



**THE IMPACT OF CROSS-FUNCTIONAL TEAMS ON
LEAN PRACTICES: A LOOK FROM EMOTIONAL
INTELLIGENCE AND ITS INFLUENCE ON INNOVATION
PROCESSES.**

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Abstract

Purpose: This research aims to investigate the impact that cross-functional teams have on lean practices and how they influence innovation processes within companies. The study seeks to examine these relationships taking “emotional intelligence” as the analysis’s central axis.

Study Design: A self-administered questionnaire was designed and used to collect responses from 190 employees of different large companies with operations in Colombia and several countries worldwide.

Main findings: Cross-functional teams are the main factors for companies to achieve long-term profitability. Their use and adaptation in the companies of the region would mean an increase in their effectiveness of processes, innovation, and promotion of collaborative environment between work areas.

Conclusions: The impact that individuals will generate is through working in Cross-functional teams. If individuals work alone, they will not influence process innovation. It is necessary to train and educate our human capital on the importance of process innovation and lean practices to generate a real change in Colombian development.

Research limitations: The main limitation of this research is the small size of the sample.

Keywords: Cross-functional teams, Lean practices, Innovation process, Emotional intelligence, emotions management.

Introduction

Today, organizations have evolved and reconfigured their work dynamics and internal processes developing new ways to empower their employees, strengthening their capabilities, cognitively and emotionally. One of the most effective strategies adopted and widely used by companies worldwide has been the implementation of “cross-functional teams” in their operations.

Cross-functional teams are often understood as the cooperation of individuals drawn from various functional areas (Santa et al., 2010), and they have gained great popularity inside organizations of all kinds. Nowadays, many companies are evolving to a new organizational model in which cross-functional teams are the key building block of the organization (Mc Dermott., 1999).

Because of the fast-paced speed at which the world has been changing and the high levels of competitiveness in the modern business environment, firms are forced to find ways to remain adaptable to their dynamic environment; the use of cross-functional teams is a common practice as managers find ways to create firms that are more responsive. (Daspit., 2014).

Love and Roper (2009) mentioned that cross-functional teams play a potentially important part in the innovation process enabling knowledge sharing, the development of trust and overcoming spatial and organizational barriers.

In this regard, we must define “innovation process” to understand why everyone is talking about it and its importance for our society’s economic sectors.

According to Gassmann (2006), there are multiple factors that determine and drive the innovation processes such as Globalization, Technology Intensity, Technology Fusions, New Business Models, and Knowledge leveraging

However, when we are talking about “innovation process”, we usually refer to “the path or the stages that we must follow in order to transform ideas into marketable solutions,” which is the approach that Rogers (1978) proposed. Almost all companies in the world are aware that creativity and innovation are both the key to success, and that is why they are constantly trying to reinvent themselves.

The reinvention concept also recognizes that an innovation is often really a bundle of components; it is possible to adopt some components and change or reject others. (Rice and Rogers., 1980).

One of the most notorious innovations in the way companies carry out their activities has been adopting lean practices. Lean management (LM) is “a managerial approach for improving processes based on a complex system of interrelated socio-technical practices, which are widely recognized as improving the overall operational performance of a company” (Bortolotti et al., 2015, pp. 4-7)

According to Mann (2005), some of the benefits that lean practices usually bring are cost reductions, margin gain over competitors, and satisfying a larger spectrum of market needs.

As Santa et al (2019) state and is shown in their book *Regiones inteligentes. La competitividad en el Valle del Cauca*; process innovation has a direct impact on activities organizations, research, and development, as there is a need solid culture and the integration

of human resources, on many occasions with technological resources, such as research laboratories, equipment procedures, and rules.

Simultaneously, it is important to emphasize that the business world is about processes, work practices and the individuals' emotional level. In recent decades, it has become very popular within companies to give significant importance to their employees' interpersonal skills, among which there is, always an attempt to assess their ability to express and self-regulate their emotions.

Emotional Intelligence (EI) concept has become a very important indicator of a person's knowledge, skills, and abilities in their workplace, school, and personal life. The overall result of different researches suggests that emotional intelligence plays a significant role in job performance, motivation, decision-making, successful management, and leadership. "Emotionally intelligent people recognize this and use their thinking to manage their emotions rather than being managed by them" (Tripathy., 2018, p. 2).

According to Salovey and Mayer (1993, p. 6), emotional intelligence is "the ability to monitor one's own and others feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions".

Hence, the main reason why companies worldwide are becoming more rigorous in their selection processes and often perform tests such as IQ tests and personality tests is to determine if a new employee will be truly beneficial to the company. Many researchers have created models to define which are the main variables or components that determine emotional intelligence. Some of the most famous and widely recognized models in this field

are Salovey & Mayer's (1993) model, David Olson's (2003) model, and the Goleman (1995) model.

Empathy, Social Responsibility, Flexibility, Problem Solving, Impulse Control, Stress Tolerance, and Assertiveness are just a few of the many variables and sub-variables that measure EI. Nevertheless, in this research, we will probably examine an essential element that has proved to be transcendental when measuring people's emotional skills: Emotions Management.

In order to give a clear definition of Emotions management, we consider important to remember that, as Morin (2011) said: "Our emotions and their recognition, must lead to an awareness about the impact that they can generate in our environment and how they can directly or indirectly affect the people around us."

Regarding this concept, we have to consider that, due to its amplitude; it manages to cover all areas of analysis related to emotional intelligence within this research. However, when we talk about emotions, ¿What **exactly** are we addressing?

According to Vigoda and Meisler (2010, pp.7-8): "Emotions are coordinated responses to changes in the environment that involve invoking specific subjective experiences, activating relevant cognitions, especially related to taking action in relation to the self and environment and appraising the ongoing situation for changes". Andries (2009) distinction about this classification assures that emotions are usually classified into two categories: pleasant emotions and unpleasant emotions.

Naturally, pleasurable emotions lead to a positive response, while unpleasant emotions can reach the point of generating a violent or negative reaction that can directly

affect people around us. That is why the way we control these kinds of emotions and reactions largely determines the environment and the interactions that will take place around us.

Collaborators should be clear that to “function well,” everyone should aim towards the same goal and focus on better controlling their emotions. Emotions management in organizations is destined to habilitate the employees in administrating the emotional resources to correct the organizational environment and the necessities in the work activity.

The study of emotions in organizations has the purpose of knowing and optimizing the employees’ emotional condition (Andries., 2009). In the same research, Andries concludes that:

“The level of emotional maturity is influenced by the individual ability to mark the personal limits, to know his/her capacity of self-control, the real challenge for modern man is the amount in which he gains his autonomy and regains his inner balance, in a dynamic mobile, more flexible and more susceptible universe of changes than ever”.

Which brings us straight back to the business world: no organization in the world would be able to survive without ensuring that spaces and work dynamics are adequate for employees to feel at ease and to be able to give good results. Emotions Management is an ability we must not overlook. As humans, we are in the constant challenge of learning to know ourselves, and there is no better way to demonstrate this self-knowledge than through self-control.

Background

In this empirical research, we used some data about the vision and the perspectives of different employees working in Santiago de Cali. It is important to remember that Cali is

the third most populated city in Colombia and is the capital of the department of Valle del Cauca. It is the only large city in Colombia with quick access to the Pacific Ocean, 114 km from Buenaventura, its main port. The economic activities of Valle del Cauca contribute significantly to the national economy.

The department is mainly recognized for its sugar industry, which supplies markets in Colombia and neighboring countries, having within its territory the port of Buenaventura and the industrial capital, Yumbo, which allow this region to consolidate as one of those that par excellence has concentrated a significant number of leading companies in different sectors of the economy (Santa et al., 2019). Among the most recognized companies are: Banco de Occidente, Coomeva E.P.S., Colombina, and Colgate Palmolive, which are some of the largest companies registered with the Chamber of Commerce of Valle del Cauca.

The economy of this department is mainly based on providing services, which the most important are commercial, transport, banking, and communications. Secondly, the industry sector, and finally, agricultural activities (Santa et al., 2019).

Moreover, Santa (2019). continues to say in the department, “many possibilities of development and business have been opened with the construction of the first free trade zone in Latin America to meet the demand for businesses, such as data centers, software development companies, digital content, consultancies, as well as specialized payroll and accounting firms.”

Currently, Valle del Cauca has more than 180 multinational companies present in the region, as reported by the investment promotion agency “Invest Pacific”, asserting that these companies have been present in the region for more than eighty years and contribute about

47,7% of the department's exports (*"Casi el 80% de multinacionales en el Valle siguen operando"*, 2020).

The region's labour market is concentrated in the department's capital, Cali. The relationship between education and economic activity has been fundamental to reward the effort and time applied in the tasks proposed for the individual. The level of education determines the level of employment that individuals can achieve. "The human factor has come to the fore among all means of production. Increasing international competitiveness, based on the quality of products and the speed with which services are provided, makes the skills of the workforce the main factor in ensuring the future of enterprises" (González, L., 2002, p. 12)

For the above, we bring up some figures from the National Administrative Department of Statistics to land the workforce's situation in Valle del Cauca. According to DANE, during 2019, in the department, the overall participation of women and men's rate was 58.7% and 75.6%, respectively. The employment rate was 49.9% and 68.6% for women and men in the same order, and finally, the unemployment rate was 15% for women and 9.2% for men.

The Secretary of Education stated that in order to contribute to the region's competitiveness and consolidating the entrepreneurship and innovation culture as part of the program Valle INN - Inclusive and Innovative, it was essential to promote this culture in partnership with the National Government helped to understand the needs of citizens in education. Such a statement was given within the framework of the Valle del Cauca Development Plan 2016 - 2019, "El Valle está en vos." (Boletín estadístico, 2019).

According to the book *Regiones inteligentes. La competitividad en el Valle del Cauca* (Santa et al, 2019), Valle del Cauca's activities constitute 9,7% of the National PIB and 17% of the national industry. The organizational management and the strategies implemented by this region's companies to keep their business afloat for more than a half-century have been evolving along with the business environment.

As shown on some reports by the Chamber of Commerce Cali, regarding the competitive approach, the region's economy slowed down in 2019. However, several indicators show that industry, commerce, construction, and tourism would have performed excellently. (Cámara de Comercio Cali., 2020). Also, the report indicates that:

“The prospects for the department's economy in 2020 are positive despite the uncertainty of international trade: the execution of civil works, the improved dynamics of household consumption, and industrial production will be fundamental to the regional economy's performance. Colombia's best relative expectations of economic activity facing the main countries of the region will boost the economy of Valle del Cauca, which has one of the most diversified and sophisticated productive structures in the country.”

As stated by the investment promotion agency in the Colombian Pacific Invest Pacific (2020); thanks to the advances in innovation in different sectors of the economy, its diverse business environment, and the presence of world-class local and multinational companies; El Valle, along with its highly qualified human resources is an eye-catching destination to attract companies to develop their Research + Development + Innovation (R+D+I) centers.

Knowing that innovation is such an important factor for the region's development, we decided to take a definition to unify the concept. The Oslo Manual (2005) defines it as follows: “an innovation is the introduction of a new or significantly improved (good or

service) process, a new marketing method or a new organizational method in the internal practices of the company.”

The innovation mapping carried out by the Chamber of Commerce of Cali (CCC) made it clear that the department presents a good environment to innovate in terms relative to the national average. “Of the companies surveyed, 75% said they had innovated in at least one type of innovation; 42% of these innovations occurred in the trade and manufacturing sectors, and these two sectors also contribute the most to the region’s GDP” (Cámara de Comercio Cali., 2017)

According to F. Gurry, World Intellectual Property Organization (WIPO) Director, “Innovation is the engine of growth in our increasingly knowledge-dependent global economy, but more investment is needed to promote human creativity and economic performance” (WIPO, 2019, pp 1-2).

At this point, with the technical processes improvements and globalization, companies begin to take into account key concepts such as quality, efficiency, emotional control, and multifunctionality, trying to obtain results minimizing costs and oriented towards effective results (“Polifuncionalidad”.,2016).

This century’s organizations should be characterized by their adaptation to the environment in which they compete, seeking to take advantage of the existing synergy among team members to build networks that result in innovative ideas and maximum productivity.

Companies involved in the research

COLGATE PALMOLIVE

It is an American multinational consumer products company. It specializes in the production, distribution, and provision of household, health care, personal care, and veterinary products. Colgate is a trademark of the American company Colgate-Palmolive for oral care products such as toothpaste, toothbrushes, mouthwash, and floss.

In 1930, the multinational Colgate-Palmolive entered Colombia by importing products and only in the commercial area. In Cartagena, thirteen years later, he founded his first Colgate production plant with supplying toothpaste, facial powders, and lipsticks. Then he relocated to Bogotá and then, definitively in Cali, because its proximity to Buenaventura's port was fundamental in the decision.

Thus, one of the biggest players in the sector of grooming and personal care arrived in the country, and the main transformers in Colombian consumers' quality of life. Today in the country, the company invoices more than \$800,000 million with its brands Colgate, Protex and Palmolive, Mennen, Ajax, Axion, Fab, Suavitel, and Fabuloso.

According to company spokespeople, "Colombia is among the ten subsidiaries for this international firm for its leadership in most categories where it participates" (Revista Dinero., 2005).

SONDA DE COLOMBIA SAS

Sonda is a Chilean multinational with a presence in almost all Latin American countries. It has almost 45 years of history; it has consolidated itself as the main Latin

American network of information technology services (ITS). It has a large offer of services and IT solutions and a solid financial position. Some of its strategic partners are Microsoft, Cisco, SAP, SAS, Hewlett Packard Enterprise, and others. (Sonda SAS., 2017)

Since their foundation in 1974, the company has been the driving force and active agents of change for companies and institutions in the region to incorporate information technologies into their daily activities and operations, which has allowed them to develop large projects in Latin America.

Currently, they hold operations in 10 countries: Argentina, Brazil, Chile, Costa Rica, Ecuador, Mexico, Panama, Peru, Uruguay, and they entered into the Colombian market in 2000. Its commercial activities expand to more than 3000 cities and have more than 13,000 employees around the continent (Sonda SAS., 2019).

During 2017, the purchase of the Colombian group Compufácil, one of the main providers of information technology (IT) services in the country, materialized, allowing Sonda to become one of the largest IT integrators in Colombia and letting them strengthen their business strategy in added value services in the country.

STF GROUP

STF GROUP SA is the leading Colombian company in the textile and women's clothing sector in Latin America. It has also managed to position itself as an avant-garde company in the national market that offers innovation and quality in its garments and its different purchase points, maintaining a visual aesthetic with international fashion standards. (STF Group, 2020)

The constant renovation of its stores and the delivery of five large collections a year make their brands, Studio F, ELA, and TOP ONE, three fashion alternatives that diversify the style and exalt the different silhouettes of our Latino woman. In recent years, the STF GROUP has consolidated its expansion, reaching a presence in eight countries: Colombia, Costa Rica, Chile, Ecuador, Guatemala, Mexico, Panama, and Peru.

The group's expansion process at the store level will continue to strengthen in Colombia with ten new openings, in Mexico with four, and in Chile with six new stores. (STF Group, 2020).

TECNOQUÍMICAS

Tecnoquímicas is a Colombian business group of recognized leadership in the pharmaceutical and mass consumption industry, committed for more than 85 years to the economic growth and social advancement of Latin American communities. It has eight headquarters produced in Colombia and three plants in El Salvador, where it manufactures around 4,000 references for the entire region. Tecnoquímicas operates in Colombia, Ecuador, Guatemala, Honduras, Panama, Nicaragua, Dominican Republic, Costa Rica, and El Salvador.

All the knowledge acquired, the experience, the constant modernization of its infrastructure, and the capacity of its more than 7,000 employees in Colombia and abroad have allowed TQ to be the first Colombian pharmaceutical company. It is the leader in baby care and also one of the most important in the personal care and home grooming industry, with brands such as MK, Winny, Lua, Yodora, Cure Band, Noraver, Colbón, Crema No. 4, Ibuflash, Vitafull, Hidraplus, Bonfiest, Durafex, and Content.

Model and Hypothesis

Given the existing literature on Cross-Functional Teams, Lean Practices, Emotional Intelligence and Innovation Processes, we believe that it is necessary to create a comprehensive theoretical framework that incorporates the relationships between these variables to have a deeper knowledge of their impact.

With this model, we also aspire to become professionals capable of designing effective action plans that might be destined to improve our regional competitiveness in the future. Consequently, the hypotheses tested in this study are:

H1: There is a predictive relationship between Emotional Intelligence (EI) and Cross-functional Teams (CFT).

H2: There is a predictive relationship between Emotional Intelligence (EI) and Innovation Processes (Proc_Inn)

H3: There is a predictive relationship between Emotional Intelligence (EI) and Lean Practices (LeanPrac)

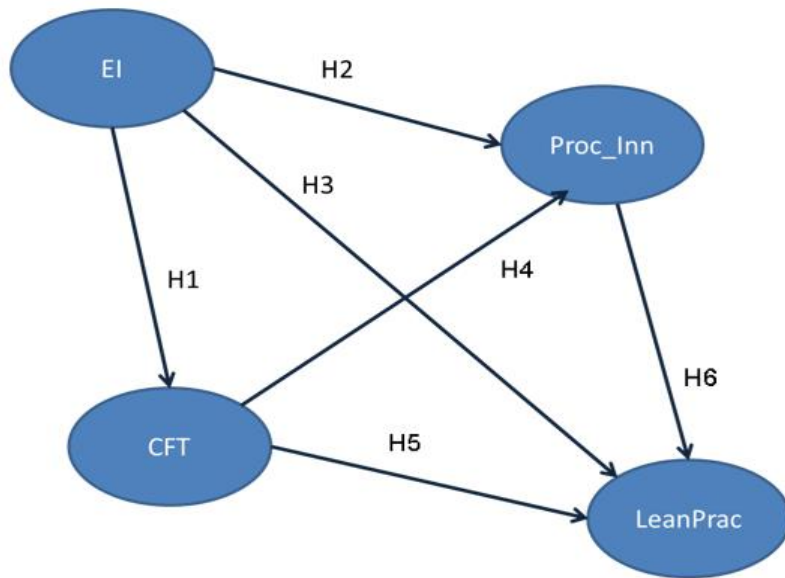
H4: There is a predictive relationship between Cross-functional Teams and Innovation Processes (Proc_Inn)

H5: There is a predictive relationship between Cross-functional Teams (CFT) and Lean Practices (LeanPrac)

H6: There is a predictive relationship between Innovation Processes (Proc_Inn) and Lean Practices (LeanPrac).

Figure 1 presents the hypothesized model for this study.

Figure 1: Research Model and Hypotheses. Source: Designed for this study by the authors.



Research method

The purpose of this research is confirmatory – correlational, and the final aim is to determine and explain the existing relationship between the different variables and identify their causes and real impact on the organization’s development. (Kaplan, 2004; Yin, 2013). A self-administered questionnaire was designed to collect responses from 190 employees of different large companies with operations in Colombia and other countries.

The survey format consisted of a demographic section, followed by a conceptualized set of variables to build a tested model using both descriptive and inferential statistical analysis once the data was collected. All of the hypotheses were tested through the analysis of Structural Equation Modeling - SEM.

SEM allows the analysis of latent variables and their relationship and dependencies on the construct's dimensions without measurement errors. It is also possible to estimate the value of the latent variables, although it is important to be careful with interpretations (Nachtigall, Kroehne, Funke, & Steyer, 2003).

A five-point Likert scale (from strongly agree to strongly disagree) was used in four different sections to rate statements related to the model's operationalization. The first section covered the employees' perception of innovation, strategy, processes, organizations, networks, and learning. The second one covered employee's emotional intelligence and the way they see themselves inside the organization. The third section tried to explore their vision about cross-functional teams and their impact on their lives as professionals. The last one covered their understanding and appropriation of operational effectiveness inside and outside their companies.

Considering the advantages of online surveys (J. R. Evans, 2005), an electronic survey was developed, and a link to the survey's website was shared with the potential participants through emails. This methodology fits the requirements of this research and allows the collected data meet the analysis of latent variables and their relationships and the required sample. (Nachtigall, Kroehne, Funke, & Steyer, 2003).

The virtual approach was also preferred, considering social conditions and the new virtuality that has been strengthened worldwide due to the covid-19 pandemic.

Data Analysis

Software applications were used to confirm the conceptualized model shown in Figure 1 by estimating the model variables and their predictive relationship to determine the confidence level. Confirmatory factor analysis (CFA) was used to study the relationships between observed and continuous latent variables and determine the overall fit's measurement model. (Cooksey, 2007; Hair et al., 2010). Factor loadings were estimated, items loaded on only one construct (i.e., no cross-loading), and latent constructs were correlated (equivalent to oblique rotation in exploratory factor analysis). Table 1 summarizes the constructs coefficient values. Confirmatory factor analysis (CFA) was conducted to test-construct validity.

Table 1: CMIN

<i>Model</i>	<i>NPAR</i>	<i>CMIN</i>	<i>DF</i>	<i>P</i>	<i>CMIN/DF</i>
<i>Default model</i>	42	215.443	111	.000	1.941
<i>Saturated model</i>	153	.000	0		
<i>Independence model</i>	17	1490.685	136	.000	10.961

As shown in Table 1, the Chi-square equals CMIN/DF of 1.941 and a 0.000 probability level. Note that Wheaton et al. (1977) suggested a ratio of approximately five or less as a reasonable criterion. Marsh and Hocevar (1985) recommended using ratios as low as two or as high as five, and Carmines and McIver (1981) suggested ratios in the range of

2:1 or 3:1 as indicatives of an acceptable fit between the hypothetical model and the sample data.

Besides, the reliability of each of the constructs in the model was evaluated using several fit statistics, the root mean square error of 16 approximation (RMSEA) was acceptable as the model had a value of 0.073 and the maximum is considered to be 0.08 (Bentler, 1990). The baseline comparisons fit indices suggest that the hypothesized model fits the observed variance-covariance matrix well relative to the null or independence model (see Table 2). The values of the baseline comparisons are above 0.7 and supported the model, with results above 0.8 (Bentler, 1990).

Table 2: Baseline comparisons

<i>Model</i>	<i>NFI</i>	<i>RFI</i>	<i>IFI</i>	<i>TLI</i>	<i>CFI</i>
	<i>Delta1</i>	<i>rho1</i>	<i>Delta2</i>	<i>rho2</i>	
<i>Default model</i>	.855	.823	.924	.906	.923
<i>Saturated model</i>	1.000		1.000		1.000
<i>Independence model</i>	.000	.000	.000	.000	.000

Results

The SEM findings are shown in the regression weights in Table 3 and the structural models in Figure 2. A high and significant relationship between Emotional Intelligence and Cross-functional Teams ($b=0.68$, $p< 0.01$) was found. This result demonstrates the view of Lutz Kaufmann (Kaufmann, L., & Wagner, C. M., 2017), who concluded “aggregated

emotional intelligence of team members is a critical factor in cross-functional sourcing teams in that it positively moderates the link between affective diversity and team cohesion and subsequently has a positive influence on sourcing team performance. Especially in cross-functional sourcing teams – where members from different functions with different knowledge and functional goals need to make joint decisions for or against a supplier – diversity research seems warranted.”

Table 3: Regression Weights: (Group number 1 - Default model)

			<i>Estimate</i>	<i>S.E.</i>	<i>C.R.</i>	<i>P</i>	<i>Label</i>
<i>CFT</i>	<---	EI	.536	.080	6.701	***	H1-Confirmed
<i>Proc_Inno</i>	<---	EI	.010	.189	.051	.959	H2-Not Confirmed
<i>Proc_Inno</i>	<---	CFT	.795	.271	2.931	.003	H4-Partially Supported
<i>LeanPrac</i>	<---	EI	.019	.084	.229	.819	H3-Not Confirmed
<i>LeanPrac</i>	<---	CFT	.772	.161	4.801	***	H5-Confirmed
<i>LeanPrac</i>	<---	Proc_Inno	.075	.046	1.629	.103	H6-Not Confirmed

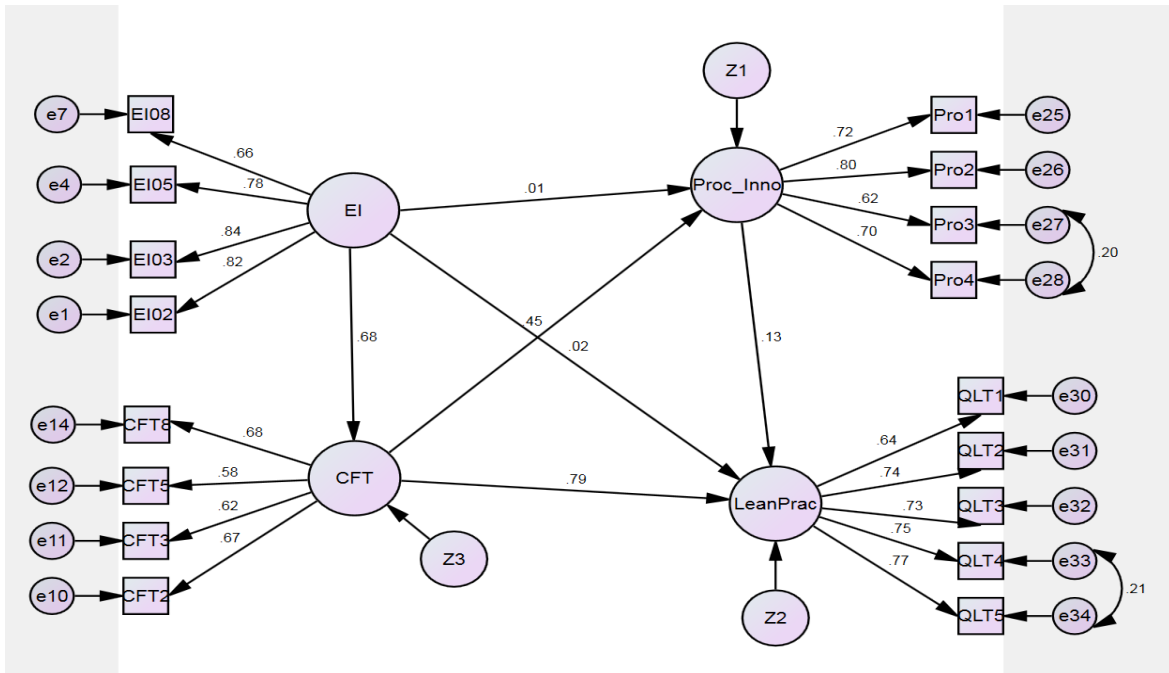
A very low and insignificant relationship ($b=0.01$, $p>0.05$) was found, and therefore H2 was rejected. In other words, we can conclude that Emotional Intelligence does not have a real impact on Innovation processes. West & Farr (1990) defined Innovation Process as “the sequence of activities by which a new element is introduced into a social unit, intending to benefit the unit, some part of it, or the wider society”. However, according to these findings, we can conclude that this activity sequence does not depend on the individuals’ emotional management that they develop.

Additionally, a low and insignificant relationship was found between Emotional Intelligence and Lean Practices ($b=0.02$, $p>0.05$), and therefore, H3 was also rejected. According to this result, we can conclude that Emotional Intelligence does not directly impact Lean practices. Nevertheless, this does not mean that Lean Practices should be left out of any company's main goals. As Nawanir concluded (2013), "When Lean Practices are implemented integrally, higher performance can be achieved. In terms of performance measurement, the success of Lean practices implementation to improve performance should be assessed not only at the business level but also at the operations level."

A partially accepted relationship between cross-functional teams and innovation processes was found ($b=0.45$, $p<0.01$). This finding lets us conclude that hypothesis 4 is acceptable. There is some sort of influence between cross-functional teams and innovation processes among companies. This result is important because, just as we conclude in H1, cross-functional teams are very significant units, and they have a big influence in many other areas of a firm's development. We must transform our Human Resources units to lead them to develop work teams with an increasingly solid and structured multidisciplinary character.

A strong and significant relationship between Cross-functional Teams and Lean Practices was found ($b=0.79$, $p<0.01$); therefore, H5 was confirmed. This result proves again that Cross-functional teams are probably the most interesting variable, and with the most convincing results within this research. They directly influence all the other variables included in the model and appreciate their importance and efficiency in greater depth.

Figure 2: Structural Model



Finally, H6 stated a predictive relationship between Innovation processes and Lean practices was not confirmed. The model showed a very low and insignificant relationship between both variables ($b=0.49$, $p<0.05$). However, despite that, Innovation processes may not directly affect lean practices; this does not mean that both factors are less important or less worthy to be jointly persecuted by any organization.

Conclusion

According to the study carried out and the aspects addressed in this work, we intend to recommend actions to implement the use of Cross-functional teams (CFT) to improve competitiveness and innovation in Valle del Cauca in the future.

The proposed model allows us to corroborate a solid and forceful relationship between emotional intelligence and Cross-functional teams.

This fact derives from the fact that the teams are constituted by individuals responsible for managing their emotions that influence the environment of cooperation and generation of new ideas to make processes more efficient and innovative.

In turn, this indicator plays a very important role in worker performance, motivation, decision-making power, and interpersonal skills. As a result, the companies selection processes are increasingly demanding people who can manage their feelings and contribute with their knowledge in favor of the team.

Individuals with higher emotional intelligence, and individuals who have more control of their own emotions have a greater performance of multidisciplinary teams and generate a bigger impact on innovation processes. Teams must help individuals to generate innovation and new processes.

The need to form Cross-functional teams within various organizations is the normal consequence of the changing business environment. The faster it evolves, the more necessary Cross-functional team formation is. On the other hand, the model showed that emotional intelligence does not impact innovation processes.

As mentioned before, emotional intelligence comes from a single individual, and for this to contribute to the generation of new ideas and innovation, it must be within a team. Being part of a CFT allows individuals to explore different areas of knowledge of different people to compare points of view and produce new knowledge that would benefit the company by making processes more agile, reducing costs, and improving quality.

In addition, emotional intelligence had a low and insignificant relationship with lean practices. These practices are used to make processes more effective, unify them, and

improve efficiency and value with zero-waste. To achieve this, individuals need to focus on different looks within a team, which is why the people alone will not be able to contribute effectively.

Additionally, the model shows that there is a partial relationship between CFT and innovation processes. By bringing together people from different areas to contribute their knowledge to a process, a greater percentage of generating new ideas can be achieved. Also, the cooperation and good environment developed within the CFT will allow motivation to keep workers happy and facilitate the production of innovative ideas.

This aspect must be reinforced in the companies' channels in the region so that the processes' performance and agility are affected. Working in CFT is extremely important in the region and essential for process innovation to happen.

The relationship between CFT and lean practices was strong and confirmed to verify that the formation of CFT contributes and positively influence other variables; thus, constituting one of the most effective strategies adopted by companies in the world to improve their work dynamics, social responsibility, internal processes, and collaborative environment among employees.

Motivation is the basis for the creation of clean practices. If workers feel comfortable within Cross-functional teams, they can gain competitive advantages over other companies and implement sustainability processes that will result in cost minimization. However, the relationship between lean practices and innovation processes was negligible and low.

Great care must be taken in this regard, as lean practices promote sustainability and resource usage. In the Valle del Cauca, there is a need to create innovative processes that,

together with lean practices, allow the transition to a sustainable future and renewable energies.

Recommendations

The individuals in Valle del Cauca are not focused on innovation; this is worrying since the region has lost competitiveness. In many organizations of the region, the human capital does not have a good development, and it has not been connected to quality, costs, and flexibility that lead to process innovation.

Cross-functional teams are the main factor for companies to achieve long-term profitability. Their use and adaptation in the companies of the region would imply an increase in their efficiency of processes, innovation, and promotion of collaborative environment between work areas. Valle del Cauca's companies will not be able to innovate or get out of underdevelopment until the motivation and use of lean practices is correctly applied; it is a critical situation in our country that must be paid attention to generate a real change.

Individuals are not emotionally rooted in innovation; they must work on targeted innovation, and they need to start focusing on the specific needs of people in the Valle del Cauca.

Thus, it is essential to improve training, and human capital formation focused on process innovation and lean practices.

It is necessary to take, as an example, countries where this type of process has brought significant advances and benefits for society, as in Japan's case. In Colombia, we need to break the old paradigms that prevail in the society: there is a strong detachment due to the

lack of trust since individuals are not contributing, as they should, to the proper implementation of lean practices.

Colombian citizens are not sufficiently trained in innovation, as we have just mentioned, but additionally, they do not have roots in these processes and do not give them the importance they deserve to keep promoting the construction of this type of knowledge and skills.

Lean thinking is, by definition, individuals who are truly and deeply committed to quality practices. It goes beyond the business world and involves all spheres of society and our life in the community.

We need a paradigmatic innovation in which young people are educated on the importance of quality, innovation in processes, lean practices, and of the contribution that each of these elements can bring to our country. Until this happens, we will not be able to emerge from the underdevelopment in which we have historically been plunged.

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