-MGA) to identify significant differences between the estimates of the specific parameters of each group (a- Organic/b- Mechanistic).

Findings – All the direct relationships and formulated mediations were found to be supported, except for H6 (ET→EO) within the group that had a primarily mechanistic organizational structure. Thus, the more turbulent the environmental, the more initiative-taking, innovative and risk-taking a company tends to be. However, it remains to be seen whether the organizational structure plays a role in facilitating or hindering this relationship. H1 (IG→IR) indicates that predominantly organic organizations have a stronger and more consistent relationship

© Vanessa Itacaramby Pardim, Luis Hernan Contreras Pinochet, Adriana Backx Noronha Viana and Cesar Alexandre de Souza. Published in *Innovation & Management Review*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

Erratum: It has come to the attention of the publisher that the article, Pardim, V.I., Contreras Pinochet, L.H., Viana, A.B.N. and Souza, C.A.d. (2024), “Determining factors of individual and organizational unlearning in the generation and realization of ideas: a multigroup analysis from organizational structure”, *Innovation & Management Review*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/INMR-03-2022-0032>, was published without including the article's associate editor, Nuno Reis. This error was introduced in the production process and has now been corrected in the online version. The publisher sincerely apologises for this error and for any inconvenience caused.



with the knowledge developed through individual and organizational unlearning process. This knowledge contributes to the idea-generation process and ultimately leads to realizing those ideas.

Originality/value – The article contributes to literature by proposing an original and integrated theoretical model incorporating individual and organizational approaches to unlearning to understand the effect on idea generation and realization.

Keywords Individual unlearning, Organizational unlearning, Generation of ideas, Realization of ideas, Organizational structure

Paper type Research paper

1. Introduction

As organizations become successful, they tend to focus on efficiency and reduce their learning ability. Learning is crucial to producing the knowledge needed to survive in a turbulent environment with constant changes (Kmieciak, 2020; Matsuo, 2019a; Wang, Qi, & Zhao, 2019).

Organizational success depends on the ability to unlearn old knowledge, values, behaviors or routines that were once a source of certainty and confidence. This process involves replacing them with new ones to adapt to changing environments, as highlighted by Cegarra-Navarro, Eldridge, and Wensley (2014), Kmieciak (2020) and Matsuo (2019b). Strategic flexibility is crucial to rethink past actions that may no longer work in the current situation. This approach requires a willingness to deviate from the status quo, as highlighted by Lyu, Yang, Zhang, Teo, and Guo (2020), Omar (2022), Wang, Lu, Zhao, Gong, and Li (2013), and Wang *et al.* (2019). Moreover, internal factors such as entrepreneurial orientation (EO) can also contribute to organizational unlearning (OUL). Taking calculated risks and being innovative can create opportunities for wealth and value creation. This idea is supported by Wang, Chen, and Fang (2021) and Wong (2014).

OUL is best achieved through individual unlearning (IUL), as employees are the main source of learning for organizations (Kim, 1993). Zhao, Lu, and Wang (2013) support this view, stating that IUL serves as a foundation for examining OUL.

Employees becoming more aware of different perspectives and ways of approaching a situation make them more likely to let go of outdated ideas (Matsuo, 2019a). It promotes a culture of critical and reflective work behavior, preventing stagnation and dysfunctional practices within the organization (van Woerkom, 2008). Cultivating this mindset is essential for generating and implementing innovative ideas that are crucial for the organization's survival and success (Kmieciak, 2020).

It is vital to consider the organizational structure while referring to the equation. The type of structure, whether it is mechanistic or organic, has a significant impact on innovation policies. The mechanistic structure is highly formalized, with minimal participation, a hierarchical setup and rigid control, which makes it less flexible. On the other hand, the organic structure is characterized by informality, decentralized authority, open communication channels and flexibility (Ahmady, Mehrpour, & Nikooravesh, 2016; Burns & Stalker, 1961; Cameron, Quinn, Degraff, & Thakor, 2006; De Luca, Parente, Silva, & Sousa, 2018; Mallén, Chiva, Alegre, & Guinot, 2016; Martínez-León & Martínez-García, 2011; Stojanović-Aleksić, 2019).

Previous studies have yet to analyze unlearning and its effects on generating and realizing ideas, only from an individual point of view, as in the work of Kmieciak (2020). In addition, they did not focus on understanding whether there is a difference between individual and OUL and generating and realizing ideas when the predominant organizational structure tends to be mechanistic or organic (Mallén *et al.*, 2016). Thus, the following research questions arise:

- RQ1. What are the effects of individual and OUL and its antecedents on the process of generating and realizing ideas?
- RQ2. Does the predominant organizational structure, whether it is mechanistic or organic, have a differential impact on unlearning at both individual and organizational levels and, consequently, on the process of generating and realizing ideas?

The previous questions have led to the research objective of proposing a theoretical model that analyzes the factors associated with unlearning, both individual and organizational, which contribute to generating and realizing ideas among young professionals at the start of their careers. This model is based on the predominant type of organizational structure.

This study is justified by the need to present a broader discussion about the factors that lead to individual and OUL and how this contributes to generating and realizing innovative ideas in organizations based on the predominant type of structure. This theme is necessary to address the intense competitiveness in the market, which demands innovation and punishes inactivity (Lohberger and Braun, 2022).

As part of our contribution, we have developed a research model that includes adapted constructs based on the object of study. The study involves OUL (Lyu *et al.*, 2020), ET (Lyu *et al.*, 2020; Tsai & Yang, 2014), EO (Lyu *et al.*, 2020), IUL, critical reflection (CR), idea generation (IG) and idea realization (IR) (Kmieciak, 2020).

2. Literature review and hypotheses

2.1 Organizational structure: two poles, one choice

An organization is structured to coordinate the activities and control the performance of its members. It can be classified as either mechanistic or organic, depending on a range of factors such as objectives and strategies, environment, technology and size (Ahmady *et al.*, 2016). A mechanistic structure is characterized by a strong hierarchy, where coordination is done through standardized processes. This structure has a prominent level of formalization, considerable centralization and functional departmentalization. On the other hand, an organic structure is characterized by little direct supervision, authority and decentralized decision-making. This structure has few levels of management, low work specialization, a flexible grouping of units and lateralized communication without an information filter (Ahmady *et al.*, 2016; Burns & Stalker, 1961; Mallén *et al.*, 2016; Martínez-León & Martínez-García, 2011; Stojanović-Aleksić, 2019). Wang *et al.* (2013) corroborate by understanding that organizational flexibility implies a company's ability to address uncertainties arising from the environment.

When Burns and Stalker (1961) proposed a polarized view of organizational structures, they did not classify any model as ideal. However, they observed that the organic model performed better in coping with changes and was, therefore, more aligned with the generation of innovations. Furthermore, Cameron *et al.* (2006) and De Luca *et al.* (2018) note that the organic or flexible structure combines a collaborative and creative culture, while the mechanical or stable structure combines competitive and control culture.

Ogunmokun, Eluwole, Avci, Lasisi, and Ikhide (2020) support this observation by understanding that employees are more encouraged to be initiative-taking and innovative in the organic model. According to a study by Martínez-León and Martínez-García (2011), the organic structure favors organizational learning and expands the creation of knowledge when compared to the mechanical model. Mallén *et al.* (2016) observed these benefits when analyzing the effect of organic structures on the performance of organizations when mediated by organizational learning. However, it is necessary to understand whether this effect is repeated when what is in question is the generation and realization of ideas, an aspect not observed in the literature review on the subject.

2.2 Innovative behavior: idea generation (IG) and idea realization (IR)

An organization's ability to respond to market pressures is crucial to its performance. In this context, innovative behavior is a key source of competitive advantage (Dorenbosch, Engen, & Verhagen, 2005; Messmann & Mulder, 2012). Investing in generating and realizing ideas is necessary to respond quickly to changes (Kmieciak, 2020). According to Choi, Kang, and Choi (2021) failure to encourage innovative behavior can compromise a company's ability to

innovate and survive in a competitive environment. Although innovative behavior is not limited to generating and realizing ideas (Černe, Kaše, & Škerlavaj, 2022; Lambriex-Schmitz *et al.*, 2020), these aspects were chosen for this research based on Kmiecik's (2020) model. The generation of ideas refers to creativity-oriented behavior (Dorenbosch *et al.*, 2005). In order to propose something new or significantly improved, it is necessary to create, develop or recombine ideas (Jong & Hartog, 2010). To do it can include new working methods and techniques (Kmiecik, 2020). In order to achieve this goal, it is essential to examine our current beliefs with an open mind and be flexible in our thinking (Mascarenho, Rietzschelb, & Wisse, 2021). Implementing new ideas is vital to change, but we must also be willing to adapt existing processes to make them more effective. After implementation, it is crucial to analyze the results and make necessary adjustments to address any adverse impacts (Mascarenho *et al.*, 2021; Messmann & Mulder, 2012). The generation of ideas depends on individual characteristics, while the realization of ideas is a social process that affects other employees of the organization. Empirical studies, such as those by Leal-Rodríguez, Eldridge, Roldán, Leal-Millán, and Ortega-Gutiérrez (2015) and Lyu *et al.* (2020), suggest a positive link between unlearning and the innovation process. Finally, in the literature, the generation of ideas is followed by the realization of ideas, as innovation is a process with several stages (Černe *et al.*, 2022; Kmiecik, 2021; Lambriex-Schmitz *et al.*, 2020). Therefore, we have formulated the following research question:

H1. The generation of Ideas positively influences the realization of ideas.

2.3 Individual unlearning (IUL) and organizational unlearning (OUL) and its antecedents

Unlearning is a process that occurs at the individual level and then spreads to the organization as a whole (Wang *et al.*, 2019). Organizations themselves cannot unlearn, as they do not have mental activities, and it is the individuals within the organization who must undertake this process (Klammer & Gueldenberg, 2019; Kmiecik, 2020). Unlearning involves renouncing a particular body of knowledge, values or behaviors (Cegarra-Navarro, 2014) that are no longer relevant or valuable. This process occurs when individuals become aware that they need to acquire new knowledge, values or behaviors (Matsuo, 2019a). It is a conscious and intentional process of renunciation, which does not necessarily imply the permanent destruction of what was learned but rather the choice not to use what is stored in memory (Kmiecik, 2020). OUL is the process of reorienting values, norms, and organizational behaviors by altering cognitive structures, mental models, dominant logic and central assumptions that guide behavior (Cegarra-Navarro, 2014). It can improve a company's strategic flexibility as it helps to change outdated routines (Wang *et al.*, 2019, 2013). However, the goal of incorporating unlearning into the change process is not to improve the performance of an organization but rather to function as "[...] a catalyst or stage in the change process making it a dynamic process, as indicated by organizational change theories" (Akgün, Byrne, Lynn, & Keskin, 2007, p. 800). For example, according to Lewin (1951), the organizational change model would involve three stages: unfreezing, transition and refreezing. During the unfreezing stage, the existing structure is put on hold, individuals are provided with a psychologically safe environment to encourage the development of new skills and the expectations are disconfirmed. The transition stage involves the creation of new thought patterns, cognitive restructuring and semantic redefinition. Finally, in the refreezing stage, employees adapt to the new mindset, and supportive social norms are established to ensure the longevity of the change. Akgün *et al.* (2007) support this model by noting that unlearning is observed in the second stage. Matsuo (2019a) argues that the inability to unlearn can hinder learning or innovation, making OUL a facilitator or catalyst for innovation (Lyu *et al.*, 2020). Ideas are generated and realized through this process. Based on the above, we have formulated the following hypotheses:

- H2a.* IUL positively influences OUL.
H2b. IUL positively influences IG.
H3. OUL positively influences IG.
M1. IUL mediated by OUL positively influences IG.

2.4 Critical reflection (CR)

CR is a process of higher-order thinking that involves intentionally seeking justifications for beliefs or systematically evaluating recent events to assess their meaning for oneself and others (Gray, 2007). Through reflection, individuals can arrive at conclusions that modify their knowledge and contribute to reflective learning (Matsuo, 2018). Reflective learning, on the other hand, refers to critical thinking about one's own experience and performance in activities that contribute to the development of knowledge, skills and attitudes within a company (Ramani, Könings, Mann, & van der Vleuten, 2017). Thus, reflection focuses on procedural issues, methods and problem-solving, while CR is concerned with posing problems and answering "why" questions (van Woerkom, 2008). CR is a valuable tool for gaining insights into situations from different perspectives. It is also known as intensive reflection and is considered the highest level of reflective learning (Peltier, Hay, & Drago, 2005). Recent research by Matsuo (2018) has found that CR can positively impact an individual's ability to unlearn old habits and behaviors. By reflecting on ingrained assumptions, one can be more open to unlearning and adopting new ways of thinking. Kmiecik (2020) suggests that CR can also lead to generating and realizing new ideas. Thus, we have formulated the following hypotheses:

- H4a.* CR positively influences IUL.
H4b. CR positively influences IG.
M2. CR mediated by IUL positively influences IG.

2.5 Entrepreneurial orientation (EO)

EO can significantly impact OUL when we observe the combination of five dimensions: innovation, proactivity, risk-taking (Miller & Friesen, 1982), competitive aggressiveness and autonomy (Lumpkin & Dess, 1996). So, EO is a crucial factor for a company's performance, as it helps them adapt to dynamic environments (Omar, 2022) and be more proactive, innovative and willing to take risks (Wang *et al.*, 2021). However, structural inertia, crystallized routines and other factors can hinder the effects of EO, leading to an organization's inability to adapt (Makhloufi, Laghouag, Sahli, & Belaid, 2021; Wong, 2014). EO is beneficial for the process of unlearning, as it creates new opportunities for capacity development. Employees play a significant role in this process by bringing in new resources or knowledge that often contradict the established ways, leading to the need for unlearning (Lyu *et al.*, 2020). Therefore, EO challenges organizations to rethink their management practices, unlearn obsolete ways, and make room for new ways of problem-solving (Cui, Fan, Guo, & Fan, 2018; Mehrabi, Coviello, & Ranaweera, 2019). Thus, organizations that embrace EO are required to rethink their management practices, unlearn outdated methods and make way for innovative problem-solving techniques (Cui *et al.*, 2018; Mehrabi *et al.*, 2019). This process encourages better technological processes and creates a conducive environment for employees to be more involved in unlearning. As a result, we formulated the following hypothesis:

- H5.* EO positively influences OUL.

2.6 Environmental turbulence (ET)

Environmental turbulence refers to the unpredictability of changes in the external environment of organizations. These exogenous factors impact a company operating in a specific industry (Omar, 2022; Wong, 2014). This phenomenon is no longer intermittent but rather ever-present (Lyu et al., 2020). Turbulent environments present significant challenges for companies particularly when observing employees' skills and capabilities (Hung & Chou, 2013). However, it also allows companies to unlearn their internal routines or skills that may be obsolete (Jansen, Van Den Bosch, & Volberda, 2006). Therefore, ET is an essential trigger for OUL, enabling organizations to develop effective responses (Moorman & Miner, 1997). However, the need for more flexibility can sometimes inhibit this process, preventing companies from responding to the market's changing demands (Lyu et al., 2020). Therefore, organizations must respond to the pressures arising from the turbulent environment, as it contributes to expanding their market share and successfully competing (Wang et al., 2021). It makes OUL a fundamental process (Lyu et al., 2020).

ET can be perceived as either a challenge or an opportunity for companies, depending on their level of entrepreneurial spirit (Wong, 2014). However, navigating through turbulent times prompts companies to adopt a different mindset, think creatively and develop innovative strategies to attract and retain customers (Omar, 2022; Wang et al., 2021). Based on these observations, we have formulated the following hypotheses:

- H6. ET positively influences EO.
- H7. ET positively influences OUL.
- M3. ET mediated by EO positively influences OUL.

Based on the definition of the presented constructs, the proposed structural model, as well as the authors that support the relationships, is illustrated in Figure 1.

3. Method

3.1 Sample choice and characterization

The current study is empirical exploratory-descriptive research that adopted an approach with a cross-section. The sample was non-probabilistic and was constituted by convenience (Duhamel, Langerak, & Schillewaert, 1998).

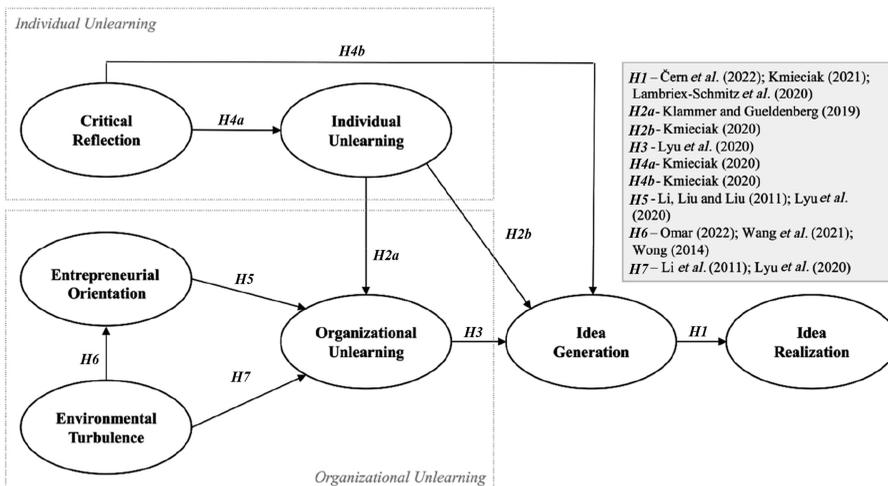


Figure 1. A proposed theoretical model

In empirical exploratory-descriptive studies, the main focus is on analyzing the phenomenon rather than extrapolating the results to the population (Churchill, 1999). Hence, the sample's representativeness becomes secondary. Furthermore, heterogeneity is crucial to ensure that the research is not limited to a specific group of users. Therefore, the study aimed to cover a wide range of diversity within the sample characterization.

As a criterion, only individuals who could provide an accurate assessment of their participation in the process of generating and realizing ideas were selected. This selection was based on the type of organizational structure in which they work. The study by Oyewo, Vo, and Akinsanmi (2020) stated that respondents must be part of the labor market and not occupy management positions (Oyewo *et al.*, 2020). The sample selected for the study comprised students pursuing the Bachelor of Business Administration course at a private university in São Paulo. The focus was on those students who had just started their careers. This sample is unique because, unlike most public university students who typically study and then work, these private universities students enter the job market first to pay for their studies. The questionnaire was answered by students attending the second half of the course, from the fifth to the eighth semester.

The total number of valid questionnaires obtained at the end of data collection was 1,167. To ensure the accuracy of the data, we used the Mahalanobis distance (D^2) to eliminate 196 outliers, resulting in a final sample size of $n = 971$ respondents.

3.2 Research instrument and methodological procedures

For our research, we created a questionnaire with 30 items and each variable was measured using a 7-point Likert-type scale that ranged from "totally disagree to totally agree." All the operationalizations of the psychometric constructs were adapted from previously published sources and can be found in Appendix A (see [Supplementary file](#)).

Before finalizing the research instrument, we subjected it to a back-translation and analysis by specialists. To validate the instrument, we conducted a pretest with forty respondents.

We used partial least squares structural equation modeling (PLS-SEM Regular) in the multivariate data analysis using the R Studio Build 353 software (Appendix C - see [Supplementary file](#)). SEMinR library was used to allow the calculation of partial regression relationships in the measurement and structural models using regressions of separated common least squares and to assess the formulated hypotheses (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014).

To achieve the objective of this study, we needed to understand how the predominant type of organizational structure affects generating and realizing ideas and their antecedents. Therefore, we conducted a PLS multigroup analysis (PLS-MGA) to identify significant differences between the estimates of the specific parameters of each group (Cheah, Thurasamy, Memon, Chuah, & Ting, 2020).

4. Results

4.1 Characterization of respondents

In the sociodemographic profile of the sample, we observed that more than half of the respondents are women (62.6%/ $n = 608$) and are, on average, 25 years old. Despite their early age, these university students at the beginning of their careers from private universities start in the world of work very early, usually as a young apprentice (from 14 years old), which in many cases constitutes a decisive factor for their admission and stay in higher education. Zen (2016) corroborates this by stating that, in Brazil, young people enter the world of work exceedingly early and do so in combination with their studies. This information justifies that,

on average, respondents have five years of work in the current company. As for the size of the company they work for, most respondents work in large companies (45.7%/n = 444) and the service sector (60.1%/n = 584). Of these companies, 255 (26.26%) were considered by the respondents as flexible (organic) and 716 (73.74%) as controlling (mechanistic).

4.2 Measurement of the structural model

Analyses are methods used to evaluate the degree of correlation between multiple indicators within a given structure (Shahzad, Xiu, Shafique Khan, & Shahbaz, 2020). In the first step of these analyses, only variables having a cross-factor loading (found in Table 1 - in the [Supplementary file](#)), resulting from the confirmatory factor analysis (CFA), and above 0.5 are accepted (Hair *et al.*, 2014). This process resulted in removing only one variable (ET2) to adjust the model, confirming the content validity requirements. Following this, we evaluated the correlation between constructs and their convergent and discriminant validity. Measurements are taken from reflective models on latent variables are observed individually for each construct to apply SEM for the proposed research model (Figure 2 – found in the [Supplementary file](#)). This is done to verify the validity and internal and external consistency of the construct, as well as the results obtained in their paths and hypotheses (Jarvis, MacKenzie, & Podsakoff, 2003).

The indicator construct loadings and correlations between constructs are examined to assess discriminant validity. The square root of the average variance extracted (AVE) of each construct is compared with all correlations between it and other constructs (Fornell & Larcker, 1981). All the square root of the AVEs must be greater than any of the correlations between the corresponding construction and other constructs.

We calculated the AVE and the composite reliability (CR) to ensure that each item was dependable and valid. The values identified for Cronbach's Alpha (CA), CR and AVE are shown in Table 3 (see [Supplementary file](#)). All the values were within parameters established by the literature, indicating no issues with convergent validity or reliability (Chin, 1998).

4.3 Evaluation of the structural model

The significance and impact of relationships were assessed using the bootstrapping technique of 5,000 subsamples. The research model proposed consisted of 9 hypotheses for each of the analyzed groups (a) and (b), amounting to a total of 18 direct relationships (Table 4 - see in the [Supplementary file](#)).

Our analysis found that the hypothesis rejected in the study only appeared in group (b) H6: ET → EO. In addition to examining direct relationships, we also looked at primary indirect relationships (mediations) as alternative pathways to these direct relationships. We found three mediating relationships listed in Table 4 – of the [Supplementary file](#). All proposed mediations were supported. Mediation occurs when the effect of the independent variable on the dependent variable is explained by another variable known as a mediator (Hair *et al.*, 2021). It is important to note that mediations we observed were partial.

4.4 Partial least squares - multigroup analysis (PLS-MGA)

To conduct group comparisons, the structural model uses a PLS MGA approach (PLS-MGA). Equal variances with *t*-test have been considered a parametric approach by Henseler (2007) when applied in the MGA. Equation (1) and Table 5 (see in the [Supplementary file](#)) displays the p-value obtained for each path coefficient.

The results in Table 5 (see in the [Supplementary file](#)) show that the four relationships (H1, H2a, H3 and H6) had statistical differences ($p < 0.05$) between groups (a) and (b) using the PLS-MGA method.

5. Discussion

The research objective was achieved by proposing a theoretical model that enabled the analysis of factors associated with unlearning (individual and organizational) that contribute to generating and realizing ideas among young people at the beginning of their careers, based on the type of predominant structure.

Through a MGA, we identified differences in the effects in four of the nine relationships between the constructs belonging to the groups (a - organic) and (b - mechanistic). Next, the relationships that converged and those that diverged from the results obtained in the MGA are explained. This finding corroborates the idea proposed by Burns and Stalker (1961) that, even representing a polarized view, it is not possible to point out a model as the ideal, so much so that structures (a) and (b) showed similar results in some relationships. Nevertheless, as stated by Ogunmokin *et al.* (2020), the organic model is more efficient when what is in question is the ability of a company to change to face the need to innovate to remain competitive.

All direct relationships and formulated mediations were supported by the study, which echoes the findings of previous studies such as Černe *et al.* (2022), Klammer and Gueldenberg (2019), Kmiecik (2020, 2021), Lambriex-Schmitz *et al.* (2020), Lyu *et al.* (2020), Wang *et al.* (2021), Wong (2014), Lyu *et al.* (2020). However, hypothesis 6 ($ET \rightarrow EO_{(b)}$; $\beta = 0.024_{(b)}$; $p = 0.621_{(b)}$) was not supported in the group with a predominantly mechanistic organizational structure. This result can be attributed to the difference in means that occurs in the MGA ($ET \rightarrow EO$; $p < 0.001$) when observing the effect of the environment on EO in groups (a) and (b) which have different characteristics.

Jansen *et al.* (2006) found that ET positively impacts EO, as it enables companies to shed outdated skills and unlearn internal routines or obsolete skills. However, this effect differs depending on whether an organization has a mechanical or organic structures. This process can be hindered in organizations with mechanistic structures as superiors monopolize organizational knowledge through rigid and controlling management. As a result, it becomes harder for EO to take hold, and the innovation process slows down (Makhloufi *et al.*, 2021). On the other hand, Lyu *et al.* (2020) suggest that organic organizations have a more flexible structure and decentralized power, which gives employees greater autonomy. It accelerates the innovation process by allowing new knowledge to be incorporated, even if it conflicts with already established structures. This finding aligns with what was observed in the work by Wong *et al.* (2014), who found that the greater the ET, the more proactive, innovative and capable of taking risks the company will be. However, in the case of this research, the additional discovery is whether the organizational structure contributes to this relationship to materialize or not.

For both groups, hypothesis H1 ($IG \rightarrow IR$) was supported, showing the highest values of β ($0.739_{(a)}$; $0.647_{(b)}$; $p < 0.001$). The results also revealed a difference between the averages in the MGA ($p = 0.010$), indicating that predominantly organic organizations have a more consistent relationship and greater use of the knowledge developed by individual and OUL, thereby contributing to generating and realizing ideas. The difference in means between the groups in this relation ($GI \rightarrow RI$), also allows comparison of the R^2 : $0.546_{(a)}$ and $0.418_{(b)}$ – values considered “moderate” as observed by Chin (1998). Furthermore, the results reveal that group (a) is more adjusted to the data than group (b), which reinforces the role of the type of structure adopted in the potential to innovate. In conclusion, organic organizations are more likely to generate and implement ideas to create something new or significantly improved to respond to the pressures arising from an increasingly competitive environment (Jong & Hartog, 2010; Kmiecik, 2020).

The results of the study also confirm hypotheses H2a and H3. MGA revealed that certain behaviors differentiate groups (a) and (b), with ($IUL \rightarrow OUL$; $p = 0.021$ and $OUL \rightarrow IG$; $p = 0.002$). The findings suggest that group (a) has a slightly greater capacity than group (b) to raise awareness, renounce outdated knowledge and generate ideas in the context of OUL, as discussed by Matsuo, 2019a.

Five of the nine relationships did not differ in the MGA. That is, the relations indicated similarities between groups (a) and (b) but showed differences in terms of direct relationships, except for H6 for group (B). Among the constructs, we can observe the “critical reflection” that presented the same behavior for IUL and generating ideas. In addition, EO and et also had the same behavior for OUL.

6. Conclusion

The article proposes a new theoretical model that combines two approaches (individual and organizational) of unlearning. This model helps to understand the separate effects of antecedents, such as CR, EO, and ET, in generating and realizing ideas. The proposed model is based on a thorough literature review on the subject (Lyu *et al.*, 2020; Kmiecik, 2020, 2021; Tsai & Yang, 2014). The literature review on the phenomenon of unlearning has been largely focused on understanding it separately, at an individual and organizational level. However, locating studies that explore both approaches can take time and effort.

This study aims to contribute to an integrated view of unlearning. Additionally, the proposed research questions (RQ1 and RQ2) were answered during the development stages of this study.

Four of the nine relationships differed in the MGA, and all hypotheses were supported, except for H6 in the context of mechanistic organizations. It means that despite being new, the proposed model proved consistent. Furthermore, the proposed model, with due adjustment based on the methodological procedures, was validated based on the theoretical framework. The results of this research were consistent with the formulated hypotheses and brought an original model validated in a sample with MGA. Among the main findings of the research, the relationship that “organic” organizations have a greater capacity for generating and realizing ideas stands out, and that organizational turbulence significantly affects the EO in this type of organization. Thus, companies with lower entrepreneurial capacity may need help generating and realizing new ideas. It can result in a slower pace of change, which, in turn, may lead to their products being pushed out of the market by the wave of change. These findings add to the existing literature that describes the key variables of this study.

From an individual and organizational point of view, this research contributes to companies with different structures, sizes and natures. It is because both individual and OUL make it possible to recognize that models crystallized and rooted in the organization’s culture may no longer be effective. Therefore, employees and managers should refrain from contributing for employees and managers to incorporate new habits through the perception of knowledge that needs to be forgotten, requiring the understanding of new methodologies and how this can be incorporated into organizational dynamics. Unlearning can be a powerful technique for continuous improvement and innovation in companies. The fundamental premise of unlearning is developing human capital and company progress based on new market demands (Lohberger & Braun, 2022). Employees and managers can learn from this study by examining the theoretical frameworks rooted in their organizational culture. They can also analyze their perception of their realities, and how they interpret the world around them. This approach helps them to question what is shown as “logical”, “true”, or “coherent” and perform an in-depth analysis for possible changes and directions for the generating and realizing ideas.

It is vital to develop knowledge for generating and realizing ideas. However, it is equally essential for employees and organizations to discard unproductive knowledge to avoid it becoming “toxic” and leading to outdated structures, resulting in poor propagation of learning. Unlearning aligned with seminal studies was observed with a reflective method of critical questioning of reality reducing the possibilities of individual and organizational stagnation. It demystifies the idea that learning is a linear and cumulative process of new knowledge (Cegarra-Navarro *et al.*, 2014; Klammer & Gueldenberg, 2019; Ogunmokun *et al.*,

2020; Stojanović-Aleksić, Nielsen, & Bošković, 2019). This study offers insights to rethink constructs such as “critical reflection”, “entrepreneurial orientation,” and “environmental turbulence.” All these constructs were selected because they are crucial and always present in the discussion of unlearning at both individual and organizational levels.

References

- Ahmady, G. A., Mehrpour, M., & Nikooravesh, A. (2016). Organizational structure. *Procedia - Social and Behavioral Sciences*, 230, 455–462. doi: [10.1016/j.sbspro.2016.09.057](https://doi.org/10.1016/j.sbspro.2016.09.057).
- Akgün, A. E., Byrne, J. C., Lynn, G. S., & Keskin, H. (2007). Organizational unlearning in beliefs and routines in organizations. *Journal of Organizational Change Management*, 20(6), 794–812. doi: [10.1108/09534810710831028](https://doi.org/10.1108/09534810710831028).
- Burns, T., & Stalker, G. M. (1961). *The management of innovation*. London: Tavistock.
- Cameron, K. S., Quinn, R. E., Degraff, J., & Thakor, A. V. (2006). *Competing values leadership: Creating value in organisations*. Cheltenham: Edward Elgar.
- Cegarra-Navarro, J., Eldridge, S., & Wensley, A. K. P. (2014). Counter-knowledge and realised absorptive capacity. *European Management Journal*, 32(2), 165–176. doi: [10.1016/j.emj.2013.05.005](https://doi.org/10.1016/j.emj.2013.05.005).
- Černe, M., Kaše, R., & Škerlavaj, M. (2022). Idea championing as a missing link between idea generation and team innovation implementation: A situated emergence approach. *European Management Journal*.
- Cheah, J.-H., Thurasamy, R., Memon, M. A., Chuah, F., & Ting, H. (2020). Multigroup analysis using SmartPLS: Step-by-Step guidelines for business research. *Asian Journal of Business Research*, 10(3), 1–19. doi: [10.14707/ajbr.200087](https://doi.org/10.14707/ajbr.200087).
- Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In *In Modern methods for business research* (pp. 295–336). Lawrence Erlbaum Associates.
- Choi, W.-S., Kang, S.-W., & Choi, S.-B. (2021). Innovative behavior in the workplace: An empirical study of moderated mediation model of self-efficacy, perceived organizational support, and leader-member exchange. *Behavioral Sciences*, 11(12), 1–17. doi: [10.3390/bs11120182](https://doi.org/10.3390/bs11120182).
- Churchill, G. A. Jr. (1999). *Marketing research: Methodological foundations* (8th ed.). Orlando: Dryden Press.
- Cui, L., Fan, D., Guo, F., & Fan, Y. (2018). Explicating the relationship of entrepreneurial orientation and firm performance: Underlying mechanisms in the context of an emerging market. *Industrial Marketing Management*, 71, 27–40.
- De Luca, M. M. M., Parente, P. H. N., Silva, E. M. S., & Sousa, R. R. (2018). The Effect of creative corporate culture and intangibility on the performance of foreign firms traded on the NYSE. *Innovation and Management Review*, 15(4), 356–372. doi: [10.1108/inmr-07-2018-0049](https://doi.org/10.1108/inmr-07-2018-0049).
- Dorenbosch, L., Engen, M. L. V., & Verhagen, M. (2005). On-the-job innovation: The impact of job design and human resource management through production ownership. *Creativity and Innovation Management*, 14(2), 129–141.
- Duhamel, T., Langerak, F., & Schillewaert, N. (1998). Non-probability sampling for WWW surveys: A comparison of methods. *International Journal of Market Research*, 40(4), 1–13. doi: [10.1177/147078539804000403](https://doi.org/10.1177/147078539804000403).
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39. doi: [10.2307/3151312](https://doi.org/10.2307/3151312).
- Hair, J. F., Jr, Sarstedt, M., Hopkins, L. G., & Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. doi: [10.1108/ebv-10-2013-0128](https://doi.org/10.1108/ebv-10-2013-0128).
- Gray, D. E. (2007). Facilitating management learning developing critical reflection through reflective tools. *Management Learning*, 38(5), 495–517.

- Hair, J. F., Jr., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R. Classroom companion: Business*. Cham: Springer.
- Henseler, J. (2007). A new and simple approach to multi-group analysis in partial least squares path modeling. In H. Martens, & T. Naes (Eds), *Proceedings of PLS'07 – The 5th International Symposium on PLS and Related Methods* (pp. 104–107).
- Hung, K. P., & Chou, C. (2013). The impact of open innovation on firm performance: The moderating effects of internal R&D and environmental turbulence. *Technovation*, 3(10–11), 68–380.
- Jansen, J. J., Van Den Bosch, F. A., & Volberda, H. W. (2006). Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management science*, 52(11), 1661–1674.
- Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research*, 30(2), 199–218. doi: [10.1086/376806](https://doi.org/10.1086/376806).
- Jong, J. D., & Hartog, D. D. (2010). Measuring innovative work behavior. *Creativity and Innovation Management*, 19(1), 23–36.
- Kim, D. H. (1993). Link between individual and organizational learning. *MIT Sloan Management Review*. (Fall), 37–50.
- Klammer, A., & Gueldenberg, S. (2019). Unlearning and forgetting in organizations: A systematic review of literature. *Journal of Knowledge Management*, 23(5), 860–888. doi: [10.1108/jkm-05-2018-0277](https://doi.org/10.1108/jkm-05-2018-0277).
- Kmiecik, R. (2020). Critical reflection and innovative work behavior: The mediating role of individual unlearning. *Personnel Review*, 50(2), 439–459. doi: [10.1108/pr-10-2018-0406](https://doi.org/10.1108/pr-10-2018-0406).
- Kmiecik, R. (2021). Trust, knowledge sharing, and innovative work behavior: Empirical evidence from Poland. *European Journal of Innovation Management*, 24(5), 1832–1859.
- Leal-Rodríguez, A., Eldridge, S., Roldán, J., Leal-Millán, A., & Ortega-Gutiérrez, J. (2015). Organizational unlearning, innovation outcomes, and performance: The moderating effect of firm size. *Journal of Business Research*, 68(2), 803–809.
- Lewin, K. (1951). *Field theory in social science*. New York, NY: Harper.
- Lohberger, K., & Braun, E. (2022). Comparing learning opportunities of generic skills in higher education to the requirements of the labour market, *Frontiers in Education*, 7(886307), 1–15. [10.3389/educ.2022.886307](https://doi.org/10.3389/educ.2022.886307).
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *The Academy of Management Review*, 21(1), 135–172. doi: [10.5465/amr.1996.9602161568](https://doi.org/10.5465/amr.1996.9602161568).
- Lyu, C., Yang, J., Zhang, F., Teo, T. S. H., & Guo, W. (2020). Antecedents and consequence of organizational unlearning: Evidence from China. *Industrial Marketing Management*, 84, 261–270. doi: [10.1016/j.indmarman.2019.07.013](https://doi.org/10.1016/j.indmarman.2019.07.013).
- Makhloufi, L., Laghouag, A. A., Sahli, A. A., & Belaid, F. (2021). Impact of entrepreneurial orientation on innovation capability: The mediating role of absorptive capability and organizational learning capabilities. *Sustainability*, 13(10), 5399. doi: [10.3390/su13105399](https://doi.org/10.3390/su13105399).
- Mallén, F., Chiva, R., Alegre, J., & Guinot, J. (2016). Organicity and performance in excellent HRM organizations: The importance of organizational learning capability. *Review of Managerial Science*, 10(3), 463–485. doi: [10.1007/s11846-014-0164-2](https://doi.org/10.1007/s11846-014-0164-2).
- Martínez-León, I. M., & Martínez-García, J. A. (2011). The influence of organizational structure on organizational learning. *International Journal of Manpower*, 32(5/6), 537–566. doi: [10.1108/01437721111158198](https://doi.org/10.1108/01437721111158198).
- Mascarenho, J., Rietzschelb, E. F., & Wisse, B. (2021). Ambidextrous leadership: Opening and closing leader behaviours to facilitate idea generation, idea promotion and idea realization. *European Journal of Work and Organizational Psychology*, 30(4), 530–540. doi: [10.1080/1359432x.2021.1872544](https://doi.org/10.1080/1359432x.2021.1872544).

- Matsuo, M. (2018). Goal orientation, critical reflection, and unlearning: An individual-level study. *Human Resource Development Quarterly*, 29(1), 49–66. doi: [10.1002/hrdq.21303](https://doi.org/10.1002/hrdq.21303).
- Matsuo, M. (2019a). The unlearning of managerial skills: A qualitative study of executive officers. *European Management Review*, 16(2), 303–315. doi: [10.1111/emre.12122](https://doi.org/10.1111/emre.12122).
- Matsuo, M. (2019b). Critical reflection, unlearning, and engagement. *Management Learning*, 50(4), 465–481. doi: [10.1177/1350507619859681](https://doi.org/10.1177/1350507619859681).
- Mehrabi, H., Coviello, N., & Ranaweera, C. (2019). Ambidextrous marketing capabilities and performance: How and when entrepreneurial orientation makes a difference. *Industrial Marketing Management*, 77, 129–142.
- Messmann, G., & Mulder, R. H. (2012). Development of a measurement instrument for innovative work behaviour as a dynamic and context-bound construct. *Human Resource Development International*, 15(1), 43–59. doi: [10.1080/13678868.2011.646894](https://doi.org/10.1080/13678868.2011.646894).
- Miller, D., & Friesen, P. H. (1982). Innovation in conservative and entrepreneurial firms: Two models of strategic momentum. *Strategic Management Journal*, 3(1), 1–25. doi: [10.1002/smj.4250030102](https://doi.org/10.1002/smj.4250030102).
- Moorman, C., & Miner, A. S. (1997). The impact of organizational memory on new product performance and creativity. *Journal of marketing research*, 34(1), 91–106.
- Ogunmokun, O. A., Eluwole, K. K., Avci, T., Lasisi, T. T., & Ikhide, J. E. (2020). Propensity to trust and knowledge sharing behavior: An evaluation of importance-performance analysis among Nigerian restaurant employees. *Tourism Management Perspectives*, 33, 100590. doi: [10.1016/j.tmp.2019.100590](https://doi.org/10.1016/j.tmp.2019.100590).
- Omar, K. M. (2022). Environmental turbulence's effects on entrepreneurial orientation. *Information Sciences Letters*, 11(4), 1023–1031.
- Oyewo, B., Vo, X. V., & Akinsanmi, T. (2020). Strategy-related factors moderating the fit between management accounting practice sophistication and organisational effectiveness: The global management accounting principles (GMAP) perspective. *Spanish Journal of Finance and Accounting*, 50(2), 187–223. doi: [10.1080/02102412.2020.1774857](https://doi.org/10.1080/02102412.2020.1774857).
- Peltier, J. W., Hay, A., & Drago, W. (2005). The reflective learning continuum: Reflecting on reflection. *Journal of Marketing Education*, 27(3), 250–263.
- Ramani, S., Könings, K., Mann, K. V., & van der Vleuten, C. (2017). Uncovering the unknown: A grounded theory study exploring the impact of self-awareness on the culture of feedback in residency education. *Medical Teacher*, 39(10), 1065–1073.
- Shahzad, F., Xiu, G., Shafique Khan, M. A., & Shahbaz, M. (2020). Predicting the adoption of a mobile government security response system from the user's perspective: An application of the artificial neural network approach. *Technology in Society*, 62(C), 101278. doi: [10.1016/j.techsoc.2020.101278](https://doi.org/10.1016/j.techsoc.2020.101278).
- Stojanović-Aleksić, V., Nielsen, J. E., & Bošković, A. (2019). Organizational prerequisites for knowledge creation and sharing: Empirical evidence from Serbia. *Journal of Knowledge Management*, 23(8), 1543–1565. doi: [10.1108/jkm-05-2018-0286](https://doi.org/10.1108/jkm-05-2018-0286).
- Tsai, K. H., & Yang, S. Y. (2014). The contingent value of firm innovativeness for business performance under environmental turbulence. *International Entrepreneurship and Management Journal*, 10, 343–366.
- van Woerkom, M. (2008). Critical reflection and related higher-level conceptualizations of learning: Realistic or idealistic? *Human Resource Development Review*, 7(1), 3–12. doi: [10.1177/1534484307311804](https://doi.org/10.1177/1534484307311804).
- Wang, M.-C., Chen, P.-C., & Fang, S.-C. (2021). How environmental turbulence influences firms' entrepreneurial orientation: The moderating role of network relationships and organizational inertia. *Journal of Business and Industrial Marketing*, 36(1), 48–59. doi: [10.1108/jbim-05-2019-0170](https://doi.org/10.1108/jbim-05-2019-0170).
- Wang, X., Lu, Y., Zhao, Y., Gong, S., & Li, B. (2013). Organisational unlearning, organisational flexibility and innovation capability: An empirical study of SMEs in China. *International Journal of Technology Management*, 61(2), 132–155. doi: [10.1504/ijtm.2013.052178](https://doi.org/10.1504/ijtm.2013.052178).

- Wang, X., Qi, Y., & Zhao, Y. (2019). Individual unlearning, organizational unlearning and strategic flexibility: The down-up change perspective. *Baltic Journal of Management*, 14(1), 2–18. doi: [10.1108/bjm-10-2017-0324](https://doi.org/10.1108/bjm-10-2017-0324).
- Wong, S. K.-S. (2014). Impacts of environmental turbulence on entrepreneurial orientation and new product success. *European Journal of Innovation Management*, 17(2), 229–249. doi: [10.1108/ejim-04-2013-0032](https://doi.org/10.1108/ejim-04-2013-0032).
- Zen, E. L. (2016). *Young University Students and Work: A Comparative View between Brazil and China*. Institute of Applied Economic Research (IPEA), Brasilia.
- Zhao, Y., Lu, Y., & Wang, X. (2013). Organizational unlearning and organizational relearning: A dynamic process of knowledge management. *Journal of Knowledge Management*, 17(6), 902–912. doi: [10.1108/jkm-06-2013-0242](https://doi.org/10.1108/jkm-06-2013-0242).

Supplementary file

The supplementary material for this article can be found online.

Corresponding author

Vanessa Itacaramby Pardim can be contacted at: vanessa.itacaramby@usp.br

Associate Editor: Nuno Reis

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com