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MANAGEMENT | RESEARCH ARTICLE

Critical factors for innovative work behaviour in Latin American firms: Test of an exploratory model

Francoise Contreras^{1*}, Fernando Juarez¹, Yonni Angel Cuero Acosta¹, Utz Dornberger², Karla Soria-Barreto³, Martha Corrales-Estrada⁴, Claudia Ramos-Garza⁴, Sebastian Steizel⁵, Alexandra Portalanza⁶, Kety Jauregui⁷, Luciana Iwashita da Silva⁸ and Marcus Alexandre Yshikawa Salusse⁹

Abstract: The aim of this study is to examine how transformational and transactional leaders, boost the employees' innovative work behaviour, directly or through work engagement, organizational climate for innovation and absorptive capacity in Latin American firms. A non-random sample of 1429 employees was used who had been working at least one year in the current company. The sample, composed of workers from different industries, was collected in postgraduate programs of business schools from seven Latin American countries. A multi-group structural equation model was built with the involved variables, which adopted two different conditions: i.e., unconstrained and constrained questionnaire measurement weights. According to the results, leadership by itself is insufficient to promote employees innovative work behaviour. Transformational and transactional leadership exert effect on this behaviour only through absorptive capacity and work engagement respectively. Likewise, absorptive capacity and employee work

ABOUT THE AUTHOR

This paper belongs to a wider project entitled "Toward the construction of a new model of leadership to promotes Innovative Work Behaviour" which is developed by Universidad del Rosario in Bogotá Colombia and Universität Leipzig in Germany. The paper tests an exploratory model of the leadership influence on innovative work behavior and is the result of a collaborative work with colleagues from recognized schools of business in Latin-America, such as EGADE Business School in Mexico, Universidad de San Andrés in Argentina, Fundação Getulio Vargas in Brazil, Universidad Católica del Norte in Chile, Universidad Espíritu Santo in Ecuador, and Universidad ESAN in Peru. The team shares an interest in finding a better understanding of how fostering innovation in the companies by promoting the innovative behavior of their employees.

PUBLIC INTEREST STATEMENT

Competitive requirements to innovate are crucial not only in developed economies but particularly in emerging markets. Since innovative companies begin with the understanding of the challenges and opportunities of their environment, organizations demand new skills from their employees to innovate their processes, business practices, methods, operations, products and services, with a leadership orientation to encourage innovative work behavior. It is not clear enough how these processes occur in Latin America, so it is important to develop regional models (taking into account the particularities of each country) that provide valid knowledge for the region. This paper explores important factors that should be considered by business communities, innovative organizations, and business schools to foster innovative work behavior from the perspective of leadership. The paper identifies the relationships and interdependencies between absorptive capacity, work engagement, and the organizational climate for innovation, and particularly the influence of leadership in these variables to promote innovative work behavior.

engagement show direct effects on innovative work behaviour. Additionally, organizational climate for innovation shows a significant moderating effect on the all relationships included in the model. Despite the cultural differences, the two-condition model yielded the same effect in each country, which indicates the validity of a general model of innovative work behaviour for the whole region supporting the common identity of this region. As a conclusion, leadership practices are needed to encourage innovative work behaviour within the Latin American organizational context, however some individual (engagement) and organizational (absorptive capacity) conditions are also needed to ensure this effect. Implications for human resources management are discussed.

Subjects: Work & Organizational Psychology; Leadership; Business, Management and Accounting

Keywords: innovative work behaviour; transformational leadership; transactional leadership; employee work engagement; organizational climate for innovation; absorptive capacity; Latin American culture

1. Introduction

A wide academic consensus agrees that innovation is a crucial factor that allows companies to survive in a highly competitive and globalized world. Innovation is linked to the production of new products, services and processes to obtain better organizational outcomes from different organizational positions and levels. However, innovative work processes entail organizational and individual approaches that involve the employees' capacity to engage in innovative work behaviour. West and Farr (1990) defined innovative work behaviour as "the intentional introduction and application within a role, group or organization of ideas, processes, products or procedures" (p. 9). This behaviour demands employees' intentional efforts to produce novel outcomes (Janssen, 2000) which requires enthusiasm, persistence, the propensity to take risks and to deal properly with uncertainty (Bibi & Afsar, 2018). Due to the importance of permanent changes and innovative ideas in companies, studies of innovative work behaviour to identify its determinant variables are relevant (Kör, 2016).

As the conditions influencing innovative work behaviours in employees are insufficiently clear, researchers need to identify the mechanisms that strengthen innovative behaviour and how they interact with other variables in organizational settings (Rank et al., 2004). Some progress was done by Zhou and Velamuri (2018) who classified in four areas the studied variables reported in the literature related to innovative work behaviour: leadership, job, group and network and organization. Likewise, some studies have explored this subject from individual (employee characteristics) and organizational (organizational characteristics promoting innovative behaviour in the workplace) perspectives (Bin Saeed et al., 2019; Bos-Nehles & Veenendaal, 2019). In all these categories and approaches some variables have shown some relationship to innovative work behavior, however, their results are not conclusive yet.

In this regard, leadership has been one of the most studied variables that has shown evidence about its relation with innovative work behavior, however, the findings are still inconclusive. According to Bednall et al. (2018), this is due to some extent to the tendency to assume that these constructs have a linear relationship and this relationship may be non-linear. In other words, it is not known enough through which variables leadership can influence this behavior in employees. For this reason it is important to explore the mediator and moderator role of the variables that have shown some relationship with innovative work behavior. On the other hand, in Latin America the knowledge in this issue is still more limited. There is not enough research allowing the understanding on how to encourage innovative work behavior in Latin American employees taking into

account the cultural differences that exist and that could determine the effect of leadership on innovative work behavior. This study provides new knowledge through the test of an exploratory model, whose variables have demonstrated exert influence on innovative work behavior. Particularly, this study explores the influence of individual variables, such as employee work engagement and organizational variables such as transformational and transactional leadership, organizational climate for innovation and absorptive capacity of the company.

As it is well known, studying leadership and its relationship with organizational results or with some kind of employee behaviour requires framing it in a specific culture, due to the strong link between these two notions: Leadership and culture. This study is framed within the cross-cultural perspective, where it is assumed that leadership behaviours can have different effects on employees depending on the culture. Likewise, the effect of culture on leadership practices depends on how leaders are perceived in each culture, and these perceptions, in turn, are influenced by the historical and political context of each society (Dickson et al., 2012). From this perspective, culture could moderate the results produced by different leadership styles; even more a same style can have different effects in each culture, for example, transformational leadership increases normative commitment in collectivist rather than non-collectivist cultures (Hanges et al., 2016). It is important to note that while some leadership behaviours may be universally desirable, the way they are promoted may be different in different cultures (Dickson et al., 2012). Therefore, it is assumed that a leadership style may be effective in promoting some desirable behaviour in employees in some cultures but not in others. Additionally, culture plays an important role in encouraging innovative work behaviour and promoting innovation as a value (Hartmann, 2006).

This study is conducted in the Latin American context, which is characterized by humanistic and paternalistic interactions between leaders and followers, including care, trustworthiness and mutual loyalty (Davila & Elvira, 2012). The connection between leaders and collaborators is expected to reach an important interpersonal level. Therefore, being an effective leader in Latin America implies having good relationships, listening and building a shared vision with co-workers (Ramsey et al., 2017). In this kind of relationship, the Latin American context emphasizes the figure of charismatic leaders, who have the power and authority to make decisions for their workers (centralized authority) (Castaño et al., 2015; Elvira & Dávila, 2005). As a result, Davila and Elvira (2012) stated that this authoritarian and collective culture produces a paternalistic leadership style, in which relationships become essential to being an effective leader. It is interesting to note that although there are differences among Latin American countries, this region can be grouped, because it has a common identity and tends to be more similar than different (Montaño, 2000). Supported in this idea, we proposed that resultant model could be valid to the whole region in spite of its cultural differences.

The first part of this study was aimed at identifying the variables that have shown to be related to the employees' innovative work behaviour. With these variables we looked for a resulting model that would explain the innovative behaviour of Latin American employees. Then we investigate whether this integrated model works for all participating countries. The results of this study will provide new insights to managers in the region on how to manage their companies to improve the innovative behaviour of their employees.

2. Theoretical framework

2.1. Innovative work behaviour (IWB)

Innovative employees are one of the most important factors explaining business successes (Muchiri et al., 2020; Shanker et al., 2017). Uncertain and highly competitive business environments demand innovation to keep businesses competitive. Innovative work behaviour can change the organizational environment by making it more cooperative thus increasing employee productivity (Sani, 2019). Hurt et al. (1977) initially defined innovative work behaviour, or innovation at the individual level as it is also called, as the generalized willingness to change. West and Farr (1990)

subsequently defined innovative work behaviour as all individual actions related to the generation, introduction and application of a novelty beneficial to any organizational level as an output. Farr and Ford (1990) observed that innovative work behaviour addresses the intentional introduction of new ideas. More recently, De Jong and Den Hartog (2007) defined innovative work behaviour as “the intentional behaviour of an individual to introduce and/or apply new ideas, products, processes and procedures to his or her work role, unit or organization” (p. 8).

The process of this intentional behaviour is composed by three phases: i.e., idea generation, idea promotion and implementation of innovation (Kanter, 1988; Montani et al., 2014). In this study, the multidimensional proposal developed by Janssen (2000) is followed, which includes idea generation, promotion and implementation.

In the proposed model, we decided to include those variables that have shown more robust evidence about their role on innovative work behaviour. These variables are: leadership (Abbas et al., 2012; Masood & Afsar, 2017), organizational climate for innovation (Amabile et al., 2004; Scott & Bruce, 1994; Shanker et al., 2017; Zhou & Velamuri, 2018), which includes perceived organizational support (Agarwal, 2014) and finally, absorptive capacity (Camisón & Forés, 2010; Tsai, 2001; Zahra & George, 2002). From the individual perspective, some studies have studied the role of employee work engagement on innovative work behaviour (Agarwal, 2014; Aryee et al., 2012; Scott & Bruce, 1994; De Spiegelaere et al., 2014). Following these previous developments, our objective is to test how these variables (leadership style, absorptive capacity, organizational climate and employee work engagement) influence innovative work behaviour in a Latin-American sample and to observe if this resultant model demonstrates well adjustment in this region. Our model tests direct, moderate or mediate relationships among the proposed variables.

2.2. Leadership styles and innovative work behaviour

Leadership is one of the most important innovation drives (Bel, 2010). Transformational and transactional leadership practices have been studied in relation to innovative work behaviour. Transactional leadership is task oriented to accomplish organizational objectives while transformational leadership is interested in not only achieving these objectives, but also focuses on the people that make it possible (Leban & Zulauf, 2004). Băeșu and Bejinaru (2015) observed that transactional leaders provide immediate gratification (contingent rewards) to their subordinates according to their performance, whereas transformational leaders persuade their collaborators to act according to great ideals and purposes by sharing their vision to achieve their businesses' objectives.

On the one hand, transformational leadership is usually understood as being different or opposed to transactional leadership. Burns (1978), who was the first researcher to develop this concept, considered that both styles were polar opposites. Some years later, however, B.M. Bass (1985) asserted that although these leadership practices differ, they are not exclusive, but are complementary. B.M. Bass (1985) also observed that better organizational results could be obtained when some characteristics of these two styles are combined. More recently, Felfe et al. (2004) suggested that transformational leadership is an extension of transactional behaviour, which shown by leaders' influence on their employees.

According to B.M. Bass (1995), transformational leadership can be described by the following four characteristics: 1) individualized consideration: i.e., leaders show empathy, provide support to their employees and keep communications open; 2) intellectual stimulation: i.e., leaders ask their collaborators and work teams to provide new ideas, encourage their creativity and promote a proper organizational climate; 3) inspirational motivation: i.e., leaders develop and share an attractive vision that inspires their collaborators to achieve high standards; and 4) idealized influence: i.e., the capacity of leaders to stimulate innovative work through their vision, purposes and values. Thus, the leaders' followers increase their performance because they experience pride in their job and are fully involved in their company's vision and mission (B.M. Bass, 1995; B.M. Bass & Avolio, 1994). On the other hand, transactional leadership comprises three main characteristics: 1) contingent reward: i.e., employees

are rewarded or punished according to their performance; 2) active management by exception: i.e., leaders monitor, correct and detect mistakes; and 3) passive management by exception: i.e., leaders intervene only when task standards are not met.

Transformational leadership appears to be relevant in promoting innovation. If employees are intellectually stimulated by transformational leadership, they are usually more creative, show more innovative ideas and re-evaluate potential problems (Hater & Bass, 1988). Leaders can make their followers more confident in their competencies through inspirational motivation, which increases the probability of developing innovative work behaviour. In addition, transformational leadership recognizes the diversity of talents through individualized considerations that promote innovative work behaviour (Reuvers et al., 2008). Employees working under this leadership are more productive and express greater satisfaction in their work (B.M. Bass, 1997).

Bel (2010) found that these leaders accept uncertainty and risks, and learn from their failures, which may lead to innovative work behaviour. These leaders inspire and support others to implement changes and innovative behaviours. In other words, transformational leadership improves employees' innovative work behaviour through their intrinsic motivations towards work (Sosik et al., 1998). Some studies have shown the relationship between transformational leadership and employees' behaviours which was considered the precursor for innovative work behaviours such as employees' learning, developing skills and the creation of new ideas as a component of effective work (Sosik et al., 1998), the sharing of knowledge (Bednall et al., 2018) and the employees' creative process (Mahmood et al., 2019). However, these results were not confirmed and no significant difference was found in the number of creative ideas produced by the employees under transformational or transactional leadership (Kahai et al., 2003).

Empirical studies have demonstrated a positive relationship between transformational leadership and innovative work behaviour (see Abbas et al., 2012; Afsar & Umrani, 2019; Masood & Afsar, 2017; Reuvers et al., 2008), but other studies have suggested that transformational leadership is not enough to increase work innovation under an innovative work climate (Wilson-Evered et al., 2001). No significant relationship between some leadership practices and innovative work behaviour was found (Janssen, 2000). Nevertheless, Khan et al. (2012) and Contreras et al. (2017) found that both transformational and transactional leadership practices are positively related to innovative work behaviour, with no differences between them. De Jong and Den Hartog (2007) noted that neither the innovation nor the leadership fields provide enough knowledge about how leaders might stimulate innovation behaviour. Therefore, it is important to understand how employees may become more innovative and examine the variables that may explain how leadership practices influence this behaviour (Reuvers et al., 2008).

According to the above we propose the following hypothesis:

Hypothesis 1 (H1): Innovative work behaviour can be predicted by the direct effect of transformational and transactional leadership.

2.3. Proposed mediating variables

2.3.1. Employee work engagement

Work engagement is an important issue in human performance and organizational sustainability (Kim & Park, 2017), which leads to positive results for the individual and the organization (Salanova & Schaufeli, 2009). Engaged employees are physically, cognitively and emotionally involved in their role performances (Kahn, 1990) which in turn indicates a healthy functioning of the organization (Montani et al., 2020). Kahn (1990) identified three psychological aspects in the work roles of these employees: i.e., meaning, security and availability. When work is important and meaningful for the employees and resources are available, they are more likely to develop their engagement in their workplace. Two years later, Kahn (1992) described the concept of engagement as a special type of

behaviour, where the energy involved in each employee's job is motivated by a state of mind that Kahn called psychological presence.

It is important to mention that the concept of engagement has been studied from different perspectives and they tend to be seen as similar, however, each category should be delimited as they differ significantly one from the other (Gupta & Shukla, 2018). In this research, we assumed the concept of "work engagement" proposed by Schaufeli, Salanova et al. (2002) whose dimensions (cognitive, emotional, and physical) are based on the original framework of "personal engagement" suggested by Kahn (1990).

Schaufeli, Martínez et al. (2002) proposed a widely accepted concept of work engagement, which was defined as a "positive, fulfilling, work-related state of mind characterized by vigour, dedication and absorption" (p. 74). Vigour represents high levels of energy during work hours, enthusiasm, inspiration and pride are considered in dedication, and absorption is a high state of concentration and immersion in work (Schaufeli, Martínez et al., 2002). All these characteristics are related to high-quality performance and benefits to the organization (Britt et al., 2001).

Employee work engagement is positively related to peers' and supervisors' social support (Saks, 2019), high standards of performance, autonomy and learning (Halbesleben, 2010; Wu & Wu, 2019). Engagement has been established as a mediating variable (Agarwal, 2014; Montani et al., 2020; Saks, 2006; Salanova & Schaufeli, 2009; Shantz et al., 2013). For example, Kyoung-Park et al. (2014) found that employee work engagement mediates the relationship between organizational learning and innovative work behaviour; i.e., a high level of engagement contributes to more innovative work behaviour (Agarwal, 2014; Agarwal et al., 2012; Chen & Huang, 2016; Contreras et al., 2017; Hakanen et al., 2008; Kim & Park, 2017; Montani et al., 2020; Orth & Volmer, 2017; De Spiegelare et al., 2015). Montani et al. (2020) found that work engagement has a relevant mediating effect between workload and innovative work behaviour and it acts as a crucial mechanism whereby the positive effects of moderate levels of the workload are transferred to innovative work behavior. According to these authors the "mediating role of work engagement exhibits an inverted U-shaped pattern" (p. 25). On the other hand, Yang et al. (2019) found that work engagement partially mediated the association between humble leadership and innovative behavior among Chinese nurses.

Supported in these findings we hypothesized the following:

Hypothesis 2a (H2a): Leadership style influences innovative work behaviour through employee work engagement (EWE).

2.3.2. *Organizational climate for innovation*

Organizational climate is related to behavioural patterns, feelings and attitudes toward the organization, which become shared perceptions that influence organizational processes, such as decision-making, group problem-solving, co-ordination, communication, control (Isaksen et al., 2001), operations and organizational outcomes (Björkadhl & Börjesson, 2011). More than 20 years ago, Scott and Bruce (1994) found that innovative work behaviour is positively related to employees' perceptions regarding their organizational support for innovation. The employees' roles are relevant in creating an organizational climate for innovation because their characteristics and perceptions affect their participation in innovative behaviours (Amabile et al., 2004). A recent study found that the perception of employees about information sharing and supportive supervision was positively related to innovative work behaviour and this relationship was moderated by an innovative climate, indicating that managers can encourage this behaviour in their companies through establishing an innovative climate (Bos-Nehles & Veenendaal, 2019).

These findings were confirmed recently by Shanker et al. (2017) who found that innovative climate was an important influence on employees' innovative work behaviours.

Organizational climate also involves the way its members communicate. As a crucial component of leadership, communication exerts an important effect on innovative work behaviour. Lloréns et al. (2004) found that teams can find innovative solutions when their participants feel free to communicate and express their opinions. Several years earlier, Damanpour (1991) pointed out that vertical differentiation negatively influences individual innovation because there are communication difficulties between different higher hierarchical levels, which affect the flow of innovative ideas. Accordingly, a good communication structure could support the innovation strategy of the company mainly when the innovation is highly relevant for the leaders (Zhou & Velamuri, 2018).

According to the above we raised the following hypothesis:

Hypothesis 2b (H2b): Leadership style influences innovative work behaviour through organizational climate for innovation (OCI).

2.3.3. Absorptive capacity

Cohen and Levinthal (1990) introduced the concept of absorptive capacity, which refers to fundamental learning processes in the long-term survival of companies because they encourage the companies to increase their knowledge and innovate. Absorptive capacity is defined as the company's ability to identify, assimilate and exploit knowledge from its external surroundings (Cohen & Levinthal, 1990). It is applied in strategies, innovation management, leadership and organizational learning (Camisón & Forés, 2010; Tsai, 2001; Zahra & George, 2002).

Flatten et al. (2011) and Zahra and George (2002) proposed a redefinition of absorptive capacity as strategic organizational routines and processes that drive companies to acquire, assimilate, transform and exploit their knowledge to create dynamic organizational capabilities. Zahra and George (2002) recognize absorptive capacity as the dynamic capability to redefine and develop knowledge-based assets to innovate.

In this study, we assume the model of absorptive capacity proposed by Zahra and George (2002) based on Cohen and Levinthal (1990). Zahra and George (2002) proposed four dimensions of absorptive capacity: i.e., acquisition (external resources), assimilation (communication structures), transformation (knowledge processing) and exploitation (commercial exploitation of new knowledge). Flatten et al. (2011) stressed the complementary roles of the four dimensions and the coexistence of potential and realized absorptive capacities. According to the literature, both absorptive capacities influence directly innovative behaviours (Kang & Lee, 2017).

Finally, we propose that contextual variables such as the socio-organizational characteristics of societies (cultural differences in each country of the same region) exert a moderating effect in the relationships in the proposed model. Following the recommendations of Wang and Rode (2010), who suggested that focusing on the effect of leadership on employees' behaviour without any context can lead to disappointing results. We therefore propose the following hypothesis:

Hypothesis 2c (H2c): Leadership style influences innovative work behaviour through absorptive capacity (ACAP).

Additionally, we proposed that these mediating variables may also exert a direct effect on innovative work behaviour as part of the proposed model raising the following hypothesis:

Hypothesis 3 (H3): Innovative work behaviour can be predicted by the direct effect of organizational climate for innovation (OCI), employee work engagement (EWE), and absorptive capacity (ACAP).

Finally, we proposed that the tested model may be valid for all Latin American countries studied, therefore, the following hypothesis was researched:

Hypothesis 4 (H4): There is a Latin American model of the leadership influence on innovative work behaviour that comprises organizational climate, work engagement and absorptive capacity, and the socio-organizational characteristics of societies (countries) moderating the variable relationships in the model.

In sum our proposed model is depicted in Figure 1.

3. Method

3.1. Participants and procedure

A sample of 1429 employees from a group of seven Latin American countries was selected by multistage variation criterion sampling. The first stage was the selection of Latin American countries. In the next stage, participants who had at least one year of working experience at their companies responded to the questionnaires. The sample was collected in postgraduate programs of business schools at recognized universities located in the following countries: Argentina (162), Brazil (229), Colombia (285), Chile (106), Ecuador (238), Mexico (202) and Peru (207). The participants were working in following economic sectors: Agriculture, mining and oil, industry, commerce and service (for more details regarding the sample, see Table 1). The questionnaires were administered in paper and electronic formats in the classroom. The respondents voluntarily participated after they were informed about the objective of the study, the anonymity of their responses (we did not ask for names or other identifying information) and confidentiality (individuals' data will not be disclosed). The questionnaires were translated into Spanish and Portuguese and applied after the pilot process. Their reliability was confirmed. The battery included five scales comprising 82 items in total, with 10 additional items for demographic data; it was applied collectively and participants gave their informed consent.

3.2. Measures

Innovative Work Behaviour Scale: Janssen (2000) designed this scale, which assesses individuals' innovative work behaviour using nine items. Responses were given using a 7-point Likert scale. The questionnaire evaluated three components of innovative work behaviour: i.e., idea generation, promotion, and implementation. Cronbach's alpha for this scale is 0.95.

Multifactor Leadership Questionnaire (MLQ): Transformational and transactional leadership were measured using 28 items of the version of the MLQ (B.M. Bass & Avolio, 1995) translated and validated by Vega and Zavala (2004). This version was adapted for different Latin American countries. Responses to the questionnaire were rated on a 5-point Likert scale. We used the adapted version for collaborators, where employees evaluate their leaders' behaviour. Cronbach's alpha for this scale is 0.84.

Absorptive Capacity Scale: Flatten et al. (2011) elaborated on this absorptive capacity scale, which was designed to evaluate the innovation processes of companies. The scale comprises 14 items to evaluate four dimensions: i.e., acquisition, assimilation, transformation and exploitation. This scale has demonstrated high reliability in its dimensions and shows a high Cronbach's alpha, a reliability coefficient of 0.96 and acceptable convergent validity (Guimaraes et al., 2016).

Climate for Innovation: Scott and Bruce (1994) developed this scale based on Siegel and Kammerer (1978) work. In its 22 items, the scale evaluates two separate dimensions of the

Figure 1. Hypothesized model.

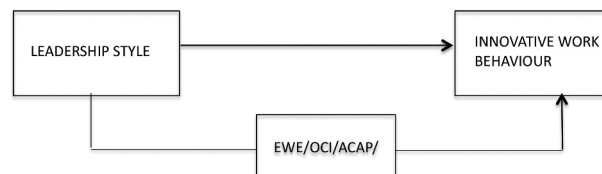


Table 1. Socio-organizational characteristics of society samples^a

	Argentina N = 162	Brazil N = 229	Chile N = 106	Colombia N = 285	Ecuador N = 238	Mexico N = 202	Peru N = 207
Gender	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)
Male	79(48.8)	73(31.9)	76(71.7)	144(50.5)	87(36.6)	138(68.3)	124(59.9)
Female	83(51.2)	156(68.1)	30(28.3)	139(48.8)	151(63.4)	64(31.7)	83(40.1)
Age	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)
20–29	53(32.7)	98(42.8)	26(24.5)	85(29.8)	96(40.3)	54(26.7)	50(24.2)
30–39	88(54.3)	94(41.0)	44(41.5)	138(48.4)	123(51.7)	119(58.9)	109(52.6)
40–49	19(11.7)	23(10.0)	30(28.3)	46(16.1)	16(6.7)	24(11.9)	44(21.3)
50–59	2(1.2)	12(5.2)	6(5.6)	10(3.5)	3(1.3)	5(2.48)	3(1.5)
60 or more		2(0.9)		1(0.3)	(40.3)		1(0.4)
Company size (Employees)	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)
0–9	11(6.7)	89(38.9)	5(4.7)	17(6.0)	16(6.7)	10(4.9)	14(6.7)
10–19	6(3.7)	23(10.0)	14(13.2)	10(3.5)	19(8.0)	2(1.0)	10(4.8)
20–49	8(4.9)	15(6.6)	6(5.7)	15(5.3)	27(11.3)	7(3.5)	15(7.2)
50–249	20(12.3)	19(8.3)	15(14.2)	58(20.4)	62(26.0)	35(17.3)	36(17.4)
250 or more	117(72.2)	83(36.2)	66(62.3)	177(62.1)	114(47.9)	148(73.3)	132(63.8)
Source of capital	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)
Public	9(5.5)	15(6.6)	22(20.8)	76(26.7)	75(31.5)	17(8.4)	34(16.4)
Private–National	67(41.3)	176(76.9)	48(45.3)	128(44.9)	125(52.5)	87(43.1)	93(44.9)
Private–Foreigner	74(45.6)	21(9.2)	21(19.8)	41(14.4)	31(13.0)	57(28.2)	63(30.4)
Mixed	12(7.4)	17(7.4)	15(14.2)	35(12.3)	7(2.9)	40(19.8)	17(8.2)
Company type	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)
Agriculture, mining and oil	6(3.7)	4(1.7)	14(13.2)	25(8.8)	25(10.5)	3(1.5)	18(8.7)

(Continued)

Table 1. (Continued)

	Argentina N = 162	Brazil N = 229	Chile N = 106	Colombia N = 285	Ecuador N = 238	Mexico N = 202	Peru N = 207
Industry and commerce	65(40.1)	63(27.5)	19(17.9)	47(16.5)	61(25.6)	148(73.3)	52(25.2)
Service	83(51.2)	154(67.2)	50(47.2)	144(50.5)	102(42.9)	48(23.8)	111(53.6)
Government	6(3.7)	4(1.7)	16(15.1)	57(20)	46(19.3)	1(0.5)	24(11.6)
Non-governmental organization	2(1.2)	4(1.7)	7(6.6)	6(2.1)	4(1.7)	2(1.0)	2(1.0)
Position	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)	F(%)
No management position	44(27.2)	105(45.9)	28(26.4)	70(24.6)	76(31.9)	23(11.4)	30(14.5)
Co-ordinator, supervisor or equivalent	46(28.4)	63(27.5)	45(42.5)	97(34.0)	91(38.2)	96(47.5)	98(47.3)
Middle manager or equivalent	66(40.7)	33(14.4)	26(24.5)	84(29.5)	56(23.5)	54(26.7)	69(33.3)
General manager, CEO or equivalent	6(3.7)	28(12.2)	7(6.6)	28(9.8)	15(6.3)	29(14.4)	10(4.8)
Tenure in the company	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)
Years	5.68(5.44)	5.44(6.64)	7.42(8.45)	5.96(6.66)	6.23(8.61)	7.21(4.98)	7.09(8.33)
Position seniority	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)
Years	2.95(2.44)	3.50(3.96)	3.97(3.02)	3.24(2.88)	3.28(2.57)	2.85(2.56)	3.23(2.49)
Weekly working hours	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)
Hours	43.37(10.35)	34.18(14.40)	42.73(13.02)	43.20(13.53)	39.62(16.65)	46.35(10.80)	44.23(11.88)

^aVariables have some missing values and the percentages do not add up to 100%. SD, standard deviation.

climate for innovation: i.e., support for innovation and resource supply. Cronbach's alpha for both dimensions was satisfactory (0.92 and 0.77 respectively).

Utrecht Work Engagement Scale (UWES): Schaufeli, Martínez et al. (2002) elaborated on this scale, which comprises nine items to assess three engagement dimensions: i.e., vigour, dedication and absorption. Responses were scored on a 7-point Likert scale. The general UWES scale has shown good internal consistency, with a Cronbach's alpha of 0.88.

Socio-organizational Data: The socio-organizational data include age, gender, position, tenure in the company, companies' size and type (manufacturing/services), among other factors.

4. Results

4.1. Socio-organizational characteristics of societies (countries)

Table 1 shows the socio-organizational characteristics of the sample. Large differences can be observed among societies regarding their gender and age distributions, while tenure in the company is more balanced among the Latin American societies. Most of the companies, except for Brazilian companies, have more than 250 or more employees with a predominantly public-private capital, except for Argentinian companies. However, the source of capital showed some distribution among societies. Industry, commerce and services are the most important sectorial locations for companies. Participants held very different positions in companies with an average seniority of around two years or more and 40 working hours and more.

Table 2 shows the differences in scores between societies considering the questionnaire's dimensions, which remain somewhat similar across the seven Latin American countries. Subscale scores are item averages and questionnaire totals are subscale averages; therefore, the totals are linear combinations of the subscales. Table 2 also shows that a small number of the scores have a normal distribution. The questionnaire data showed that absorptive capacity had the highest number of normal distributions, while MLQ has only three normal distribution out of all its dimensions, which were only observed in Mexico. Employee work engagement did not have any normal distributions. The following analyses take this information into account.

4.2. Describing the model

The objective of this study is to find a model for societies in the Latin American region. The hypotheses within the model must be tested and, despite the societal differences, the model should be significant for the whole region. Structural equation modelling (SEM) was used to meet these objectives. Figure 2 shows the most straightforward and efficient model.

The model applies to the seven Latin American countries with good fit and minimum parameters. The multi-group model allows constraining parameters across societies, such as measurement, structural weights, residuals and covariances. The relevant models were unconstrained and constrained measurement weight models. The differences between the two models is that in the constrained measurement weight model, the component weights for each variable (innovative work behaviour, employee work engagement and absorptive capacity) are equal in all countries, while they are not equal in the unconstrained model.

The model uses measurement components; i.e., despite the global measure of innovative work behaviour, employee work engagement, absorptive capacity and leadership provided by averaged scale items, the latent variables for innovative work behaviour, employee work engagement and absorptive capacity are created from their dimensions in the SEM model. Transactional and transformational leadership practices are leadership dimensions; therefore, they remained as they are. This arrangement provides a more detailed description of the relationships between variables.

Table 2. Descriptive statistics for questionnaire components in cross-society samples

	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru
Innovative work behaviour (IWB)	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$
Idea generation	5.24(1.19) ^o	4.71(1.51)	5.37(1.29)	5.39(1.09)	5.74(1.14)	5.79(1.02)	5.36(1.02)
Idea promotion	5.04(1.26)	4.31(1.54) ^o	5.08(1.44) ^o	5.09(1.28)	5.51(1.28)	5.51(1.20)	5.03(1.15) ^o
Idea realization	4.80(1.43)	4.49(1.54)	4.83(1.51) ^o	4.88(1.32)	5.34(1.38)	5.27(1.28)	5.05(1.16)
Total IWB	5.03(1.18) ^o	4.50(1.40) ^o	5.10(1.35)	5.12(1.12)	5.53(1.17)	5.52(1.06)	5.15(1.01) ^o
Leadership	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$
Idealized attributes	2.86(1.14)	3.15(1.51)	3.07(1.71)	2.78(1.04)	3.17(1.60)	3.05(0.91)	2.87(1.52)
Idealized behaviours	3.00(1.00)	3.02(1.42)	3.12(1.53)	2.86(0.91)	3.26(1.44)	3.19(0.76)	3.12(1.37)
Inspirational motivation	3.09(1.02)	3.15(1.41)	3.04(1.67)	2.86(1.00)	3.24(1.53)	3.10(0.93)	3.04(1.39)
Intellectual stimulation	2.83(1.10)	3.08(1.47)	2.85(1.65)	2.65(0.99)	3.09(1.52)	2.88(0.85) ^o	2.95(1.45)
Individualized consideration	2.79(1.12)	2.99(1.61)	2.87(1.69)	2.65(1.00)	3.01(1.62)	2.92(0.93)	2.86(1.52)
Contingent reward	2.79(1.06)	3.02(1.50)	2.92(1.61)	2.69(0.94)	3.17(1.55)	2.93(0.84)	3.02(1.44)
Active exception direction	2.73(1.17)	2.85(1.43)	2.91(1.54)	2.66(0.85)	3.15(1.53)	2.87(0.79)	2.90(1.48)
Transformational leadership	2.91(.98)	3.08(1.40)	2.99(1.59)	2.76(0.91)	3.15(1.48)	3.03(0.80) ^o	2.97(1.39)
Transactional leadership	2.76(1.04)	2.94(1.39)	2.91(1.53)	2.67(0.82)	3.16(1.49)	2.90(0.75) ^o	2.96(1.40)
Employee work engagement (EWE)	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$	$\bar{X}(SD)$
Vigour	4.58(1.29)	4.57(1.26)	4.86(1.30)	4.78(1.14)	5.26(0.98)	4.81(1.12)	4.78(1.18)
Dedication	4.60(1.38)	4.65(1.35)	4.85(1.38)	4.95(1.18)	5.38(0.98)	5.04(1.08)	4.77(1.29)
Absorption	4.61(1.25)	4.58(1.24)	4.76(1.26)	4.65(1.15)	5.13(1.08)	4.91(1.05)	4.67(1.17)

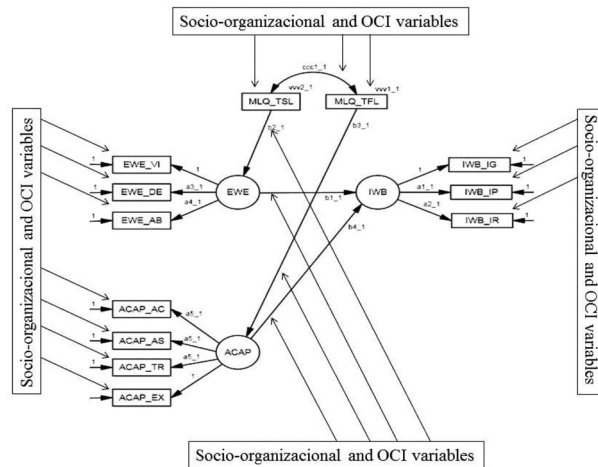
(Continued)

Table 2. (Continued)

	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru
Total EWE	4.60(1.22)	4.60(1.19)	4.81(1.24)	4.80(1.07)	5.25(0.93)	4.92(1.00)	4.74(1.16)
Innovation climate (IC)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)
Support for innovation	3.15(.70) ^a	3.15(0.68) ^a	2.79(0.76) ^a	3.04(0.68) ^a	3.06(0.66)	3.33(0.68) ^a	3.00(0.68)
Resources supply	3.03(.72) ^a	3.06(0.74)	2.72(0.86) ^a	2.97(0.83)	3.02(0.77) ^a	3.15(0.83) ^a	2.88(0.75) ^a
Total IC	3.09(.63) ^a	3.11(0.64)	2.76(0.74) ^a	3.00(0.68) ^a	3.04(0.64)	3.24(0.69) ^a	2.94(0.65)
Absorptive capacity (ACAP)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)
Acquisition	4.47(1.65) ^a	4.61(1.67)	4.20(1.64) ^a	4.52(1.65)	4.72(1.80)	4.94(1.65)	4.37(1.54)
Assimilation	4.22(1.45) ^a	4.21(1.62) ^a	4.06(1.64) ^a	4.36(1.59)	4.75(1.72)	4.63(1.45) ^a	4.17(1.46) ^a
Transformation	4.58(1.42) ^a	4.36(1.54)	4.16(1.44) ^a	4.48(1.50) ^a	4.81(1.73)	5.00(1.40)	4.29(1.40) ^a
Exploitation	4.49(1.55) ^a	4.28(1.72) ^a	4.13(1.56) ^a	4.43(1.70)	4.80(1.73)	4.97(1.55)	4.21(1.49) ^a
Total ACAP	4.44(1.27) ^a	4.36(1.44) ^a	4.14(1.28) ^a	4.45(1.39) ^a	4.77(1.57) ^a	4.88(1.29)	4.26(1.32) ^a

^aNormality test, Kolmogorov-Smirnov, $p > .05$. SD, standard deviation.

Figure 2. SEM multi-group leadership model and relationship with innovative work behaviour in Latin American societies.



Due to the lack of normality of variables, the model uses the generalized least-squares goodness-of-fit measure. Table 3 shows the estimates for the unconstrained model variables in societies; i.e., the model has a good fit ($\chi^2 = 329.969$, $p = .459$, $\chi^2/g.l. = 1.006$, $FMIN = .232$, $F0 = .001$, $RMSEA = .002$, $ECVI = .539$, $GFI = .961$, $AGFI = .936$).

A crucial aspect of the model is that to achieve a proper fit, organizational climate for innovation had to be excluded as an independent-mediating variable for innovative work behaviour. Several variable configurations were tried and no other configuration resulted in a satisfactory fit. Nevertheless, organizational climate for innovation remained a moderating variable. Some unwanted relationships (correlated regression errors) were needed to stabilize the model; however, they were non-significant.

The most important characteristic of the model is that the influence of leadership is always mediated by another variable: i.e., absorptive capacity and employee work engagement for transformational and transactional leadership practices, respectively. These paths are entirely independent of each other and the path from transformational leadership to innovative work behaviour includes higher coefficients than the transactional leadership path, which shows that transformational leadership is more influential than transactional leadership on innovative work behaviour. The highest leadership β s were obtained in Colombia for both transactional and transformational leadership practices, while the lowest for transactional and transformational leadership practices were Ecuador and Brazil, respectively. Another critical issue is that all relationships and influences were significant, except for that of employee work engagement on innovative work behaviour in Argentina, absorptive capacity on innovative work behaviour in Chile, and absorptive capacity on innovative work behaviour in Mexico. Finally, the explained variance of innovative work behaviour ranges from 17.1% to 32.8%, which is due to the genuinely local nature of the model and that it is suitable to different societies. The model does not exclude the possibility that more adjustments could result in a better-explained variance for every society.

Table 4 shows the estimates for the constrained measurements weight model, which also had a good fit ($\chi^2 = 355.945$, $p = .431$, $\chi^2/g.l. = 1.011$, $FMIN = .250$, $F0 = .003$, $RMSEA = .003$, $ECVI = .523$, $GFI = .958$, $AGFI = .935$) and the advantage of probing all the measured dimensions being equal across societies. That means that the questionnaires (absorptive capacity, employee work engagement and innovative work behaviour) are conceptually similar across societies, which is an essential issue in the cross-cultural validity of questionnaires and actively supports the goodness of fit for the model.

Table 3. Unconstrained model for societies

IV	DV	Argentina		Brazil		Chile		Colombia		Ecuador		Mexico		Peru	
		θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan
TSL	EWE	.429***	.358	.249***	.311	.226**	.281	.675***	.533	.202***	.344	.585***	.438	.357***	.438
TFL	ACAP	.629***	.480	.339***	.333	.390***	.486	.938***	.593	.553***	.520	.838***	.533	.553***	.571
EWE	IWB	.096	.119	.219*	.217	.301**	.342	.310***	.379	.214*	.194	.448***	.480	.097*	.154
ACAP	IWB	.275**	.349	.291***	.365	.118	.137	.168***	.280	.265***	.432	.085	.115	.187***	.355
IWB	IWB_IP	1.216***	.931	1.216***	.925	1.292***	.990	1.340***	.891	1.157***	.864	1.094***	.823	1.748***	1.080
IWB	IWB_IR	1.345***	.904	1.226***	.923	1.421***	1.013	1.381***	.867	1.247***	.874	1.143***	.810	1.629***	.992
EWE	EWE_VI	1.000	.946	1.000	.918	1.000	.908	1.000	.889	1.000	.908	1.000	.893	1.000	.944
EWE	EWE_DE	1.070***	.937	1.079***	.929	1.092***	.952	1.118***	.965	.981***	.893	1.073***	.967	1.129***	.972
EWE	EWE_AB	.846***	.817	.891***	.809	.957***	.905	.869***	.767	.979***	.814	.825***	.782	.927***	.878
ACAP	ACAP_TR	.940***	.829	.940***	.834	.940***	.818	.940***	.870	.940***	.876	.940***	.830	.940***	.888
ACAP	ACAP_AS	.940***	.793	.940***	.847	.940***	.711	.940***	.847	.940***	.880	.940***	.795	.940***	.880
ACAP	ACAP_AC	.940***	.733	.940***	.814	.940***	.710	.940***	.757	.940***	.795	.940***	.756	.940***	.810
ACAP	ACAP_EX	1.000	.786	1.000	.861	1.000	.808	1.000	.820	1.000	.894	1.000	.803	1.000	.875
IWB	IWB_IG	1.000	.802	1.000	.770	1.000	.842	1.000	.777	1.000	.852	1.000	.879	1.000	.700
		Cov	Cor	Cov	Cor	Cov	Cor	Cov	Cor	Cov	Cor	Cov	Cor	Cov	Cor
TSL	TFL	.797***	.906	1.675***	.911	2.066***	.967	.599***	.901	1.996***	.959	.477***	.901	1.717***	.945
		R ²		R ²		R ²		R ²		R ²		R ²		R ²	
ACAP		.231		.111		.236		.351		.270		.285		.326	
EWE		.128		.097		.079		.284		.119		.192		.192	
IWB		.185		.259		.171		.328		.292		.285		.197	

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; IV, independent variable; DV, dependent variable; Stan, standardized; Cov, covariance; Cor, correlation.

Table 4. Model of constrained measurement weights for societies

IV	DV	Argentina		Brazil		Chile		Colombia		Ecuador		Mexico		Peru	
		θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan	θ Non-Stan	θ Stan
TSL	EWE	.430***	.371	.237***	.301	.224**	.276	.672***	.524	.182***	.338	.555***	.439	.351***	.425
TFL	ACAP	.620***	.476	.334***	.326	.390***	.488	.926***	.586	.549***	.516	.856***	.536	.530***	.556
EWE	IWB	.089	.110	.191*	.196	.327***	.369	.315***	.382	.182*	.161	.369***	.419	.132**	.185
ACAP	IWB	.260**	.339	.272***	.361	.126	.144	.172***	.281	.253***	.436	.102	.156	.225***	.363
IWB	IWB_IP	1.301***	.956	1.301***	.947	1.301***	.984	1.301***	.881	1.301***	.903	1.301***	.876	1.301***	.959
IWB	IWB_IR	1.350***	.903	1.350***	.958	1.350***	.992	1.350***	.860	1.350***	.898	1.350***	.860	1.350***	.918
EWE	EWE_VI	1.000	.940	1.000	.914	1.000	.910	1.000	.893	1.000	.881	1.000	.884	1.000	.948
EWE	EWE_DE	1.093***	.938	1.093***	.930	1.093***	.955	1.093***	.960	1.093***	.914	1.093***	.962	1.093***	.967
EWE	EWE_AB	.905***	.830	.905***	.809	.905***	.894	.905***	.784	.905***	.762	.905***	.798	.905***	.875
ACAP	ACAP_TR	.942***	.829	.942***	.834	.942***	.818	.942***	.869	.942***	.875	.942***	.835	.942***	.884
ACAP	ACAP_AS	.942***	.792	.942***	.847	.942***	.711	.942***	.845	.942***	.879	.942***	.799	.942***	.874
ACAP	ACAP_AC	.942***	.731	.942***	.815	.942***	.710	.942***	.755	.942***	.794	.942***	.761	.942***	.802
ACAP	ACAP_EX	1.000	.785	1.000	.861	1.000	.807	1.000	.818	1.000	.893	1.000	.807	1.000	.869
IWB	IWB_IG	1.000	.785	1.000	.740	1.000	.855	1.000	.785	1.000	.816	1.000	.817	1.000	.792
		Cov	Cor	Cov	Cor	Cov	Cor	Cov	Cor	Cov	Cor	Cov	Cor	Cov	Cor
TSL	TFL	.800***	.906	1.661***	.910	2.067***	.967	.589***	.900	1.981***	.958	.476***	.901	1.680***	.944
		R ²		R ²		R ²		R ²		R ²		R ²		R ²	
ACAP		.227		.106		.238		.343		.266		.287		.309	
EWE		.138		.090		.076		.274		.114		.192		.181	
IWB		.170		.238		.197		.330		.269		.250		.221	

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; IV, independent variable; DV, dependent variable; Stan, standardized; Cov, covariance; Cor, correlation.

This model requires the same unwanted relationships as the previous one, but they were also non-significant. The model also has the same virtues as the other model.

The highest leadership β s were obtained in Colombia for both transactional and transformational leadership practices, where the lowest for transactional and transformative leadership practices were Ecuador and Brazil, respectively. All relationships and influences were significant, except for employee work engagement on innovative work behaviour in Argentina, absorptive capacity on innovative work behaviour in Chile, and absorptive capacity on innovative work behaviour in Mexico, as it happened in the previous model.

The socio-organizational and organizational climate for innovation moderating variables have a significant effect on the models compared to other models without these variables (unconstrained model: $\chi^2 = 656,790$, d.f. = 186, $p = .000$; measurement weights: $\chi^2 = 630,814$, d.f. = 103, $p = .000$). Table 5 shows the variable differences among societies. These results apply to both models (Tables 3 and 4).

5. Discussion

The results of this study allow us to conclude that organizational and individual variables directly and indirectly influence innovative work behaviour. This observation acquires relevance because of the role of employees' behaviour for the success and survival of companies (Shanker et al., 2017). Following the recommendation of Wang and Rode (2010), it is important to include personal and contextual variables to understand the effect of leadership on innovative work behaviour as we did. Thus, it is necessary to provide evidence about individual and organizational variables that influence innovative work behaviour (Kör, 2016). In addition, knowledge about how leaders influence innovative work behaviour is lacking (De Jong & Den Hartog, 2007). This study provides empirical evidence about the role of leadership practices on innovative work behaviour in Latin American region, and how some organizational and individual variables mediate this relationship.

Innovative work behaviour emerges in an organizational environment that encourages or inhibits this behaviour. The opportunity for innovative work behaviour may not be recognized by employees because organizational variables inhibit this capacity in them, which affects idea generation, championing projects and implementation (see De Jong & Den Hartog, 2010).

Considering transformational and transactional leadership practices, both can be said to indirectly influence innovative work behaviour in different ways. Similarly to Kahai et al. (2003), who found no direct relationship between employees' creativeness and their leadership, we did not find a direct relationship between transformational leadership and innovative work behaviour as observed by other researchers (Abbas et al., 2012; Reuvers et al., 2008). Likewise, as Janssen (2000) found, we did not find a direct relationship between leadership practices and innovative work behaviour. Our results also differed from other studies where both leadership practices were positively related to innovative work behaviour (Contreras et al., 2017).

According to our findings, we reject Hypothesis 1 because neither transformational nor transactional leadership practices directly influence innovative work behaviour. Our findings supported the non-direct relationship between leadership and innovative work behaviour observed previously (Montani et al., 2020; Salanova & Schaufeli, 2009; Wilson-Evered et al., 2001). As we hypothesized, leadership practices exerted an indirect effect on innovative work behaviour as one of the most important drivers of innovation (Bel, 2010). However, it is interesting to note that whereas the effect of transformational leadership on innovative work behaviour is mediated by absorptive capacity, transactional leadership exerts its effect through employee work engagement. A possible explanation is that the mechanisms of influence to achieve goals for both leadership practices differ. According to these results, Hypothesis 2a and Hypothesis 2c are confirmed while Hypothesis 2b is rejected.

Table 5. Socio-organizational and IC variable comparisons among groups.^a

	G ^b	Ag ^c	CosI ^c	SoCa ^b	CoTy ^b	TeCo ^c	Po ^c	PoSe ^c	WeWo ^c	SuIn ^c	ReSu ^c
Argentina–Chile	***	**		***	***			.002		.002	**
Argentina–Colombia				***	***						
Argentina–Ecuador			***	***	***						
Argentina–Peru				**	**						
Argentina–Mexico	***			***	***	***			***		
Argentina–Brazil	***		***	***	***		***		***		
Chile–Colombia	***									**	
Chile–Ecuador	***	**		***						**	**
Chile–Peru											
Chile–Mexico					***		**	***	***	**	**
Chile–Brazil	***	**	***	***	***	***		**	***	**	**
Colombia–Ecuador	***	**	***	***							
Colombia–Peru				***							
Colombia–Mexico	***			***	***	***			**	**	**
Colombia–Brazil	***		***	***	***		***		***		
Ecuador–Peru	***	**	**	***			***		**		

(Continued)

Table 5. (Continued)

	G ^b	Ag ^c	CoSi ^c	SoCa ^b	CoTy ^b	TeCo ^c	Po ^c	PoSe ^c	WeWo ^c	SuIn ^c	ReSu ^c
Ecuador–Mexico	***	**	***	***	***	***	***		***	**	
Ecuador–Brazil			***	***	***				***		
Perú–México				**	***	**				*	*
Peru–Brazil	***	*	***	***	***	***	***		***		
México–Brazil	***		***	***	***	***	***		***		

* $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$; ^a significant p -values after Holm–Bonferroni correction for multiple comparisons; ^b χ^2 test; ^c Mann–Whitney test; G, gender; Ag, age; CoSi, company size (employees); SoCa, source of capital; CoTy, company type; TeCo, tenure in company; Po, position; PoSe, position seniority; WeWo, weekly working hours; SuIn, IC support for innovation; ReSu, IC resource supply.

The influence of transformational leadership on innovative work behaviour through absorptive capacity is explained by its capacity to create a cultural change that motivates employees to achieve their highest standards through the sharing of knowledge (Bednall et al., 2018) and the creative process of employees (Mahmood et al., 2019) instead of looking for rewards. Absorptive capacity is related to organizational learning and strategic processes, which allows companies to adapt to a changing environment; thus, Zahra and George (2002) defined absorptive capacity as being dynamic. In this regard, Afsar and Umrani (2019) showed that the motivation to learn mediated the relationship between transformational leadership and innovative work behavior while task complexity and innovation climate acted as a moderator of this relationship. Transformational leadership is oriented to the organizational vision that creates a culture of change, which also explains the observed mediating and direct effects of absorptive capacity on innovative work behaviour. An organizational environment where changes are promoted through absorptive capacity is more likely to improve this behaviour in its employees. Therefore, innovative work behaviour can be predicted by the direct effect of absorptive capacity.

However, work engagement is widely known to be related to human performance (Kim & Park, 2017) and transactional leadership, which is oriented to goals and employees with high engagement who usually work harder for longer periods of time (Schaufeli, Martínez et al., 2002). All these characteristics joined to high social support from peers and supervisors (Saks, 2019) express high standards of autonomy, learning and performance (Britt et al., 2001; Halbesleben, 2010; Wu & Wu, 2019).

In contrast to findings from other studies where employee work engagement was observed as a mediating factor (Agarwal, 2014; Saks, 2006; Salanova & Schaufeli, 2009; Shantz et al., 2013), our study observed that this variable exerted a direct effect on innovative work behaviour. According to these results, innovative work behaviour is predicted by the direct effect of employee work engagement. This finding acquires meaning when we consider that innovation at the individual level involves the willingness to make changes, as initially defined by Hurt et al. (1977). That is, innovation is an intentional behaviour by individuals, who introduce and apply something new to their work role, unit or company (Janssen, 2000; De Jong & Den Hartog, 2007).

In contrast to findings by Wilson-Evered et al. (2001) an organizational climate for innovation was not a mediating factor for leadership and innovative work behaviour, and did not exert a direct effect on innovative work behaviour, but had a moderating role on all relationships in the model.

According to these findings, Hypothesis 3 is partly confirmed; i.e., innovative work behaviour can be predicted by the direct effect of absorptive capacity and employee work engagement, but an organizational climate for innovation was not a mediating factor for leadership and innovative work behaviour, and did not exert a direct effect on innovative work behaviour.

Organizational climate for innovation had a moderating role on all relationships in the model, so we propose and confirm the emergent Hypothesis 5: i.e., an organizational climate for innovation moderates the relationships raised in the proposed innovative work behaviour model. This finding could be supported by the observation that perceived organizational support, which is a component of organizational climate, positively moderates the relationship between leadership and innovative work behaviour (Choi et al., 2016). Accordingly, Zhou and Velamuri (2018) have recently demonstrated that a good communication structure can support the company innovation strategy. Likewise, Bos-Nehles and Veenendaal (2019) showed that the perception of employees on the sharing of information and supportive supervision was positively related to innovative work behaviour.

The inclusion of participants from different countries allows us to explore the effect of culture in the model. Culture is important because the intention to innovate is a culturally promoted value (Hartmann, 2006). We estimated whether the socio-organizational characteristics of each country affect the relationships between variables, or if country exerts a moderating role. According to our

expectations, we found that socio-organizational characteristics had a moderating role on the model. Interestingly, despite the country differences, our model was well adjusted for the whole Latin American region. This confirms Hypothesis 4, which is that there is a Latin American model of the leadership influence on innovative work behaviour that comprises organizational climate, work engagement and absorptive capacity. and the socio-organizational characteristics of societies (countries) moderating the variable relationships in the model. The model explains the innovative work behaviour in all participating countries and includes similar perceptions of the questionnaire's dimensions in all countries. This is an important issue in this paper because it means that the constructs are similar in all countries and the model holds significant results. These results indicate that in spite of the existent cultural differences among countries, leaders from Latin American should exert transformational and transactional leadership practices in their companies in order to encourage innovative behaviours in their employees. However, leaders of the region should be aware that this effect occurs under certain conditions such as a company with high absorptive capacity and engaged employees within an organizational climate that promotes such behaviour.

6. Limitations and conclusions

It could be argued that the main limitation of this study is its multistage variation criterion sampling that does not allow to statistically generalize our findings. In other words, the sample was not statistically representative of the working population in each participating country. However, it is important to emphasize that the sample is purposively representative according to the qualitative criterion of the quality of the collected sample which included a wide range of contexts with individuals from different organizations and industries. These characteristics allowed to obtain a consistent model valid for the studied region. There are differences between countries (Table 5) and the differences in measures (Table 2–4) show that individuals were selected properly. Despite these limitations, future studies will have to use different sampling methods.

Leadership is an important factor of employees' innovative work behaviour, but it is mediated by organizational and individual variables; i.e., leadership by itself is not enough to improve innovative work behaviour. This finding is coherent with a recent report by Masood and Afsar (2017), who found a mediating role of other variables in the relationship between leadership and innovative work behaviour. Our results indicate that transformational and transactional leadership practices can improve innovative work behaviour using different paths because both styles are important and not exclusive, but are complementary (B.M. Bass, 1995).

The organizational climate for innovation is relevant to improve innovative work behaviour in the companies; therefore, all variables that exert some influence in creating an adequate environment to produce new ideas should be encouraged at all levels of companies. This observation highlights the importance of situational variables that mediate or moderate the relationship between leadership and innovative work behaviour (Choi et al., 2016).

Employee work engagement emerges as one of the most important individual factors related directly to innovative work behaviour. This highlights the importance of finding people who are emotionally involved in their work and have the competence to deliver exceptional performances. It is interesting to note the relevance of absorptive capacity in encouraging innovative work behaviour in companies. The direct relationship between these variables indicates that absorptive capacity should be developed by leaders to increase this important behaviour in their employees. In this sense, transformational and transactional leadership can increase both absorptive capacity and employee engagement, exerting a direct influence on them.

This study suggests the necessity of studying socio-organizational characteristics that can influence employees' innovative work behaviour according to their culture, which has been rarely studied. Despite the country differences, our model is relevant for promoting innovative work behaviour in the Latin American region. We suggest that this model be tested in different company

types and sizes. Likewise, socio-organizational variables should be analysed in the model framework to observe their effect on the relationships included in the model.

7. Implications

The study findings provide new evidence about how Latin American companies can promote their employees' innovative work behaviour. On the one hand, the results of this cross-cultural research study highlight the importance of combining transformational and transactional leadership practices in the Latin American region to encourage their employees' innovative work behaviour. On the other hand, both leadership practices influence innovative work behaviour; therefore, companies must necessarily create specific organizational and individual conditions. Our results indicate the importance for companies to increase their absorptive capacity and ensure their employees are engaged in their work. Leadership influences innovative work behaviour through these conditions, but not directly. Therefore, the effect of leadership and their styles on innovative work behaviour by itself seems to be overstated. Leadership should be approached from a wider perspective to understand how different styles promote employees' innovative work behaviours. Leadership within a company should endeavour to develop knowledge, increase the company's absorptive capacity as a dynamic capability and create strategic organizational practices to ensure that the company's employees can innovate. In this organizational context, transformational leadership practices can influence innovative work behaviours. This result is supported by transformational leadership characteristics, which are focused on changing old work patterns to promote continued changes in the company. Thus, transformational leadership practices require the presence of organizational conditions, such as absorptive capacity, to influence the employees' innovative work behaviour.

However, this study also found that individual factors are required to encourage employees' innovative work behaviours. In particular, engaged employees are crucial for developing innovative work behaviours through transactional leadership practices. This leadership is based on contingent rewards, which appear to have an effect only in engaged employees, but not in other employees. This result shows the importance of strengthening human resource management in companies because it is crucial to recruit employees carefully, retain staff and develop the employees' engagement in their work. Employing suitable candidates for the job positions will lead to their engagement in performing a variety of tasks to create new products and processes, in addition to improving the company's previously established products. Likewise, the influence of increased employees' engagement in innovative work behaviours has implications for the human resources departments to obtain financial resources to incentivize employees. This study suggests that the interplay of transactional leadership practices and work engagement will facilitate the achievement of innovation within the firms. By doing so, organizations must consider their policies in terms of rewards for their personnel. This does not necessarily mean that rewards should be provided in monetary terms, but a diverse variety of rewards could be included according to the required training to obtain absorptive capacity. How human resources department managers implement the reward practices will strongly contribute to improving their employees' innovative work behaviour.

Finally, this study provides evidence to better understand the role of culture in leadership practices. Despite the cultural differences between the participant countries, the model adjusted for all countries; thus, the relationships between the proposed variables were the same in the studied sample. This Highlighting the moderating effect of organizational climate is very interesting as an emergent hypothesis. This study tested our model using a cross-cultural approach. This finding also has important implications for a globalized world, which causes a huge flow of migration between and inside countries. Hence, the challenge is to understand how leaders are able to lead employees from different countries that need working together. At least in Latin American countries these leaders can exert the same management practices in order to encourage innovative work behaviour in their employees. Future research should test this model in more heterogeneous cultural contexts.

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