

THE INFLUENCE OF HUMAN RESOURCE FLEXIBILITY ON ORGANIZATIONAL LEARNING

A INFLUÊNCIA DA FLEXIBILIDADE DO RH NA APRENDIZAGEM ORGANIZACIONAL

LA INFLUENCIA DE LA FLEXIBILIDAD DE RRHH EN EL APRENDIZAJE ORGANIZACIONAL

Isabel Scafuto, Dra.

Universidade Nove de Julho /Brazil
isabelscafuto@gmail.com

Veronica Ahrens, MSc

Universidade de São Paulo/Brazil
veronica.ahrens@gmail.com

Paulo Yun Cha, MSc

Universidade de São Paulo/Brazil
paulo.yun@gmail.com

RESUMO

Este artigo tem como objetivo avaliar a influência da flexibilidade do RH na aprendizagem organizacional (AO), mediada pelas aprendizagens individual (AI) e de grupo (AG). A FRH é concebida como uma capacidade que, por meio do uso de determinadas práticas de RH, a organização pode se adaptar mais facilmente às mudanças ambientais. Para alcançar o objetivo optou-se por uma pesquisa de abordagem quantitativa com a aplicação de um questionário online de duas escalas validadas: Dimensões da Aprendizagem Organizacional e a Flexibilidade do RH. Nossa amostra é composta por 222 profissionais de RH. Os dados foram tratados com a Modelagem de Equação Estrutural no *software smartPLS (Partial Least Squares)*. Os resultados demonstraram que a Flexibilidade do RH tem uma influência positiva sobre a Aprendizagem Organizacional. E esta influência é mediada pela Aprendizagem Individual e Aprendizagem de Grupo. Contribuímos para compreender a influência da Flexibilidade de RH na aprendizagem individual e em grupo e seus possíveis efeitos na Aprendizagem Organizacional. Como contribuição prática, revelar essa possibilidade aos profissionais de RH ao utilizarem essas práticas de Flexibilidade de RH para influenciar a aprendizagem de indivíduos e grupos, afetando a Aprendizagem Organizacional e auxiliando no desempenho da empresa em várias dimensões. Essas práticas permitem que as empresas se adaptem ao mercado em um ambiente dinâmico.

Palavras-chave: Flexibilidade do RH; Aprendizagem Organizacional; Aprendizagem Individual; Aprendizagem de Grupo.

ABSTRACT

The aim of this article is to evaluate the influence of HR flexibility (HRF) on organizational learning (OL), mediated by individual learning (IL) and group learning (GL). HRF is conceived as a capacity that, through the use of certain HR practices, the organization can adapt more easily to environmental changes. For this purpose, a quantitative research approach was used. An online questionnaire was applied, with two validated scales: Dimensions of the Learning Organization and HR Flexibility. Our sample is composed of 222 HR professionals. The data were treated using Structural Equation Modeling in SmartPLS (Partial Least Squares) software. The results showed that HR Flexibility has a positive influence on Organizational Learning, and this influence is mediated by Individual Learning and Group Learning. We contribute to understand the influence of HR Flexibility on individual and group learning, and its possible effects on Organizational Learning. As a practical contribution, revealing this possibility to HR professionals by using these HR Flexibility practices to influence the learning of individuals and groups, affecting Organizational Learning and aiding company performance in several dimensions. These practices that allow companies to adapt to the market in a dynamic environment.

Keywords: HR Flexibility; Organizational Learning; Individual Learning; Group Learning.



RESUMEN

Este documento tiene como objetivo evaluar la influencia de la flexibilidad de recursos humanos en el aprendizaje organizacional (OA), mediado por el aprendizaje individual (AI) y grupal (AG). FRH se concibe como una capacidad que, mediante el uso de determinadas prácticas de RH, la organización puede adaptarse más fácilmente a los cambios ambientales. Para alcanzar el objetivo, se aplicó una investigación de enfoque cuantitativo con la aplicación de un cuestionario en línea de dos escalas validadas: Dimensiones del aprendizaje organizacional y Flexibilidad de recursos humanos. Nuestra muestra está formada por 222 profesionales de RH. Los datos se trataron con modelado de ecuaciones estructurales utilizando el software smartPLS (mínimos cuadrados parciales). Los resultados mostraron que la flexibilidad de recursos humanos tiene una influencia positiva en el aprendizaje organizacional. Y esta influencia está mediada por el aprendizaje individual y el aprendizaje grupal. Contribuimos a comprender la influencia de la Flexibilidad de RH en el aprendizaje individual y grupal y sus posibles efectos en el Aprendizaje Organizacional. Como aporte práctico, revelar esta posibilidad a los profesionales de RH al utilizar estas prácticas de Flexibilidad de RH para influir en el aprendizaje de individuos y grupos, afectando el Aprendizaje Organizacional y ayudando al desempeño de la empresa en varias dimensiones. Estas prácticas permiten a las empresas adaptarse al mercado en un entorno dinámico.

Palabras clave: Flexibilidad de recursos humanos; Aprendizaje organizacional; Aprendizaje individual; Aprendizaje grupal.

1 INTRODUCTION

To remain competitive and innovative, companies must adapt to the environment, and this process leads to learning by obtaining information and knowledge that aid organizational performance (FIOL; LYLES, 1985). Learning is necessary and occurs simultaneously, as the cause and effect of evolution, irrespective of the willingness of whoever manages the organization. However, it falls to the manager to create an environment that encourages learning (CALDEIRA; GODOY, 2011). A number of factors stimulate learning in the workplace: culture, a strategy that allows flexibility, organizational structure and the environment (FIOL; LYLES, 1985). The strategy that allows flexibility partially determines the learning capacity (see ABBAD; BORGES-ANDRADE, 2004, process of change involving acquisition, retention, generalization and transfer) and creates an impulse for Organizational Learning (OL), enabling different levels of learning to be studied. At the individual level, it is interesting that individuals have a capacity for learning and reacting to new situations and the instabilities of the market. Groups involve social systems that are organized to work with their dynamics. At the organizational level, learning occurs through this interaction (PAWLOWSKY, 2001; ZAHRA; NEUBAUM; HAYTON, 2020). The premise of this article is the existence of the different levels of learning and the importance of studying them.

Scholars in the fields of strategic flexibility (SANCHEZ, 1995) and dynamic capabilities (TEECE; PISANO; SHUEN, 1997) highlight that one of the most important managerial roles is to develop the company's ability to be alert and react swiftly to change, new threats and opportunities in the market (e.g., GIBSON; BIRKINSHAW, 2004; OKTEMGIL; GREENLEY, 1997). Human resource researchers absorbed these ideas and proposed that Human Resource Flexibility (HRF) may be ideal for improving a company's capacity to respond to changes in a dynamic environment and thus have a positive influence on company performance (see LEPAK; TAKEUCHI; SNELL, 2003; WRIGHT; SNELL, 1998). The HR manager should increasingly encourage organizational flexibility for the company to remain in the market (WRIGHT; SNELL, 1998). Empirical studies on HRF have been tested and proved, relating HRF with company performance (NGO; LOI, 2008; BHATTACHARYA; GIBSON; DOTY, 2005). Way et al 2015 conducted a study that validated the HRF scale,

adjusted its constructs and proved the relationship between flexibility and organizational performance. As a proposal for future studies, the authors suggested comparing these studies with other theories.

Organizational learning has been considered one of the factors that precede innovation and influence and help companies perform better (GOMES; WOJAHN, 2017). Two important and influential factors in organizational learning are individual and group learning (LUU, 2020). However, there is a gap in seeking backgrounds that help to stimulate learning. It has been highly valued, given the accelerated use of technologies and other aspects that have caused more uncertainty and the need for more agile change and adaptation (DEEPIKA; CHITRANSHI, 2020). HRF is considered an organizational capability that includes the acquisition of knowledge and skills, with practices that convert the human resources to enable flexibility and agility to adapt to a dynamic environment (LUU, 2016). It is a potential antecedent for adapting and acquiring new knowledge by employees (XIU et al., 2017).

However, HRF studies have focused on the relationship with job performance, and further studies are needed to investigate the relationship as an antecedent of organizational performance (MARTÍNEZ-SÁNCHEZ; VICENTE-OLIVA, PÉREZ-PÉREZ, 2020). Thus, the idea emerged of conducting a study of Human Resource Flexibility (HRF) and Organizational Learning (OL). If individuals learn when performing daily activities, due to the need to adapt to changes in the market and through their involvement with other individuals and this interaction facilitates organizational learning (PAWLOWSKY, 2001; GOMES; WOJAHN, 2017), HRF may be positively related to OL. HRF is the capacity of HR to use certain practices and allocate employees to adjust better to changes in the market (WRIGHT; SNELL, 1998), facilitating the interaction of individuals in the organization. Therefore, the aim of this study is to evaluate the influence of HRF on OL, mediated by IL and GL in a work environment, when facing challenges that require adaptation and changes in organizations.

This relationship between OL and HRF has yet to be tested. The intention of this article is to evaluate this relationship by proposing a theoretical model showing that HRF positively influences OL, mediated by IL and GL. Thus, the main research question is “What influence does HR Flexibility (HRF) have on Organizational Learning (OL), mediated by Individual Learning (IL) and Group Learning (GL) in a work environment?”

To evaluate this relationship, a quantitative research approach was used, with the application of an online questionnaire with two validated scales: Dimensions of the Learning Organization (MARSICK; WATKINS, 2003) and HR Flexibility (WAY et al., 2015). The data were treated with Structural Equation Modeling, aided by smartPLS (Partial Least Squares) software, to validate the proposed model. The results showed that HRF has a positive influence on OL, and this influence is mediated by Individual Learning and Group Learning.

The article is structured into five sections. The first is this introduction, which affords the reader a general overview of the article and presents the research question. The second part examines the theoretical background of the study and the development of the theoretical model and hypotheses. The third part presents the methodology used in the empirical study, which enabled the validation of the research. All the results are presented in the fourth section. The fifth and final part includes a discussion of the theory and a general summary.

2 THEORETICAL BACKGROUND AND HYPOTHESES

2.1 Individual, Group and Organizational Learning

Most studies on learning in organizations are supported by traditional research on OL or the learning organization (e.g., SENGE, 1990; ARGYRIS; SCHON, 1996; JIMÉNEZ-JIMÉNEZ; SANZ-VALLE, 2011). The basic difference between the two concepts is that organizational learning addresses the particular parts of the learning process, whereas learning organizations address the conditions that benefit learning, with a focus on the characteristics of the organization as the one that does the learning. The learning organization may be considered an organization that facilitates the learning of its employees and has the capacity to transform itself (PEDLER; BURGOYNE; BOYDELL, 1991).

Although some authors argue that there is no clear separation of the levels of IL, GL and OL (GHERARDI; NICOLINI, 2001), other researchers claim that there are individual, group and organizational learning levels (PAWLOWSKY, 2001; CHAN, 2003), and that they can be measured empirically using reliable research techniques. This provides a better understanding of their aspects. Prange (2001, p. 42) claims that organizational learning “has to do with individual and group learning processes, both within and between organizations”, and this explanation indicates their existence and co-existence (GOMES; WOJAHN, 2017). Thus, for the purposes of the present study, it is assumed that IL, GL and OL do indeed exist and that individuals learn in their daily activities, through their involvement with other people, and all this interaction results in organizational learning (PAWLOWSKY, 2001).

The three levels of IL, GL and OL establish the structure of how learning occurs in organizations. According to Crossan, Lane and White (1999), this process occurs in four stages. However, as it is a dynamic process, it is difficult to determine exactly where one stage begins and another ends. The first stage is intuiting, recognizing a pattern, related to individual experience. This is followed by interpreting, which is the explanation of an idea or vision to oneself and to others through words or actions. Integrating is the development of a shared understanding and taking coordinated action through mutual adjustments. Finally, institutionalizing occurs when actions become routines. Intuiting and interpreting are more closely related to individual learning. Interpreting and integrating are related to group learning. Integrating and institutionalizing are related to organizational learning (CROSSAN; LANE; WHITE, 1999; ARGOTE; LEVINE, 2020). To Cook and Yanow (1993), learning can occur at the organizational level if we view the company as a cultural entity. Culture is related to the values, beliefs and feelings of the members of the company and its artifacts. Organizational learning can be understood as the capacity of organizations to acquire, change and preserve their skills, even when there is a change in employees (BASTOS et al., 2004).

Learning is a fundamental psychological process that is essential for survival during the human lifecycle and occurs at the individual level (ZANELLI; BORGES-ANDRADE; BASTOS, 2004). Changes take place in an individual's behavior as he matures and interacts with his context (ZANELLI; BORGES-ANDRADE; BASTOS, 2004). The perturbations that occur in events within and outside the organization lead an employee to learn (AMORIM; FISCHER, 2013).

Individuals play a fundamental role in the development of organizational learning, as the organization would not exist without them (REED; DEFILLIPI, 1990; GOMES; WOJAHN, 2017). Argyris and Schön

(1996), and Kim (1998) argue that organizational learning occurs through the individual learning of members, and that it is through individuals that organizations learn. Individuals are considered the agents for learning in organizations (KIM, 1998; ARGYRIS; SCHÖN, 1996). Empirical studies have tested the relationship between learning levels (BIDO et al., 2008). Thus, the first hypothesis of this article emerges:

H1: Individual learning is positively related to Organizational Learning from an HR perspective.

Gherardi and Nicolini (2001) presented a broader concept of organizational learning, considering it as a social construction. Kim (1998) suggested that organizational learning is the result of the exchange between individual and shared mental models, as groups also construct their own mental models. Individuals learn when they are involved in their daily activities and interaction with other individuals and the external environment (ARGYRIS; SCHÖN, 1996). When groups interact to achieve common goals in a company, they are learning (BIDO et al., 2008; ARGOTE; LEVINE, 2020). According to Krogh, Ichigo and Nonaka (2001), knowledge creation begins with the sharing of tacit knowledge. Next comes the creation of concepts, justification of concepts, construction of prototypes and leveling of knowledge. This is an individual and social process. In the process of creating organizational knowledge, a company must provide an appropriate environment to facilitate group activities. Thus, it will encourage the creation and accumulation of individual knowledge to be used at the group level. Studies of group learning remain somewhat limited, as they leave aside interpersonal factors in behavior and learning (EDMONDSON, 1999; ARGOTE; LEVINE, 2020).

Argyris and Schön (1996) emphasize the importance of interaction between individuals in IL, GL and OL. Learning is the development of insights, knowledge and association of past actions, the effectiveness of these actions and future actions. Organizational learning is the process of improving actions through better knowledge and understanding, rather than only the sum of individual learning (FIOL; LYLES, 1985).

Studies have proposed to examine GL and its effect on OL, which is often negative, averting changes in companies in response to the external environment. However, at the same time, GL can occur naturally, without external interference (EDMONDSON, 2002). Pawlowsky (2001) and Bido et al (2010) highlighted the importance of GL in the passage to OL. Bido et al (2010) found that individual learning was not directly related to organizational learning, but group learning was related to the other two levels. Unless groups learn, organizations will not learn. Davenport and Prusak (1998) suggest the formation of communities of practice, self-organized groups, formed by employees who communicate with each other because they share the same practices, interests or goals. The presence of a participation mechanism may lead to the discovery, diffusion and use of local knowledge in the organization (HAYTON, 2003; PFEFFER, 1998). This leads to the second hypothesis:

H2: Group Learning is positively related to Organizational Learning from an HR perspective.

2.2 HR Flexibility

HR Flexibility is the capacity of human resources to take some practices and people with a range of skills and use them to respond and adapt to changes in the market to succeed in a dynamic environment

(WRIGHT; SNELL, 1998; MARTÍNEZ-SÁNCHEZ; VICENTE-OLIVA; PÉREZ-PÉREZ, 2020). Two general forms of HRF have been identified: Resource Flexibility and Coordination Flexibility (SANCHEZ, 1995; WRIGHT; SNELL, 1998; WAY et al., 2018). These two types of HRF can characterize HR practices and the skills and behavior of employees. They are practices that can be adapted and applied in a variety of situations, with different employees and different contexts. Thus, resource flexibility in HR practices reflects the dynamism and general applicability of a company's HR practices (WRIGHT; SNELL, 1998). For example, the use of a cognitive capacity test has high levels of resource flexibility, as this test can be used in a variety of workplaces. It evaluates the capacity to develop a broad set of activities and can help to identify employees who are able to perform a wide range of tasks (WAY et al., 2015).

Coordination Flexibility is a company's capacity to seek strategic alternatives to achieve strategic goals, acquiring these resources in advance to anticipate problems (SANCHEZ; HEENE, 1997). Resource Flexibility and Coordination Flexibility in HR practices are different (WRIGHT; SNELL, 1998). A clear example of this difference is observed when Coordination Flexibility in HR practices promotes training programs to meet new demands for skills. However, in the company's general training, resource flexibility in HR practices spreads procedures and content that allows employees to learn a variety of skills for use in other work activities rather than in one single activity.

HR Flexibility enables greater interaction between individuals and allows individuals to seek solutions to specific problems in new work contexts. For instance, one of the three categories of HR practices (WILLIAMS, 2001) is the flexibility of functions, where a company has the flexibility to allocate an internal employee to different tasks without resorting to the external market. This means that the employee will be involved in other sectors of the company. Furthermore, empirical studies in the field (GUPTA; GOVINDARAJAN, 1984; MICHEL; HAMBRICK, 1992; WIERSMA; BANTE, 1992; WANGROW; SCHEPKER; BAKER, 2015), have shown that there is a close relationship between managerial characteristics and various types of strategy. In other words, strategies are also designed thinking of what the individual knows, or what he may learn to perform a task. Individual learning is socially constructed (WEICK; WESTLEY, 1999). Individuals act as agents for the organization and produce actions for learning (ARGYRIS, 1992). Individuals play a key role in the development of organizational learning, and the organization would not exist without them (REED; DEFILLIPI, 1990). Thus, we arrive at Hypothesis 3.

H3: HR Flexibility is positively related to Individual Learning, which mediates the relationship with Organizational Learning from an HR perspective.

Wright and Snell (1998) claim that HR Flexibility and its practices influence the skills and behaviors of employees, and these skills and behaviors illustrate the capacity of employees when it comes to implementing different strategies and responding to competitive demands and other demands that are important to the company. The authors emphasize that HR management practices may vary in terms of flexibility and play an influential role in determining how flexible or rigid employees' skills and behaviors will be.

Group Learning is the union of changing meanings through the expression and transmission of the group's collective actions (BASTOS et al, 2004; ZAHRA; NEUBAUM; HAYTON, 2020). This process of passing from Individual to Group Learning manifests in interpreting and integrating. When actions occur in

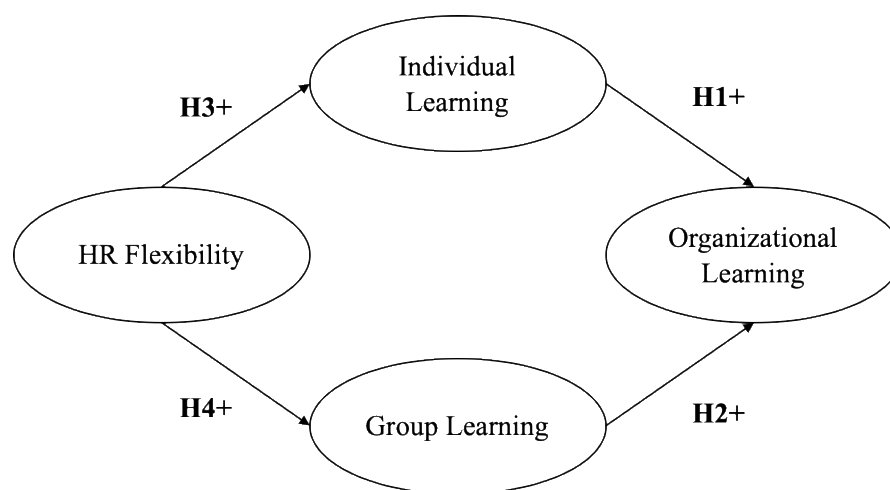
combination with other people in the company, interpreting combines with integrating, leading to the establishment of rules, procedures and work routines (CROSSAN; LANE; WHITE, 1999).

As HR Flexibility enables the formation of groups of employees with skills to satisfy a given market demand, as shown in the work of Wright and Snell (1998), this may have a positive influence on Group Learning. The group participation mechanism within the company may lead to the discovery, diffusion and use of knowledge in the organization (HAYTON, 2003; PFEFFER, 1998). This leads to Hypothesis 4.

H4: HR Flexibility is positively related to Group Learning, which mediates the relationship with Organizational Learning from an HR perspective.

Group Learning is extremely important to an organization, as it is through the group that the worldview is shared (ARGYRIS; SCHON, 1996; PAWLOWSKY, 2001; ZAHRA; NEUBAUM; HAYTON, 2020). This creates the need to gain a better understanding of this relationship between HRF and GL. The proposed theoretical model shows the relationships among the variables that will be tested (Figure 1).

Figure 1 – Theoretical model of the relationship between HR Flexibility and Organizational Learning, mediated by Individual and Group learning



Source: Prepared by the authors

3 METHODOLOGY

To validate the proposed model with Organizational Learning and HR Flexibility, a quantitative research approach was used. Based on the purpose of the research, it was classified as descriptive and explanatory (MATTAR, 2005; VERGARA, 2007), as it combines a set of information and explanations regarding the characteristics of a group, assuming that there is a relationship between the variables. With regard to the means, bibliographic research and a survey were conducted, the latter being a method for collecting primary data using questionnaires (HAIR et al., 2007). Two validated questionnaires were used: one for Organizational Learning and its levels, the other for HR Flexibility, both with a Likert scale.

3.1 Research Instrument

First, a questionnaire was prepared to provide descriptive data on the respondents and their respective companies. In the next stage, two validated scales were used. The first scale was that of the Dimensions of the Learning Organization Questionnaire (MARSICK; WATKINS, 2003), which includes questions that identify individual, group and organizational learning levels. The part on organizational performance was not applied. The other scale was the HR Flexibility scale (WAY et al., 2015), with questions that helped to identify HR Flexibility in the application of some practices used in the work environment. Two of the five parts of the full questionnaire were used for the present study. In the Dimensions of the Learning Organization Questionnaire, a 6-point Likert scale was used, ranging from (1) Hardly Ever to (6) Usually. A 5-point Likert scale was used with the Flexibility questionnaire, ranging from (1) I totally disagree to (5) I totally agree.

3.2 Semantic Validation and Pre-Testing

Both research instruments were validated outside of Brazil. Thus, it was decided that semantic validation (BEATON et al., 2007) would be used for both questionnaires. Therefore, the instrument was translated from English to Portuguese by a specialist in the field. Following this procedure, a reverse translation was done. This procedure ensures that the meaning is not lost or changed in translation. The research instrument was then analyzed by a group of specialists in the field to detect any discrepancies in the translations. The questionnaire was then submitted to pre-testing, in which it was applied to 35 respondents from the field of HR. No adjustments were required at this stage, as the respondents had no problems in understanding the questions. Thus, the final version of the instrument was produced. The respondents in the pre-test were not included in the final sample of the study.

3.3 Sample and Data Collection

The questionnaires were applied online to 2,240 people identified as working in HR. This sample was chosen for reasons of easy access, which characterizes non-probability and convenience sampling (MALHOTRA, 2006). Of the 2,240 questionnaires that were sent out, 357 were returned and only 222 were considered valid for the study. All of these respondents worked in HR. A description of the sample is shown in Table 1. It represents the data in % of the tested sample.

Table 1 - Descriptive Data of the Sample

Items	Alternatives	%
Time active in HR	Under 5 years	20
	6-10 years	30
	11-15 years	13
	16-20 years	16
	21-25 years	11
	26-30 years	8
	Over 31 years	2
Gender	Female	71
	Male	29
Age	Up to 25 years	2
	26-35 years	37
	36-45 years	32
	46-60 years	28
	Over 61 years	1
Schooling	Doctoral Degree	0
	Master Degree	9
	Specialization	67
	University Degree	21
	High School Graduate	2
	Elementary School	0
	Other	1
Studies or has studied HR (the participant may check as many alternatives as necessary)	N/A	2
	College course	7
	University degree	28
	Specialization	44
	Master Degree	7
	Doctoral Degree	0
	Other	12
Time employed at the company	Less than 1 year	8
	1-3 years	37
	4-6 years	19
	7-9 years	12
	Over 10 years	24
Position at the company	President	1
	Director	10
	Manager	27
	Coordinator	22
	Supervisor	4
	Technician	4
	Analyst	27
	Other	5
Has subordinates	Yes	72
	No	28
Type of business	Industry	35
	Commerce	11
	Service	54
Size of company if an industry	Up to 2 employees	0
	Up to 19 employees	3
	20-99 employees	4
	100-499 employees	26
	Over 500 employees	67
Size of company if service or commerce	Up to 2 employees	1
	Up to 9 employees	4
	10-49 employees	10
	50-99 employees	12
	Over 99 employees	73
Type of company	Family	25
	Public	11
	Public/Private (Mixed)	5
	Private	58
	NGO	1

Source: Prepared by the authors based on research data.

To calculate the required sample size for the study, G*Power software was used. With the model used for this study, the construct with the highest number of arrows was used. In this case, there were two. Two parameters were also used: test power of 0.80 and median effect size (F^2) = 0.15 (COHEN, 1998; HAIR et al., 2014). Thus, the minimum sample required for this study was 43 cases. However, double or triple this number is recommended for a more consistent model (RINGLE; SILVA; BIDO, 2014). For the data treatment, SmartPLS (Partial Least Squares) software was used, which allows a much smaller sample size than other software, such as the LISREL (HAIR et al., 2014).

The data were collected electronically. The questionnaires were added to QuestionPro software and sent to respondents on LinkedIn and Facebook or by e-mail, with a link to the form. In the introductory message on the form, the respondents were informed that they would be taking part in an academic study on Organizational Learning and HR and that the questionnaire was to be completed by people who worked in this field. They were also given instructions on how to complete the questionnaire and asked to share the link with acquaintances who worked in HR. In the questionnaire, the respondents were asked whether they worked in HR. All those that did not work directly in the field were excluded from the sample. This ensured that the sample was suitable for the purposes of the study. The data were collected between 22/06/2016 and 12/07/2016.

3.4 Procedures

For the data treatment, Structural Equation Modeling (SEM) was used, a technique capable of the simultaneous calculation of multiple variables and their relationships (HAIR et al., 2014). In other words, it facilitates the discovery and confirmation of relationships between multiple variables (HAIR; GABRIEL; PATEL, 2014). For this purpose, SmartPLS (Partial Least Squares) 3.0 was used.

Following the data collection, a table was prepared so that all the data could be treated. Thus, the missing values, outliers and responses from people who did not work in the field of HR were identified. At this point, 135 questionnaires were excluded. These either contained missing values or were returned by people who did not work in HR. There were no outliers. The demographic data were separated for the descriptive statistics. Once the data were prepared, the structural model was treated by SmartPLS (Partial Least Squares) 3.0. This software was chosen, as mentioned above, because it allows for a much smaller sample size than other software, such as the LISREL (HAIR, J. et al., 2014), which would require a much larger sample. Continuing the data treatment, confirmatory factor analysis was performed to purify the scale (convergent validity, discriminant validity and reliability).

4 RESULTS

4.1 Presentation of the Results¹

Initially, a confirmatory factor analysis was performed on SmartPLS to identify the indicators that were adequate for the model and those which were not ($AVE < 0.5$ and $Loadings < 0.7$) (HENSELER et al., 2009;

¹ All the data for this study is available from the authors.

HAIR et al., 2014). At this point, seven indicators were removed (OL1; OL2; OL3; OL8; HRF1; HRF4; HRF5), four of which were OL indicators and three were HRF for adjustments to the model. With the removal of the indicators, convergent and discriminant validity were achieved, as all the AVEs (Average Variances Extracted) were higher than 0.50 and all the CRs (Composite Reliabilities) had values higher than 0.70 (see Table 2). The reliability was adequate, with Cronbach’s Alpha and Composite Reliability values higher than 0.8 (HAIR et al., 2014) (also shown in Table 2).

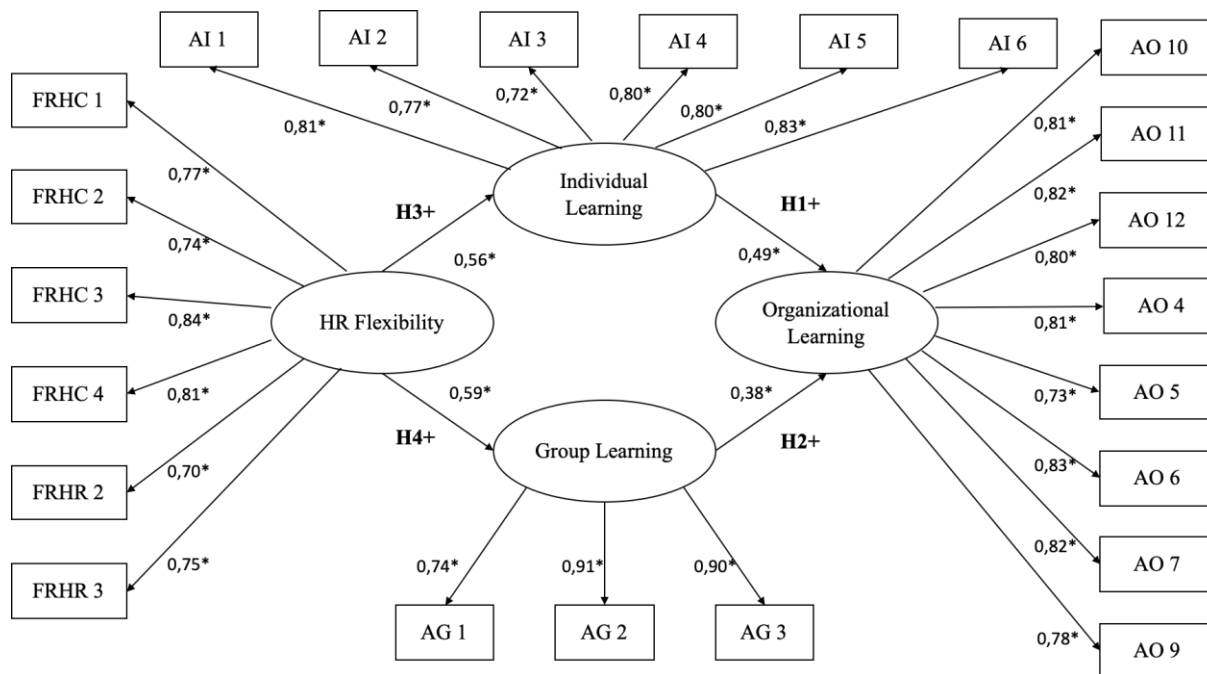
Table 2 - Matrix of correlations and results

	Group_Learning	Ind_Learning	Org_Learning	HR_Flexib
Group_Learning	0.859			
Ind_Learning	0.709	0.793		
Org_Learning	0.736	0.766	0.806	
HR_Flexib	0.599	0.562	0.686	0.777
Cronbach’s Alpha	0.823	0.882	0.923	0.869
Composite Reliability	0.894	0.910	0.937	0.901
AVE	0.739	0.629	0.650	0.604
F ²	0,557632	0,459854	1,9498	
R ²	0.358	0.315	0.661	

Source: Prepared by the authors from research data.

Following the evaluation of the measurement model, the structural model was examined (Figure 1). In this stage, an analysis was conducted of Pearson’s coefficients of determination (R²) that were to indicate the quality of the adjusted model. In the field of Social Sciences, the general classifications are R²=2% small effect, R²=13% medium effect and R²=26% large effect (COHEN, 1988). Thus, the proposed model was adequate (Table 2). Later, the effect size (F²) was verified, which evaluates how useful each construct is for the adjustment of the model. According to Hair et al (2014), values of 0.02 are considered small, values of 0.15 are medium and 0.35 are considered large. Thus, the F² of the model presented here shows that it is accurate and that the constructs are necessary for the general adjustment of the model. All the path coefficients had adequate values.

Figure 1 – Structural model of the relationship between HR Flexibility and Organizational Learning, mediated by Individual and Group learning.



* p < 0.01

Source: Prepared by the authors

Our analysis of the structural model presented in Figure 2 supported all four hypotheses (Table 3). Hypothesis 1, *Individual learning is positively related to Organizational Learning from an HR perspective*, had a path coefficient of 0.49, t test of 9.07 and p < 0.01, and was confirmed. Hypothesis 2, *Group Learning is positively related to Organizational Learning from an HR perspective*, had a path coefficient of 0.38, t test of 5.61 and p < 0.01, and was also confirmed. Hypothesis 3, *HR Flexibility is positively related to Individual Learning, which mediates the relationship with Organizational Learning from an HR perspective*, had a path coefficient of 0.56, t test of 12.87 and p < 0.01, and was thus confirmed. Hypothesis 4, *HR Flexibility is positively related to Group Learning, which mediates the relationship with Organizational Learning from an HR perspective*, had a path coefficient of 0.59, t test of 14.32 and p < 0.01), and was also supported.

Table 3 - Results of the evaluation of the structural model

Relationship	Hypothesis	Path	T Test	Sig.	Results
Group Learning → Organizational Learning	H1	0.49	9.07	p < 0.01	Suportada
Individual Learning → Organizational Learning	H2	0.38	5.61	p < 0.01	Suportada
HR Flexibility → Individual Learning	H3	0.56	12.87	p < 0.01	Suportada
HR Flexibility → Group Learning	H4	0.59	14.32	p < 0.01	Suportada

5 DISCUSSION

This article is intended to complement existing research on Organizational Learning with the contribution of HR Flexibility, mediated by Individual and Group Learning. Although the effects of HR Flexibility are being studied in relation to different performance relationships, by definition and through the practices presented here, they should influence Organizational Learning. However, explaining this relationship directly is not ideal (see Whetten, 2008) without the more direct mediation of Individual and Group Learning, as there are several works that prove their relationship with Organizational Learning (HERNANDEZ; WATKINS, 2003; DYMOCK, 2003; SONG; KYOO; CHERMACK, 2009). Although some authors, in different contexts, claim that Individual Learning is not directly related to Organizational Learning (BIDO; GODOY; ARAUJO; LOUBACK, 2010; ARGYRIS; SCHÖN, 1996; KIM, 1998), they recognize that Organizational Learning stems from the Individual Learning of the members.

From the questionnaires with the previously tested scales to evaluate HR Flexibility (WAY et al., 2015) and the Dimensions of the Learning Organization (MARSICK; WATKINS, 2003), applied to 222 HR professionals, it was confirmed that there is a relationship between HR Flexibility and Organizational Learning, mediated by Individual and Group Learning. This study corroborates the findings of other studies that show a relationship between Individual Learning and Organizational Learning (CHAN, 2003; BIDO et al., 2008) and Group Learning and Organizational Learning (SENGE, 1990; BENNETT; O'BRIEN, 1994; BIDO et al., 2008). However, the most important contribution of the study is confirming the causal relationship between HR Flexibility and Individual and Group Learning, which enables the connection with Organizational Learning. HR Flexibility practices influence the learning of individuals and groups. The influence on individuals and groups is presented in various works (ÚBEDA-GARCÍA et al., 2018, LÓPEZ-CABRALES; GALAN, 2011) but not related in a casual relation with HR Flexibility as antecedent.

Traditional studies on HR Flexibility, which remains the focus of few studies, and related to current dynamic environments and globalized companies, have considered the relationship between HR Flexibility and different ways of evaluating organizational performance. These can be mediated by remuneration systems (BELTRÁN-MARTÍN et al., 2008), organizational culture (NGO; LOI, 2008), skills and behaviors (KETKAR; SETT, 2009, 2010) and engagement (BAL; LANGE, 2005). However, from the viewpoint of company competitiveness, organizational learning is one of the theoretical approaches that are usually considered (KIM; HOSKISSON; LEE, 2015). Thus, the results do not only aid a better understanding of the influence of HR Flexibility and its possible effects on Organizational Learning. They also make a practical contribution, revealing this possibility to HR professionals by using these HR Flexibility practices. The results show that, if well planned, HR practices will influence the learning of individuals and groups, affecting Organizational Learning and aiding company performance in several dimensions. Therefore, these practices that allow companies to adapt to the market in a dynamic environment, if used intentionally, could even be characterized as a dynamic capability (VIJAND-SANTOS; SÁNCHEZ-LÓPEZ; TRESPALACIOS, 2012; LUU, 2016; XIU et al., 2017). This is a possible focus for future studies. Another suggestion for future research would be to test the relationship between HR Flexibility and Individual and Group Learning in companies that operate in dynamic environments and compare them with companies in non-dynamic environments. Studies that have tested the relationship between HR Flexibility and financial performance in companies did not address this relationship

(BHATTACHARYA et al, 2005; KETKAR; SETT, 2009, 2010). HR Flexibility may have a negative relationship with company performance, if the company is operating in a stable environment. The argument is that if the environment is stable, HR Flexibility is a meaningless resource and, consequently, an unnecessary expense (WAY et al., 2015; WRIGHT; SNELL, 1998).

6 FINAL CONSIDERATIONS

Despite the contributions of the study, it has some limitations. It includes responses from HR professionals in companies that operate in different contexts. Although the results are important, these contexts could be better studied considering the dimension, dynamism or even different types of companies. It is believed that qualitative studies that evaluate how HR Flexibility can affect learning are also justifiable. Another limitation is that the respondents were selected at random, and this to a certain extent is attenuated by the confirmatory factor analysis. Although the study sample is significant in relation to the method, the importance of having significant samples should be emphasized, for instance, monitoring the sample in terms of the position or specific sector of the respondents to understand better the effect of HR Flexibility on learning, enhancing understanding of this relationship. This is a Brazilian study, and it would be interesting to compare it with studies conducted in other countries.

HR Flexibility is still a new construct and there is considerable scope for further study. The practices involved in the construct are related to skills and behaviors when adapting to environments. Therefore, it makes sense to say that it is linked to organizational learning. In this study, a conceptual model was developed to link the relationship of HR Flexibility with Organizational Learning, mediated by Individual and Group Learning. All the hypotheses were supported, confirming the relationships. Further studies of HR Flexibility in dynamic working conditions could make an important contribution to enabling more strategic HR practices. This study helped to provide a better understanding of the construct and one of the ways it can be used by HR professionals.

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